



WOMEN WRITERS AND CHILDREN'S LITERATURE

Dr. Suresh Pandurang Patil

Assist. Professor in English, Shri. Vijaysinha Yadav College, Peth Vadgaon

416112, Kolhapur (Maharashtra)

E-mail: sureshpatil3692@gmail.com

Abstract

The present research paper is based upon a short survey of important women writers of British and American origin especially. It is a modest attempt to explore the children's fiction from its inception to post modern period pertaining to significant contribution made by women writers. It is observed that women writers have given rightdirection to literature written for children as they have well executed sensitive issues of children. With their remarkable contribution, they are successful in disseminating the children's literature worldwide.

Keywords:

Children's literature, urchin verse, new wave poetry, moral tales, fantasy, postmodern.

Children's literature and women have been consistently underestimated, subordinated and remained marginal in the mainstream literature dominated by canonical and male-dominated world. However, in the recent years, the scenario has been considerably transformed with strong efforts made by women writers in the children's fiction. The popularity of children's fiction has reached to its zenith especially by the popularity of 'Harry Potter Series' published by J.K.Rowling, the writer of millennium. Women writers have given huge contribution in the popularity and sustenance of children's literature throughout the centuries. Children's fiction embodies different genres such as poetry, fables, moral tales, the school story, the family story, fantasy, the adventure story etc. Mary Barber (1685-1755)is one of the prominent women writers of eighteenth century. Belonging to elite as well as middle class, these women writers have composed poems on their own children as responsible mothers. Mary's work chiefly contains the significant issues of children and their psychological development. Mary Barber's 'Poems on Several Occasions' [1734] is the first and foremost instances of this trend in the children's literature. She composes poems on their

attire such as putting on breech when the boy becomes five or six years old. The early nineteenth century writers such as Ann (1782-1866) and Jane Taylor (1783-1824) published 'Original Poems for Infant Minds' (1804-1805) to enlighten students about their deep rooted desires and mischievous nature.. The poems are centered on the children who play truant from school and its severe consequences and punishments. They are also known for 'nonsense verse' imbued with comic element such as 'Signor Topsy-Turvey's Wonderful Magic Lantern', projecting a comical travelling showman. It comprises ludicrously irrelevant characters, bad puns, linguistic experimentations etc.

Jackie Kay (b.1961) is one of the popular poets of 'urchin poetry'. The 'urchin poetry' or 'new wave' poetry is a product of modern age that resumed in the 1970's exemplifies modern children and their ordinary lives with their playground fights, their friendships, boredom at school life etc. It focuses on the middle class and lower-class children. It uses their daily speech -patterns in the form of free verse. Jackie's poetry is centered on the racism, broken families, and complications of modern life. Her first collection 'Two's Company' appeared in 1992 that captures a conversation between two friends on the street. The 'moral tales' is another popular form of children's literature. It mainly focuses on the issues such as children should respect and obey adults, especially their parents. They must be prudent and sensible, plan their future with proper rational behaviour and redeem from childishness. The moral tales are also designed to encourage social and economic development. It often targets the aristocratic showiness and extravagance and also lower class 'lottery mentality' insisting the value of hard work. Catherine Sinclair (1800-1864), a Scottish writer, is distinguished for her novel, 'Holiday House' (1839). It is overloaded with fun and mischief of upper as well as middle class Victorian children. Her writing is known for the moral and instructive mode. Mary Wollstonecraft (1759-1797), an English writer, philosopher, and champion of women's rights, writes in a classic moral tales. Her book 'Original Stories from Real Life' (1788) raises the issue of the academic development of girls. Barbara Hofland (1770-1844), deals with financial status of her characters. Her novels such as 'The Son of a Genius'

(1812) and 'The Daughter of a Genius' (1823) criticize the talented children who are financially irresponsible. The novels attack the geniuses who are extravagant during richness and being inefficient in poverty. She strongly recommends the financial literacy among the children.

Judy Blume (b.1938) is an American writer of children's fiction who deals with the teenage problems of the 1970s. The problem novels are vehicles of indirect advice on particular psychological, physiological, and social issues. Her books such as 'Are You There God? It's Me Margaret' (1970), 'Deenie' (1973), 'Bubbler' (1974), 'Forever' (1975) etc., manifest problems of young generation such as sex, boyfriends, menstruation, masturbation, divorce, disability etc. She tackles subjects which are rarely discussed among the parents and children. Maria Edgeworth (1768-1849) attempts to please the parents and draw their attention towards significance of her books pertaining to children. She writes both for children and adults. Her 'The Purple Jar' (1796) is about Rosamond's shopping with her mother. It is about her repentance over the wrong choice. Edgeworth is of the opinion that the children should learn their lessons on their own. She realistically portrays the psychology of child. Maria Edgeworth is highly appreciated for depicting 'the first living and breathing children in English literature since Shakespeare'. (Newby 1950: 24). She writes on the issues such as adult authority and child empowerment. Berlie Doherty (b. 1943) is a well-known English novelist of modern era. Her novel 'Dear Nobody' (1991) deals with teenage pregnancy. The central character Helen becomes pregnant. She rejects her mother's advice of abortion and decides to end her relationship with her boyfriend, Chris. The novel concludes that the teenagers have to believe in the wisdom of their elders for happiness. Many women writers have written popular school stories focusing on the school, its campus, friendships and rivalries between the peer groups etc. As a form of literature school books are written from almost the fifteenth century. However late nineteenth and twentieth century became the golden period of girls' story, as it was marked by the remarkable contribution made by women writers such as L.T. Meade's 'A World of Girls' (1186), Angela Brazil's 'The Fortunes of Philippa' (1906), Dorita

Fairlie Bruce's 'Dimsie Goes to School' (1920), Elinor Brent -Dyer's 'The School at the Chalet' (1925), and Enid Blyton's 'The Twins at St. Clare's' (1941). The school books are set in schools and it contain the relationships between the students and their teachers, attitudes and adventures of school life. It also poignantly points out the socialization of children, and integration of the individual. According to Carl Jung, the acquisition of friends is the way in which the wholeness of the self is established by integrating the individual psyche and the collective unconscious of the community, or at least its collective identity. For instance, L.T.Meade's 'The School Favourite' (1908) is based on the strict four rules such as "Love, Obedience, Work, Do a little deed of kindness to someone every day". Elinor Brent-Dyer's 'Exploits of the Chalet Girls' (1993) depicts life of a Thekla, a proud, aristocratic Prussian girl who learns to fight against her snobbishness. It represents a successful integration into one school of girls from different social classes. The most popular of school story is the 'Harry Potter Series' (1997-2007) of J.K.Rowling. She reinvented the conventions of the classic school story and the traditional British public school with its setting at Hogwarts, a school for magic and witchcraft. She beautifully blended the school story with fantasy and adventure. The students of Hogwarts school also belong to different social classes such as Harry is a aristocratic wizard, while Hermione and Ron are middle class and lower class respectively. It highlights the extinction of single-sex schooling and emergence of coeducation.

The 'family story' also emerged as form of children's fiction. It is centered around the family issues. Charlotte Yonge's 'The Daisy Chain' (1856) is an earlier example of a mid- Victorian family story of the May family as it describes the survival of eleven children after an accident in which their mother is killed and father get injured. Mrs. Molesworth's 'Sheila's Mystery' (1895) centers around the family disintegration and reconstruction. The novel demonstrates two sisters having opposite nature namely Honor and Sheila. Sarah Trimmer's 'Fabulous Histories' (1786) is a path-breaking novel of family as it presents interlinked families of humans and robins in an anthropomorphic way. In Barbara Hofland's 'The Panorama of Europe' (1813), the mother represents

England. Novels by Kate Douglas' 'Rebecca of Sunnybrook Farm' (1903), L.M. Montgomery's 'Anne of Green Gables' (1908), and Eleanor Hodgman Porter's 'Pollyanna' (1913) appeal to the readers for their girls who have lost their at least one parent yet they are virtuous and childish by nature. After the Second World War, the family story is dominated by the problems of working-class children as they were devoid of parental care and fostering. This transitional change is represented in many women writers of that era. Important writers were Betsy Byar ('The Pinballs', 1977), Katherine Paterson ('The Great Gilly Hopkins', 1979), and Jacqueline Wilson ('The Story of Tracy Beaker', 1991). Gary Kilworth's 'The Bronte Girls' (1995) exemplifies a father who brings up his family in the mid-nineteenth century fashion. Novels of fantasy are the prime interest of children's fiction. Diana Wynne Jones (1934-2011) is a postmodern English writer of fantasy and speculative fiction. Her novel 'Howl's Moving Castle' (1986) explores fantasy land of Ingary where magical cloak of invisibility is a common attire. For the residents of Ingary, contemporary, real and rainy Wales is a strange place with its modern gadgets such as television and computer. Ursula Le Guin (1929-2018) is another prominent American author of fantasy and science fiction. Her feministic stance is visible in her 'Earthsea' novels (1968-1972). She remarks that 'the fundamental power, magic, belongs to men; only to men; only to men who have no sexual contact with women' (Guin 1993: 8). J.K. Rowling (b. 1965) is a popular British author of 'Harry Potter series' (1997-2007). Setting in a magical school of Hogwarts, she explores both primary and secondary world. It takes to the magical world of Hogwarts where normal laws and limits are useless.

The adventure story acquires vital importance in the children's fiction. Enid Blyton (1897-1968) is known for the adventurous fiction such as 'Famous Five' (1942) and 'Secret Seven' (1949). Especially the 'famous five' are Julian, Dick, Anne, Georgina, and a dog, Timmy. They are alert and efficient enough to discover the sinister plot and ultimately triumph over the criminals. A Danish writer, Anne Holme is also a popular figure of the adventure fiction with her debut novel, 'I Am David' (1963). The central character successfully flees from a

concentration camp. He meets various people during the journey who teach him about real life. Susan Cooper (b. 1935) is an English author who is best known for 'The Dark Is Rising' (1973). She incorporates British and Welsh mythology. She portrays an eternal battle between the young heroes and the dark forces. Women writers of children's fiction from inception have been associated with the development of children in their social, psychological, economical, cultural behavior. Being a writer, they have often criticized the children for their mischief, misbehavior or misconduct. They emerge as a torchbearer for family, society, culture and nation. They have proved their potentiality and dominance playing with remarkable ability. They have explored every genre of literature with distinguishable works.

Works Cited:

1. Grenby, Matthew. Children's Literature. Edinburgh: Edinburgh University Press. 2008.Print.
2. Guin, Le. Earthsea Revisioned. Cambridge: Green Bay. 1993. Print.
3. Newby, P.H. Maria Edgeworth. Denver: Alan Swallow, 1950.Print.

**THE LESBIAN ENCOUNTER AND ITS RAMIFICATIONS IN SUNITI NAMJOSHI'S 'GOJA: AN AUTOBIOGRAPHICAL MYTH'****DR. SURESH PANDURANG PATIL**Assist. Professor in English,
Shri. Vijaysinha Yadav College,
Peth Vadgaon 416112, Kolhapur
(Maharashtra)**ABSTRACT**

Suniti Namjoshi's 'Goja: An Autobiographical Myth' [2000] is a medley of her search for love and her semi-autobiographical mode makes it more as surrealistic experience. Born in Mumbai, India, in 1941, Suniti Namjoshi has published several books, including poetry, novels, and fables. Her multi-faceted life fluctuates in between the east and west. Her lesbian stance marks a new kind of era in the Indo British fiction as she shares her private life with acute subtlety and candid anecdotes. Suniti Namjoshi emerges as torch-bearer for the lesbians who redeems themselves from the stereotyped gender roles. She poses a great challenge before the male psyche who often restrain them from the expression of genuine passions such as love, friendship, compassion etc. Her lesbian perspective demonstrates the personal, social, economic, and sexual independence of a woman.

Suniti Namjoshi's 'Goja: An Autobiographical Myth' [2000] is a medley of her search for love and her semi-autobiographical mode makes it more as surrealistic experience. Born in Mumbai, India, in 1941, Suniti Namjoshi has published several books, including poetry, novels, and fables. Her multi-faceted life fluctuates in between the east and west. Her lesbian stance marks a new kind of era in the Indo British fiction as she shares her private life with acute subtlety and candid anecdotes.

The term 'lesbianism', is also referred as 'sapphism' or female homosexuality in association with the tender and often passionate poetry written by Lesbian poet Sappho (c. 610–c. 580 BCE) It is the tendency of a human female to be emotionally and usually sexually attracted to other females, or the state of being so attracted.

Suniti Namjoshi writes about her first infatuation towards another girl during her school days in the section "Paradise: Its Location":

Can two schoolgirls call themselves partners in paradise? They wouldn't dare. But they were something. They had a name, a shape, a habitation, and they were alive. Perhaps only very young girls can inhabit paradise. They have faith; hope hasn't as yet been battered out of them, and they have the right acculturation: the gentleness of women and the near hopelessness of their love. Auden says somewhere that only lesbians make true romantic lovers. [Namjoshi 2000:54]

*An International Peer-Reviewed Open Access Journal*

To continue as lesbian in the orthodox Indian community was a big challenge for her as she was aware of its serious repercussions because the lesbian individuals and relationships presented a profound challenge to the social and economic order. She registers the general psychology of male dominated society as follows:

‘To be a lesbian in India in those days- it’s probably so even now- was so appalling, so terrible, that it was like putting one’s head on the block. [Namjoshi 2000:55].

From the time immemorial, the mythical and legendary patriarchal society have attempted to curb the fires of true and pious love. Suniti Namjoshi candidly comments on it through mythical and religious connotation as she states:

If one does something illegal, disobeys the rules (sins even?), one is thrown out of paradise. The very existence of King Arthur or King Mark threatens the adulterous lovers, the very existence of society threatens the lesbian lovers, the very existence of God--- To love is to risk death. When God threw Adam and Eve out of Paradise, they didn’t die. They became mortal, able to die. Perhaps being chucked out of Paradise is not just the end of life, but the end of love. Or perhaps what it means is the corruption of both life and love, of everything good. [Namjoshi 2000:55].

Her lesbian relationship seems to be path-breaking enterprise as she belongs to very conservative family. She strongly supports her romantic love and emerges as a rebellious biblical champion of freedom as she convinces herself:

To be romantic one has to know one is breaking a rule, running a risk, and all for the sake of something that matters. Lucifer possibly was a romantic.[Namjoshi 2000:55].

She is doubtful about her romantic relationship with her friend as both were mature enough and quite educated. However, the society poses a huge problem for their lesbian attribute. She registers her predicament:

Adolescents, particularly adolescent girls, are prime romantics in certain cultures, in certain periods----- We weren’t schoolgirls. We had finished school. We were young college students, sixteen and seventeen respectively. We fell in love, but had to work it out- how to have an affair. Literature was helpful, since we were both literary. But for lesbians? [Namjoshi 2000:55-56].

The adventurous lesbian friendship between the author and her friend came to an end as if it was pre-destined. The couple resembles with the biblical duo fighting against the paradisaical rules. She compares their struggle with the biblical scenario:

For us danger was not around the corner, it was ever present. There were gardens in which it was possible to walk. But one day a servant saw us kiss, and reported on it. Eventually the grownups decided they could no longer ignore what was happening. Separation followed and punishment. We saw each other anyway, whenever possible. With a heady idealism we worked hard to combat tyranny. It created a state of mind that was very like paradise: everything blazed, everything roared, everything was worthwhile.[Namjoshi 2000:56].

*An International Peer-Reviewed Open Access Journal*

In course of time her love relationship came to an end as she was cheated by her partner who married with an older man. Their affair broke the intimacy between them as the serpent was a man who is identified as a snake responsible for the expulsion of loving couple from Paradise. She registers her anguish as follows:

In a lesbian paradise the snake can be a man, and God is a plurality of gods, the important adults. And so, it came about. But it's very confusing if you're a Hindu and live in India. My partner had an affair with an older man, a foreigner. A scandal ensued. I hadn't known about it. Eventually I was told. For me it was the shattering of Paradise, Truth, Illusion, Beauty, Faith, Hope etcetera----- Probably not of Charity. And the man wasn't snake. He was only a man. Eventually they married. And there was no plurality of gods, there was only society: people who gossiped, people who were concerned, and people who were intent on their own affairs. [Namjoshi 2000-56]

Her search for love becomes an unending process as she becomes aware of its ramifications such as loss of faith, truth, fidelity, hope etc. She pines for her youthful but pure love. She is injected with kindness and love as she wanders in the search of true love. She remarks about her aspirations:

A love affair is an oasis. It punctuates ordinary life with glimpses of paradise. And that is why people sometimes honour their old loves: they remember that at one time in their arms there was ecstasy. But the blazing, roaring earthly paradise of young lovers is not the home of Charity, though she can visit there. But then she can visit anywhere because she is kind. [Namjoshi 2000-59]

In India, Suniti Namjoshi holds one of the highest ranks in the administrative service. However, she resigns from her service to pursue her dreams and her friend. She sacrifices her high-paid job for her partner as she was doubtful about their acceptance and approval of lesbian friendship in India. She confesses about her departure from India:

If all I did was fail to do evil, it's not surprising that after a few years I went abroad and quit the Administrative Service. I had begun to find it tedious. A better person might have stayed on – or a worse person. In addition, I was seriously love with a dear friend- I shall call her Sahali. She had already gone abroad and it seemed sensible to follow. By then it was clear that in India it would not be possible for two women, who loved one another, to live honourably together. [Namjoshi 2000-66]

Her friend, Sahali and she continued to stay together in Canada as it was a safe place. She describes their academic companionship:

After that first year my dear friend and I, the one I've called Sahali, managed to get admission and a little money at the same university. I moved to Canada and we lived together as impoverished students. [Namjoshi 2000-75]

Even in Canada, Suniti Namjoshi finds discrepancy in their relationship as her partner, Sahali declared her separation claiming herself as non- lesbian. Even she accused the



author for abusive mutilation during their relationship. Suniti Namjoshi registers this painful episode of her life:

Sahali and I were living in a small apartment near the university. ----- I had nearly finished my dissertation on Pound's *Cantos*. Everything was going well, and suddenly it all meant nothing. Sahali informed me that she was not a lesbian, that she did not wish to continue in the relationship and that by having "made her" participate in the relationship I had mutilated her. It left me feeling as though a part of my brain had been torn out of me. There were broken blood vessels, loose connections, and veins and nerve ends that suddenly led nowhere. It took time to heal. [Namjoshi 2000-77].

As she suffers from humiliation and scandalous affair, Suniti Namjoshi records her frustration in her lesbian encounters in foreign land:

Since I'm a woman, a lesbian, and an Indian, I am an alien three times over. I hang my head. How can Paramour be so cruel? But it's a game. I know that. She knows that. It's a game she has played over and over. [Namjoshi 2000-97]

She recognizes the predicament of a woman who continues to maintain lesbian relationship being a mother of two children. She forgives her female partner for their separation as she states:

Paramour was a woman with two young children. She was not a goddess. She had left her husband and was bringing them up on her own. She tried to do her duty. She was a scholar and a dreamer. She wanted to live fully, but was often tired. [Namjoshi 2000-101]

Her audacious lesbian relationship is quite unacceptable in the patriarchal society. She rejects the hypocritical and pseudo-vulnerable roles of women in the mythical stories. Her lesbian feminist perspective for women is to free them from both male domination and heterosexism. She says:

You were, I presume heterosexual? And in your universe perhaps it's unimaginable that a woman should feel such desire for a woman? Perhaps it's unimaginable that a woman should feel desire at all? Or imaginable only in stories and myths, but not in real life? [Namjoshi 2000-102]

She even mocks at the so-called white liberal feminist who are abundant in the Western academic campus but they seem to be indifferent to the less-privileged sectors of society such as the lesbian. She manifests her anger as she writes:

Through the seventies in the West the breast beating white liberal types were common in the universities. They would approach someone they identified as in some way socially inferior and then apologise profusely to them. They would moan that they couldn't help being white or male or heterosexual or something or the other that identified them as one of the privileged. [Namjoshi 2000-109].

*An International Peer-Reviewed Open Access Journal*

Being proactive and courageous enough to accept the lesbian status in the male-dominated society requires a strong determination for a woman. She does the same thing to retain her stand as she proclaims:

Do you think it required no courage to come out and say explicitly as so many people did: “Yes I’m lesbian, or yes, I’m homosexual,” and so gradually remove the disgrace from those words? [Namjoshi 2000-111].

Her quest of love ends with her encounter with Gillian Hanscombe, her female partner from Australia. She shares her passionate bond between them as she writes in the conversational mode:

“Why did you move to England?”

“I fell in love”.

They both sigh. I know what they’re thinking. “Another Paramour?”

“Yes, but this time with nothing at cross purposes. We both knew we’d have to find something tougher and more lasting than just romantic love. We’ve lived together now for many years”.

“Why did you move to England? Was she English?”

“No, Gill is Australian, but she lived in England. She had a child. It was easier for me to move”. [Namjoshi 2000-124].

Thus, Suniti Namjoshi emerges as torch-bearer for the lesbians who redeems themselves from the stereotyped gender roles. She poses a great challenge before the male psyche who often restrain them from the expression of genuine passions such as love, friendship, compassion etc. Her lesbian perspective demonstrates the personal, social, economic, and sexual independence of a woman.

REFERENCES

1. Namjoshi, Suniti. Goja: An Autobiographical Myth. Spinifex Press: North Melbourne, 2000. Print.
2. <https://www.britannica.com/topic/lesbian-feminism>

Human-Animal Encounter in Suniti Namjoshi's 'Aditi Adventures I: Unlikely Friends'**Dr. Suresh Pandurang Patil**Assistant Professor, Deptt. Of English
Shri. Vijaysinha Yadav College, Peth Vadgaon

Suniti Namjoshi is known as a writer of contemporary postcolonial transnational literature. She is an expatriate Canadian South Asian author currently living in England. She always had a fascination for fables and fairytales, consequently her works are primarily feminist rewritings of fables and fairytales. Namjoshi's fables and fairytales are populated with mythology and animals that are eccentric in nature. Her mythical characters or animals are fine instances of joining the animating and inanimate worlds with the human consciousness.

Suniti Namjoshi has published 'Aditi Adventures Series' (2000-2009), a latest work in the children's literature. It comprises three volumes containing four books each. These three volumes are entitled as 'Aditi Adventures I: Unlikely Friends', 'Aditi Adventures II: Unexpected Monsters' and 'Aditi Adventures III: Heroes'. The series 'Aditi Adventures I: Unlikely Friends' comprises four books entitled as 'Aditi and the One-eyed Monkey', 'Aditi and the Thames Dragon', 'Aditi and the Marine Sage', and 'Aditi and the Techno Sage'.

The first book in the series 'Aditi and the One eyed Monkey' (2000) embodies the adventures of Aditi, the heroine of female-oriented fairy tale fantasy. She moves on an adventure accompanied by the unlikely friends such as the one-eyed monkey, the ant, and the elephant. Aditi is the grand-daughter of the king and queen of a small kingdom. A dragon terrorizes a kingdom unless its rulers send him their granddaughter, Aditi, for a lifetime of indentured service and she must not be accompanied by any human being. However, she also gets the support from the two dragons, and a baby shark to accomplish her tasks that she faces in her different adventures.

On their quest for the dragon, they are fully equipped with the magical objects such as cloak of invisibility, the Sword of Courage, and a ball of magic clay. The four adventurers risk their lives as they fight against the lionesses and cubs. The Island Sage directs them to dragon that lies under the ocean. On reaching at the dragon's den, the dragon treats them as servants. The dragon orders them to write its biography. It suffers from loneliness as it doesn't have any friends. The four adventurers overpower the dragon with their magical objects, the fishing net and the bees. They confine the dragon into a net. They agree to release it if the dragon stops scorching Aditi's grand parents' kingdom. Blessed with the friendship, the dragon takes the four adventurers on its back as they set off to the palace of Aditi's grandparents.

The children are always inclined towards the animals for their strange behavior and shape. The inclusion of animals in the children's literature enables the author to instruct them about their social interaction with animals as a part of our natural environment. Animals offer a safety outlet for the writers to express their views as they are presented as moral educators for children. It serves the purpose of inculcating basic ideas about nature and nurture. Being the part of environment, animals tiny or huge, magical or demonic, real or fictional, always add knowledge to the curiosity of children. A story about nature provides an opportunity to foster an environmental ethic among the young learners. Suniti Namjoshi rightly webs the interdependent relations between man and nature through these stories.

In her first adventure, Aditi is accompanied by the nonhuman creatures such as the one-eyed monkey, the ant, and the elephant. We often misjudge the person or animal with its external appearance. Namjoshi attempts to eradicate the human prejudice towards the animals as she presents these characters with special abilities. Aditi's friendship with these animals encourages her to connect herself with the natural wisdom. She maintains a fine balance of negotiation and friendship between the tiny and huge harmless and deadly creatures. Though she is endowed with human qualities of courage and perseverance, she acknowledges the support of her uncommon friends.

Although children's books are emphatically nature-themed, the animals in them are often anthropomorphized. Siril the Ant is one of the unlikely friends of Aditi. His friendship with Aditi looks fantastic. His talking with her and other human and non-human characters exemplifies the mode of fantasy. Namjoshi has given the human attributes to the animals like him. It indicates one of the characteristics of fantasy literature. Fantasy exploits the anthropomorphic animals, who can talk to other different species, particularly with humans. Talking animals are often found in folktales and fairytales. Aditi is quite friendly with them as they assist her in the adventures. Siril the ant loves to travel the world. Consequently, he joins Aditi to defeat the dragon in the first book. He is quick in decision and calculating by nature. With the magic clay that

he receives from Aditi's grandparents, he can form different useful objects. Thus Siril, the ant is quite cable to transform the magical objects into useful tools.

The characteristics that the animal figures exhibit are always culturally mediated. For instance, the fox is associated with cunning and deceit, the ant's insignificance; the elephant as a mighty and unintelligent creature, the dragon with fiery and destructive nature are all projections of human attributes as manifestation of the instinctive behavior of the animal.

It is seen that having animals in a child's life is important for that child's moral development. A connection with live animals can increase a child's empathy and awareness about the existing phenomenon. In their second adventure in London, Siril points out that the rubbish, the chemicals and the poisonous substances have poisoned the Thames. Though tiny creature, Siril overflows with teeming confidence and presence of mind. He inwardly thinks about his potentialities. Suniti Namjoshi rightly admires this character as she writes: The ant sometimes wished he could do something clearly useful like flying everyone about the way the dragons did. And sometimes he wished that he was at least as strong and powerful as his friend, the elephant. At other times he just wished he was little bit bigger; say a hundred times his present size, or perhaps a thousand times. On the whole though he didn't worry about these things much and was usually content to be who he was and to do what he could do (Namjoshi 2000 : 50).

Through the portrayal of the character of Siril, Suniti Namjoshi has inculcated the significance of small insects in the environment. Even the smallest insects have considerable amount of value to sustain and protect the environment. Namjoshi rightly asserts the role of non-human characters in her fiction as she states: "to me a beast wasn't "bestial" in the Western sense. To me a bird or a beast was a creature like anyone else. Hinduism is after all pantheistic; and the popular notion of reincarnation attributes a soul to everyone." (Namjoshi Web: 28).

The second book in the series '*Aditi and the Thames Dragon*' (2002), is abound with the fantasy, philosophy and social message. This time, the five adventurers such as Aditi, the ant, the elephant, the one-eyed monkey and the dragon set out to help the twins Roshan and Rohit, the inhabitants of London. Their dragon friend promises them to carry over to London. They carry the magic weapons such as the Sword of Courage, the Cloak of invisibility and the magic clay. They land on the Shadwell Park of London. They search out for the River Dragon. They notice that the river Thames has turned into an island of junk and debris. They decide to save the river dragon from the polluted water by making her smaller by applying the magic sandal wood ointment. Their dragon friend turns itself into miniature and dives into the river. It takes out the river dragon to a shore. They cover her with the cloak of invisibility and rub ointment on her. They keep her in the goldfish bowl of fresh water.

The adventurers are astonished at the grave site of the river Thames as it is poisoned through the rubbish, the chemicals and numerous poisonous substances that dissolved into the water. Being eco-friendly, they decide to create awareness about the pollution of Thames by reaching to the people. They exploit something sensational, strange and unusual method to attract the people. Consequently, they decide to carry two dragons with small size in a bowl and others would explain the people on the television, the most popular media, about the water pollution.

Thus, Aditi and her friends rescue the life of a River Dragon and imbibe the values such as cleanliness, friendship with nature and its myriad endangered species and the responsibilities of a citizen etc. Suniti Namjoshi blends the fantasy with a philosophy. It interweaves fantasy, environmental issues and emotions to make it an interesting. It also reiterates the role of animals and other myriad living species to maintain the harmony in environment that leads ultimately to human happiness.

The One-eyed Monkey is also one of the comates of Aditi who joins her from the first adventure. She is curious to explore the world. Having one eye is not her disability, but she overcomes it with her unflinching attitude. She has a good sense of observing changes in the nature. As she states:

"And they say that in the autumn the Canadian forests turn orange and red and seem to catch fire. Once, in my youth, when I had been to the Himalayas, I saw the trees change colour-not the evergreens-the other ones-the oaks and the maples" (Namjoshi 2000:14).

Thus, through the character of One-eyed Monkey, Namjoshi engages young reader's attention in her remarkable ability to overcome physical disabilities and her conscious efforts to explore the environment. The elephant or the Beautiful Ele is one of the unlikely friends of Aditi. Although she is mighty, she is a good-natured beast who rarely gets angry with somebody. She joins the first adventure with Aditi that will make her angry. She carries off Aditi, the Monkeyji and Siril. She shows presence of mind and strong commitment of friendship and properly utilizes her strength for the noble cause.

Aditi also gets support from her dragon friends. Jonathan Evans opines about the inclusion of dragon into medieval folklore and literature as he states, “the dragon's ubiquity in European legend was a result of biblical associations of it with the arch-figure of diabolical evil” (Namjoshi Web: 235). The dragon often represents the weird looking alien figure who acts differently. German fairytale writers' Andreas and Angela Hopf's *The Five Dragon Minimax* (1973), exhibits how the strange and weird-looking creature such as dragon is often utilized by people in power as a scapegoat to distract attention from the real enemy. The friendship between Hilde and the dragon is based on mutual recognition. It also relates to feminism and prevention of cruelty to animals. Like Hilde, Aditi also asserts herself and uses her talents for the benefit of oppressed creatures.

The dragons of '*Aditi Adventures Series*' are remarkably known for their benevolent nature. They are able to expel their earlier image as evil or monster creature through their timely support and friendship with the female protagonist and her friends. Suniti Namjoshi drastically changes their medieval roles as they appear normal and loving.

There is a long tradition of anthropomorphic animal stories, or 'beast fables'. Animals have become integral part of children's literature. Fables use animals as metaphors in order to teach lessons about moral and social behavior. According to Steve Baker, 'Children are said to have some innate sympathy or connection with animals and to imagine that they can communicate with them.' (Baker 1993: 123) In the stories attributed to Aesop, for example, various ideas about industry, perseverance, gratitude, moderation and prudence are being taught. Tolkien noted, the 'animal form is only a mask upon a human face' (Tolkien 1964: 20). Suniti Namjoshi exploits the animals in her fairytale fantasy of Aditi to project her environmental concerns, human and non human bondage, and her vision of harmonious world. In the books for children, animals have been used to educate children both linguistically and socially and the children are taught to 'identify' with characters as John Stephens rightly notes that it is, 'a product of our tendency to encourage children to situate themselves within the book by identifying with a principal character.' (Stephens 1992: 4)

It is still important for us to imbibe the environmental awareness among the children through such stories as they are vitally concerned with the relationship between the 'human' and the 'animal' As Lévi-Strauss famously declared, 'Animals are good to think with' (Lévi-Strauss 1962: 89).

References:

1. Baker, S. (1993) *Picturing the Beast. Animals, Identity and Representation*, Manchester: Manchester
2. Lévi-Strauss, C. (1962) *Totemism*, trans. Needham, R., Boston: Beacon Press
3. Namjoshi, Suniti. *Aditi and the One-eyed Monkey*. India : Tulika Publishers, 2000. Print.
4. *Aditi and the Thames Dragon*. India : Tulika Publishers, 2002. Print.
5. *Aditi and the Marine Sage*. India : Tulika Publishers, 2004. Print.
6. *Aditi and the Techno Sage*. India : Tulika Publishers, 2005. Print.
7. Namjoshi, Suniti, Interview by Meena Kandasamy. "My Interview with Suniti Namjoshi". Indian Today. Web. 14 Feb. 2010. <http://meenu.wordpress.com/2010/02/14/in-todays-new-indian-expr...>
8. Namjoshi, Suniti. Interview by Anindita Sengupta. "Magic of Subversion". The
9. Hindu. Web 3 February 2008 <http://www.hindu.com/mag/2008/02/03/stories/2008020350100500.htm>
10. stories/2008020350100500.htm
11. Stephens, J. (1992) *Language and Ideology in Children's Fiction*, London: Longman
12. Tolkien, J. R. R. (1964) *Tree and Leaf*, London: Unwin Books.

ACTIVITY BASED TEACHING: ENHANCEMENT IN LEARNING ENGLISH COMMUNICATION

Dr. Amar L. Powar

Assistant Professor,

Shri Vijaysinha Yadav College, Peth Vadgaon

Tal. Hatkanangale Dist. Kolhapur, (Maharashtra).

amarpowar1976@yahoo.in

Abstract

The present paper highlights study of English teaching with different activities and its impact in the class for communication. Teaching is Continuous process for teacher and if he makes it innovative then the results will be enhancing for students to participate in the English Communication. English language learning is the second language learning and learner needs to develop their interest in acquiring skills of English Language. Fear of learning a new language and errors involved in producing it in the right manner have made learners introvert. In short there are many obstacles in learning English language for second language learner. The present paper focuses on some new techniques and methods for learning English, that will enhance confidence of new learner of English and it will develop interest for learning of English Language.

Key words: *Activities, Enhancement, Learning, Communication etc.*

1. INTRODUCTION:

English language learning for other than native learner is difficult task and such second language learners are not acquiring skills of English Language effortlessly. In our country there are many regional languages and these languages are civilized as first language to learners and therefore while learning second language to learners is difficult one. Hence teachers and learners of English need to think innovatively for Second language learning. *Learning is “ a bitter medicine that needs the sugar coating of entertainment to become palatable” (Resnick, 2004)* If the teachers while teaching English instead of just as syllabus if we made it innovative with some new innovative activities then learning will

become more reliable and it will create attentiveness of learners in learning. Now days there is much more demand to English professionals who have developed their communication competencies therefore it is needed to develop communication competencies among the students from rural area. *“In recent years language researchers and practitioners have shifted their focus from developing individual linguistic skills to the use of language to achieve the speaker’s objectives. This new area of focus, known as communicative competence, leads language teachers to seek task oriented activities that engage their students in creative language use” (Chen2005).* Experience of researcher as teacher, is very disappointing while dealing with the students in the class, they are not enthusiastic to learn English communication with traditional methods. The present research paper highlights various kinds of activities through which English can be taught to students in recreational way.

2. AIM AND SCOPE OF THE STUDY:

The objective of the present research work is to study effect of activity based teaching to the students in the class for their English Communication competencies. Students are less interested in traditional methods of English teaching, teachers are hurried to complete the syllabus in time therefore it is need to find some innovative ideas to teach English communication. The scope of the present research is to study the effect of activity based teaching to students for the development of communication competencies.

3. LIMITATIONS OF THE PRESENT STUDY:

Some of the limitations of the present study are as given below-
The findings of this research works are strictly limited to sixteen selected subjects.
The findings of this research work are limited to English communication abilities only.
The findings of the researcher are based on performance of the selected subjects in the communication activities.

4. METHODOLOGY OF RESEARCH:

The present research is a experimental study, in the beginning researcher studied subject’s communication ability with the help of self introduction and participation in the group discussion as pre test. Then three innovative activities for communication were

presented before the subjects in the class and the responses of the subject's in these activities were observed, studied and analyzed.

4.1 Communication ability of Subject's is observed before activity.

4.2 Three activities introduced

4.2.1 Music Chair:

a. It is individual activity

b. All Sixteen subjects participated in the activity, fifteen chairs were available

c. All were running in one direction, musical song played in the background

d. Suddenly music stopped and one student who is without chair that student has to share his four actions he performed yesterday.

4.2.2. Word Whomp:

a. It is Group activity, four groups were formed and four students were in each group

b. Each group was given six letters of English asked them to determine how many words can be spelled with those letters and later on use those words in to sentences.

4.2.3. Translation of Dialogues:

a. It is group activity, four groups of four students in each group.

B. Students were shown short video clipping of popular Hindi film dialogues

c. They were asked to translate that dialogue in to English

4.3 A study of the subject's participation in the activities

5. ABOUT RESPONDENT:

For the present study sixteen subjects were selected. Ten female subjects and six male subjects were selected for the present research. All these subject's are from third year B.A. compulsory class selected from one of the college in Kolhapur district.

All these sixteen subjects are gathered for four lectures in the week for the compulsory English Class. Samples were selected at random for the research.

6. OBJECTIVES OF THE RESEARCH:

Now days English communication is essential for the job seeker and students from under graduation level they lack the power of communication skill. Therefore it is difficult for the students in the future to acquire new kind of job opportunities available to them, they will not able communicate effectively and it will decrease their confidence regarding job. It

has been observed that, if students are given only lectures during the classroom concerning their syllabus, they lack interest and often incline to cavort classes. Consequently after consideration of student's background and the level of learners for English communication it is needed that there must be some innovative kind of activities introduced for obtaining communication skill.

7. Data Analysis:

There are sixteen subjects selected for the study pursuing their graduation in different subjects like English, Marathi, Hindi, Economics, Sociology, Geography, Political Science and History studying in the last year of the graduation. There were two activities used for the pre test of the subjects, first one is group discussion, only three subjects 18% have participated and remaining subjects were only silent participants. 81% participants were neutral at the time of actual group discussion, only two subjects that is 12% initiate the group discussion, no one has oppose any body's statement in the group discussion, it is only because of communication barriers.

Second one is the self introduction, 25% subjects have actively participated in this activity and they have expressed themselves in the self introduction and 75 % subjects have not expressed them in the self introduction, 18% subjects have spoken more than five minutes regarding themselves, 12% have covered almost all points of self introduction. Two subjects that is 12% have expressed fluently it means 86% subjects don't have fluency in their communication. Just 06 % subjects have discussed about their family background and about their educational qualification. In short the average performance was very low as we can be seen from the figures and most of the students are not able to communicate effectively in the pre test of the subjects. After the pre test when the three activities were introduced in the compulsory English Classroom, the result is clearly enhancing and number of students for participation is increased because it has turned as student centric.

8. Findings:

1. Participation in Music Chair 80%, word Whomp 100% and Translation of dialogue 50% whereas participation in pre test is 18% and 25 % is found.
2. 80% subjects are neutral in participation in the pre test where as 20% participants are neutral in music chair, 0% in word Whomp and 50 % in the dialogues translation.

3. The subject's involvement is found in the music chair, word whomp and 50 % involvement is in dialogue translation hence it is more involvement compare to group discussion and self introduction.
4. Most of the subject's 60 % without fluency tried to narrate past experiences in music chair; it means subject's efforts of the subjects are important here in the new innovative activities. .
5. 31 % subjects have given their efforts to form words as well as sentences in the word whomp activity; it means it is enhancement in the word vocabulary as well as construction of the sentences.
6. 25 % subjects have translated Hindi dialogues as it is with some words in English, 12% subjects have translated mix of Hindi and English where as 50% subjects have tried to translate it into English, inshort subjects have participated for translation even though spoke in Hindi but gave active participation.
7. There is ascend in the participation of different communication activities by subjects when it is made student centric and different from the traditional method of teaching.

9. Conclusion:

It is observed that performance of the subjects is changed drastically due to new kind of innovative activities. These activities have really shown the wonderful result regarding performance of the subjects. It is kind of tool that has helped participants to involve in the English Communication. Learners are more easy and comfortable to acquire skill of English communication. The difference in pre test performance and performance of the participants in the activity is observed and remarkable changes are found there. Activities have promoted, encouraged, motivated subjects participants in communication. Students are able to develop their interest in the second language learning, it is because of innovative, fun creating, relax atmosphere for the learning of the language.

Annexure I

Table No: 01 Results of pre test- Group discussion and self introduction

Pre Test of the Subjects						
Sr. No.	Subject's Participation in Group Discussion	No of students	Percentage	Subject's self introduction	No of subjects	Percentage
01	Initiate the Group Discussion	02	12.5%	Self Introduction Activity Participated	04	25%
02	Interfere the group discussion	01	06.25%	Subjects spoke for more than five minutes	03	18.75%
03	Actively participated in the group discussion	03	18.75%	Almost cover all points of Self introduction	02	12.5%
04	Disagree with the statement of someone	01	06.25%	Fluency in presentation	02	12.5%
05	Strongly oppose the opinion of someone	00	100%	Detail family background discussed by subjects	01	06.25%
06	Neutral in the group discussion	13	81.25%	Discussed about educational qualification	01	06.25%

Annexure II

Table No: 02 Results of –Activities

Post activities performance of the Subjects									
Sr. No	Subject's Participation in Music Chair	No of	Percentage	Subject's Participation in Word Whomp	No of subjects	Percentage	Subject's Participation in Translation of Dialogues	No of subjects	Percentage
01	Participation in Music Chair	13	81.25	Participation in word Whomp	16	100	Participation in translation of dialogues	08	50
02	Yesterdays four actions narrated	08	50	Subjects in the word Whomp used all six letters	13	81.25	Subjects narrated dialogues as it is in Hindi	04	25
03	Yesterdays just one action narrated	04	25	Subjects used words in to sentences	07	43.75	Subjects translation grammatical correct 60%	05	31.25
04	Without fluency tried to narrate	10	62.5	Involvement of subjects for formation of words and sentences	11	68.75	Subjects translation mix of Hindi and English	02	12.5
05	Full involvement in the activity	14	87.5	Subjects efforts to make maximum words	05	31.25	Subjects incorrect translation	04	25
06	Tried to use mother tongue in communication and English	07	43.75	Subjects formed only words	05	31.25	Subjects neutral in translation	05	31.25

References:

- 1) Chen, I- Jung. (2005) Using games to promote communicative skills in language learning. The Internet TESL Journal, 11(2) <http://iteslj.org/techniques/Chen-Games.html>
- 2) Dolon Das. (2014) Games and Activities: Techniques for Teaching English in a Fun-Filled Environment Journal ELTp.3 to 9
- 3) Donough, J.M. and Shaw, C. (1993). materials and methods in ELT: A teacher's guide, Blackwell: Oxford UK
- 4) Nuyen, N.T.T. and K.T.T. Nga.(2003) The effectiveness of Learning Vocabulary through games. Asian EFL Journal, 5(4)
- 5) Rensick, M. 2004 Edutainment? No thanks. I prefer playful learning Edutainment? No Thanks. I prefer playful learning.N.p., n.d.Web. 24 Sep 2014
- 6) Sarpparaje Saravanan.(2014) Auto- didacticism or self-directed Learning for effective Second Language Learning, Journal EL Tp. 23 to 28



CONTENTS

Sr No	Paper Title	Page No.
41	THE ONLINE FEATURES OF GOOGLE MEET PLATFORM: THE NEW NORMAL TECHNIQUE Shirsak Ghosh	252-257
42	MARKETING OF SANITARY NAPKINS AND OTHER ALTERNATIVE PRODUCTS AND ITS EFFECT ON MENSTRUAL HYGIENE MANAGEMENT (MHM) Kamat Vanita	258-266
43	IMPACT OF COVID-19 PANDEMIC ON DIGITAL MARKETING: A STUDY Dr.Kishor Baburao Jadhav	267-270
44	NEW ASPECTS OF COMMERCIAL BANKS IN INDIA Dr. M.P.Morghade ,Dr. S.B.Borkar	271-279
45	A STUDY OF ONLINE BUYING BEHAVIOR OF CUSTOMERS Dr. Prakash Krishna Tone , Mr. Naganath Dnyanoba Banasode	280-287
46	E-COMMERCE : CHALLENGES IN INDIA A STUDY Miteshkumar B.Panchal, Dr.Maheshkumar C. Rathva	288-293
47	NATURAL FARMING AND PRICE POLICY IN INDIA Rajendra Baburao Mithari	294-299
48	ROLE OF LANGUAGE IN DIGITAL MARKETING Dr. Amar Lahu Powar	300-305
49	INDIVIDUAL PARTICIPATION PRINCIPLE AND RIGHT TO BE FORGOTTEN UNDER DATA PROTECTION LAW: A CRITICAL APPROACH Dr. Suresh G. Santani	306-315
50	KAUSHLYA KARNATAKA- KUSHALA KARNATAKA, SKILL DEVELOPMENT PLAN FOR KARNATAKA, 2017-2030 Shweta Maruti Hulkunda	316-328
51	A STUDY OF CUSTOMER SATISFACTION TOWARDS HOTEL INDUSTRY Ashwini Tanaji kamble	329-333
52	STUDY OF AUTOMATION IN THE INDIAN BANKING SECTOR Ms. Meghna Neelakantan ,Dr. Sunil Bhaskar Chandanshive	334-343
53	AN EXPLORATION FOR PROTECTIVE EFFECT OF RHIZOME EXTRACT OF IRIS PSEUDACORUS L.AND SEED EXTRACT OF DOLICHOS BIFLORUS L. IN SODIUM OXALATE INDUCED UROLITHIASIS IN RAT MODEL Sarita Sharma , Dr. (Prof) Amit J. Raval , Dr. (Prof) Raju Koneri	344-351
54	A CHALLENGE OF DIGITAL MARKETING IN INDIA Dr. Jamadar Shahida Abdulrahim	352-363
55	ROLE OF SOCIAL MEDIA PLATFORM IN AGRICULTURAL MARKETING Mr.D.N.Karle ,Dr.Amit kumar Mishra	364-369
56	DIGITAL MARKETING: AN OVERVIEW Dr. B. D. Girigosavi	370-377
57	GROWTH AND STRATEGIES OF DIGITAL MARKETING Dr Sanjay Shivaji Omase	378-384
58	PERCEPTION TOWARDS CASHLESS TRANSACTION AMONG RETAIL CUSTOMERS IN BEED DISTRICT Mr. B. B. Rajemane	385-392
59	ETHNOBOTANICAL STUDY OF WILD EDIBLE PLANTS OF KHED REGION, PUNE DISTRICT, MAHARASHTRA, INDIA Admuthe N. B. ,Pokale S. T.	393-401
60	DIGITAL ECONOMY AND ITS BENEFITS Dr. Magar S. R.	402-407
61	OMNICHANNEL RETAILING: A NEED OF INDIAN MARKET Dr. Mansingh Sambhajirao Dabade	408-413
62	A GEOGRAPHICAL REVIEW OF MODERN AGRICULTURAL PRACTICES Dr. Ashok Shamrao Patil	414-421

63	DIGITALIZATION IN INDIAN AGRICULTURAL SECTOR Dr. Satish Ashinath Gonde	422-426
64	USE OF TECHNOLOGY IN MEDIA Tisha Ashok Uchil	427-432
65	ROLE OF GOAT FARMING IN FINANCIAL DEVELOPMENT OF GOAT FARMERS IN MAHARASHTRA Mr. Adinath. S. Kamble, Dr. M. A. Koli	433-443
66	5G TECHNOLOGY & DIGITALISATION Dr. Shubhangi B. Patil	444-449
67	DIGITAL MARKETING AND EMPLOYMENT OPPORTUNITY Shaziya Mohammed , Irfan Momin	450-456
68	ONLINE / DIGITAL EDUCATION & ITS STRESS TO TEACHERS IN HIGHER EDUCATION Gorakhnath Rangrao Patil , Dr. Sharvari S. Kulkarni	457-465
69	SOURCE OF DIGITAL MARKETING Dr.Sujata Jitendra Patil	466-472
70	DIGITAL MARKETING: ELEMENTS, CHALLENGES AND OPPORTUNITIES FOR PRESENT TIME Warvadkar Rohit Rajendra, Shinde Saurabh Uttam	473-478
71	E- MARKETING AND NEW OPPORTUNITIES FOR IMPROVING FOOD SUPPLY CHAIN MANAGEMENT Dr. Mrs.Madhuri R. Shinde	479-484
72	DIGITAL MARKETING OF MEDICINE IN INDIA:-TRENDS AND CHALLENGES Mrs. Anagha P. Bartakke, Dr. Mrs. Sharvari S. Kulkarni	485-491
73	COVID-19 LOCKDOWN IMPACT ON RURAL ECONOMY Mr. Kadam Rajaram, Mr. Shende Popat2, Dr. Jadhav Ashish	492-503
74	DIGITAL BANKING : A NEED OF TIME Dr. Bhavna Sharma , Ms. Anugya Dubey	504-513
75	MERITS AND DEMERITS OF DIGITALIZATION: EDUCATION Ms. Mohd. Hussains. Z, Ms.Gujar S. M	514-520
76	CONSUMER PERCEPTION TOWARDS ONLINE SHOPPING Pratibha Dattatrya Pudale	521-526
77	MERITS AND DEMERITS OF DIGITALISATION Smt. Asmita D. Ghorpade , Dr. Hindurao V. Sankpal	527-532
78	CONTRIBUTION OF WOMEN LEADERSHIP IN 21ST CENTURY Dr. Savita R. Rasam	533-538
79	SOCIAL CHANGE: IMPACT OF DIGITAL MARKETING ON YOUTH Dr. Hina Shah , Ms. Shanthi Seshadri, Smt. Maniben MP Shah	539-545
80	WOMAN LEADERSHIP IN INDIAN PERSPECTIVES Sunita Amar Powar	546-550
81	DIGITAL BANKING : A FUTURE OF BANKING Dr. Vivek V. Patil	551-557
82	DIGITAL MARKETING: 21ST CENTURY CHALLENGES AND OPPORTUNITIES Mr.Ashok R.Herwade, Dr.R.N.Shendage	558-568
83	E - COMMERCE SITES IN TOURISM INDUSTRY IN INDIA – A REVIEW Dr. A. A. Kulkarni	569-577
84	CURRENT ERA’S IMPACT ON DIGITAL MARKETING Agarsana T K	578-579
85	DIGITAL MARKETING IN INDIAN REGIONAL LANGUAGES: AN OVERVIEW Ms Sawant Neeta Ankush	580-586
86	IMPACT OF DIGITAL MARKETING ON CONSUMER BEHAVIOR IN 21ST CENTURY Mrs. Pallavi Swapnil Kale	587-593

87	A STUDY OF INTEREST IN TEACHING OF SECONDARY TEACHER TRAINEES IN COVID-19 PANDEMIC IN MEDCHAL DISTRICT D. Gnyaneswer	594-601
88	A THEORETIC PAPER ON ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE Regina Rejith	602-607
89	DIGITAL MARKETING: 21ST CENTURY CHALLENGES AND OPPORTUNITIES Komal Kamlesh Gaikwad	608-615
90	ADOPT OF NEW TECHNOLOGY IN AGRICULTURE Dr. Tippanna B Kolkar	616-623
91	ROLE OF DIGITALIZATION IN PROMOTING SOCIAL MARKETING: SOME REFLECTIONS Dr. Veda C.V , Mrs. Anitha.S	624-632
92	ROLE OF SOCIAL MEDIA IN EFFECTIVENESS OF ADVERTISEMENT AND MARKETING Charushila Bhupal Tasgave	633-639
93	MODES OF DIGITAL MARKETING Dr. Ganesh J. Dubale , Dr. Choudhari R.L	640-643
94	A STUDY ON SHIFT OF DIGITAL MARKETING DUE TO LOCK DOWN Nidhi Amit Medhekar, Dr. Geeta Kohade	644-651
95	FORMS OF DIRECT MARKETING (ONLINE / DIGITAL MARKETING) Mr.Pradeep V. Gaikwad	652-656
96	CONCEPTUAL STUDY OF CURRENT AND NEW TRENDS IN BUSINESS DEVELOPMENT Dr. Hindurao V. Sankpal	657-666
97	ग्राहक वर्तन: अर्थ, वैशिष्ट्ये आणि प्रभावित घटक प्रा. एन. डी. सोनटक्के	667-675
98	डिजिटल मार्केटिंगची आवश्यकता आणि भवितव्य डॉ. शिंदे संग्राम रामचंद्र	676-685
99	डिजिटल मार्केटिंग मिनस सोशल मिडीया मार्केटिंग प्रा. एल. के. पवार	686-693
100	डिजिटल मार्केटिंग Dr. Vibha Pandey	694-700
101	राजर्षी शाहू पूर्वकाळातील कोल्हापूर राज्यातील उद्योगधंदे डॉ. खंडेराव शिंदे	701-706
102	डिजिटल मार्केटिंग: २१ व्या शतकातील महिला नेतृत्वापुढील आव्हाने आणि संधी श्री अनिल पोपट लोखंडे	708-712
103	पारंपारिक मार्केटिंग व डिजिटल मार्केटिंग डॉ. दीपक वसंत चव्हाण	713-719
104	डिजिटल अर्थव्यवस्था : अवसर एवं चुनौतियाँ डा० सुरेखा पिपलानी	720-724
105	लघु उद्योगातील साधन-सामग्रीचे व्यवस्थापन प्रिया कृपाशंकर निमजे	725-734
106	डिजिटल न्यूजपेपर : स्वरूप आणि आव्हाने Dr Dhiraj Suresh Shinde	735-743

107	नवी मुंबईचे शिल्पकार-- वसंतराव नाईक डॉ. शर्मिला अशोक साबळे	744-748
108	DRIP IRRIGATED AREA AND ECONOMIC STATUS OF FARMERS: A CASE STUDY OF VILLAGE KAVHE VILLAGE OF MADHA TAHSIL Dr. Patil N. J.	749-757
109	ANALYZING THE IMPACT OF GREEN MARKETING ON PACKAGING INDUSTRY WITH SPECIAL REFERENCE TO NASIK DISTRICT Dr. Smita N.Pakdhane, Dr. Pournima D. Chavan	758-772
110	INFLUENCE OF DIGITALIZATION ON LANGUAGE Dr. Uttam Ramchandra Patil	773-778
111	CASHLESS ECONOMY IN INDIA Dr.Megha Vijay Patil	779-782
112	A COMPARATIVE STUDY OF THE OPPORTUNITIES AND CHALLENGES OF DIGITAL MARKETING Kalyani Navnath Shinde	783-789
113	A STUDY OF INDUSTRIAL UNITS AWARENESS ABOUT THE DIGITAL MARKING TOOLS WITH REFERENCE TO KOLHAPUR DISTRICT Dr. A. K. Patil , Santosh Ashok Hodge , Yogesh Jaysing Jadhao	790-798
114	IMPACT OF COVID-19 ON SOCIAL MEDIA MARKETING AND ITS EFFECTS ON BUYING PATTERN OF THE CONSUMERS IN MUMBAI Mrs. Dipali V. Patil	799-808
115	ROLE OF VERNACULAR LANGUAGES IN DIGITAL MARKETING Dr. Tejaswini Ram Tupe	809-813
116	भारत में महिला सशक्तिकरण की भूमिका डॉ. रमेश प्रसाद कोल	814-821
117	डिजिटल मार्केटिंग का मानव जीवन पर प्रभाव डॉ. लक्ष्मी शंकर यादव	822-828
118	भारतातील नैसर्गिक संसाधने आणि शाश्वत विकास Dr.sameer gaikwad	829-834
119	बाजार में आंधी दौड़ डॉ. शंकर दळवी	835-838
120	CHALLENGES AND OPPORTUNITIES OF DIGITAL MARKETING IN INDIA Dr. Kishor Lipare , Dr. Santosh Borate	839-844
121	DIGITAL AUDIT ITS OPPORTUNITIES AND ISSUES Mr. Sanjay V. Omase, Prof. Dr. Varsha Maindargi	845-850
122	आंतरराष्ट्रीय विपणन व संगणक तंत्रज्ञान डॉ.आश्लेषा. मुंगी, कु. सिद्धी दत्तात्रय कुंभार, कु. शिवानी सोमनाथ साळवे, कु. ज्योती सोमनाथ गायकवाड	851-856
123	डिजिटल विपणन : २१ व्या शतकातील संधी आणि आव्हाने अशोक आर.हेरवाडे, डॉ.आर.एन.शेंडगे	857-865



THE ONLINE FEATURES OF GOOGLE MEET PLATFORM: THE NEW NORMAL TECHNIQUE

Shirsak Ghosh

State Aided College Teacher, Serampore Girls' College Department of English

Abstract: -

It is through online education the new trends of education have become a normal procedure. Through the onset of COVID-19, we could understand, that this new technology has evolved and has a far-reaching depth among the updated audiences. It has become a new trend of liberty in the art of social and cultural field which has broken the threshold of a new dimension. Its impact among the audience has a far-reaching effect and it has broken a new standard of dimensions. Its growth among the society has a great impetus and day by day the updated version of Google Meet has taken place its horizon which has broken shackles through all other online applications. Through this paper, the author will describe the online features of Google Meet Platform: the new normal technique.

Keywords: - COVID-19, far-reaching, society, Google Meet and online education
Online education is a type of education that can be implemented through the internet. It can help us to provide and promote through the process of digital platforms. Google Meet is an online application software where lots of things can be implemented and supplemented as per the user's choice and notifications.

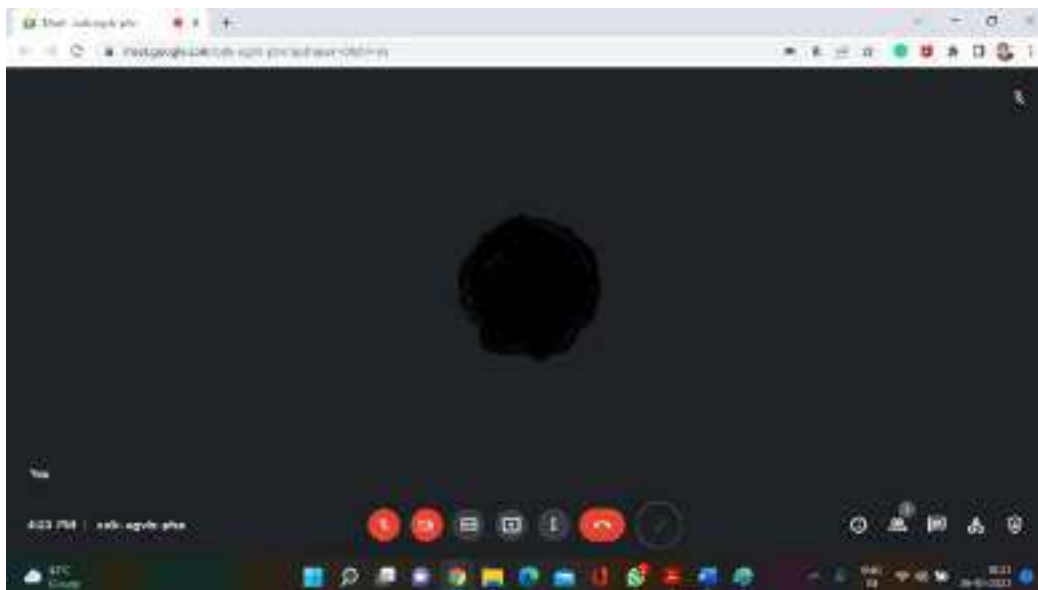


Figure 1: A blank Google Meet image on the screen

The Process to open Google Meet Platform

Google Meet is an online application software where communication takes place through an online platform if the user has an e-mail connected with Gmail. It is fast and reliable and it contains lots of options and information as to its source. If we have a laptop/desktop and take into account, we are the teacher, we may log in to Gmail. On the top left-hand side, there is an option named Meet, we click on “New Meeting”. A window will open where we can share the meeting link and copy and share it with those users to whom we would like to enter in our Google Meet. If we click on Start now, Google Meet will open in the new window.



Figure 2: Picture of different buttons in Google Meet.

Buttons in Google Meet

When we open Google Meet through a laptop, we can see a plethora of buttons. We can have the microphone button switch which has the shortcut key from the keyboard, Ctrl + D. If we turn on or off the microphone, we can press that switch simultaneously. We can have the camera button switch which has the shortcut key from the keyboard, Ctrl + E. Similarly, if we turn on or off the camera, we can press that switch simultaneously. We also have the captions switch. A shortcut key for it is “C” alphabet from the keyboard. We also have a present screen option where users can share the computer/laptop screen of their devices. There is a button called more option and it describes more options on the computer or laptop.

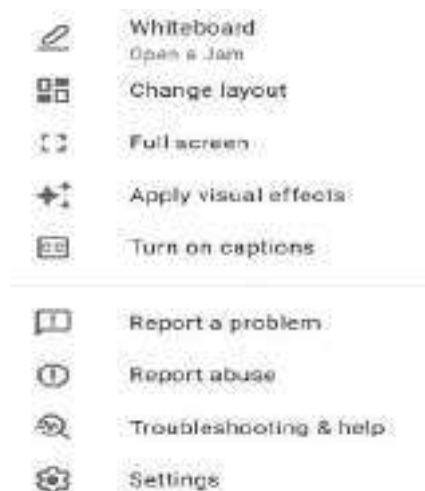


Figure 3: From this option, a user can create a whiteboard, change lay out, can apply full screen, apply visual effects and can act many of its features. We can also see the end call option and it helps to end a particular call when the meeting gets over in Google Meet. We can see how many participants are present through the present option. On the right-hand side, there is an option related to meeting details where a user can click on it and can copy the shared link and can add several participants through the Google Meet room. Another option called show everyone is placed next to the Meeting Details. It shows us the number of participants that can be present in the Google Meet room. We should note the maximum number of participants that can lead to the Google Meet classroom is 100. Participants can join as per the accommodation of the other participants. In higher conferences and workshops when one can log in through Google Suite, the maximum number of participants in the Google Meet classroom is 250. The Chat with everyone button is an option which helps the user to connect with other participants and thus it helps to communicate with a larger audience. Here, the user can send a message and it is directly sent to all the receivers inside the group so that all the receivers from different locations can have the ability to connect through this platform. In the Activities button, we can find different activities that can take place through this Google Meet platform. Whiteboarding is an option through which a user can use a whiteboard and act accordingly. A Jam board is created through a new process of clicking on whiteboard.

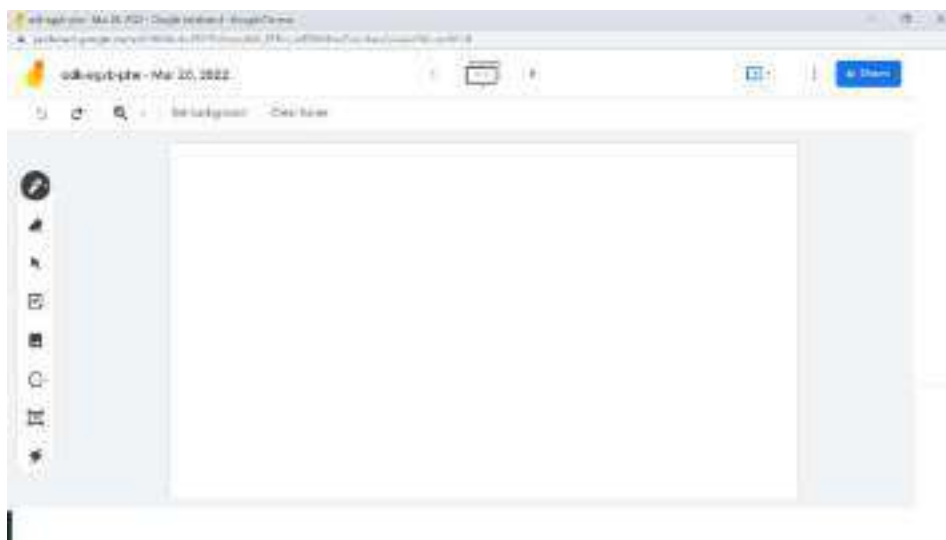


Figure 4: Picture of a Jam board in Google Meet

In the picture of Jam board, a user can share screen option, so that the audience or the students can find it easy to look at the Jam board. The teacher may teach complicated topics through the Jam board. The pen option can also be changed to a highlighter or a marker and a brush. Six different shades of colours are there in the option. The user can use an eraser option if he/she feels some things have to be deleted or erased and some new things could have been added to the Jam board.

There is also an option called select option where the user can select any objects as per as he/she choose accordingly. The user can also browse and add an image and such images are been browsed as per the choice of the user. From Google Drives to Google Photos, from Google Image Search to Camera, anything can be searched by the user as per his convenience. This shows that through the Google Jam board any sorts of images can be used to search and be inserted in a manner in such a way so that they can be seen and be visibly effective. This is a new perspective that was not been popular in the normal activities of the Internet throughout the process.

Through Google Jam board, a user can draw a circle, triangle, diamond shape or any other form of artwork according to his/her choice. This artistic view of description can help a user to prepare things accordingly. Textboxes are made and the user has to write in such a way so that they can add some more information in the textboxes. We should note textboxes are created to ease the topics so that the learners can find an easy solution to their problems.

The laser button helps us to point out the key items so that the teacher can help the learners understand and modify simple statements easier and make things simplifier as far as possible.

We can also set different backgrounds in the Jam boards so it makes us things easier. We can also create many Jam boards as much as possible before the beginning of the class. When the class takes place, we can share the Jam board and explore the topics with the learners so that the learners get a sigh of motivation and interest that makes them concentrate on their lessons well. It

can also help us to manage the classroom environment smartly and effectively by the teachers skilfully. There is also another option called the Host Controls where the host has the power to control everything accordingly and every step have been equally controlled by the Host. The Host thus controls everything and in this way, the meeting works skilfully well.

To end the call in Google Meet

For ending the calls in Google Meet, the user has to click leave the call. Then there will be two options: Just leave the call or end the call for everyone. The user must click on it to end the call for everyone so that every meeting turns off automatically for all the users. It must be noted as the user clicks to end the call for everyone, everyone's call gets automatically off accordingly without any delay.

Some other features of Google Meet

When we access Google Meet, simultaneously, if we access YouTube website, Google Meet Attendance Extension has blocked videos from playing.



Figure 5. If we click allow videos to play, videos will be played in YouTube while Google Meet is on. We also have another feature of Google Attendance, where Google Attendance automatically calculate the attendance of each of the participants and it will be displayed on the Chrome Window when the meeting is off. It mentions the time of the participant's arrival, departure in between (if) and then the arrival and departure. We can take any sorts of quiz in the Google Form or we may send some important links in the "Google Chat with everyone" option. This shows that students can work on Google with no sort of dispute randomly without any sort of problems and this helps Google Meet an easy platform where they can work together easily. Various other apps like Zoom apps, Skype apps and others are also are in large number and it is pointless to compare one app to another as they connect human beings through different

channels. “Unlike business calls with Meet, consumer calls are not recorded and stored, and Google states that consumer data from Meet will not be used for advertisement targeting. While call data is reportedly not being used for advertising purposes, based on an analysis of Meet's privacy policy, Google reserves the right to collect data on call duration, who is participating, and participants' IP addresses.” (Wikipedia) An article ‘Google expands access for noise cancellation in Google Meet’ was updated on March 26, 2022.

“These features give administrators more control over how Google Meet is used in their organization. For example, in a school, these settings allow you to control whether or not students can present or send chat messages during video meetings. In business settings, specifically at large company meetings, giving the event host control over whether or not to conduct polls or Q&As during video meetings is a useful feature,” it explained.

Thus, Google Meet has lots of features and it connects a lot of people throughout the globe. The most important thing is through our home we get connected to numerous people and that is a great achievement through this platform. It has multiple numbers of users and it helped during the time of the COVID-19 pandemic as it was undoubtedly a boon towards new success.

Works Cited

Google Meet (March, 26, 2021) “Google Meet link” Google Contributors. Retrieved from <https://meet.google.com/amr-qyyv-zmo>

Wikipedia contributors. (2022, February 8). Google Meet. In *Wikipedia, The Free Encyclopedia*. Retrieved 14:25, March 26, 2022,

from https://en.wikipedia.org/w/index.php?title=Google_Meet&oldid=1070576223
BL Mumbai Bureau (March 26, 2022). “Google expands access for noise cancellation in Google Meet”. The Hindu Business Line. Retrieved from <https://www.thehindubusinessline.com/info-tech/google-expands-access-for-noise-cancellation-in-google-meet/article65261886.ece>



MARKETING OF SANITARY NAPKINS AND OTHER ALTERNATIVE PRODUCTS AND ITS EFFECT ON MENSTRUAL HYGIENE MANAGEMENT (MHM)

Kamat Vanita

*Department of Zoology, Kirti M. Doongursee College, Dadar, Mumbai -28, INDIA
vanita2483@gmail.com*

Abstract :

Adolescent Girls and Women face many physical, psychological and social issues in life with respect to menstruation. Good menstrual hygiene management (MHM) which is basic human right which ensures dignified and healthy life. Recently use of hygienic products like sanitary napkins, tampons etc has increased over period for easy availability, low cost and good marketing. But many government schemes products or other alternatives in compared to the well marketed products hardly reaches to masses due to lack of marketing . Author has reviewed current guidelines and various products available which still need to reach to masses via marketing .This will help ensure better menstrual hygiene management (MHM) .

Keywords : Sanitary pads, menstrual hygiene , marketing

Introduction :

Beginning of menstruation is very important step for any adolescent girl . Girls undergo many physical and psychological changes during this process. Menstruation is still taboo in India and many countries in the world. Many girls and women feel ashamed even to discuss about it . They tend to skip school , work and tend to sit at home (1) . Thus managing menstruation hygienically is basic need for well being of any girl or woman. Across the globe and almost in all religious followings menstruating women are considered dirty or impure. This affects the social wellbeing of female the population. Ahead lack of awareness about menstruation till menarche, myths and unscientific attitude makes girl's and women's life still more miserable. WHO /UNICEF defined Menstrual Hygiene Management MHM as "Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period, using soap and water for washing the body as required, and having

access to facilities to dispose of used menstrual management materials ”(2). United nation’s all state members are have to follow sustainable development goals. Sustainable Development Goal (SDG) 6.2 acknowledges ‘right to menstrual health and hygiene’. It states that “By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations”(3). May 28 is observed as ‘Menstrual Hygiene day to raise awareness and change negative social norms surround MHM. This is because in general the women cycle is of 28 days and most women menstruate for 5 days a month. Thus 28th day of fifth month is followed as Menstrual Hygiene day worldwide (4). For absorption of menstrual fluid centuries together women have used various means .Various products are used as unhygienic means of menstrual absorbent in different parts of the world .These includes natural material like mud, cow dung, leaves cotton wool , tissue paper , newspapers, plastic bags , strips of saree , towel etc. While reusable napkins, commercial reusable sanitary napkins and commercial disposable sanitary napkins are hygienic means of menstrual absorbents .(5). Government of India is trying hard for all women and girls especially in rural areas to have easy access to sanitary napkins .Latest report of National Family Health Survey 5 (NFHS-5 2019-20) says 90.2 % of urban and 80.1% rural women and total average of 84.8 % women from Maharashtra state use hygienic means of menstruation .While previous Survey 4(NFHS 4 2015- 16) says total average of 66.1% women used hygienic products in Maharashtra(6) .Due to rapid urbanization , rising income and easy availability , use of sanitary napkins is increasing rapidly.

Freedays Pads –



Pads sold under Government Schemes

Govt has run the scheme to distribute free sanitary pad 'Freedays' in rural areas under Menstrual hygiene scheme. Ministry of health and family welfare introduced scheme for promotion of menstrual hygiene in adolescent girls (10 to 19 years) in rural areas. Sanitary pad 'Freedays' were provided to rural girls at 06 rupees .Now since 2014 , funds are provided to states and union territories for providing girls sanitary napkins at subsidized rate of Rs 6 under National Health Mission . Accredited Social Health Activists (ASHA) of Anganwadi centre focus on Menstrual Hygiene issues (7). MHM is integral part of Swachh Bharat Mission and Ministry of Drinking water and Sanitation has published guidelines to be implemented by the State Government , District level officials , engineers and teachers.

There is no doubt commercially available disposable pads have made women and girl's menstruation hygienic and comfortable. These pads have devastating effect on environment. As use of Sanitary Pads has increased , the concern of disposal and management of menstrual waste is on rise. In India we lack mechanism for collection and disposal of menstrual waste. In India its estimated that 1.02 billion pads are disposed monthly leading to 113000 tonnes of menstrual waste generated annually(8). Classification of the menstrual waste in dry waste , wet waste or biomedical waste is highly confused. These used sanitary pads goes in sewage, landfills and water bodies and create environmental problem(9).

Sanitary waste falls within two categories plastic and biomedical waste. They are classified as biomedical waste due to presence of blood. Thus it needs to be pre treated before disposal by the process of incineration. WHO recommends the incineration of sanitary waste at temperature above 800 degree. In India most incineration is done at low temperature incinerator. Burning of these sanitary pads produces harmful toxins (10).

Raw material used for sanitary napkin is considered to be cotton and plastic . Once thrown in environment these plastic takes more than 500 years to degrade. They break into smaller pieces called microplastic is found everywhere in various flora and fauna especially tissues of fish aand shellfish and gets

bioaccumulated (10) Sanitation workers are also affected as they handle the waste bare handed. They are exposed to many health hazards.

Due to taboo involved around Menstruation, most women do not get access to clean cloth and sunlight to dry reusable cloth . Many of them dry their menstrual cloth in damp corners of houses which makes them susceptible to infection. Many women tend to throw in open spaces like rivers, wells and even roadsides due to lack of awareness and unavailability of safe options. In rural area people tend to burn , bury or flush the sanitary waste in water bodies.

To address this issue Govt of India has promoted use of incinerators . Thus mini incinerators are put for institutions , school and housing society etc . Burning is uncontrolled and unregulated while incineration is controlled burning at specific temperature in contained space with monitored emissions. Burning plastics at less than 800 degree releases dioxins which are carcinogenic chemicals linked to problems of reproductive health and child development. Due to incineration process , mass of plastic waste is decreased . The remaining ash , some of it is fly ash , needs disposal and is put in landfills(10).

There should be appropriate solution to minimize the adverse effect on health of girls and women , sanitation workers and further environmental consequences. There are few products available in the market which may surely help to reduce the burden of non degradable waste generated . They are as follows –

Reusable pads :



Such pads are made up of organic materials like cotton Eg: Ecofemme company has pack of 7 pads which can be washed 75 to 100 times and used for 3 to 5 years .Rinsing with water , washing with soap and sun drying is required to ensure sanitization. But these kind of companies which create such reusable

pads hardly reach to people due to lack of advertising. Also they are costly products hence its use is still less.

Oxo Biodegradable pads :



Oxo Biodegradable Pad sold under Government Schemes

Jan Aushudhi Suvidha Sanitary Napkin is given at Rs 1 under Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana is Government Initiative to reach out to rural girls where pack of 4 is sold at Rs 10. This is oxo biodegradable sanitary napkin i.e. 100 % biodegradable as it reacts with oxygen when discarded (12). Such kind of products need to reach till poorest of the women and hence advertising of these types of pads has to happen at the grassroots level.

Compostable Pads :



Compostable -Biodegradable Pads

They are compostable i.e. capable of disintegrating naturally in compost environment (within 90 – 180 days). Eg : Anandi Compostable pads which are first fully compostable sanitary napkin which provides women and girls in rural areas and urban slums a environmentally sustainable solution. (Pack of 8 Pads costing rs 40). Company suggest they should be buried in pits and wait for compounds to decompose(13). Various companies are using plant based materials instead of plastic . After one disposes in waste bins, they degrade

within 6 months. Many companies are available in market with different costs like Sathee pads (Banana fiber) ,Azah pads (organic cotton) , Pee Safe pads (Cotton and Bamboo fiber). These kind of pads are not reaching to masses due to lack of easy availability and marketing. Users at large are sceptical to use it due to lack of proper advertising. Also according to raw material used its price varies and in compared to readily available plastic based pads they are sold at higher price. This also hampers its purchase and use .

Menstrual cup:



Menstrual Cup

Its soft bell shaped cup which is worn internally. Eg SheCup Company . This menstrual cup is made up of silicone holds upto 28ml of liquid, reusable , gives 10 hours protection . Before and after use of each cycle , it has to be boiled and immersed in hot water for 5 to 6 mins. Little water is needed to clean . It is advisable to be used by rural women where there is scarcity of water. It can be used upto 10 years(15). Such products are costly and they need training for its use. Thus its use is limited.

Green Dispo – Incinerator :



Green Dispo – Model I

Scientist at International Advanced Research Centre Powder Metallurgy and New Materials (ARCI) Hyderabad, under DST & CSIR , NEERI – National Environment Engineering Research Institute developed incinerators named Green Dispo. This incinerator instantly heat up to temperature greater than 800

degree Celsius and helps to complete combustion of sanitary pad waste with min gas emission (16). Many units are established in various schools, colleges, government and public places. More and more advertising is needed and such kind of Incinerators needs to be installed and maintained which will help in better menstrual hygiene management.

Conclusion :

Various products of sanitary pads are available in market with different price ranges. Marketing of such products are limited in compared to regularly sold plastic based cheaper pads. Initiatives needs to be taken so that wide choice is available for use of sanitary pads. This will surely help Good menstrual hygiene management (MHM) which improves health , gives confidence and self esteem to women. For overcoming menstrual waste management issues there is urgent need of intensive action from all stake holder to change the menstrual hygiene in India.

Recommendations:

1. Government should frame policy for availability of cheaper , high standard biodegradable pads by removing the good and service tax on sanitary napkins
2. Marketing of such products needs to rise to reach to masses.
3. Awareness and policy making for classification of menstrual waste as solid or biomedical waste and prioritising separation from rest of the waste.
4. Transport of such waste and appropriate treatment for urban and rural setting.
5. Planning for disposal of Sanitary pads , biodegradable and compostable pads.
6. Setting up of large number of production units for compostable disposable pads that would be run by community based organisation and self help women groups.

References :

1. Potharaju J, Usha P. PREVALENCE OF PRIMARY DYSMENORRHEA IN YOUNG WOMEN--AN INSTITUTIONAL STUDY. J Evol Med Dent Sci. 2017 Dec 25;6(95):6948–52.

2. Water, Sanitation and Hygiene (WASH) [Internet]. [cited 2021 Mar 26]. Available from: <https://www.unicef.org/wash>
3. UNICEF and the Sustainable Development Goals [Internet]. [cited 2021 Mar 26]. Available from: <https://www.unicef.org/sdgs>
4. About Menstrual Hygiene Day | MHD Day [Internet]. [cited 2021 Mar 25]. Available from: <https://menstrualhygieneday.org/about/about-mhday/>
5. Menstrual hygiene matters, a resource for improving menstrual hygiene around the world [Internet]. WSSCC. [cited 2021 Mar 25]. Available from: <https://www.wsscc.org/media/resources/menstrual-hygiene-matters-resource-improving-menstrual-hygiene-around-world>
6. National Family Health Survey [Internet]. [cited 2021 Mar 26]. Available from: <http://rchiips.org/NFHS/index.shtml>
7. Menstrual Hygiene Scheme (MHS) :: National Health Mission [Internet]. [cited 2021 Mar 11]. Available from: <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=1021&lid=391>
8. Pushing the Boundaries on the Menstrual Health Management Dialogue [Internet]. [cited 2021 Mar 26]. Available from: <https://www.path.org/resources/pushing-the-boundaries-on-the-menstrual-health-management-dialogue/>
9. World Environment Day: Here's how disposable sanitary napkins mess up health and hygiene [Internet]. Hindustan Times. 2017 [cited 2021 Mar 10]. Available from: <https://www.hindustantimes.com/fitness/world-environment-day-here-s-how-disposable-sanitary-napkins-mess-up-health-and-hygiene/story-TfO6UvFA6iBcWgUZ0qeWVL.html>
10. Unlearning Menstruation: Sanitary Waste in India [Internet]. EcoFemme. 2018 [cited 2021 Mar 10]. Available from: <https://ecofemme.org/sanitary-waste-in-india/>
11. 'Solid Waste Management Rules Revised After 16 Years; Rules Now Extend to Urban and Industrial Areas': Javadekar [Internet]. [cited 2021 Mar 10]. Available from: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=138591>

12. On Women's Day, Government Launches Biodegradable Sanitary Pads for Rs 2.50 [Internet]. NDTV.com. [cited 2021 Mar 25]. Available from: <https://www.ndtv.com/india-news/on-womens-day-government-launches-biodegradable-sanitary-pads-for-rs-2-50-1821538>
13. Anandi - Aakar Innovations [Internet]. [cited 2021 Mar 26]. Available from: <https://aakarinnovations.com/anandi/>
14. The Indian sanitary pad revolutionary. BBC News [Internet]. 2014 Mar 4 [cited 2021 Mar 26]; Available from: <https://www.bbc.com/news/magazine-26260978>
15. Best Menstrual Cup for Teenagers - Organic Period Menstrual Cup Online, Silicone Menstrual Cup [Internet]. Shecup. [cited 2021 Mar 26]. Available from: <https://shecup.com/>
16. Green Dispo eco-friendly sanitary napkin incinerators: Reaching all corners of the country | Department Of Science & Technology [Internet]. [cited 2021 Mar 12]. Available from: <https://dst.gov.in/green-dispo-eco-friendly-sanitary-napkin-incinerators-reaching-all-corners-country>



IMPACT OF COVID-19 PANDEMIC ON DIGITAL MARKETING: A STUDY

Dr.Kishor Baburao Jadhav

*Head, Department of Commerce, Shrimant Babasaheb Deshmukh Mahavidyalaya,
Atpadi Dist.Sangli*

Email - kbjadhav2012@rediffmail.com

Abstract :

The world has already successfully overcome many pandemic situation. The pandemics of covid-19 affected people locally and globally. The impact of the pandemic on social, economic and political life of human beings has been seen to be affecting the economy of all the countries of the world. Human resources, corporate sectors, education, transportation, environment, Law, film industry ect. seen to have been affected which has seen the pandemic in a positive light and recognized that we have great potential in it. Uncertainty is seen in all sectors, many have lost their jobs. Consumers have changed their behaviour. Everyone has started staying at home. The effect of adherence to traditional marketing seen to have been to increase the number of contacts that sellers have already had with digital marketing. Today, digital marketing is one of the most emerging technology in information sectors. The paper is made with attempt analysis and understand the impact of covid-19 pandemic on digital marketing. **Keywords:** Digital Marketing, Covid-19, Pandemic, Technology,

Introduction:

Digital Marketing is a branch of traditional marketing. Connected to the internet and digital technology. As Computer, Mobile Phones, Websites, Social Media, Software, e-mail, Digital Marketing developed in 1900's and 2000's. Digital Marketing makes it easy to focus on a specific segment of the customer. Digital Marketing is interconnected as traditional marketing techniques. It can use Twitter, Facebook, Instagram and Blogs, Yelp, WhatsApp, Linked in, Google+, AI to reach customer and is essential in today's pandemic situation.

Objective of Study:

The Main objective of study are.

1. To study the role of Digital Marketing in Indian Scenario.

<http://www.ijaar.co.in/>

2. To analyse the future role of Digital Marketing Post Covid-19.
3. To analyse the impact of Covid-19 on Digital Marketing.
4. To Study the various concepts of Digital Marketing

Scope of Study:-

1. Understanding the concepts of digital marketing.
2. Understanding the impact of covid-19 on digital marketing.
3. Understanding the future of digital marketing after covid-19.

Research Methodology:-

The study is based on secondary sources such as Textbook, Journals, Magazine, Blog, Published Articles in Website.

Limitations of Study-

1. The information in this study is not disclosed to everyone.
2. This data has been collected keeping in view the time limit
3. Only secondary data were used in the study.

Tools of Digital Marketing:-

1. Influencer Marketing:- Companies use You Tube stars Tik To stars an influential social media company to promote their products
2. Mobile Marketing:- To take advantages of the rapidly growing number of Smart phone users in the world, the marketers used Mobile-apps, e-mails, Websites and social media Vig mobile phones
3. e-mail marketing:- The marketers communicated directly with the customer through this tools and send promotional messages of the products to the potential customers and there b generates for the goods and services
4. Social Media Marketing:- Marketers promotes products and services through social Networking Sites like Twitter's, Facebook, Instagram, Snapchat.
5. Video Marketing:- Consumer are rapidly connecting to Social Media Marketing, such as You Tube, Tik To, Vigo Video and marketers have taken advantages of this opportunities to promote their products and services.

Impact of Covid-19 on Digital Marketing:-

The increasing prevalence of Covid-19 pandemic has created a negative consumer sentiment towards actual marketing and led consumers to turn to

digital marketing. The effect of Covid-19 on digital marketing can be explained on the basis of the following points.

Increase demand for Video and Micro Video content-

Due to the pandemic of Covid-19 the government forced people to stay at home, so people started spending more time on social media like You-Tube, Micro Video content so the demand increased. And marketers see this as an opportunity to promote their products and services.

Increase Product Research among customers-

The effect of covid-19 was to give consumer time to research goods and services so marketers constantly strive to protect their reputation and respond to consumer requests

Experimental Marketing-

Lockdown allows consumers to spend more time online, so marketers need to focus more on online attractiveness.

Increased Importance of Chat bots-

The importance of Chat-bots has increased as people have been staying at home for most of the time during lockdown and have started doing office work from home and hence people have started focusing on online work.

Maintaining Online Reputation:-

As customer spend more and more time online, information about any wrongdoing by companies spreads quickly and responds quickly, making it difficult for companies to maintain their reputation.

Conclusion:-

In the current global covid-19 highway situation, companies have become a digital marketing tools for deciding their marketing strategy. While other areas have been hit hard by pandemic. Digital Marketing has got an opportunity and boost. Companies put digital marketing at the forefront. Also this pandemic is a nutrient for the digital marketing.

Reference-

1. Cendrowski, S (2012) Mike's new Marketing Mojo. (online).

2. Annmarie Hanlon,"Digital Marketing: Strategic Planning and Integration," sage publication,(2019).
3. <http://www.Marketingprofs.com/chirp/2020/43008/covid-19-impact-onbusiness-and-digital-marketing-initiatives-infogrsphic>.
4. <http://blogs.perficient.com/2020/04/08/the-Impact-on-digital-marketing-during-covid-19>.
5. Economist Intelligent Life,Digital Africa,March2011.
6. <http://ncp.support.microsoft.com/>



NEW ASPECTS OF COMMERCIAL BANKS IN INDIA

Dr. M.P.Morghade ¹, Dr. S.B.Borkar²

¹Asst. Prof, Dept. of Commerce, Yashwantrao Chawhan Arts, Commerce and
Science College Lakhandur Dist- Bhandara.M.S.

email- mp_manapur@rediffmail.com

²Asst. Prof, Dept. of Commerce, Shivprasad Sadanand Jaiswal Arts, Commerce
and Science College Arjuni/Mor, Dist- Gondia. M.S.

email- sborkar832@gmail.com

Abstract:

The Banking Business is considered to be an important business in the economy of each country. Banks have an important role to play in the economy, both in developed and underdeveloped countries. Citizens of the country get into the habit of saving for the sake of banking. Banks provide loans to needy merchants and individuals to meet their financial needs. Banks create credit in the country by accepting deposits and lending. Looking back at the history, it is seen that in the ancient times, interest was obtained by mortgaging goods with gold and the goldsmith was lending money to us. But since goldsmith alone could not sustain the growing trade, a collective capital bank was set up by raising more capital collectively. Thus the modern commercial bank was established and the modern banking system was started. Currently, going to crowded places in the Corona epidemic situation has become a tension. That is why digital services are so important. This study examines the various digital functions of a commercial bank for the purpose of increasing the value of commercial banks in society.

Keywords: Indian Economy, Bank Transaction, Digital Functions and SD

Introduction:

Banks are important for the development of any economy. After independence, the importance of commercial banks was increased. There is a big difference between the functioning of commercial banks established in India before independence and the functioning of post-independence banks as well as after the nationalization of banks. Commercial banks in India used to perform traditional functions before independence. Now, at the same time, these banks have to carry out development work. In every part of the 21st century, the term economic development has become important in the economy. Economic growth

<http://www.ijaar.co.in/>

has found a lion's share in commercial banks. After 1991, when India adopted the policy of privatization, liberalization and globalization, while some banks have been hit hard by the recession, Indian commercial banks have emerged unscathed from the recession. The performance of the commercial bank was found to have increased significantly.

At present, commercial banks, agriculture, industry, services, education, trade and tourism in India are playing an important role in various fields. State Bank of India, Bank of Maharashtra, Panjab National Bank, Central Bank of India, Bank of India, Canara Bank, Bank of Baroda, Union Bank, IDBI, Syndicate Bank, Indian Overseas Bank, YES Bank, ICICI Bank, Inducind Bank, HDFC Bank are some top commercial banks in India. Digital banking serves customers anywhere and anytime. That is why it is so popular. In commercial banking, the importance of digital banking has increased tremendously. Digital banking saves money and time as well as gives environmental protection.

Objectives: - To study the functions of Banking and To Study the Impact of Digital Banking on Environment

Classification of Commercial Banks:-

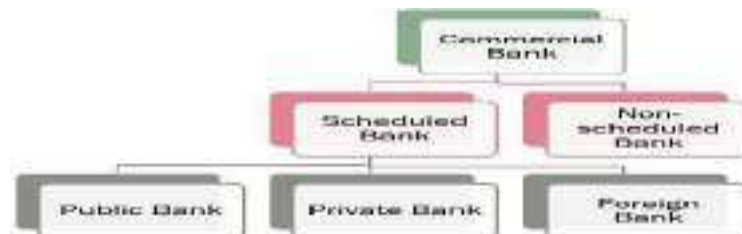


Table No.1 Differences between Scheduled and Non-Scheduled Bank

Difference	Scheduled Bank	Non -Scheduled bank
Share Capital	The share capital of this bank is more than Rs. 25 lakhs	These banks are not included in Schedule 2 as they are not regulated by the Reserve Bank
Ratio	The cash provision ratio is maintained by the Reserve Bank	The cash provision manages the ratio itself
Borrow Money	There is a facility to borrow money from the Reserve Bank for certain banking needs.	Non-scheduled banks cannot borrow money from the Reserve Bank.
Time Bonding	Scheduled banks are bound to provide information to the Reserve Bank from time to time.	There is no such restriction. Thus reducing reliability.
Membership	Become a member of the Clearing House.	Cannot become a member of the Clearing House.

Scheduled Bank: Scheduled Bank is the second scheduled inclusive bank under the Reserve Bank Act, 1934. The scheduled bank has to report its transactions to the Reserve Bank on a weekly basis. The Reserve Bank is keeping a close watch on the scheduled banks to protect the depositors. **Non -Scheduled bank:** Non-Scheduled Bank are not adhere under RBI Regulation Act 1934.

Function of Commercial Banks: A bank is a person who, in his day-to-day transactions, accepts money from a customer on a current account and pays for the orders he has issued. It is a bank that works to complete mutual transactions. There are three main types of commercial banks. At present in India commercial banks are doing important work in various fields like agriculture, industry, services, education, trade and tourism.

Primary function: This includes accepting deposits from its members, lending money, generating money and providing banking services.

Accepting Deposits- The most important function of this bank is to accept deposits from the members and from the account holders and to pay interest on these deposits at a low rate.

1. Current Account - The current account is very important for business people to complete banking transactions at all times.
2. Saving Account- The account is operated to collect small savings of low and middle income customers. Interest is usually paid to the member account holders at the rate of three to five per cent on the balance on the account.
3. Fixed Deposit Account- These accounts are generally accepted for a term of three months to five years or ten years at an interest rate of seven to ten per cent. If you want to repay the deposit before the due date, the interest rate is reduced.
4. Recurring deposit- Normally this type of account is useful for salaried retailers, mobile vendors, hired artisans, etc. The account can be started in a specific period of 3,5,7 ten years for help.
5. Other deposit accounts- Commercial banks offer various types of deposits to inculcate the habit of saving for the poor and people below the poverty line in the society. It offers attractive interest rates on deposits such as Pygmy Deposit, Good Luck Deposit, Educational Deposit, Lakhpati Deposit, etc.

Lending money advance. Commercial banks are money received from their area of work. They are small scale entrepreneurs in the area. They will be industrialists.

Loans: Commercial banks in India lend shares of various companies, government bonds, development of Sir OK, movable property, etc., and lend a certain amount for a certain period of time to the right person in the name. Loans are generally approved for 70 to 80 percent of the collateral.

1. Cash loan- To meet the working capital requirement of general farmer members, traders, entrepreneurs, etc., 50 to 75 per cent of the youth's loan amount is given as collateral on the mortgaged goods.
2. Overdraft facility- Eligible and eligible account holders who have a current account with a commercial bank can avail of higher cost concessions. Eligible and eligible account holders can avail higher cost concessions. Shares and Debt Insurance Policy Development and Debt Approval on Bonds or Individual Spouses is a short term loan on which interest is charged.
3. Accepting and deducting bills expecting and discounting bills and exchange- Merchant banks accept this type of loan for a short period of 90 days by accepting a bill from their members. Many trades are run on credit and trust.
4. Other loans- Commercial banks are currently offering loans to their account holders for the purchase of housing vehicles, purchase of plots for tourism for educational reasons, attractive interest rates on these loans.
5. Creation of credit money- At present, money laundering is considered to be the major function of a commercial bank.

Secondary functions- Nowadays, individuals carry out tasks in the social economy and capital markets.

Agency Services- Commercial banks have to act as the account holder's representative for example- To recover money by check drops, bill, promissory note etc., Do regular research, Deposit on behalf of the customer etc.

Suitable functions Service functions- In modern times, productive consumers, entrepreneurs, consumers, merchants and businesses that are provided with a variety of services are called useful petitions. Like Keeping

valuables safe, providing passenger check facility, Issuance of guarantee letter, working as a part insurer etc.

Social functions- following to see what kind of work the commercial bank does to the growth agent to bring about economic and social change.

1. Acting as an agent of economic growth
2. Accelerate capital formation
3. Promoting international trade
4. To help the economically weaker sections of the society.
5. Promote self-employment growth.
6. To help social and educational institutions.

Commercial banks operate as above. Following the adoption of a new economic policy by India after 1991, following the recommendations of the Narasimha Committee, new opportunities in knitting in the 21st century have emerged locally and internationally.

Table 2.Regional Wise Data of Deposits in Scheduled Commercial Banks in India

(At the end of the march 2021)(Rs. in Crore)

Year	Northern Region (Rs.)	North-Eastern Region (Rs.)	Eastern Region (Rs.)	Central Region (Rs.)	Western Region (Rs.)	Southern Region (Rs.)	All India (Rs.)
2011	11,56,600	93,000	6,16,800	6,15,100	17,47,300	11,60,800	53,89,600
2021	32,15,617	2,83,662	19,22,787	20,69,799	40,90,626	38,61,018	1,54,43,510

(Source - India Reserve Bank Statistics -link 7)

There is a total deposits in 2011 are Rs. 53, 89,600 and in 2021, it is 154, 43,510.

So there is an increasing rate in region wise rate of deposits in India. There is growth in deposits by 34.90% in 2021 as compare to 2011.

Digital Banking- The term digital banking and online banking have the same meaning as internet banking. Internet banking is also known as net banking. Digital banking is an electronic payment system that is offered by banks and financial institutions to the customer for financial transactions through the financial institution's website. That is, digital banking helps the customer to make financial and other financial transactions from the bank account. The Internet is a medium that makes technology possible. Due to Corona, banks are getting banking facility sitting at home. You can withdraw money from ATM

machine even without ATM (Cardless Transaction), Used by Internet banking browsers and applications with digital banking, you can do recharging, electricity bill payment, etc. from home. The usual old account holders have to fill up the online form and attend the bank in person to start net banking. Some banks offer you digital banking only when you create a new account.

Types of Digital Banking-

NEFT (National Electronics Fund Transfer)- NEFT is a form of transaction. In this mode, the survey transaction is completed in batch wise processing. Due to that, this process works slowly. When you make a transaction through NEFT, it is added to Batch. The transaction is completed when your batch number arrives.

RTGS (Real Time Gross Settlement)- Transactions made in RTGS are done in real-time. If you report a transaction to someone, they will be notified immediately by the bank. And the transaction is completed.

IMPS (Immediate Payment Service)- Transactions made in IMPS are immediately credited to the account of the person in front. All transactions are completed in realtime. E.g. If you send money to someone, the transaction is immediately handled independently and immediately appears in the person's account. This is how the transaction is completed. Time to do IMPS: 24 * 7 (day and night). We can transact anytime in 24 hours and seven days a week. Limit for IMPS: Rs. 2 lakhs Per day.

Platforms of Digital Banking- There are many platforms in India which are used by people in banking systems. So, regular transactions are becoming very effective and it's directly impact on our environment. This is paperless transactions, so there is savings about many trees. ATM, Internet and Mobile Banking, Tab Banking, Phone Banking, e-Corner, Pos Machine, KIOS, Cash Recycler these are some Banking Digital Platforms available in India.

Digital Banking and Sustainable Development- Banking Sector is very important sector in our economy. Come to Gandhi's Village is a concept that is very close to sustainable development. Today, the reverse would be more feasible, as technology has brought the world closer together; so many things are

not limited to cities. Environmental problems are on the rise and it is imperative to create a plastic free and paper free world. In some cases, man himself must be careful not to waste his natural resources. Digital innovation and digital banking have made a significant contribution to sustainable development. Everyone must use digital platforms to save our environment. The online banking system seems to have expanded from 2007 to 2020. By 2020, 4 out of 5 Brits online banking services are expected to be in use.

The Asian market currently has over 800 million online banking users. Again, this is likely to increase. In 2022, that number is 398 million. By 2024, that number could reach 435 million. The following table shows some data:-

Table No. 3 the total number of active online service users in the world.

Year	East and Chine (Million)	North America (Million)	Europe (Million)	Latin America (Million)	Rest of World (Million)
2020	805.1	240.1	361.7	109	387.3
2021	844.4	250.5	379.9	126.4	441.8
2022	885.6	261.4	398.1	146.7	504.9

(Source link no.5)

From above table, it shows that 2022 highest number of internet users is 885.6 million. That is east and china is taken place at first point and that of least is Latin America.

Conclusions: -

The role of commercial banks has always been remarkable in India. The commercial bank is the backbone of the Indian economy. The bank has gained popularity from rural to urban areas by providing financial assistance to Indians. After independence, the Indian economy was strengthened by the Commercial Bank. Due to the various functions of the bank, many functions of the public could be accomplished such as providing loans, accepting deposits. There are scheduled and non- scheduled banks which are very helpful to customer for maintain their balance by economically. There are 34.90% deposits

in Commercial Banks in India in 2022. The highest number of internet users is 885.6 million in 2022. Digital Banking is one more new application of commercial banks which is helpful in saving time and money. The paperless transaction is helpful to control environmental issues.

References:-

1. http://www.ijar.in/journal/journal_file/journal_pdf/14-358-14982087631-4.pdf
2. <https://www.virtanews.in/2021/12/commercial-bank-information-in-marathi.html>
3. <https://www.virtanews.in/2021/12/commercial-bank-information-in-marathi.html>
4. <https://marathitkahitri.com/digital-banking-in-marathi/>
5. <https://bankexamportal.com/article/the-importance-of-digital-banking-in-the-changing-financial-environment>
6. <https://www.finder.com/uk/digital-banking-statistics>
7. <https://m.rbi.org.in/scripts/PublicationsView.aspx?id=20797>
8. Dr.Kodak .V.B., 2013, “Recent Trends in Commerce and Management”-Recent Trends in Commerce and Education, ABS Publication Varanasi. pg.no.79.
9. Dr.Mithani, D.M. 2015, “Principles of Economics”-Consumer’s Behaviour, Himalaya Publishing House, pg.no.47-80
10. Dr Durge.Asavari and Bele Akash, 2018, “Marketing Management”-Consumer, Industrial and Market, Sai Jyoti Publication, Nagpur pg.no.62-86.
11. Dr Durge.Asavari and Bele Akash,, “Marketing Management”-Consumer Behaviour, Sai Jyoti Publication, Nagpur, pg.no.198-218
12. Dr Durge.Asavari and Bele Akash,, “Marketing Management”-E-Marketing, Sai Jyoti Publication, Nagpur pg.no.303-304.
13. The Hitwada, Nagpur, Business, Sat, 6th November 2021, pg.no.7.
14. The Hitwada, Nagpur, “Amazon India to empower women entrepreneurs”, on Business, Sat, 20th November 2021, pg.no.7.
15. Business Ethics And Corporate Governanace,-Social Sustainability and Business., MBA 201. Yashwantrao Chavhan Maha. Open University. Book Code **MBA 201**, pg.no.77 -78.

16. Marketing Management,-Rural Marketing., MBA 204. Yahswantrao Chavhan Maha. Open University. Book Code **MBA 204**, pg.no.163-170.
17. Patel Bimal N (2018), “Sustainable Development and India”, OXFORD University Press Publication.pg.no.11 and 29.
18. Ossewaarde Martin J. (2018), “Introduction to Sustainable Development”, SAGE Publication Indian pvt.ltd.pg.no. 251
19. MED-008(2018), “Globalisation and Environment”, Gullybaba Publishing House (P)ltd.pg.no.183.
20. O Level Module 4, module M4:R5(Jan 2020), “Internet of Things(IoT) and its Applications, T Balaji Publication,Uttar Pradesh. pg.no.1



A STUDY OF ONLINE BUYING BEHAVIOR OF CUSTOMERS

Dr. Prakash Krishna Tone¹ Mr. Naganath Dnyanoba Banasode²

^{1,2} Assistant Professor, Savitribai Phule Mahila Mahavidyalaya, Satata

Email Id: tonepk76@gmail.com

Email Id: nbanasode@gmail.com

Abstract

This study examines the consumer buying behavior through online market. Objective of this study is concept of online marketing and online buying behavior of consumer/customers. Both primary and secondary sources have been used for this study. Primary data collected from respondent with the help of interview schedule. For the analysis purpose 37 have been selected as a sample through convenient sampling method. Researcher find out that 46% respondent purchase electronics product through online websites. Researcher conclude that most of customer buy goods and services through on online website also they prefer cash on delivery services and the customers are satisfied online services.

Key Words: Online Marketing, Online consumer buying behavior, Customer satisfaction.

Introduction:

Recently online shopping has become very popularly increase due to convenience. Consumers are buy and shop goods and services by using internet. By using internet marketing Many companies using marketing strategy for cost saving. Online shopping has its disadvantages too, we cannot touch and feel the item, delay in shipping, shipping charges make product costly specially in low cost items, risk of down your money, Stolen your card details etc. Online buying/Purchasing is the process whereby consumers/customers directly buy goods or services from a seller in real time without any intermediate person through the internet. It is a platform of electronic commerce. The total selling and purchasing transaction is completely electronically in real time. Some time intermediary may be present in some transaction and websites. A large percentage of electronic commerce is conducted completely in electronic form for essential items such as access to premium content on a website, but regularly

electronic commerce involves the transportation of physical items in some way. Online retailers are sometimes known as e-trailers and online retail is sometimes known as e-tail. Almost all big retailers are currently electronically currently on the World Wide Web.

Objectives:

1. To study the concept of On-line Buying.
2. To study the consumer behavior online buyers.

Significance of the study:

1. This study is useful to the business man which is related to online marketing.
2. This study is useful to people that people he doesn't know about online purchasing.

Research Methodology:

The investigation is based mainly on primary data. Researcher selected 37 respondents from the study area. 'Convenient Sampling Method has been used for the purpose of sample. Present researcher has collected data through structured interview schedule and personal observation. In addition the necessary secondary information collected from periodicals, books, websites and internet.

Conceptual Framework:

Definition of Online Buying Behaviour

Use of the Internet for trade shopping has extended massively in recent years and has had a profound influence on the shopping process for many consumers. Online buying behaviour is a type of behaviour which is exhibited by customers while Browsing websites of an e-tailer in order to search, select and purchase goods and services, in order to fulfill their needs and wants. It's basically a behaviour which is reflected by the buyer for the duration of the process of buying through the internet websites.

Data Analysis and Interpretation:

Table No 1 What do you like most about online shopping

Sr. No	Particulars	Frequency	Percentage
1	Save Time	9	24%

2	Choice	8	22%
3	Superior selection/Availability	5	13%
4	Cheaper price/Discounts	8	22%
5	Convenience	4	11%
6	Product comparisons	3	8%
	Total	37	100%

(Source: Field Work)

Table 1 showing online shopping. 24% respondent are like online shopping because of save time. 8% respondent like online shopping because of in online shopping product can be compare each other at different approach such as price, quantity, quality, features etc.

Table 2 Satisfied about online shopping

Sr. No	Particulars	Frequency	Percentage
1	Satisfied	20	54%
2	Highly Satisfied	8	22%
3	Neither satisfied nor dissatisfied	7	19%
4	Dissatisfied	2	5%
5	highly dissatisfied	0	0%
	Total	37	100%

(Source: Field Work)

Table 2 showing satisfaction about online shopping 20 respondent are satisfied about online shopping that mean they can satisfy about online services i.e., 54%. 5% respondents are dissatisfied about online buying.

Table 3 Sides using for online buying

Sr. No	Particulars	Frequency	Percentage
1	Flipkart	21	57%
2	Snapdeal	2	5%
3	Amazon	14	38%
4	Home shop 18	0	0%
5	Ebay	0	0%
6	Croma	0	0%
7	Ezone	0	0%
8	Indiatimes	0	0%
	Total	37	100%

(Source: Field Work)

Table no 3 showing side using for online purchasing.21 Respondent i.e. 57% are using Flipkart web site. The Flipkart was founded by Sachin Bansal and Binny

Bansal students of Indian Institute of Technology, Delhi in 2007, currently very popular website for online purchasing product and services.

Table 4 Where do you discover for product

Sr. No	Particulars	Frequency	Percentage
1	Specific site for specific product categories	13	35%
2	Google search	14	38%
3	Social media	4	11%
4	Price aggregator sites	2	5%
5	Others	4	11%
	Total	37	100%

(Source: Field Work)

Table 4 showing discover product information on web site at the time of Using Internet the advertisement notifications are receive in your screen. Most of internet user using Google search engine and it is very popular and large number of internet user's use for searching other information. sometime other information search on net then product and services notification receive and the customer can go on that website. 38% are using Google search engine for the purpose of online buying. 5% respondents are use for online buying at price aggregator sites.

Table 5 Is shopping online- Safe

Sr. No	Particulars	Frequency	Percentage
1	Depends on the store	23	62%
2	Safe	8	22%
3	Unsafe	6	16%
	Total	37	100%

(Source: Field Work)

Table 5 showing information about online buying safe or not. 23 respondent 62% are respond that online buying is safe or not is based on store. Some online store are safe and they provide correct information/ services to the customer hence the customer also feel safe at the time of buying goods and services. 16% are respond online shopping is not safe i.e. Unsafe.

Table 6 Frequency of online shopping

Sr. No	Particulars	Frequency	Percentage
1	As needed	23	62%

2	Once a month	8	22%
3	Once a week	4	11%
4	Once in few days	2	5%
	Total	37	100%

(Source: Field Work)

Table 6 showing information about frequency of online shopping. 62% are purchase online product whenever they need product and services they purchase.11% are purchase goods in once a week.

Table 7 With whom do you shop online

Sr. No	Particulars	Frequency	Percentage
1	Alone	11	30%
2	With Friends	13	35%
3	With Family	8	22%
4	Any other	5	13%
	Total	37	100%

(Source: Field Work)

Table 7 show with whom do you shop product online. 35% respondent are buy goods with friends that means some people does not know about product or services information and they feel uncomfortable at the time of buying process in online. 30 respondents buy product Alone.

Table 8 Most frequently purchased category

Sr. No	Particulars	Frequency	Percentage
1	Electronics	17	46%
2	Clothing & Fashion	6	16%
3	Books & Media	2	6%
4	Accessories	2	5%
5	Home décor/ Furniture	2	5%
6	Deals from local service Providers	0	0%
7	Other	8	22%
	Total	37	100%

(Source: Field Work)

Table 8 showing information about most frequently purchased category product and services. 46% respondent purchase electronics product currently the electronic product selling growth is higher than other product and services. Only 5% respondent purchase furniture and accessories. Furniture is easily available from local service provider hence the people don't purchase furniture and accessories goods.

Table 9 What are the payment methods you generally use for Online Purchases

Sr. No	Particulars	Frequency	Percentage
1	Credit Card	2	5%
2	Debit card	6	16%
3	Net Banking	1	3%
4	Cash on Delivery	27	73%
5	Gift Cards & Promotional codes	1	3%
	Total	37	100%

(Source: Field Work)

Table 9 show payment methods generally use for online purchasing. The higher number of respondent purchase goods and when delivery has been receive than payment can be give. 73% respondent are use cash on delivery services for online purchasing process. Only few respondents i.e., 3% are using net banking and gift cards & promotional codes services use for purchasing product.

Table 10 Most amount spend in single transaction

Sr. No	Particulars	Frequency	Percentage
1	Rs.250-1000	22	59%
2	Rs.1001-2000	8	22%
3	Rs.2001-10,000	2	5%
4	Rs.10, 001-50,000	5	14%
5	Rs.50, 001-100,000	0	0%
	Total	37	100%

(Source: Field Work)

Table 11 show information about spend amount in single transaction. 59% respondent purchases goods for rupees only 250 to 1000 rupees only they cannot believe on online product hence they purchase only low price product. Only 14% respondent are purchase goods rupees 10001 to 50,000 rupees amount that mean the customer are well aware about online marketing and they are believe on online marketing, some time they get more discount and less price.

Finding:

1. In this survey 46% respondent purchase electronics product through online websites.
2. 73% respondent is use cash on delivery services for online purchasing process.

3. 59% respondent purchase goods for rupees only 250 to 1000 rupees.
4. 21 Respondent i.e. 57% are using Flipkart web site for the purpose of online purchasing.
5. satisfaction about online shopping 20 respondent are satisfied about online shopping that mean they can satisfied about online services i. e. 54%

7. Suggestion:

1. The online selling companies provide fair services to the customers. The companies can sell their product with lower price but they can maintain/provide qualitative product to customers.
2. At the time of buying the goods and service the customer should aware about website and they read all instruction about that goods and services and prefer cash on delivery services because in cash on delivery process you should check you product and service at the time of delivery and then give payment of that person.

Conclusion:

Researcher conclude that online marketing is in future mandatory to all business organization because the customer needs are increasing trends. Today customer is very fast they need product and services immediate without any time consuming and lower price. There are various online side for purchasing goods and services and also, they provide cash back services, discount, home delivery, less cost, post purchase services, cash on delivery, loan facility, credit card facility etc. But the customer some time can't believe on online website hence they purchase only low price product.

Referances:

1. T.Kavitha (2017) Consumer Buying Behavior of Online Shopping - A Study. *International Journal of Research in Management & Business Studies (IJRMBS 2017) Vol. 4 Issue 3 (SPL 2) Jul. - Sept. 2017 ISSN : 2348-6503 (Online) ISSN : 2348-893X (Print)*
2. Dr Rizwana Bashir and Irsa Mehboob(2015) Effects Of Online Shopping Trends On Consumer-Buying Behavior: An Empirical Study Of Pakistan. *Journal of Management and Research Volume 2 Number 2*

3. Umair Cheema and Muhammad Rizwan Rizwan, The Trend Of Online Shopping In 21st Century: Impact Of Enjoyment In Tam Model *Asian Journal of Empirical Research* 3(2):131-14.
4. Mamta Chawla And Dr. Mohammad Naved Khan Online Buying Behaviour: A Brief Review And Update. *AIMA Journal of Management & Research*, May 2015, Volume 9 Issue 2/4, ISSN 0974 – 497 Copy right© 2015 AJMR-AIMA.
5. Mohammad Anisur Rahman and Md. Aminul Islam (2018)Consumer buying behavior towards online shopping: An empirical study on Dhaka city, Bangladesh. *Rahman et al., Cogent Business & Management* (2018), 5: 1514940.
6. Dr.R.Shanthi and Dr. Desti Kannaiah (2015) Consumers' Perception on Online Shopping, *Journal of Marketing and Consumer Research* www.iiste.org ISSN 2422-8451 An International Peer-reviewed Journal Vol.13, 2015
7. M Mallika Rao and Madasu Bhaskara Rao Factors Affecting Female Consumer's Online Buying Behavior *Academy of Marketing Studies Journal* Volume 22, Issue 2, 2018.



E-COMMERCE : CHALLENGES IN INDIA A STUDY

Miteshkumar B.Panchal¹ Dr.Maheshkumar C. Rathva²

*Ph.D. Scholar, Shri Govind Guru University Godhra[Gujarat]
Shri J.L.K.Kotecha Arts & Smt. S.H. Gardi Commerce College, Kakanpur,
Godhra [Gujarat]
Email- miteshkumar.b81@gmail.com*

Abstract :

E-commerce is the buying and selling of goods and services over the internet. It is conducted over computers, tablets, smart phones, and other smart devices. Almost anything can be purchased through e-commerce today. It can be a substitute for brick-and-mortar stores, though some businesses choose to maintain both. This discuss the e-commerce challenges which effect the economy directly. In this paper we used secondary data like website, articles etc.

Key words : E-commerce, Challenges, Economy, Impact, Growth, Business

Introduction :

Day-by-day, the growth of the e-commerce market in India is expanding as it attracts lots of retailers to have an online store to boost their business worldwide. We all know that India is the second-most populous country in the world, and it is the home of 1.2 billion people. It is true that India's per-capita purchasing power is low, but still, the country is the most attractive emerging market for the e-commerce industry.

The major problem is the e-commerce business or retailers are facing various challenges in the Indian market, and it is not easily possible for them to study their legs in the market and do business. Below, Here are the challenges that e-commerce businesses face in India.

1st Challenge – In India, Cash on delivery :

Cash on delivery is the preferred payment mode. Indian buyers still believe that money should be paid only when item is in hand. It may be on line of a physical shop. Indians have tendency to keep cash in hand while paying on line. Indian buyers are not confident whether money has reached to the seller and whether the purchased item will be delivered or no. COD system discourage the online payments.

<http://www.ijaar.co.in/>

In India, most people prefer to pay cash on delivery due to the low credit card diffusion and low trust in online transactions. Not like electronic payments, manual cash collection is quite perilous, expensive and laborious.

According to Nielsen's Global Connected Commerce Survey¹(Business Insider) about 83% consumers in India preferred using cash on delivery as a mode of payment for online purchases. Consumers still either to use credit cards due to online fraud risks. A report highlights that majority mode of payment made by consumers for online sites like Flipkart was COD, 72% from major cities and 90% from smaller towns, most of the buyers still prefer Cash-On-Delivery payment model. Payment options like Net-Banking, Credit & Debit Cards and E-wallets combined contribute to only about 30% of all online purchases, as compared to Cash On Delivery (COD)

COD is convenient for buyers but extremely inconvenient for retailers and vendors. It hinders cash flow as such orders take longer to close. It often takes months for the money to reach the seller, that too if there's no refund/return request. This makes it difficult for them to gauge or maintain daily operations.

Although Government of India along with financial organization has been trying their best to reduce cash transactions and boost digital payments to improve economy.

2nd Challenges – Internet penetration is low :

In India, Internet penetration is quite low as compared to several western countries like the USA, UK, France, and more. Still the country is a small fraction of what other countries are getting.

Internet penetration in India is still a small fraction of what you would find in several western countries. On top of that, the quality of connectivity is poor in several regions. But both these problems are fast disappearing. The day is not when connectivity issues would not feature in a list of challenges to e-commerce in India.

¹ <https://onlinesales.ai/blog/cash-on-delivery-ecommerce-growth-india>

3rd Challenges - Indian customers return much of their products they buy online :

It is true the e-commerce in India has lots of first-time buyers. It means, they are still not sure about what to expect from e-commerce websites, thus purchasers fall prey to hard sell. Finally, when the product is delivered, they started feeling regret and return the goods. Therefore, customers' regret is the biggest problem majorly in India. This creates a hole in a seller's, the logistic company's and marketplace's pocket.

for e-commerce retailers, returns are extremely expensive as it shows some unique challenges and it becomes more difficult in cross-border e-commerce.

A study² conducted by RedSeer in 2017 says that e-commerce firms especially sellers listed on these sites are losing out due to high returns of around 30% of GMV which may increase to 40% for apparel according to a study conducted by RedSeer in 2017. These numbers reach their peak during festivals and sales.

e.g. Amazon incurred a loss of 5,849.2 Cr in FY20 despite revenue growth by 43%(Moneycontrol,2020), similarly Flipkart reported a loss of Rs 3150 Cr³

4th Challenge-Many times, postal addresses are no consistent :

Once if you place as online order, you will get a call from the company, asking about your exact location. The given address is not enough because there is always a little standardization while writing post addresses. It is one of the biggest challenges faced by e-commerce in India. The logistics challenge in India is not just about the lack of standardization in postal addresses. Given the large size of the country, there are thousands of towns that are not easily accessible. Metropolitan cities and other major urban centers have a fairly robust logistics infrastructure. But since the real charm of the Indian market lies in its large

² Mukul, P. (2018, April 6). E-commerce firms losing over 30 per cent of GMV due to cancellations/returns. The Indian Express. <https://indianexpress.com/article/business/business-others/e-commerce-firms-losing-over-30-per-cent-of-gmv-due-to-cancellations-returns-5125471/>

population, absence of seamless access to a significant proportion of prospective customers is a dampener.

5th Challenge-Security and privacy :

These days, the more pressing issues related to e-commerce are privacy and security. There is no protection offered either by site or outside watchdogs against problems created by endangering

6th Challenge-Supply chain issues :

Many a time timely delivery is a major challenge faced based upon the infrastructure, location and unavoidable roadblocks during transitions that lead to the cancellation of orders. An annoyed customer is a lost cause if the product is not delivered on time. This is a tedious procedure that requires a lot of R & D on part of all the e – commerce platforms selecting the supply chain model. So, these were the top challenges that majorly faced by e-commerce business in India. It is also important to note that e-commerce giants are increasing in India, and many cross-border e-commerce to India is also expanding. So, if you also want to make an online store for your business, you should hire a professional e-commerce developer.

So, these were the top challenges that majorly faced by e-commerce businesses in India. It is also important to note that e-commerce giants are increasing in India, and many cross border e-commerce to India is also expanding.

7th Challenges Future phones still rule the roost :

Though the total number of mobile phone users in India is very high, a significant majority still use feature phones, not smartphones. So, for all practical purposes this consumer group is unable to make e-commerce purchases on the move. Though we are still a couple of years away from the scales tipping in favor of smartphones, the rapid downward spiral in the price of entry-level smartphones is an encouraging sign. I expect that the next few quarters will witness announcements of new smartphones in India at the \$30-40 price point. That should spur growth in smartphone ownership.

Conclusion and Suggestion: Everyday e-commerce is becoming more complex. Over the last 5 years, the Indian e-commerce industry has witnessed an upsurge

with a significant headroom for future growth. According to recent report, the Indian e-commerce market is predicted to reach 300 to 350 million buyers by 2025. In today's convenience-oriented society, consumers no longer want to venture around the city for items but want to shop in their homes, making e-commerce a flexible solution for both business and shoppers.

While Smartphone and other new devices have allowed users to shop and communicate seamlessly with the brands, it is also surrounded by privacy controversies and concerns revolving personal data. Consumers are increasingly getting worried about access to their data and the fact that almost the entire data generated by them is owned by just 4-5 large companies in the world.

E-commerce companies process a huge amount of data every day ranging from user clicks to personal credit card or financial information.

This sensitive data can be misused for advertising purposes or handed to other third parties for financial gains.

Some of the widely know examples of data breaches and privacy abuse include Cambridge Analytic , the British Airways, and the most recent closer-to-home, Big basket is October 2020, which impacted around 20 million Indian users.

Some of steps can be taken to deal with challenges are :

1. Encouraging digital wallets through exclusive offers.
2. Tying up with banks for special cash-back and discount offers when paid using card.
3. Charging extra for COD orders.
4. Payment through card upon delivery
5. Putting a cap on acceptable COD order value, quantity and product type.
6. Avoiding public wi-fi networks for their data security and privacy.
7. Hire a professional e-commerce developer.
8. Need to make a strong law and its Strictly implementation
9. Need to make a strong law and its Strictly implementation.:
10. Stricter data privacy laws and policy frameworks are now being vehemently advocated to ensure fair competition and consumer protection in the world's fastest-growing e-commerce market. Data protection Bill and India's e-

commerce policy will help standardize data privacy laws across the EU, Canada, California, and India.

11. E-commerce companies will have to store sensitive and critical data in servers located in India only.
12. If e-commerce companies want to process sensitive personal data outside India, they'll have to take explicit permission of the users before transferring the information.



NATURAL FARMING AND PRICE POLICY IN INDIA

Rajendra Baburao Mithari
D.R.Mane Mahavidyalaya, Kagal.
Email- rajendramithari8362@gmail.com

Abstract

India is one of the prominent agricultural centered Nations approximately more than 58 % of the population related to agricultural sector. It is the crucial importance of agriculture in Indian Economy pertaining to economic growth. Before Independence, in the British era there was pressure to food security due to uncontrolled population growth and frequent natural calamities like droughts. Government of India was given focus to agriculture sector in first five year plan (1951-56). Hence the chief objective of first five year plan was to restore the disequilibrium created by the Second World War and the Partition. In 1961 The Indian Government has been adopted Green Revolution farming practices by using chemical fertilizers for cultivation diseases and weed management. (<https://en.wikipedia.org/wik>)

There was increase in production and productivity due to chemical or conventional farming and our country was able to satisfy partly the food security with raising ample food grain production. But after 40 years of independence productivity of Indian agriculture declined drastically with high input cost for marginal farmers. It turned to be unfavorable occupation with high water consumption, unfavorable price number of natural and manmade issues. In this condition people are thinking on Natural Farming which is sustainable.

In this paper, study is done about types of farming, present status, productivity, and its impact on human health. The predominant question then is how can the farmers shift from a chemical-intensive agriculture to one that is based on the utilization of natural systems, and still maintain their economic Viability. It is encouraging that there are some efforts now underway by university researchers, the Indian government, and the private sector to develop nature farming as an alternative to chemical based agriculture.

<http://www.ijaar.co.in/>

Introduction

The share of agriculture in GDP registered a steady decline in 50% in 1950-51, 36.4% in 1982-83, 18.5% in 2006-07, and 13% in 2008-09. Even through large number of farmers and farm labours are migrating from this sector, 52% of the people are still in farming contributions only 13% to GDP. This reveals clearly that there is no change to have growth in income of farmers and farm labours. The existing Chemical Fertilizer holds 98% of share in farming. Prior to 1965, our country followed 100% Natural Farming practice without chemicals fertilizers and pesticides. (K. Guruswamy 2010). The importance of the natural farming in human life is that it deals with various health issues. Due to this developed countries are returning to undisruptive Natural Farming practice. But in India, Natural Farming practice is less than 2% since government institutions are not supported to Natural Farming. Natural Farming in India is still at an emerging stage. To extent it into a mass movement, government must take big steps. Natural Farming will address the ecological and economic crises in Indian agriculture. Only by using farming methods that are sustainable in the long run will Indian agriculture, and India, become truly independent. Natural Farming or Zero Budget Natural Farming (ZBNF) has become a revolve point of discussion among the agricultural scientists, government, farmers and several other informal groups engaged in agriculture in respect of prices. Agriculture in India has witnessed several technological advancements. In mid 1960 'Green Revolution' (GR) transformed India from food scarce country to food surplus. However, it also leads to unfavorable impacts like, soil degradation, biodiversity losses, rising cost of cultivation, and consequently rise in prices. Etc. Rising application of chemical fertilizers and pesticides with stagnating/ declining crop productivity dovetailed with uncertain market conditions and climate change effect resulted into unremunerative agriculture. Consequently, large number of farmers falling into debt trap and distress in farming sector became pervasive. In due course, organic farming started gaining importance. (<https://www.cseindia>). In view of these developments, efforts are now underway to evaluate nature farming as an alternative, mainly; the research being

conducted is focused on the input side of production. This research is directed toward minimizing or reducing the input costs of production. This is referred to as Minimum Input Farming. The objectives of the research are twofold: to determine how best to minimize the use of chemical fertilizers and pesticides. The following research is directed toward minimizing the use of chemical fertilizers.

Farming System in India:

In Indian Economy Farming system are deliberately adopted, according to the regional atmosphere where they are most suitable. The farming systems that drastically contribute to the Indian Economy are Subsistence farming, Chemical Farming, Organic farming, Industrial farming and Natural farming.

Subsistence Farming: it occurs when farmers grow food crops to meet the needs of themselves and their families.

Chemical Farming: Chemical farming is done by using chemical pesticides, fungicides and by using artificial fertilizers which not only harms plants but can also pollute the surrounding environment, if put in excess. Also if these chemicals are used over a land for a long time the land starts losing all its minerals and other useful stuffs hence leaving the land useless.

Organic Farming: it is an agriculture system that uses fertilizers of organic origin such as compost manure, green manure. While organic farming is done with minimum use or no use of chemicals. In this type of farming, manure and natural fertilizers are used which are biodegradable and thus do not pollute the environment. Also, it has an advantage over land that land is always fertile.
https://www.answers.com/Q/What_is_chemical_farming

Industrial Farming: it is a form of modern farming that refers to the industrialized production of crops and animals like eggs or milk.

Natural Farming:

Natural farming is a system where the laws of nature are applied to agricultural practices.

<https://www.google.com/search?q=Why+is+natural+farming>

Zero Budget Natural Farming in Perception of Shri. Subhash Palekar:

India is projected to be the heavily populated country in the world by 2030, with 1.51 billion people. In this situation ensure food security for all people is the biggest challenge in front of the policy makers and government. Thus adopting better farming practices at large scale without assessing its scientific capability will be negative impact on crop yield and food and nutritional security. In 1961 Indian Government had adopted “Green Revolution” (intensive use of HYV seeds, chemical fertilizer and irrigation) which given result in overcoming the food shortage in the country. However, it led to considerable adverse environmental impacts, such as soil degradation, greenhouse gas (GHG) emissions and biodiversity losses etc. With studying these drawback of Conventional Farming practices, In 1990s Shri. Subhash Palekar promoted Zero Budget Natural farming which is a unique Chemical free farming practice that is considered to be agroecology-based diversified farming system. According to Sh. Subhash Palekar, the ZBNF/NF has following 4 essential components:

Jeevamritha: Ensuring soil fertility through Cow urine, Cow dung, intact soil, pulses flour, and jaggery.

Beejamritha: seed treatment with cow dung, urine and lime based formulations.

Mulching: Using polycropping and different mulches with trees, cropbiomass to conserve soil moisture and adding organic carbon.

Whapsa: water Vapour condensation through activating available earthworms.

Subhash Palekar, promoter of the concept Zero Budget Farming eliminated the labour shortage problem and reduces the input cost to the bear minimum. He claims that ‘Green Revolution had poisoned air water and food because of the application of chemical fertilizers and pesticides. It also polluted the soil forcing the farmer to add more and more fertilizer and had finally denuded the land to the extent that productivity has started coming down. The repeated use of fertilizer and pesticide pushed farmers into debt trap and unable to come out of the clutches of money lenders, many farmers committed suicide. The only alternative for farmers is to reduce the cost of cultivation will come

down. Soil, water, crops and the produce firm healthy, making agriculture, a profitable occupation for farming. Indian agriculture for long remained sustainable only because of the low external input factor and that it turned bad only after the advent of foreign companies which sold “poisons” by marketing them at medicines. Zero Budget farming appears to be superior to both Conventional Farming and organic farming since it solves the problem of labour shortage and marketing which are perennial problem in agriculture. Further study can be undertaken comparing all the three types of farming practices to arrive the best one for India.

Objectives of the study

1. It generates full time employment for farmers and agricultural labourers.
2. It improves water holding capacity of soils.
3. Draught resisted seeds are available to overcome irregular seasonal rain and considerably more climate friendly.
4. No loss of life due to least debt and better price.
5. It is labour and knowledge intensive.

Hypothesis

Prices in Natural farming are cost intensive and quality scarceness.

Natural Farming is alternative to Organic and Chemical farming.

Methodology

This paper presents the results of the secondary data which is university-based research initiative on natural farming, including a discussion of its implications and some policy imperatives. We hope the paper will answer some of the critical questions pertaining to Natural Farming. However, at the same time, it also opens new vistas for research with many key researchable questions which need to be systematically investigated to understand the causality and long-term impact of Natural Farming. The secondary data regarding agricultural status of the districts was collected through document review and through the websites such as Science direct, Springer, Scopus, World Bank, etc.

Conclusions

Thus from a policy perspective, there is a need for public and private initiative. On several fronts-increased investment in resource management, research and extension, The shift from chemical agriculture to nature farming systems requires a change in the farmers attitude and philosophy of life. It requires changes in his life style, consumption pattern, and value orientation. But it will take more than this. Hence, the pronouncement 'turn waste into useful products' was a necessary survival strategy. It mentions that Natural Farming may not be yield enhancing but helped in improving farmers' income by reducing cost of cultivation, and attracting better product price. It improved significantly owing to less input cost and attracting premium price for chemical-free produce. Thus the paper put forward suggestions like natural farming as an alternative option for the producers & the consumers for chemical-free produce. (<https://naarm.org>.)

Suggestions and Recommendations

1. The farmers should be provided specific information about Natural Farming
2. Government has to provide scientific information in less cost to farmers.
3. Need of research institution for the research of nature Farming.
4. Need of organize conferences, workshops and study tours to farmers on Natural Farming.

References

1. https://en.wikipedia.org/wiki/Green_Revolution#Start_in_India
2. https://naarm.org.in/wp-content/uploads/2021/07/2020_NITI_Natural-Farming_Naarm-Crida-1.pdf
3. Prof: K. Guruswamy - Dr. K. Balanaga Gurunathan 2010), Prof., Journal Of Contemporary Research In Management
4. January - March, 2010)
5. <https://www.cseindia.org/state-of-organic-and-natural-farming-in-india-10346>
6. <https://www.google.com/search?q=Why+is+natural+farming>
7. <https://naturalfarming.niti.gov.in/>
8. https://en.wikipedia.org/wiki/Green_Revolution#Start_in_India



ROLE OF LANGUAGE IN DIGITAL MARKETING

Dr. Amar Lahu Powar

*Assistant Professor, Shri Vijaysinha Yadav College, Peth Vadgaon
Tal. Hatkanangale Dist. Kolhapur, (Maharashtra).416112*

Email- Amarpowar176@yahoo.in

Abstract

The present paper highlights study role of language in digital marketing. Now a day marketing is the key in the new consumer base market in order to get success. There are many new techniques in the new situation to advertise the products and the language in the situation plays vital role. This paper tries to focus on different facts about the language used in the advertisement. There are varieties of medium to advertise the products like social media face book, what sup, instagram, Radio, television, digital board, cable system in the home on television, news papers, and magazines. e.t.c. It is very interesting to know that there are many variations regarding language used in the above mentioned mediums for advertisements. It is the effort of the researcher to study the languages used in the advertisements In short the present study focuses on the language used in the social media and mobile phones for digital marketing of any kind of productions. Digital marketing refers to marketing process which appears on laptop, computer and mobile phones, this research paper focuses on the language used in such devices for advertisements. It is studied in this research that how language s deviated from their traditional uses in the digital marketing.

Introduction:

India is now one of the fast developing nations in the digital marketing areas. Many national multinational companies are involved in the digital marketing field because it is the fast result medium for the companies to sell their productions. But in reality it is found that the success for marketing is not only digital marketing but proper use traditional marketing and digital marketing In Digital Marketing the intention of the promotional advertisement is to promote the particular production in such way that there must be increase in the sell of that specific production and it must enhance production and make it popular. The experts in that particular area think about the local culture and the local language for promotion of that particular production. If they avoid

<http://www.ijaar.co.in/>

about the culture and language of that area where production is going to sell then it will surely impact on the sale ratio of the production. Therefore the local culture and the language used in that area need to consider while promoting any kind of production. Digital marketing studies in detail the customer, their age group, their interests, their hobbies, their choices in the market and all these details are considered while promoting any products in the markets. There is very systematic study of the market and after that the products are launched with some proper strategies of the advertisements.

We all thought that there is only one language exists in the internet that is English, but that is not the case English language used on the internet or in the promotional advertisements is literally hybrid language which is mixture of two or three languages. English language purely does not exist in the internet or in digital marketing. There are many linguistic changes found in the history of English language in today's digital marketing, social media internet or traditional marketing. The today's generation has grown up with internet, computer and mobile phones and by their side they have also developed the special language, dialect and slang of English language which is very away from the traditional English language. These new generation have deviated from the old traditional English and they have taken many advanced steps in the creation of tone and pitch to convey their messages, emotions and passions, by experimenting with old traditional English language and mixing it with regional languages like Punjabi, telgu, Marathi, kannada or Gujrati. Therefore it is interesting to know the changes taking place within the language in the new area of internet and digital marketing.

Digital Marketing:

Digital marketing is any kind of marketing where electronic devices like T.V. Computer, mobile phones, laptop, tab, are involved. Digital marketing can be both online as well as offline marketing. *According to institute of direct marketing- "the use of internet and related digital information and communication technologies to achieve marketing objectives is consider as digital marketing."* Digital marketing is always compared with the traditional marketing like news papers, bill boards, direct emails, pamphlets etc. Digital

marketing is also connected with the social media, online videos, display ads, search engine marketing and popup advertisements on social media. Digital marketing is online connection with the potential customers for the promotion of productions using internet and other forms of communication. There are some strategies in the digital marketing like they finalize the goal first then decides use of available tools which will effectively reach at the target customers. According to C.A.M. foundation -“Digital marketing is broad discipline, bringing together all forms of marketing that appears through electronic devices- online, on mobile, on screen.

Types of Digital Marketing

There are many kinds of Digital Marketing as researcher we considered the type of digital marketing as follows.

Search Engine Optimization:

Search engine optimization is technically a marketing tool than form of marketing itself, this is art and science of making attractive web pages for search engine.

Content Marketing:

Search Engine Optimization is important part of content making; it is kind of strategies to distribute relevant and important information to target audience. The goal of content is to attract the lead that ultimately converts in to customers.

Social Media Marketing:

One of the most popular marketing is social media marketing where many number of target customers are found interlinked together. The most popular platforms for social media marketing are face book, twitter and instagram, with LinkedIn and you tube. Social media is fast developing marketing tool and it is mostly used by the customers.

Pay Per Click Marketing:

Pay per click is posting an ad on platform and paying every time someone clicks on it.

Affiliate Marketing: Affiliate marketing is someone making money by promoting another person’s business. You could be either the promoter or the

business who works with promoter, but the process is the same in either case. Some affiliate marketers choose to review the products of just 01 company, perhaps on a blog or third –party site. Others have relationships with multiple merchants.

Native Advertising:

Native advertising is marketing in disguise. Its goal is to blend in with its surrounding content so that it's less blatantly obvious as advertising. Native advertising was created in reaction to the cynicism of today's consumers toward ads.

Email Marketing:

The concept of email marketing is simple. They send a promotional message and hope that your prospect click on it. first of it is observed that emails are wanted Email marketing is a proven, effective technique on all its own : 89 % of surveyed professionals named it as their most effective lead generator.

Role of Language in digital Marketing:

There are many languages all over the world advertisement agencies are using them for advertising products but there are somehow twenty major languages all over the world use to communicate with 80 % of the world's online population, but most of the communication is carried in English languages. English is one of the prime language of the web or internet

The use of language in marketing is very important factor. The age group on the internet is mostly 18 to 38 age, it is found that, more than fifty percent people prefer English language than any other in the world. Most of the buyers prefer to buy products if they found their own language in the advertisements. In short they support the products if the mother tongue is used for advertising the products. It is seen that most of the consumers expect the details of the production at their devices, means they want easy and fast access of the information of the production.

Some Important Slogans for Advertising products: There are many production companies in India they uses perfect slogans for advertisement purposes in marketing field which are effective and everlasting in the mind of consumers, here are some of them.

1. “Just do it” – Nike
2. “Think Different”- Apple
3. “Its Finger Lickin Good” – KFC
4. ”Share a Coke” – Coca Cola
5. “Have a Break Have a Kit Kat” – Kit kat
6. “A Better Life, a Better World”- Panasonic
7. “The Happiest Place on The Earth”- Disney
8. “Smell Like a Man, Man”- Old Spice
9. ” It’s Everywhere You Want To Be”- Visa
- 10.”Grace, Space, pace”- Jaguar
- 11.“I’ m Lovin’ It” – Mc Donald’s
- 12.“Quality Never Goes Out of Style” – Levis

Conclusion:

Whenever we heard about any brand we are immediately able to recall the slogan used in that particular brand. the language of such slogan is very catchy, it is not in the full sentences it is incomplete, grammar is not cared, tenses, punctuation marks are also not that much cared, their intention is to make slogans used in the advertisement must be attractive and consumer should remember it forever. There are many changes regarding syntax rules of English Language and they are the most eye catching and meaningful and it repeated before customers many times to remember it for them. Therefore the language used in the advertisements is very interesting and it is part of research study for the researchers. There is no any fixed structure for use of language in any kind of advertisements but experts they are trying to make it more eye-catching, and best one.

References:

1. TS, Anoop (Dec. 01, 2014). Digital marketing communication "mix". www.linkedin.com/20141201185400-100431809-digitalma
2. Murthy, Srinivas (Jan. 06, 2016). Always keep your customers close and your loyalist closer. articles.economictimes.indiatimes.com > collections > digital marketing.

3. Ryan, Damian. Understanding digital marketing: marketing strategies for engaging the digital generation. Kogan Page Publishers, 2016.
4. Why digital marketing is on rise in India? Let's talk numbers. dsim.in/blog/why-digital-marketing-is-on-risein-India-lets-talk-numbers. Feb. 18 2014



INDIVIDUAL PARTICIPATION PRINCIPLE AND RIGHT TO BE FORGOTTEN UNDER DATA PROTECTION LAW: A CRITICAL APPROACH

Dr. Suresh G. Santani

*G.J. Advani Law College, Bandra, Mumbai, University of Mumbai
E-mail -sureshsantani@rediffmail.com*

Abstract:

Today's world is digital world where the security and protection is the complex but the utmost needed aspect. In the context under the data protection laws the rights of users should be effectively ensured as well as implemented in true sense. To achieve this legal object, the principle of individual participation and right to be forgotten play crucial role. This simply means transparency while processing of personal data and where data should be capable of being influenced by the data subject. The data protection law should allow the users to practically participate in and persuade / effect the mode and way in which one's data can be used by the data controllers and other stakeholders. No doubt the users need to give consent for using one's data but mere consent is not effective mode of ensuring total protection. Self-participation and direct self-right to delete once own data would serve means to have privacy with self-control. No doubt we have few relevant laws and policies in this context but smooth, effective and updated legal system which not only ensures the rights but also the effectual execution of the same is the foundation key of present era of digitalisation and globalisation. No doubt the internet era and digital world are full of complications but it can never the ground to let the laymen be victim of misuse of tools by the delinquents having culpable mind. The adoption of new rights such as right to participation and right to be forgotten is a mean to achieve this object. However, it needs an active and positive role and involvement of all the concerned stakeholders i.e. law makers, service providers, controllers, users, consumers and other government agencies involved in the functioning of digital system.

Rationale of the study: As the world is being rapidly globalised and digitalised the basic rights of the centralised phenomena i.e. users or sharer of data on internet should also be updated and reformed time to time.

Objective of the study: To know the nature, importance and need of crucial rights i.e. right to participate and right to be forgotten.

Hypothesis: In India we do not have adequate legal provisions ensuring the right to participate and right to be forgotten.

Methodology: Doctrine method has been adopted to do the complete justice with the topic and to have the basic complete theoretical knowledge of the subject.

Full Paper:

Today's world is digital world where the security and protection is the complex but the utmost needed aspect. In the context under the data protection laws the rights of users should be effectively ensured as well as implemented in true sense. To achieve this legal object, the principle of individual participation and right to be forgotten play crucial role. This simply means transparency while processing of personal data and where data should be capable of being influenced by the data subject. The data protection law should allow the users to practically participate in and persuade / effect the mode and way in which one's data can be used by the data controllers and other stakeholders. No doubt the users need to give consent for using one's data but mere consent is not effective mode of ensuring total protection. Self-participation and direct self-right to delete once own data would serve means to have privacy with self control.

Origin of Principle of Participation:

This concept is recognised under FIPPS (Code of Fair Information Practices based on Fair Information Practices Principles)¹. It emphasise that -

1. Users should be able to decide what personal data should be in record and that who should be allowed to use shared personal data i.e. including controllers of online platform, service providers and relevant stakeholders.
2. One should be able to change or make corrections/amendments in shared record of information about oneself.

¹ Paul M. Schwartz, Privacy and Democracy in the Cyber Space', 52 Vanderbilt Law Review 1609 (1999).

3. Individual should have right to allow or deny the use of one's information collected for one reasons as to be used for some other purpose with or without consent.

In 1980 the Organisation for Economic Cooperation and Development Privacy Guidelines (OECD Guidelines)² also supported the importance of participation of individuals in the context of data sharing digitally. These guidelines focussed on three rights i.e.

1. The right to ask for verification of self processed data.
2. The right to access once personal data. Including the basic rights such as right -
 1. To know about the purpose of processing the data
 2. To know the period for which the data would be stored
 3. To know about the mode of processing the data.
 4. To file grievances in case of misuse of personal data without consent or otherwise. Etc.
3. The right to confront the correctness of one's personal data.

Hence, saying that principle of individual participation is the base of rest of rights in the context of digital data would not be wrong. With above background the data protection laws should ensure this right.

Possible Challenges:

However, there are certain challenges to ensure this right. These are like:

Expensive Execution: The practical implementation of this right is too expensive for data controllers. While replying the request from the side of data users/individuals fee may be imposed as per existing data protection law. It may be a burden on the only users.

² OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data' (2013), available at:

<http://www.oecd.org/sti/ieconomy/oecdguidelinesontheprivacyandtransborderflowsofpersonaldata.htm>

(last accessed 31 October 2017).

Technological Challenges: Managing a large quantity of data in a systemic mode is itself a challenge for any data controller or service provider. The data is needed to be maintained in various formats and also in mixed variations. Even the inter connectivity amongst data is also a fact that must be managed effectively.

Restricted Rights: Users are generally not able to guess the impact of use, collections of data and misuse of data in current digital world. This also due to low level of understanding about legal provisions and their legal impacts and also low awareness about enforcing mechanism of data protection laws and provision. These facts certainly result into restrictive exercise of rights by users.

Other rights centralised to Right to Participation:

The importance and scope of right to participation is very huge. In addition to right to verification, right to access and right to confront, it also creates few other basic rights such as:

The right to raise objections as to processing: Even where the data has been processed by complying with the legal requirements the same may be objected if it is inconsistent with the recognised rights and interests of user or individuals as against the data controller. Usually such objections can be taken on the reasonable grounds like -

1. Data has been processed ultra viresly i.e. beyond the authorised limits.
2. Data has been process against public interest at large.

Right in case of direct marketing: A communication which is directly connected with specified individuals that is used for marketing is known as direct marketing. Here users may not be aware of or not consented to such direct communication because the marketers may assemble the personal data from various online sources without any prior message.

Right in respect of an automated processing: Automated decisions are those decisions where there is no role of any human intervention. Such decisions may be defective or unfair because of not any uniformed or not any standard mechanism of sampling process. It would certainly affect the transparency of data processing denying the basic rights of users.

Right to prohibit/stop Processing: This right is required to be exercised immediately as provisional remedy is situations like :

1. When the correctness of data is in the dispute.
2. Where the processing is unlawful.
3. Unauthorised use of collected data for the purpose other than the consented one.

Right to Portability of Data: With this right the user can easily shift, carry or spread once personal data from one platform to another digitally. This would ensure protection against being locked into a particular service. It further requires two important aspects i.e.

1. The individual / user should be entitled to obtain the personal data provided by the individual to the controller in a universally used machine readable format.
2. The individual / user should be entitled to convey personal data from one system/controller to another.

Possible Challenges:

1. Expensive operation and execution of such rights.
2. Vague scope and functioning of rights.
3. Inappropriateness for Indian system.
4. Overlie with other segment / definite regulations.
5. Computerized assessment process

Right to be forgotten:

This right entitles the individual users to request the controller or organisations to delete any data about him existing in the digital world / system. This right shows a substantial development in the accessibility and openness of information connected with the digital world. Once the data is uploaded or released on the internet there is every possibility that the users wants to withdraw or remove the same from the internet. One may letter on wishes to keep it secret again or not to continue the open accessibility of once personal data. No doubt it is usually said that once data is made available on the internet it cannot be truly forgotten or removed. The problem is that once the personal

data is available on internet the basic object / aim of uploading the same is lost because the data would be openly available for anybody for any purpose at any time. It may results into humiliation and loss of name of the users / individuals. For example in Google Spain Case³, previous data relating to an attachment and garnishment action against a Spanish individual was all the time the first link whenever anybody do search on internet of this individual's name. This definitely caused defamation of such user.

The Apex Court of India in the case of Sri. Vasunathan⁴ acknowledged the right to be forgotten. The court recognised this right to protect the users in crucial and critical matters involving the women image and status or offences against women or other vulnerable groups like rape, modesty of child defamation cases etc. Even in Justice K.S. Puttaswamy case⁵ our Apex Court observed that the effect of sharing data on internet era is perpetual. Any attempt even from an expert to delete permanently such digital data from the internet world cannot be assured. Human beings are not inactive and are flexible ever are constantly growing. One should be entitled to re-invent oneself and change past actions. It simply means to ensure the right to protect self-data and personal data shared on the internet. This right is a part of right to privacy and right to life under Article 21 of the Indian Constitution.

Possible Challenges:

Balance with the fundamental freedom of speech: Prima facially right to be forgotten implies three different categories of rights that seems to be inconsistent with the freedom of speech and expression⁶.

These rights are : When the data is shared in internet world then the individual/user sharing the data should possess the right also to delete the same from the internet.

³ Google Spain SL and Google Inc. v. Agencia Española de Protección de Datos (AEPD) and Mario Costeja González, Case C131/12, (2014), European Court of Justice.

⁴ Sri Vasunathan v. The Registrar General, 2017 SCC OnLine Kar 424.

⁵ Justice K.S. Puttaswamy (Retd.) & Anr. v. Union of India & Ors., (2017) 10 SCALE 1

⁶ Jeffrey Rosen, *The Right to be Forgotten* 64 *Stanford Law Review* 90 (February 2012).

Re-sharing of data: When the data is shared in internet world and same has been copied by some other and if same has been re-shared on internet by such person i.e. re-shared in once own name and concerned field. They who would have the right to delete that data? Unfavourable Reviews: After sharing the personal day if anyone has posted some comment on once data or if the data has been posted on the internet for me by someone else without my consent and knowledge. Would the right to delete would be there?

Third Parties Liability: The liability of third party e.g. controller or search engines or other service providers is a complex issue to be considered while deciding the scope and implementation of right to be forgotten. But transparency requires the accountability of all the concerned stakeholders.

Relevant Laws in India:

At present we have various laws in India that contain express provisions that deal with the handing out / processing of personal data. Data may be personal data or and sensitive personal data. But now there is a need to re-examine and re-frame or made changes in existing laws in the context of new era of data protection fields. Such laws are dealing with deferent aspect such as:

Financial segment: It includes laws like Banking Regulation Act, 1949, Credit Information Companies (Regulation) Act, 2005, Credit Information Companies Regulation, 2006, The Insolvency and Bankruptcy Code, 2016, Payment and Settlement Systems Act, 2007 and Reserve Bank of India Act, 1934 etc.

Health segment: It covers legislations like The Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002, Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 and The Mental Health Act, 1987 etc.

Information Technology and Telecommunications segment: It includes laws such as The Indian Telegraph Act, 1885, The Telecom Regulatory Authority of India Act, 1997 and Information Technology Act, 2000 including it's Rules and Regulation etc.

Other Miscellaneous Laws: In addition to above referred laws few other laws are also directly or indirectly connected with the data sharing process. Such laws

are like The Aadhaar (Targeted Delivery of Financial and other Subsidies, Benefits and Services) Act, 2016 including Regulations, Census Act, 1948, Collection of Statistics Act, 2008, Consumer Protection Act, The Act of 1986, Right of Children to Free and Compulsory Education Act, 2009 and Right to Information Act, 2005 etc.

Foreign Provisions:

Sufficient legal protection can be easily traced in other countries that ensure safety of individuals who shares data on the internet world.

European Union:

The General Data Protection Regulation, 2016 at European Union ensures the right to obtain information relating to -

1. Complete details and status of the data controller and service provider.
2. The use of processing information, storage time period, methods and process of automatic decisions.
3. The legality of processing information method and platform.
4. The nature and scope of other legal rights of user sharing the information.
5. The right to access once personal information including the right to authenticate once shared private information... etc.

United Kingdom:

The Data Protection Act (DPA), 1988 was enacted at United Kingdom to ensure and safeguard basic rights of the data sharer. It contains rights such as right to access self information, right to be aware about when and to what extend shared information would be processed and for what purpose it would be used. Even it has recognized right to know the reasoning i.e. the basis of decisions in case of automatic decisions. In case of erroneous personal details or personal data represented in wrong manner the data sharer should be entitled to take recourse of the courts to seek remedies like making required corrections in the data, delete the data for a period or permanently and to get substantial compensation in case of injury sustained due to mistake of service providers or controller or other involved agencies.

Canada:

The Personal Information Protection and Electronic Documents Act (PIPEDA), 2000 has provisions regarding the individual's right to access. Through these provisions the information sharer can request to know about the existence, purpose of disclosure of once personal information. And if the data is tempered or manipulated same can be challenged to get legal remedy.

The similar legal protection is available in Australia⁷ and South Africa⁸ for safeguarding the basic rights of individual sharing the data on the internet.

Recommendation:

1. Personal Data Protection Bill, 2019 should be adopted at the earliest.
2. Periodical public awareness programmes at the large level should be a mandatory provision that to be complied with the service providers and controllers.
3. Periodical assessment of legality of data processing mechanism is a need of time and the report of the same must be made published in the public.
4. The educational institutions should also paly positive and active role in making public awareness events.

Conclusion:

Smooth, effective and updated legal system which not only ensures the rights but also the effectual execution of the same is the foundation key of present era of digitalisation and globalisation. No doubt the internet era and digital world are full of complications but it can never the ground to let the laymen be victim of misuse of tools by the delinquents having culpable mind. The adoption of new rights such as right to participation and right to be forgotten is a mean to achieve this object. However, it needs an active and positive role and involvement of all the concerned stakeholders i.e. law makers, service providers, controllers, users, consumers and other government agencies involved in the functioning of digital system.

⁷ The Privacy Act, 1988 and the Freedom of Information Act, 1982

⁸ Protection of Personal Information Act (POPI Act) – POPIA, 2013

References:

1. Report of the Joint Committee on the Personal Data Protection Bill, 2019
2. White Paper Of The Committee Of Experts On A Data Protection Framework For India: <https://meity.gov.in>
3. Online Platforms and digital advertising: Market Study final report 2020 by CMA Competition and Martket Authority.
4. Subhranshu Rout Gugul vs State Of Odisha decided on 23 November, 2020
5. Monitoring and Restricting Digital marketing Of unhealthy products to children And adolescents Report based on the expert meeting on monitoring of digital marketing of unhealthy products to children and adolescents. WHO European Office for the Prevention and Control of Noncommunicable Diseases (NCD Office) Moscow, Russian Federation June 2018.



**KAUSHLYA KARNATAKA- KUSHALA KARNATAKA,
SKILL DEVELOPMENT PLAN FOR KARNATAKA, 2017-2030**

Shweta Maruti Hulkunda

Research scholar, Dep't of Commerce, Karnatak University, Dharwad

Abstract

Education is the first step to learning anything, the learned thing must be useful in our life in making our life. It is not possible to catch government jobs for all people in the state. The government of Karnataka has taken several steps for youth to be able to fit in the sector where they are interested. Kaushlya Karnataka- Kushala Karnataka is Skill Development Programme that aimed to give formal and informal training to youth in the way to employability. The study is on the next plan of the Kaushlya Karnataka- Kushala Karnataka, Skill Development Programme of Karnataka 2017 to 2030 plans. In this study researches studies, the employability of all the sectors who going to lead in up-coming years and our youth can choose the best one for their lives. The study is purely based on the secondary data, data collected from the report of Karnataka Jnana Aayoga, Karnataka Knowledge Commission, Department of Skill Development, Entrepreneurship and Livelihood, Karnataka, Google, related websites to the Government of Karnataka. The outcomes will be positive and most probably Karnataka in 4th in providing employability compared to the other ten states of India.

Keywords: Skill Development, Kaushlya Karnataka, Employability, Training, Hiring Capacity

Introduction

Modern Education gives only bookish knowledge not practical knowledge. Through modern education, youth preparing for acquiring jobs only they don't motivate to offer jobs. Youth is the hope of our future; therefore, it is very important to equip them with the necessary skills to become an entrepreneur and offer jobs. In 2016 the Karnataka Government establish the Department of Skill Development, Entrepreneurship, and Livelihood to enable the youth to acquire necessary skills for employment and livelihood promotion¹.

Goals of Department of Skill Development, Entrepreneurship, and Livelihood

1. Provide necessary and needed skills to youth, women physically challenging persons, and other communities for better livelihood.
2. Planning, regulation, standardization, promotion, implementation, and monitoring of all skill development initiatives in Karnataka state.²
3. Merge all the skill-related programs or schemes in only one department for betterment.
4. Act as a nodal agency to provide industry interface, quality benchmarks, national/international best practices, monitoring, and impact.³

Skill development in India

On 15th July 2015 NDA Government launched National Skill Development Mission. The mission fixed target is to train 500 million skilled laborers in India by 2022. In these 500 million, 150 million laborers are trained by National Skill Development Corporation (NSDC), 100 million laborers are trained by the Ministry of Labour, 50 million by the Ministry of Human Resource Development (MHRD), and the remaining 200 million are trained by 21 Ministries and other departments. Now Ministry of Skill Development and Entrepreneurship (MSDE) oversees all the arrangements relating to skill development. National Skill Development Corporation (NSDC) is the nodal agency of MSDE which is a Public-Private Partnership body. NSDC has 31 skill development sectors to provide training and the curriculum of the training is decided by Sector Skill Councils (SSCs). In 2015 Pradhan Mantri Kaushal Vikas Yojana (PMKVY) was launched by NSDC to train students in any of the 29 identified sectors. Other than UDDAN also launched for providing skill training in Jammu and Kashmir.

Sector-wise contribution to GSDP and Employment Table- 1

Contribution to GSDP and Employment (in percentage)						
Sectors	2015-16		2017-18		2021-2022	
	GSDP	Employment	GSDP	Employment	GSDP	Employment
Agriculture	18	52.2	16.98	49.2	17.04	45.2
Industry	27	19.9	23.94	21.2	22.79	23.0
Service	55	28.0	59.08	29.6	60.17	31.8

(Source: desktop/skill%20development/kjarecommendationskilldevelopment.pdf)
GSDP and Employment percentages have been calculated based on inputs from experts. The GSDP for Agriculture had been increased to 8% and that of Industry and Services at 14%. Agriculture's contribution to employment is assumed to be reduced at 1% each year which is then assumed to be absorbed by the Industry and Services at ration 45:55⁴.

Vocational Education in Karnataka Table-2

Training Institutions in Karnataka			
Ownership	NCVT	SCVT	Total
Government	142	116	258
Aided	196	-	196
Unaided	1155	168	1323
Total	1493	284	1777

(Source : 2017, report of Karnataka Jnana Aayoga, Karnataka Knowledge Commission, GoK) Vocational Education and Skill Development in Karnataka is the responsibility of the Department of Education and Training (DET). It gives institutional training through more than 1700 Industrial Training Institutions (IITs) overall the state. These IITs are includes National Council for Vocational Training (NCVT) and State Council for Vocational Training (SCVT). Department of Education and Training has a total of 1777 training institutions in these all 258 are government-owned and 196 are private aided and 1323 are private unaided with the capacity of 2 lakh students.

Training schemes of Department of Education and Training

Craftsmen Training Scheme (CTS)

This training is provided to youth to prepare semi-skilled workers for industries. The training provided in 46 trades and Karnataka for market Fitter, Electrician, Plumber, Driver cum mechanic, Mechanic Refrigeration and Air-conditioning etc⁵ for two years. Who is interested to take CTS training has to fulfill the criteria of minimum qualification with 8th or 10th fail or pass. After successful completion of the training, students have to give an exam, and those who qualify for the exam are awarded State Trade Certificate.

Apprenticeship Training Scheme (ATS): This is an Apprenticeship program for youth who have passed 10th or ITI. It is a full-term apprenticeship course for

3 years and candidates are provided 100% concession on the number of years training by NCVT courses and 50% for SCVT courses. At the end of the course, candidates have to attain an exam and after successful completion of the exam, National Apprenticeship Certificate (NAC) is provided. Candidates who receive a certificate of NAC can be appointed as skilled craftsmen in industries and they can start their businesses.

Modular Employable Skills (MES)

Under the Skill Development Initiative, DET implemented the Modular Employable Skills (MES) for school dropouts, ITI pass outs, and workers to improve working ability and employability. Under 68 sectors above 800 Vocational Training Providers (VTP) are providing more than 500 courses in Karnataka.

Special Training Scheme (SPL-TRG)

To improve the quality of production and self-employment in youth the department conducting several special training programs in ITI institutions viz.

1. Motor Driving Training Scheme (MDTS)
2. Advanced Vocational Training System (AVTS)
3. Hi-Tech Training Programmes
4. Training Programme for Tribals.

Training of Trainers

Only providing vocational education is not sufficient. The training is updated and the quality is more important. Trainers should be updated by the changes and requirements of changing generations. Therefore, the government of Karnataka started three staff training institutions namely, State Training and Research Centre (STARC)- to train technical and nontechnical persons, Institute of Training the Trainers (IOTTs), and Bharat Ranta Mokshgondam Vishveshwaraya National Training Facility for Skills for All (BMVNTFSA). The Training of Trainers (ToT) model is intended to engage trainers in coaching new trainers that are less experienced with a particular topic or skill with training overall. It can build a pool of competent instructors who can then teach the material to other people.

Goals and Objectives of Training of Trainers model

Goals of Training of Trainers model	Objectives of Training of Trainers model
<p>To prepare instructors to present information effectively, respond to participant questions, and lead activities that reinforce learning.</p> <p>Direct participants to supplementary resources and reference materials.</p> <p>Lead discussion.</p> <p>Listen effectively</p> <p>Make accurate observation</p> <p>Help participants link the training to their jobs</p> <p>Trainer participants also learn the importance of maintaining eye contact, presenting a positive attitude, speaking in a clear voice, gesturing appropriately, and maintaining interest and dispelling confusion.</p>	<p>Apply current practices in delivering a training on a selected evidence-based program.</p> <p>Deliver proven facilitative skills to promote learner engagement, reflective practice, critical thinking and skill acquisition</p> <p>Show mastery in delivering key training strategies commonly used, such as brainstorming, processing, roleplays and practice sessions.</p> <p>Use appropriate levels of intervention when managing difficult training situations, including disruptive learning behaviour.</p> <p>Initiative a personal plan of action to strengthen their trainings and facilitation skill.</p>

(Source:https://www.cdc.gov/healthyschools/professional_development/documents/17_279600_TrainersModel-FactSheet_v3_508Final.pdf)

Educational structure in Karnataka Table-3

Educational structure in Karnataka				
Education	No. of institutions	Enrolment capacity	Enrolment	Pass
SSLC	15140	1774264	887132	685152
PUC	4789	643532	516506	369479
B.E/B.Tech	206	93365	69974	50834
BA	732	138893	138893	77284
BSc		30344	30344	21451
B.com/ BBM		120175	120175	77395
Agriculture	29	2921	2680	2231
MBBS/Nursing/AYUSH	512	32551	24063	16670
Total	1479	418249	386129	245865
Formal Vocational Trainings				
Polytechnic	295	75000	60000	49000
ITI	1777	106000	73000	59000
D.Ed./ pre-primary	78	16986	16986	7404
Arabic /Open Schools/Computer	140	19957	19957	11861

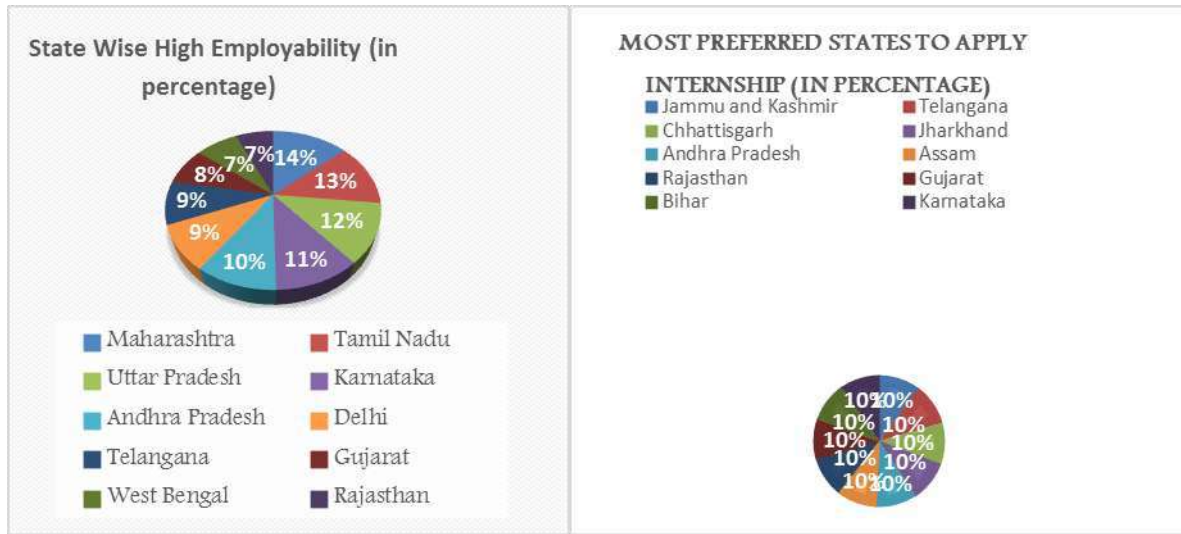
Drama/ Music / Film	53	11152	11152	9356
Drawing	241	38914	38914	38914
Nursing/Pharma	783	13886	10548	7027
Agriculture/ Horticulture	13	50	50	36
Lather/ Plastic	2	2065	1947	418
GTTC	21	1210	843	682
KGTTI (Karnataka German Technical Training)	4	2456	2456	659
Total	3407	287676	235853	184357
Informal Short-Term Trainings				
Textile	36	19523	19523	19523
Technical Education	91	40000	15000	15000
Karnataka Vocational Training and Skill Development Corporation (MES Centres)	213	25000	16000	16000
National Rural Livelihood Mission (NRLM)	77	17500	2322	2322
National Urban Livelihood Mission (NULM)	323	45000	22000	8336
Women Development Corporation	-	6590	3833	3833
Construction academy centres	12	30000	3000	3000
Leather	01	564	564	564
Motor Vehicle driving	176	401	401	401
Total	929	184578	82643	68979

(Source: Department of Skill Development, Entrepreneurship and Livelihood, Karnataka)

State Wise High Employability and Most Preferred States to Apply Internship Table-4

State Wise High Employability (in percentage)									
Maharashtra	Tamil Nadu	Uttar Pradesh	Karnataka	Andhra Pradesh	Delhi	Telangana	Gujarat	West Bengal	Rajasthan
64.17	60.97	56.55	51.21	48.18	42.57	41.31	36.68	35.72	31.87
Most Preferred States to Apply Internship (in percentage)									
Jammu and Kashmir	Telangana	Chhattisgarh	Jharkhand	Andhra Pradesh	Assam	Rajasthan	Gujarat	Bihaar	Karnataka

Chart-1 and 2



Government implementing number of programs to impart skills and prepare youth for self-employment and recruit as well skilled worker in reputed industries. We see that almost all the vocational and non-vocational training are well doing their tasks. It is very important to successful implementation, running, and reliable outcomes of the concerned program. Here, the above table-4 and chart-1,2 show the scenario of State Wise High Employability and the Most Preferred States to Apply for Internship. Most of the ten states list given, who apply for an internship. In these states Karnataka preparing 10th in applying for an internship it is 86.79 percent of its percentage but when we compare it with other states it is 10 percent. In employability, Karnataka prefers 4th with its percentage of 51.21 but when we compare it with other states it is 11 percent which is progressive. It will be considered as the government moving towards the great success of the skill development programs in generating employability.

Sector wise hiring capacity from 2015 to 2021			
Sectors	Year	Changes in hiring intent per year (in percentage)	Employability changes per year (in percentage)
Hospitality and Tourism, BFIC, Core Sector (Oil, Gas, Steel and etc)	2015	23	37.22
Retail, E-Commerce and	2016	14	38.12

Transport, Pharma and Health care			
Core Sector (Oil, Gas, Steel and etc), Software, Hardware, Auto Ancillary	2017	7	40.44
BSFI, Retail	2018	10	45.60
BSFI, Software, Hardware, Manufacturing	2019	15	47.38
BSFI, BPO, KPO, ITeS and Internet Business	2020	10	46.21
BSFI, Software, Hardware, IT and Internet Business	2021	10	45.9

Sector wise hiring capacity from 2015 to 2021 in India

Table-5

(source: <https://indiaeducationforum.org/pdf/ISR-2021.pdf>)

Analyses of Skill Gap To implement any policy relating to Skill Development the analysis of the skill gap is very necessary. Here we going to analyze the sector-wise skill gap in Karnataka.

Labore demand for banking sector Table-6

Labore demand for banking sector 2015 to 2030				
Year	Officers	Clerk	Subordinates	Total
2015	45552	34952	12048	92551
2018	55298	40574	11989	107862
2020	61796	44323	11950	118069
2022	68294	48072	11911	128276
2025	78041	53695	11853	143588
2028	87787	59317	11794	158899
2030	94285	63066	11755	169106

(Source : 2017, report of Karnataka Jnana Aayoga, Karnataka Knowledge Commission, GoK) The banking sector is most demanding in modern days. From the given data it is clear that year by year rate of labor demand is increasing. In the year 2015 demand for officers is 45552 which is assumed to be increasing to 94285 in 2030. In the year 2015 demand for clerks is 34952 which is assumed to

be increasing to 63066 in 2030. In the year 2015 demand for subordinates is 12048 which is assumed to be increasing to 11755 in 2030. In the year 2015 demand for a total is 92551 is assumed to be increasing to 169106 in 2030. The rate of demand for banking labors increasing above 20 percent a year by year it is a good intimation to candidates who preparing to a bank employee in future days.

Labore demand for Insurance sector 2015 to 2030

Table-7

Labore demand for Insurance sector 2015 to 2030			
Year	Private	LIC	Total
2015	69210	85065	154276
2018	76832	87199	164031
2020	81913	88622	170535
2022	86994	90044	177039
2025	94616	92178	186794
2028	102238	94312	196549
2030	107319	95734	203053

(Source : 2017, report of Karnataka Jnana Aayoga, Karnataka Knowledge Commission, GoK)

As banking sector Insurance sector is also in demand for laborers in the private sector and LIC. In the year 2015 demand for Private sector labor is 69210 it is assumed to be increasing to 107319 in 2030. In the year 2015 demand for labor for the LIC sector is 85065 it is assumed to be increasing to 95734 in 2030. Total demand including the private sector and LIC is 154276 in 2015 and 203053 in 2030. The rate of Insurance workers' demand is more than Banking sector workers. It is appreciated that candidates have a chance in both private and public sectors same demand in the insurance sector.

Labore demand for construction workers 2015 to 2030 Table-8

Labore demand for construction workers 2015 to 2030			
Year	Male	Female	Total
2015	147532	51953	199485

2018	155325	72733	228058
2020	158623	85435	244058
2022	161882	97993	259874
2025	168466	119894	288359
2028	174768	141290	316059
2030	178877	155389	334267

(Source : 2017, report of Karnataka Jnana Aayoga, Karnataka Knowledge Commission, GoK)

Construction is a continuous process and has a continuous demand for laborers. It is also one of the most demanding sectors for employability. Male workers have more demand than female workers, in the above table, it is very clear the demand for construction laborers is increasing year by year. Male is in demand over 147532 for the year 2015 and 178877 for the year 2030, females are in demand over 51953 in 2015 and 155389 in 2030. The total demand is estimated at 334267 for 2030. Therefore, the construction sector also has future demand, who interested can prepare for their future.

Man power demand in health sector 2015 to 2030, Table-9

Man power demand in health sector 2015 to 2030					
Year	Staff nurse	Para-medical staff	Administrative staff	Doctors	Total
2015	102723	70765	27393	66199	497636
2018	1357	935	362	874	3528
2020	1392	959	371	897	3619
2022	1248	860	333	804	3245
2025	1291	890	344	832	3357
2028	1336	920	356	861	3473
2030	1367	941	364	881	3553

(Source : 2017, report of Karnataka Jnana Aayoga, Karnataka Knowledge Commission, GoK) The demand for manpower in the health sector is estimated based on 100 beds and the needed workforce including doctors, nurses,

paramedical and administrative staff. Per 100 beds the estimation is as, 29 Doctors, 45 Staff Nurse, 31 para medicals, 12 administrative staff therefore, the total strength for 100 beds is estimated at 117. As per the estimation, the rate of demand for health workers is very low as compared to 2015 and 2030.

Major employment sectors as per skill development 2030

Table-10

Major employment sectors as per skill development 2030		
Major sectors	Numbers	Percent
Tourism	5000000	30.12
Information Technology /Biotechnology, Environmental Science	4000000	24.10
Construction	2000000	12.05
Human Resource Export	1500000	9.04
Education	1000000	6.02
High-Tech Industries	1000000	6.02
High-Tech Agriculture	1000000	6.02
Health Care	500000	3.01
Banking, Finance, Insurance	300000	1.81
Textile	300000	1.81
Total	16600000	100

(Source: Karnataka Knowledge Commission, Vision 2030)

Above is a list of major sectors who going to employ or hire more workers, first five sectors are Tourism, Information technology, Construction, Human Recourse Exports, and Education. The majority is of tourism by 30, second Information Technology with 24 percent and construction sector by 12 percent.

Training programmes in Karnataka by DSDEL and other Departments

S.no	Departments	Numbers of participants
	Skill development programmes conducted by Department of Skill Development, Entrepreneurship and Livelihood	

1	Skill Development Programmes	105000
2	Karnataka Vocational Training and Skill Development	26000
3	Deen Dayal Upadhyay Grameen Koushalya Yojana (NRLM)	39000
4	Employment through Skill training and placement (NULM)	50000
5	Karnataka Building Construction Academy	30000
6	PMKVY	70000
	Total	320000
Informal Training Programmes implemented by Other Departments		
7	Information and Bio Technology	6000
8	Handlooms and Textiles	43200
	Technical Education	582
9	Lather Industries	50
10	Youth Service	500
	Tourism	7000
11	Energy	10000
12	Transport	10000
13	Karnataka Milk Federation	20000
14	RUDSETI	29000
15	CEDOK	17000
	Total	143332

(Source: Department of Skill Development, Entrepreneurship and Livelihood, Karnataka)

Conclusion

To create employability both formal and informal education systems are playing a very important role. Majorly Skill Development Programmes, KVTSD, NULM, NURM, PMKVY, RUDSETI, CEDOK are promoting numbers of candidates per year. The two years follow-up was also conducted by the above-listed programming institutions and also, they solved their problems by providing some facilities like marketing, shedding, financial assistance from banks, etc.

References:

1. <https://www.kaushalkar.com/wp-content/uploads/2019/04/Karnataka-Skill-development-policy.pdf>
2. <https://www.kaushalkar.com/wp-content/uploads/2019/04/Karnataka-Skill-development-policy.pdf>

3. <https://www.kaushalkar.com/wp-content/uploads/2019/04/Karnataka-Skill-development-policy.pdf>
4. <https://www.kaushalkar.com/wp-content/uploads/2019/04/Karnataka-Skill-development-policy.pdf>
5. <https://www.kaushalkar.com/wp-content/uploads/2019/04/Karnataka-Skill-development-policy.pdf>
6. https://www.cdc.gov/healthyschools/professional_development/documents/17_279600_TrainersModel-FactSheet_v3_508Final.pdf



A STUDY OF CUSTOMER SATISFACTION TOWARDS HOTEL INDUSTRY

Ashwini Tanaji kamble

*Research Scholar Dept. of Commerce and Management Shivaji University,
Kolhapur*

Email id: ashwinikamble300690@gmail.com

Abstract:

Customer satisfaction is an important part of any business, in hotel industry customer is a main pillar of business so hotel industry knows what the demand from customers, what are the requirements of customers. They can change or update accordingly customer demand. The study main aimed to assess the customer satisfaction in hotel industry at selected hotels. Survey design was adopted for the study. A structured questionnaire was administered to 50 customers in hotel. The data collected were analysed with descriptive statistical. The finding of the study some of hotels are provided e-payment transaction but not provide prompt services in hotel. They suggested provided different type of food for customer, don't waste food it give to the poor people and also give toys for kids for entrainment purpose.

Keywords: Hotels, e-payment, Servicicers, Quality

Introduction:

Full form of Hotel is Hospitality Offered to Every Labourer, Hotel means large building with numbers of rooms, people can stay one or more days it's like a home but actually it is not a home. The main or primary purpose of hotel is to provide food, Travellers with shelter, refreshment and same services and goods. There are numbers of types in hotel such as small hotel, medium hotel, Large hotel, very large hotel, this different types depends upon the area. In this paper researcher want to study the customer satisfaction towards hotel industry. It means now need to change our thinking an every business or management its need to customer satisfaction. What customer wants, desire its important part of any business. Customer satisfaction measures in three bases its price, services, quality. Now in weekend or holidays people are going to same were to change in

<http://www.ijaar.co.in/>

routing life or trip that time they want very special hotels. Those people are coming from urban areas they prefer dhaba style hotel. Now people are most prefers going to the hotels in any occasionally like birthday, anniversary party. Customer satisfaction is the part of internal assessment it may satisfy or dissatisfied. Every customer has different thinking from others. Customer satisfaction can gives to the hotel some advantages which can directly affected to the profitability and growth of hotel. “Customer satisfaction is defined as a measurement that determines how happy customers are with a company’s products, services, and capabilities. Customer satisfaction information, including surveys and ratings, can help a company determine how to best improve or changes its products and services.”(<https://asq.org/quality-resources/customer-satisfaction>)

Objectives of the study:

1. To study the Customer Satisfaction in Hotel industry.
2. To know the problems of Hotel Industry.
3. To gives some suggestion of customer satisfaction toward Hotel Industry.

Review of literature:

Gandolfo Dominici (2010) the main focus of this study customer satisfaction in hotel industry to improve customer loyalty and also increase the efficiency of employees. He performs a qualitative analysis of a hotel of Sicily. In this paper he evaluates the overall customer satisfaction management of hotel. He was finding that the customer satisfaction is increased.

Dr.Dil Pazir (2015) it was studied that the customer satisfaction is the main part of any organisation. The Services providers know to the customer want, expectation, requirements, design etc. The main purpose of this study is ti measure customer satisfaction in the hotels. for this studied researcher use a well structures questionnaire for collected primary data from the respondent. It was used simple random sampling method. The finding are 40% of the customer are fully satisfied and 20% are fully dissatisfied of services.

Okocha (2021) it’s explored that the relationship between customer satisfaction and services quality and also behaviour intension of customer. They selected 3-

star hotels in Onitsha. They adopted survey method for this study and collected 200 guest samples for the study. The data analysed of descriptive statistics and tested Persons correlations. The found that the equally revealed that both had a strong relationship with behavioural intensions. The guest are gives positive reviews they satisfied with the services of hotels and recommended to revisit the hotel.

Hypothesis of the study:

Customers are fully satisfied towards Hotel Industry.

Scope of the study:

The study is conducted only to the for customer satisfaction of Hotel industry. The functional scope is finding out the satisfaction level and also suggests the reason for the poor practices of services quality of hotels, charges of prices and quality of products. The study only limited for Khatav Tehsils.

Research Methodology:

For this study researcher collect a well-structured questionnaire form customers for primary data and also collected some secondary data from articles, newspaper etc. The study use simple random sampling method. For the study 80 questionnaire collect from customers actually 50 respondent.

Analysis of the study:

Variables	Option	Frequency	Percentage
Gender	Male	29	58
	Female	21	42
Age	Below 25	19	38
	25-35	10	20
	35-50	15	30
	Above 50	6	12
Marital Status	Married	22	44
	Unmarried	28	56
Occupation	Employed	29	28
	Self employed	5	10
	Student	10	20
	Other	6	12
Monthly Income	Below 20000	5	10
	20,000-40,000	17	34
	Above 40,000	12	24
	No Income	16	32
Frequency of visit to hotel	Daily	8	16
	Once in weak	12	24
	Once in Month	21	42
	Uncertain	9	18

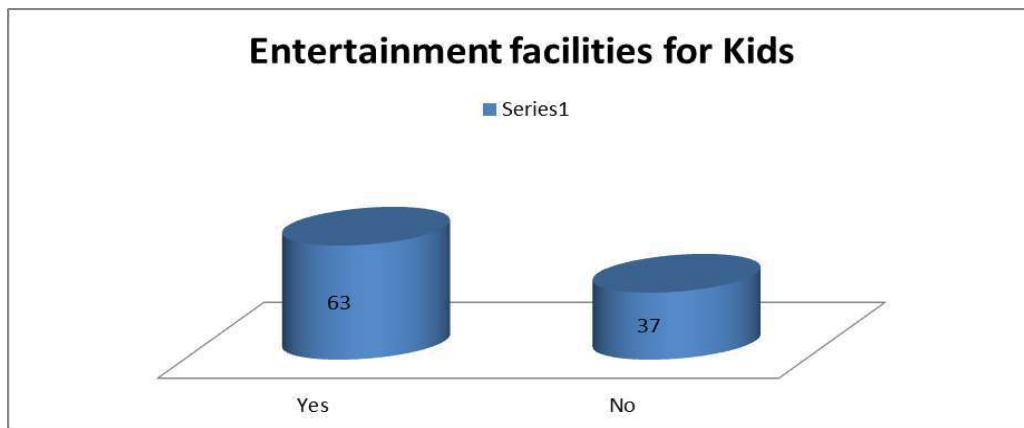
Types of Hotels	Veg	8	16
	Non-veg	16	32
	चायनीज	2	04
	Restaurant	4	08
	ढाढा (सुलीवारचेजेवण)	20	40

The above table shows that the demographical information such as gender, age, marital status, occupation, monthly income, frequency of visit to hotels and types of hotels they like.

Quality of the food:



The Above table shows that the 46% hotels are provided excellent food for customers, 36% hotels provided good quality and 9% are very good and fair quality provided to customer.



The above table shows that the 63% hotels are provided entertainment facilities for kids and 37% are not provided these facilities.

Option	Yes	No
Parking facilities	82	18
Cleanliness and comfort	80	20
Staff performance	73	27
Price charged by the hotels	65	35
Prompt services provided	68	32

e-payment transaction	90	10
-----------------------	----	----

The above table shows that the 82% hotels are provide parking services for customers 18% are not provide parking facilities. 80% provide cleanliness and comfort services for customer. 68% customers provided prompt services for customer. 90% hotels provide e-payment transactions for customers.

Conclusion:

Now customer satisfactions are the most important part of any hotel industry and day by day it changes in demand of customers, they want different types of services from hotels also improve their staff performance, they provided entrainment facilities for kids, they charge different type of rate for different goods and main think of that maintain quality of good to the customer.

Suggestion:

1. Hotel management wants to give the food to poor people.
2. Keep the toys entrainment facilities for children's.
3. Verity of food provide for customers.
4. Maintain quality of food for customer.

References:

1. Gandolfo Dominici (2010) “Customer Satisfaction in the Hotel Industry: A Case Study from Sicily”, International Journal of Marketing Studies, Vol. 2, No. 2.
2. Dil Pazir (2015) “A Study of customer satisfaction towards hotel industry in Kashmir Valley”, volume-5, ISSN 2249-7196.
3. Okocha(2021) “service quality, customer satisfaction and behavioural intentions: application of lodging quality index model on hotels in south east, nigeria” Online ISSN: 2053-4051(Online),Vol. 9, Issue 4, pp.18-35,
4. Doi. <https://asq.org/quality-resources/customer-satisfaction>
5. Doi. <https://en.wikipedia.org/wiki/Hotel>



STUDY OF AUTOMATION IN THE INDIAN BANKING SECTOR

Ms. Meghna Neelakantan¹, Dr. Sunil Bhaskar Chandanshive²

¹(SYBA Economics) K J Somaiya College of Arts & Commerce
(Autonomous) Vidyavihar, Mumbai

Email: meghnaneelakantan.2002@gmail.com

²Assistant Professor, Dept of Economics, K J Somaiya College of Arts & Commerce
(Autonomous) Vidyavihar, Mumbai

Email: s.chandanshive@somaiya.edu

Abstract

The banking sector in India has played a major role in socio-economic development and has always been the backbone of the Indian economy. Electronic banking is another boon to customers which enables them to carry out transactions remotely, which would have otherwise required them to visit the branch in traditional banking. The study mainly focuses on how the banking sector has undergone a sea of change in the last 7 years (2014-2021) with automation and has resulted in technology-driven banking as against traditional manual banking. Automation involves performing banking transactions electronically through the use of smart technology. The study also highlights the factors that lead to this dynamic change from manual processing to automated processing and increased competition among the bankers and the trend of increasing adaptation by customers to new innovative methods of banking during the period. The analysis of the trend growth and performance of innovative methods like electronic NEFT, RTGS, Mobile banking, online bill payment is a part of the study. From this study, there is clear visibility of how certain events during this period acted as catalysts for increased adaptation and switching by customers from the traditional banking system to electronic platforms to perform banking transactions and which led to steady growth of all types of electronic internet banking.

Key Words: - Electronic Banking, Automation, Smart Technology, NEFT, ATMs, RTGS, Mobile Banking

Introduction

The banking sector in India has evolved from time to time with advancements in process & technology and innovation. In the earlier days

<http://www.ijaar.co.in/>

banking was constricted to branch banking. The customers had to frequently visit from time to time to carry out their transactions and full fill their needs. (e.g.: statement, updating of passbook, getting new cheque book, withdrawal and deposit of cash, etc). Moreover, the banks in those days were selected based on location. Traditional banking provided the customers with one-to-one services and the staff's ability to persuade them. In the past decade, the banking sector of India has made tremendous progress with the development of financial technology, through the introduction of information communication technology (ICT), and has led to the rapid development of new and innovative services. Due to this, the customers have been benefited from quick responsive error-free service. Thus, traditional banking has been overtaken by dynamic IT, electronic, and fin-tech.

In the middle and late 90s, there was a rush of financial reforms, innovation, de-regulation by the Government, introduction to LPG followed by advancement in communication technologies like the internet, mobile phones, etc. Due to these reforms, banking in India was redefined from a mere financial intermediary to a service provider of various financial services under one roof like a financial supermarket. The inclusion of private and foreign banks brought new technologies in the market which rendered its customers with services like ATMs, Credit and debit cards, internet banking, and increased competition among the banks. To keep pace and compete with the private and foreign banks the public sector banks had no option but to adopt and adapt new and innovative technologies. 21st-century banking in India can be called Innovative Banking. Some of the innovative technologies utilized by the banks are ATMs, ECS, IFSC code, UPI, MICR cheques, 24/7 Electronic Digital Banking, Video banking, Internet Banking, Mobile Banking, and Card banking to mention a few.

The banking sector covers various activities for deposits, payments, data collection, and digitized processes like contactless payments, credit scoring. Through online banking customers could get their account information, bank statement, open and close Term deposits, do money transfers, make bill payments, request for new credit and debit cards, account information change,

request cheque books, and get small value loans. The CDS and ATMs are electronic banking outlets that allow people to deposit and withdraw money and check balances without going into a branch of their banks. Kiosks allow the customers to deposit cheques and update passbooks. Electronic banking is another boon to customers which enables them to carry out transactions that would have required them to visit branches in traditional banking.

Objectives

1. To analyse the Growth and Performance Trends of automation in the Indian banking sector.
2. To understand the various technological advancement concerning automation in the banking sector of India.

Research Methodology

The study uses secondary data that has been taken through various sources like journals, articles, survey reports, reviewed other research papers and websites like the Reserve Bank of India

Role of Automation in the Banking Sector

The Indian banking sector has undergone expeditious changes over a period of time with the introduction of Electronic Banking. The influence of electronic banking has now made people tech-savvy and has created an environment of eagerness among the population to adapt and adopt smart banking. Automation has also created transparency along with a faithful and trustworthy relationship between the banks and their customers. It has made the process of giving and receiving, easy, convenient, and error-free at all times. With automation, electronic banking services are available 24/7 for people to carry out their transactions without any boundaries of time and location. Moreover, every bank adopting and adapting automation has been able to attract more customers to utilize these services. This change has resulted in a new outlook in the service and trading sectors and has tremendously benefited the e-commerce industry. E.g.: a virtual market and showroom are created by the likes of Amazon, Flipkart, Myntra, pepper fry, etc where customers have the facility to do seamless transactions of buying their needs and paying using electronic

banking. Similarly, entities like Zomato, Swiggy, Uber eats are delivering food to customers from their chosen restaurants and collecting payment electronically. Similarly, this process has been extended to the purchase of daily needs, groceries, milk, medicine, etc.

Electronic Banking transactions have been by and large adopted in all trading sectors, shops, petrol bunks restaurants, etc. With electronic banking, the banks can reach the rural areas and bring them to the urban markets. They provide a medium to carry out receipt and payment between producer and trader and consumers. Electronic transactions and banking have been a great boon to bank customers. The customer can seamlessly carry out all his transactions paperless and without physically visiting the bank branch which resulted in a saving of time. E.g.: Money transfers, payment of bills, request for a statement of accounts, open and close of accounts, open and close of term deposits, request for new debit and credit cards, blocking of cards, change of address, request and change of ATM PIN and card PIN, etc.

ATM (Automated Teller Machines) & CDM (Cash deposit machine)

An ATM & CDM are electronic banking outlet that enables people to quickly withdraw money anytime during the day without the aid of a branch representative or a teller. Like an ATM, CDM allows customers to deposit cash anytime during the day as well as withdraw. As per RBI (Reserve Bank of India) guidelines, each bank is required to provide a minimum of 3 free transactions in ATM/CDM without any charges to customers. Beyond 3 transactions it is left to the discretion of the individual banks to decide when to charge. The levy as per RBI guidelines is RS 21 per transaction after the free limit is exhausted. However, the charges are not arbitrary and are left to the bank's discretion. The data of the number of ATMs for a period of 7 years (2014- 2021) is depicted in Table 1 below

Table 1.1 Number of ATMs during 2014- 2021

Year	2014	2015	2016	2017	2018	2019	2020	2021
No of ATMs (In Million)	1.99	3.06	3.30	2.39	2.47	2.48	2.52	2.34

It can be seen from above table in 2015 there was a significant increase in the number of ATMs as compared to 2014. However, 2016 did not see any significant growth. However, subsequent years saw a considerable decline in the number of ATMs and this is attributed to demonetization and the thrust to use electronic banking for day-to-day transactions in the number of ATMs. After 2017, in the subsequent years, the number of ATMs has remained stagnant. One of the contributing reasons for this has been the adaptation and shift of customers at large to internet banking using smartphones. Cashless payments could be made through smart applications using smartphones.

RTGS- (Real-Time Gross Settlement)

RTGS is a method of fund transfer through which money is sent from the payer's account to the payee's account of the same bank or another bank electronically in a short time 24/7 365 days. RTGS is mainly meant for larger value transactions and the minimum amount that can be transferred through this mode is Rs.2 lakh maximum limit will depend on the account type of the customer. Requests for RTGS can be given manually visiting the bank branch or can be carried out by the customer thru internet banking. Transfers can be scheduled in advance as well. To send money via this mode one requires the bank details like the IFSC code, account number, name of the payee, and the payee bank. This mode of payment is the most convenient as it provides safety and security, is backed up by RBI, there is an immediate clearing of transactions, and is very reliable as the funds are credited on a one-on-one basis. RTGS is used by the Central Bank to minimize the risks that were involved while carrying out high-value transactions. Charges for RTGS are levied to customers and the amount is left to the discretion of the individual banks.

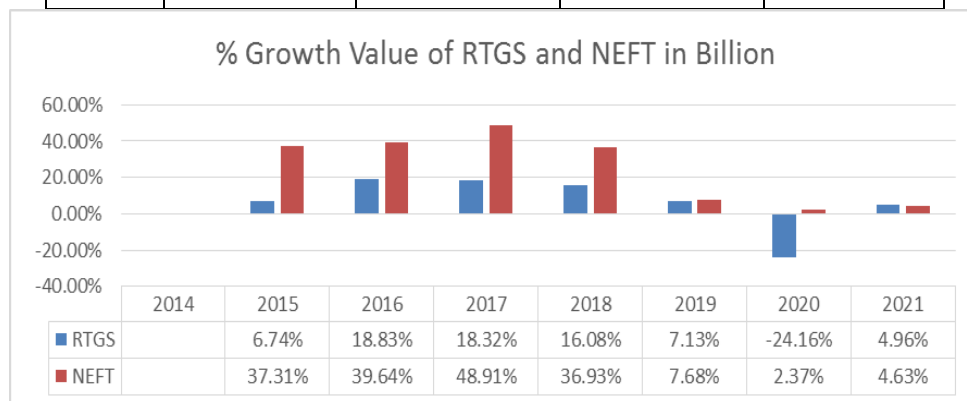
NEFT- (National Electronic Funds Transfer)

NEFT is another electronic payment mode that facilitates direct one-to-one payments across the country. Using this facility, a payer can electronically transfer funds from one's bank branch to the payee's account in the same bank as that of the payer or another bank in the country that is a part of the NEFT scheme. To send money via this mode one requires the bank details like the IFSC

code, account number, name of the payee, and the payee bank. NEFT enables transactions 24/7 and 365 days. NEFT is seamless, reliable, secure, and convenient, is processed every half an hour, and credit happens to the payee's account within 2 hours of the payer executing the transaction. NEFT allows the transfer of any value \geq Re 1. However, some banks have set a maximum limit. The request for NEFT similar to RTGS can be done manually by visiting the bank or using internet banking. Charges for NEFT are levied to customers and the amount is left to the discretion of the individual banks. The data represents the value of RTGS & NEFT value in billion and its % Growth value for a period of 7 years (2014- 2021) is depicted in table 1.2 below,

Table No 2 Transaction value of RTGS and NEFT

Year	Value of RTGS in bn	% Growth Value of RTGS	Value of NEFT in bn	% Growth Value of NEFT
2014	743993.6	-	55339.51	-
2015	794160.6	6.74%	75985.8	37.31%
2016	943727.9	18.83%	106103.8	39.64%
2017	1116611	18.32%	157997.3	48.91%
2018	1296190	16.08%	216347.9	36.93%
2019	1388670	7.13%	232966.4	7.68%
2020	1053160	-24.16%	238494.9	2.37%
2021	1105378	4.96%	249532	4.63%



From the above table, it is observed that the value of RTGS transactions has stabilized in the range of 1100k bn to 1300k bn. The reason for the RTGS transaction degrowing in 2020 over the previous year can be attributed to the

pandemic situation in the globe. The primary reason for the growth in RTGS transactions in the period from 2016- 2018 can be attributed to demonetization, restrictions introduced in cash transactions, (Payment exceeding 20K has to be done by cheque or account transfer) and customers shifting paperless internet banking, mobile banking and use of cards.

It is observed that in 2015 there was a tremendous increase in the usage of NEFT transactions as compared to 2014. From 2016 to 2018 the NEFT transactions were comparatively very high. However, over a while, their growth % over the previous year has reduced. The value of the transaction has stabilized in the range of 24K bn to 25K bn. The reduction in the growth % of NEFT & RTGS can be attributed to

1. People shifting to mobile banking.
2. Introduction of new smart applications with offers, cashback, and discounts
3. People increasing usage of credit and debit cards, payments through applications like Google Pay, Paytm, Phonepe, BHIM UPI, etc.

Mobile Banking

Mobile banking is another mode of payment that enables customers to make payments through smart mobile phones using mobile applications. The innovation in mobile banking is a boon for the Indian economy as its acceptance by payers and payees is significant in recent years. Competition among the traders and retailers has intensified with mobile banking. It is a big boon for the E-commerce industry and the e-commerce business has grown many folds due to the mobile banking facility. Individual banks have their respective mobile application through which the customers can link their bank accounts with their smartphones and carry out the transactions. Along with the application of the respective banks, there are other applications e.g., Paytm, Google Pay through which the payments can be carried out by scanning a QR code. Mobile banking allows customers to perform their transactions online 24/7 at all trading outlets.

The customers can carry out activities sitting at home or place work which earlier required them to take time off and spend the same to visit the trading or servicing location and wait for their turn. (e.g.: booking plane and

train tickets, payment of electricity bills telephone bills, gas bills, rent, mobile bills, recharging of sim cards, etc etc). Mobile banking is secure safe and seamless. however, the customer needs to be careful in terms of keeping safe and not sharing the OTP, CVV, passwords, PIN. Finally, customers realized the immense benefits of Mobile during the current pandemic situation in the globe as they could perform all transactions to satisfy their needs using their mobile and fingertips and without physically moving out. The data of the value of Mobile Banking transactions for a period of 7 years (2014- 2021) is depicted in Table 1.3 below,

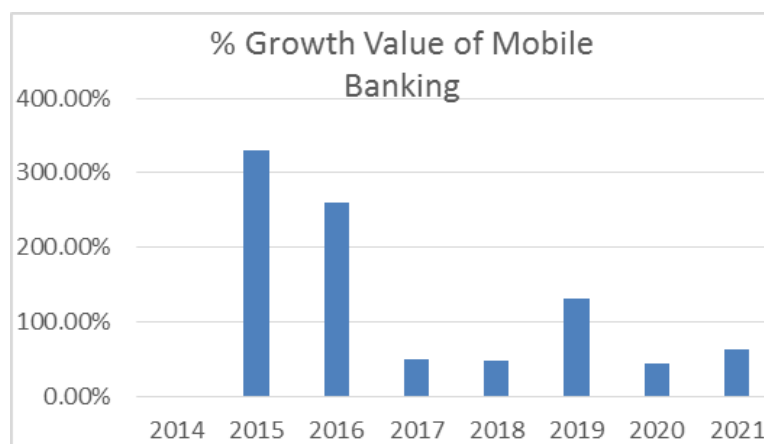


Table no 1.3 Mobile transaction

year	value in bn	% Growth Value
2014	666.22	
2015	2862.57	329.67%
2016	10288.90397	259.43%
2017	15466.67	50.32%
2018	22840.45	47.68%
2019	52549.50	130.07%
2020	75,451.23	43.58%
2021	122618.03	62.51%

From the above table and graph, it is observed that mobile banking is very popular in the last 7 years among the customers and continues to grow leaps and bounds due to ease of performing a seamless transaction and quick settlement to the payee. The contributing factors are demonetization, restrictions in value of cash transactions, the introduction of mobile payment apps, (google pay, phone pe, BHIM UPI, Jio pay, amazon pay), use of internet banking, credit cards and

debit cards thru mobile, and finally acceptance by the payees across all forms of business.

Conclusion and Suggestions

To conclude, the banking sector has undergone significant change in the last 7 years and these changes have greatly benefited customers, banks, and the economy of the country and have acted as a catalyst to economic development. With technology, the process of giving and receiving money has become seamless, secure, quick, contactless, and safe. This has eased the process of trading & distribution and the service sector. Moreover, this reduces the footfalls of the customer to the bank branch and also reduces manual banking. This has encouraged competition among the banks to attract customers and increase turnover. While the manual banking process continues to exist it has gone downhill, and internet banking has become customer friendly and easy to adapt and adopt.

The banking industry in India has on the whole conquered the world of automation and thereby created its benchmark in the Global Economic Market. To ensure greater reach, education and awareness about the benefits of automation and internet banking are a must using all mediums of communication. It is also necessary that the use of technology in the banking industry in India reaches greater heights of glory while spreading in the length and breadth of the nation.

Bibliography:

1. Prof. Parvathy V K (March 2019). The developments in the Indian banking sector with special reference to financial technology, *International Journal for Research in Engineering Application & Management (IJREAM)* 66-70
2. Reeshma (November 2016). PDF) Technology in Indian Banking Sector | *IJMTST - International Journal for Modern Trends in Science and Technology* (ISSN:2455-3778) retrieved from - Academia.edu www.researchgate.net/publication/344340972_Analysis_of_Banking_Sector_in_India_Post_Covid-19

3. V, Radha. (March 2015). A study on the technological innovations in the banking sector in India. *Global research review in Business and Economics*. 38-41
4. World retail banking report 2017. (2017). Capgemini & EFMA whitepaper
5. N.M. Nair, (March 2014). Role of Information Technology in Banking Sector in India. *IBMRD's Journal of Management and Research* 334-346
6. www.rbi.org.in



AN EXPLORATION FOR PROTECTIVE EFFECT OF RHIZOME EXTRACT OF IRIS PSEUDACORUS L. AND SEED EXTRACT OF DOLICHOS BIFLORUS L. IN SODIUM OXALATE INDUCED UROLITHIASIS IN RAT MODEL

Sarita Sharma¹, Dr. (Prof) Amit J. Raval², Dr. (Prof) Raju Koneri³

¹PhD Research Scholar, Pacific Academy of Higher Education and Research
University, Udaipur, India

²Professor, Pacific Academy of Higher Education and Research University,
Udaipur, India

³Professor and Dean, Karnataka College of Pharmacy, Bangalore, India

Abstract

The aim of our presented study is to assess the effect of Rhizome extract of *Iris pseudacorus* L. and seed extract of *Dolichos biflorus* L. as preventive agent in experimentally induced urolithiasis model in rats. Rats were administered Sodium Oxalate (70 mg/kg, i. p.) in drinking water for 28 days *in drinking water*. In addition to this, Saponin extract of *Iris pseudacorus* and *Dolichos biflorus* of low dose and high dose were administered along with Sodium Oxalate on 14-28th day. After the experimental period, blood samples were collected by cardiac puncture to analyse for Creatinine, Calcium, Blood Urea Nitrogen (BUN), Phosphorus, Uric acid, Alkaline Phosphate, Potassium, and Alanine Amino Transferases followed by various antioxidants and kidney histopathology. The ethylene glycol feeding resulted in an increased level of all parameters evaluated compared to normal rats. All these conditions were reversed with plant extract treatment. Histopathological analysis also showed that rats treated with Sodium Oxalate had large deposits of calcium oxalate crystals, and that deposits were reduced in rats treated with plant extract. Results were also compared with the marketed product cystone as a standard. These data suggest that *Iris pseudacorus* and *Dolichos biflorus* Saponin extracts has a protective activity against urolithiasis.

Keywords: Calcium oxalate, Kidney stone, Anti-urolithiatic, *Iris pseudacorus*, *Dolichos biflorus*.

Rationale of the Study:

Urinary calculi are the third most common urinary system problem. Urinary tract stone disease affects almost 10% of the population of the industrialised world, according to estimates. In developed countries, kidney stones represent for 0.5 to 1.9 percent of clinical cases.¹ Urinary calculi can lead to urinary tract blockage, hydronephrosis,

<http://www.ijaar.co.in/>

infection, and bleeding.²To remove the calculi, surgical procedures, lithotripsy, and local calculus disruption with a high-power laser are commonly utilised. These operations, however, are costly, and recurrence is prevalent.³

Various therapies are being employed to try to prevent recurrence, including thiazide diuretics and alkali-citrate, but empirical evidence for their efficiency is lacking.⁴Traditional remedies, on the other hand, have supplied a substitute for many ailments as well as some additional information on disease pathogenesis.⁵

As a result, the hunt for new antilithiatic therapies derived from natural sources has become more important, as herbal medicines are less expensive and have less adverse effects.⁶

Iris pseudacorus (Iridaceae) and *Dolichos biflorus* (Fabaceae) is reported to be used in Urinary complaints.¹¹There is no work reported on the antiurolithiatic activity of *Iris pseudacorus* and *Dolichos biflorus*, hence the present investigation has been undertaken.

Objectives of the Study:

1. Collection and Authentication of *Iris pseudacorus* L. and *Dolichos biflorus* Linn Plants
2. To Study the Taxonomical Characters of the Plants and Investigation of Morphological and Microscopical characters of the drug.
3. Extraction, and Preliminary Phytochemical(s) Study of *Iris pseudacorus* L. Rhizome and *Dolichos biflorus* Linn Seeds.
4. Isolation, Identification and Purification Phytochemical(s) of *Iris pseudacorus* L. Rhizome and *Dolichos biflorus* Linn Seeds.
5. Acute Toxicity Studies as per OCED guidelines 425.
6. To study Pharmacological Effects of Phytochemical(s) Extracted from *Iris pseudacorus* L and *Dolichos biflorus* Linn Plants for Anti-Urolithiatic activity.

Materials and Methods:

Collection of plant material

The *Iris pseudacorus* L. Rhizome was procured from Iran and *Dolichos biflorus* Linn Seeds were procured from Bangalore, Karnataka. Dr. Geetanjali (HOD of Botany Department Sree Siddaganga College Tumkur University, India.) has identified and authenticated the sample (Reference No. 507/20-21).

Extraction of the plant material and sample preparation

The Rhizome of *Iris pseudacorus* L. is sliced into small parts and dried under shades for 7 days at room temperature. The dried rhizome of *Iris pseudacorus* and seed

of *Dolichosbiflorus* were powdered, then the sieved (10/40). The powder was used for preparation of methanol extraction. The 1000 ml methanol reflux condenser extracted every 100 g powder for 3 periods of 7 hours till it gets half. After completion of extraction, the extract was filtered by using Whattman No.1 paper and evaporated to get dryness at room temperature. Methanolic extract was subjected to preliminary phytochemical screening.¹²⁻¹⁵

Isolation and purification of Saponin from Methanolic extraction of *Iris pseudacorus* L. Rhizome and *Dolichosbiflorus* Linn Seeds

Extraction of Saponin was done by TLC fractionation method. 5gms of methanolic extract was subjected to saponification in 50ml of 20% ethanol. Followed by filtrations and residues was once again extracted with 20%/50ml ethanol and filtered. Both the filtrates combined together and heated to residue the volume to 40ml at 90°C. Fractionated with 40ml of diethyl ether in separating funnel (Repeated twice) and ether layer was recovered. Aqueous layer was fractionated with 60ml of n-Butanol in separating funnel (Repeated twice) and aqueous layer recovered.

N-Butanol layer was washed with 5% NaCl solution, dried and weighed. Finally, 10 ml methanol was added and methanol layer and white powder separated. White powder assumed that highly purified. Solubility and chemical tests were conducted to confirm the presence of Saponin. And this sample (Saponin) is used for all further experimentations.

Experimental animals:

Wistar rats (Both sex, 5-6 weeks old) weighing 150-200 gm and Albino mice (Male, 5-6 weeks old) 20-25 gm have been used for the current study. All the work carried out on the animals was in accordance with the CPCSEA guidelines and the Research protocols have been approved by the IAEC, KCP, and the Sl. No. was KCP/IAEC/08/20-21/16/13-03-21.

Drugs and Chemicals:

All the chemicals used for the study was procured from Himedia, Mumbai and Merck, India. Equipment's were used was purchased from Analytical Technologies limited, India and Thermo Scientific, USA. Acute toxicity test on the pure active Saponin *Iris pseudacorus* L. Rhizome and *Dolichosbiflorus* Linn Seeds as per OECD guidelines No. 425; *Albino mice* (Female, 5-6 weeks old) with a weight of 20-25 gm were fasted overnight and limit and test is carried out with an initial dose of 175mg/kg/b.w. The following order is followed: 175, 550, 1750 and 5000 mg/kg /b.w. All the Animals

have been observed during the time being especially first 30 minutes to 24 hours. The special attention is required during the first 4 hours and then every day up to 14 days.

Model : Sodium Oxalate (70 mg/kg, i. p.) Induced Urolithiasis Rat Model¹⁶

Experimental Methods

42 Wistar rats age 5 to 6 weeks weighing (150-200g) have been divided in to following groups, with 6 animals in each group (n=6), in the following manner:

Group 1	Normal control	Vehicle for 28 days.
Group 2	Disease control	Sodium Oxalate (70 mg/kg, i. p.) in drinking water for 28 days.
Group 3	Standard group	Sodium Oxalate (70 mg/kg, i. p., 28 days) + Cystone (750 mg/kg, p.o.) on 14th -28th day.
Group 4	Test group 1	Sodium Oxalate (70 mg/kg, i. p., 28 days) + Saponin of Iris pseudacorus at low dose (X mg/kg, p.o.) on 14-28th day.
Group 5	Test group 2	Sodium Oxalate (70 mg/kg, i. p., 28 days) in drinking water for 28 days + Saponin of Iris pseudacorus at high dose (Y mg/kg, p.o.) on 14-28th day.
Group 6	Test group 3	Sodium Oxalate (70 mg/kg, i. p., 28 days) + Saponin of Dolichosbiflorus at low dose (X mg/kg, p.o.) on 14-28th day.
Group 7	Test group 4	Sodium Oxalate (70 mg/kg, i. p., 28 days) in drinking water for 28 days + Saponin of Dolichosbiflorus at high dose (Y mg/kg, p.o.) on 14-28th day.

Parameters to Be Evaluated:

Biochemical Parameters:

Collection of Blood Samples

After the experimental period, blood samples were collected by cardiac puncture under mild pentobarbital anesthesia. Collected blood samples were allowed to clot for 10 mins at room temperature and Serum was separated by centrifugation at 10000×g for 10 minutes and analysed for Creatinine, Calcium, Blood Urea Nitrogen (BUN), Phosphorus, Uric acid, Alkaline Phosphate, Potassium, and Alanine Amino Transferases.

Histopathology Studies & Kidney Homogenate Analysis

At the end of the experiment, on day 28th the rats were sacrificed by high dose of pentobarbital and kidneys excised, isolated kidneys have been cleaned off extraneous tissue and rinsed in ice cold physiological saline. After paraffin infiltration the Tissue pieces were sectioned at 5µm and stained with haematoxylin and eosin for Histopathological examination.¹⁷⁻¹⁹

Analysis of Tissue Antioxidant Enzyme

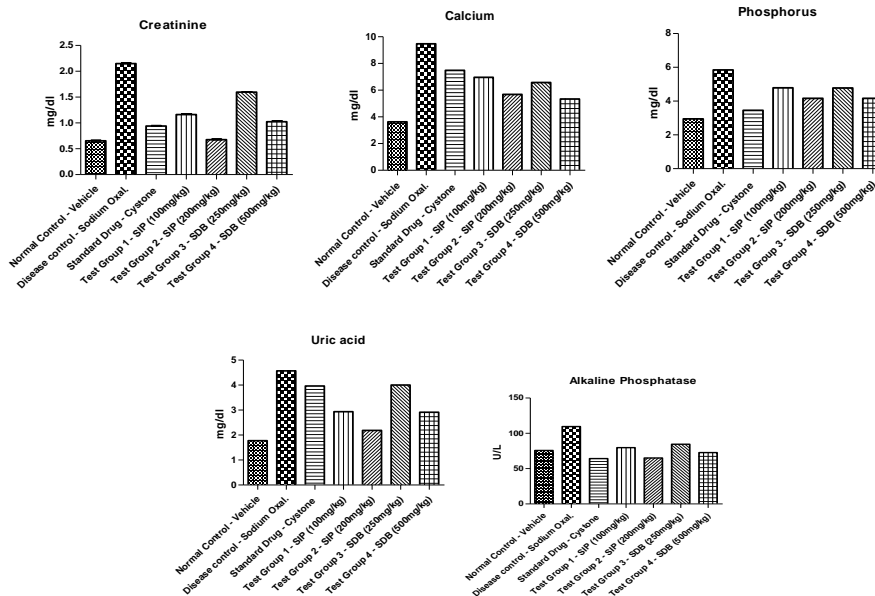
The remaining half portion of the right kidney was used for the estimation of various marker enzymes like MDA or LPO, GSH and LDH. 10% homogenate of the tissues were prepared in 0.1M Tris HCL buffer (pH 7.4) in a homogenizer. The homogenate was centrifuged at 12000 × g for 30 minutes. The supernatant obtained after centrifugation were used for the estimation of various marker enzymes.^{20, 21}

Statistical Analysis:

The data were presented as Mean ± S.E.M. from N = 6 rats in each group and analyzed using one way of Variance ANOVA followed by Tukey multiple comparison tests. P value <0.05 was considered statistically significant. Graph pad Prism 5.0 and Excel software were used for statistical analysis.

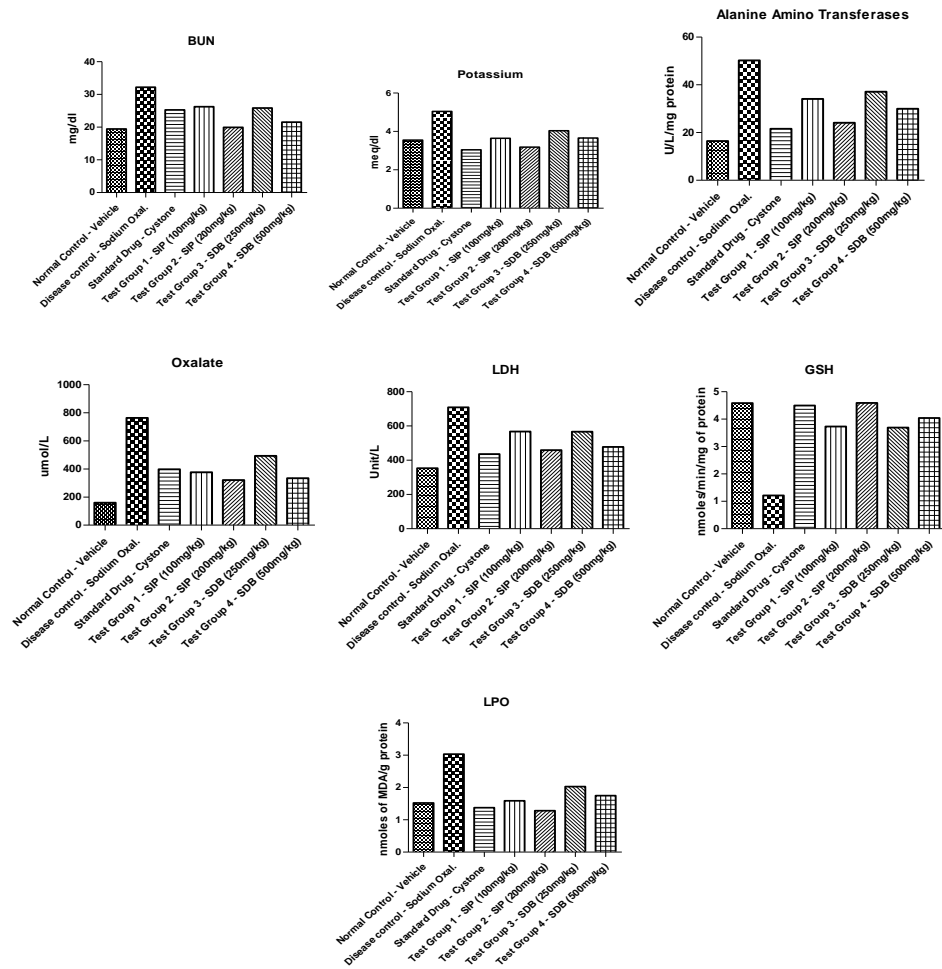
Results:

Figure: Effect of oral administration of SIP and SDB on Sodium Oxalate (70 mg/kg, i. p.) Induced Urolithiasis Rats on Creatinine, Ca, Phosphorus, Uric acid and ALP Analysis after 28 days of treatment



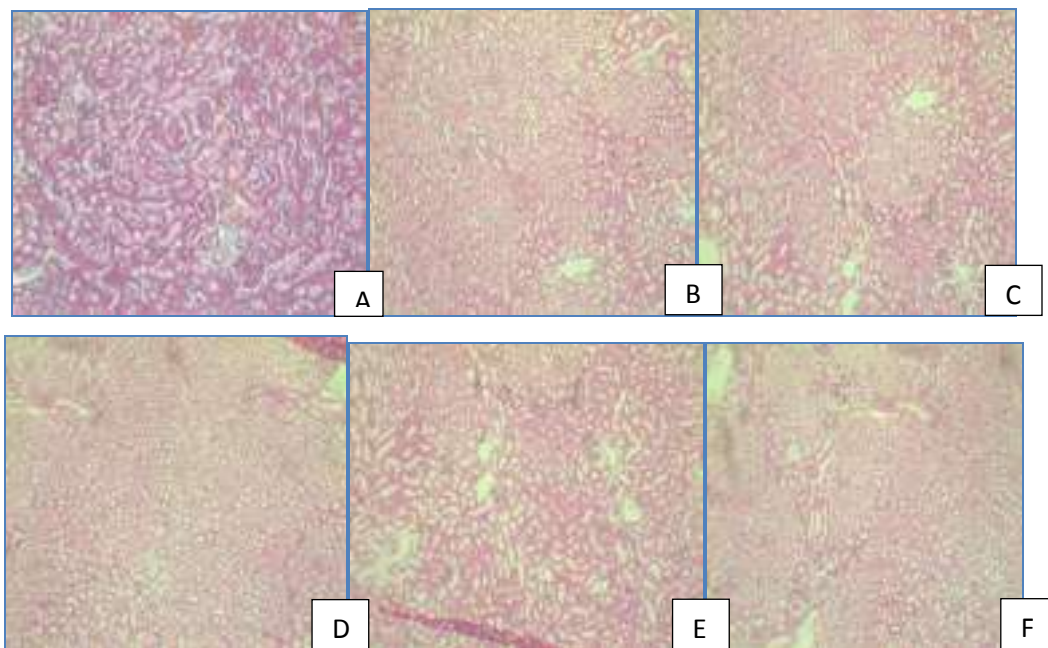
Values are expressed as Mean ± SEM, n = 6 in each group

Figure: Effect of oral administration of SIP and SDB on Sodium Oxalate (70 mg/kg, i. p.) Induced Urolithiasis Rats on BUN, Potassium, AAT, and Oxalate Analysis after 28 days of treatment.



Values are expressed as Mean ± SEM, n = 6 in each group

Figure: Effect of oral administration of SIP and SDB on Sodium Oxalate (70 mg/kg, i. p.) Induced Urolithiasis Rats on tissue histology (Kidney) after 28 days of treatment



1. Disease control -
2. Standard Drug – Cystone:
3. Test Group 1 - SIP (100mg/kg):
4. Test Group 2 - SIP (200mg/kg):
5. Test Group 3 - SDB (250mg/kg):
6. Test Group 4 - SDB (500mg/kg):

Conclusion:

Elevated creatinine, Serum ALP levels and presence of Uric acid crystals signifies impaired kidney function. As the kidneys become impaired for any reason, all these parameters in the blood will rise due to poor clearance of creatinine by the kidneys.

Calcium and phosphorus usually keep each other in check. With the progression of kidney disease, high phosphorus levels may lead to low serum calcium by depositing it onto the bones and other tissues. An excess BUN, potassium and serum enzyme (Alanine amino Transferases) indicates the decline in kidney function due to a disease or kidney damage which can be advanced stages of chronic kidney disease. Elevated lipid peroxides, LDH and decreased glutathione (GSH) indicates some form of tissue damage. An excess amount of oxalate can combine with calcium in the urine and cause kidney stones and crystals to form. Recurrent kidney stones and crystals can damage the kidney and lead to kidney failure.

In conclusion, the presented data indicate that administration of Saponin *Iris pseudacorus* L. Rhizome and *Dolichos biflorus* Linn Seed to rats with Sodium Oxalate induced lithiasis reduced the growth of urinary stones by reversing all the abnormal parameters, thus supporting folk information regarding the antiurolithogenic activity of the plant. The mechanism underlying this effect is still unknown, but is apparently related to increased diuresis and lowering of urinary concentrations of stone constituents as detergent nature of saponines.

References:

1. Pendse AK. Urolithiasis in Udaipur and Jodhpur: A comparative study on prevalence and urinary profile. Bull III, Annual Conference of Urology Society of India., 1985; 12.
2. Alelign T, Petros B. Kidney stone disease: An update on current concepts. AdvUrol 2018;2018:3068365.
3. Ramaswamy K, Killilea DW, Kapahi P, Kahn AJ, Chi T, Stoller ML. The elementome of calcium based urinary stones and its role in urolithiasis. Nat Rev Urol 2015;12:543 57.

4. Romero V, Akpınar H, Assimos DG. Kidney stones: a global picture of prevalence, incidence, and associated risk factors. *Rev Urol.* 2010;12:e86-96.
5. Hadjzadeh MA, Khoei A, Hadjzadeh Z and Parizady M. Ethanolic extract of *Nigella sativa* L. seeds on ethylene glycol-induced kidney calculi in rats. *Urology Journal*, 2007; 4: 86-90.
6. Prasad K, Sujatha D, Bharathi K. Herbal drugs in urolithiasis – a review. *Pharmacognosy Review*, 2007; 1: 175-79
7. Bashir S, Gilani AH. Antiurolithiatic effect of *Bergenia ligulata* rhizome: an explanation of the underlying mechanisms. *Journal of Ethnopharmacology*, 2009; 122: 106-116.
8. Kirtikar KR, Basu BD. *Indian Medicinal Plants*. Dehradun: International Book Distributors, (2nd ed) 1983; 3: 1615-17.
9. Ezeonwu VU, Dahiru D. Protective Effect of Bi-Herbal Formulation of *Ocimum gratissimum* and *Gongronema latifolium* Aqueous Leaf Extracts On Acetaminophen-Induced Hepato Nephrotoxicity In Rats. *American Journal of Biochemistry*, 2013; 3: 18-23.
10. Baker JT, Borris RP, Carte B, Cordell GA, Soejarto DD. Natural product drug discovery and development: New perspective on international collaboration. *Journal of Natural Products*, 1995; 58: 1325-57.
11. Ahmed S., AhsanMaliick I., Hasan MM. Exploring globally used antiurolithiatic plants of A to L families: Asteraceae, Fabaceae and Lamiaceae revisited. *Journal of Pharmacognosy and Phytochemistry* 2017; 6(5): 1780-1787
12. Sharada LD, Somshekhar SK: Isolation and characterization of phytoconstituents from *Chlorophytum borivilianum*. *Pharm. Res* 2010; 2: 343.
13. Gini TG, Jothi GJ: Preliminary Phytochemical Screening. *Int. J. Pharm. Phytochem. Res* 2013; 5(3): 200-214.
14. Anjamma M and Bhavani NL: Comparative Phytochemical Constituents Evaluation from the Fruit Extracts of *Momordica charantia* L. and *Momordica dioica* Roxb. *Int. J. Curr. Biotechnol* 2015; 3(8): 17-21.
15. Burke RW, Diamondstone BI, Velapoldi RA, Menis O: Mechanisms of the Liebermann-Burchard and Zak Color Reactions for Cholesterol. *Clin.Chem* 1974; 20(7): 794-801.
16. Pandhare RB, Shende RR, Avhad MS et al: Anti-urolithiatic activity of *Bryophyllum pinnatum* Lam. hydroalcoholic extract in sodium oxalate-induced urolithiasis in rats. *Journal of Traditional and Complementary Medicine* 2021.
17. Mukharjee TB, N. Aulakh GS, Jain HC. Herbal drugs for urinary stones – literature appraisal. *Indian Drugs*; 1984.
18. Bahuguna Y, Rawat MSM, Juyal V, Gupta V. Antilithiatic effect of flowers of *Jasminum auriculatum* Vahl. *Int J Green Pharm* 2009.
19. KalyanBetanabhatla S, Christina AJM, SyamaSundar B, Selvakumar S. Antilithiatic activity of *Hibiscus sabdariffa* Linn. on ethylene glycol-induced lithiasis in rats. *Nat Prd Rad* 2009; 43-7.
20. Karadi R, Gadge N, Alagawadi K, Savadi R. Effect of *Moringa oleifera* Lam. root-wood on ethylene glycol induced urolithiasis in rats. *J Ethnopharmacol* 2006; 21:306-11.
21. Anonymous. *The wealth of India. Raw material*. (Vol.7). New Delhi: CSIR; 1952: 68.



A CHALLENGE OF DIGITAL MARKETING IN INDIA

Dr. Jamadar Shahida Abdulrahim

*Assit. Prof, Department of Commerce Shikshanmaharshi Dr.Bapuji Salunkhe
College, Miraj ,Dist: Sangli*

Abstract:-

Marketing refers to any exercises that an organization uses to advance its items and administrations and further develop its portion of the overall industry. To find true success, promoting requires a mix of publicizing astute, deals, and the capacity to convey merchandise to end-clients. Customarily, enterprises zeroed in on showcasing through print, TV, and radio. Albeit these choices actually exist today, the ascent of the web prompted a change in the manner organizations arrived at customers. That is the place where computerized showcasing became an integral factor. This type of promoting includes the utilization of sites, web-based entertainment, web search tools, and applications - whatever fuses advertising with client input or a two-way connection between the organization and client. Email was a popular marketing tool in the early days of digital marketing. That focus shifted to search engines like Netscape, which allowed businesses to tag and keyword stuff to get them noticed. The development of sharing sites like Facebook made it possible for companies to track data to cater to consumer trends. Smartphones and other digital devices are now making it easier for companies to market themselves along with their products and services to consumers. Studies show that people prefer using their phones to log on to the internet. Digital marketing can be interactive and is often used to target specific segments of the customer base. At this stage, digital marketing is vital for your business and brand awareness. It seems like every other brand has a website. And if they don't, they at least have a social media presence or digital ad strategy. The challenge of capturing and using data effectively highlights that digital marketing requires an approach to marketing based on a deep understanding of consumer behavior. For example, it may require a company to analyze new forms of consumer behavior, such as using website heat maps to learn more about the customer journey.

Keywords: Websites, social media, search engines, Email, Capturing and using data

Introduction:

Marketing refers to any exercises that an organization uses to advance its items and administrations and further develop its portion of the overall industry. To find success, showcasing requires a mix of publicizing clever, deals, and the capacity to convey products to end-clients. This is typically attempted by unambiguous experts or advertisers who can work inside (for organizations) or remotely with other promoting firms. Customarily, partnerships zeroed in on advertising through print, TV, and radio. Albeit these choices actually exist today, the ascent of the web prompted a change in the manner organizations arrived at purchasers. That is the place where advanced showcasing became an integral factor. This type of advertising includes the utilization of sites, web-based entertainment, web search tools, and applications - whatever joins showcasing with client criticism or a two-way connection between the organization and client.

Expanded innovation and fresher patterns constrained organizations to significantly alter the manner in which they showcased themselves. Email was a famous advertising instrument in the beginning of advanced showcasing. That center moved to web search tools like Netscape, which permitted organizations to tag and catchphrase stuff to get them taken note. The advancement of sharing destinations like Facebook made it feasible for organizations to follow information to take special care of purchaser patterns. Cell phones and other advanced gadgets are currently making it more straightforward for organizations to showcase themselves alongside their items and administrations to purchasers. Concentrates on show that individuals favor utilizing their telephones to sign on to the web. So it ought to shock no one that 70% of people settle on purchasing choices (for the most part on their telephones) before they really hit the buy button.

Definition: -

1. Digital marketing, also called online marketing, refers to all marketing efforts that occur on the internet. Businesses leverage digital channels such as search engines, social media, email, and other websites to connect with current and prospective customers. This also includes communication through text or multimedia messages.
2. Digital marketing involves some of the same principles as traditional marketing and is often considered a new way for companies to approach consumers and understand their behavior. Companies often combine traditional and digital marketing techniques in their strategies.
3. Digital marketing is defined by the use of numerous digital tactics and channels to connect with customers where they spend much of their time: online. The best digital marketers have a clear picture of how each digital marketing campaign supports their overarching goals. And depending on the goals of their marketing strategy, marketers can support a larger campaign through the free and paid channels at their disposal
4. The term digital marketing refers to the use of digital channels to market products and services in order to reach consumers. This type of marketing involves the use of websites, mobile devices, social media, search engines, and other similar channels. Digital marketing became popular with the advent of the internet in the 1990s.

Digital marketing /Computerized promoting can be intelligent and is in many cases used to target explicit fragments of the client base. At this stage, advanced showcasing is fundamental for your business and brand mindfulness. It seems like each and every other brand has a site. Also, in the event that they don't, they essentially have a web-based entertainment presence or advanced promotion technique. Computerized content and showcasing is normal to the point that purchasers presently expect and depend on it as a method for finding out about brands. Since advanced advertising has such countless choices and procedures related with it, you can get imaginative and explore different avenues regarding an assortment of promoting strategies on a tight spending plan.

Features of the Digital Marketing

1. Digital marketing involves marketing to consumers through any number of digital channels.
2. This form of marketing is commonly executed on websites, mobile devices, and social media platforms.
3. This form of marketing is different from internet marketing, which is exclusively done on websites.
4. Digital marketing is a broad field, including attracting customers via email, content marketing, search platforms, social media, and more.
5. One of the biggest challenges digital marketers face is how to set themselves apart in a world that is oversaturated with digital marketing ads.

Types of Digital Marketing

The following are eight of the most common avenues that companies can take to boost their marketing efforts. Some companies may use multiple channels in their efforts.

Website Marketing

A site is the focal point of all computerized promoting exercises. It is an exceptionally strong channel all alone, but at the same time it's the medium expected to execute an assortment of web based advertising efforts. A site ought to address a brand, item, and administration in a reasonable and noteworthy way. It would be ideal for it to be quick, versatile, and simple to utilize.

Pay-Per-Click (PPC) Advertising

Pay-per-click (PPC) publicizing empowers advertisers to arrive at Internet clients on various computerized stages through paid promotions. Advertisers can set up PPC crusades on Google, Bing, LinkedIn, Twitter, Pinterest, or Meta (previously Facebook) and show their promotions to individuals looking for terms connected with the items or administrations. PPC missions can section clients in light of their segment attributes, (for example, by age or orientation), or even objective their specific advantages or area. The most well-known PPC stages are Google Ads and Meta Ads.

Content Marketing

The goal of content marketing is to reach potential customers through the use of content. Content is usually published on a website and then promoted through social media, email marketing, search engine optimization, or even PPC campaigns. The tools of content marketing include blogs, e-books, online courses, info graphics, podcasts, and webinars.

Email Marketing

Email marketing is still one of the most effective digital marketing channels. Many people confuse email marketing with spam email messages, but that's not what email marketing is all about. This type of marketing allows companies to get in touch with potential customers and anyone interested in their brands. Many digital marketers use all other digital marketing channels to add leads to their email lists and then, through email marketing, they create customer acquisition funnels to turn those leads into customers.

1. Blog subscription newsletters.
2. Follow-up emails to website visitors who downloaded something.
3. Customer welcome emails.
4. Holiday promotions to loyalty program members.

Social Media Marketing

The essential objective of a virtual entertainment showcasing effort is brand mindfulness and laying out friendly trust. As you go further into virtual entertainment advertising, you can utilize it to get leads or even as an immediate deals channel. Advanced posts and tweets are two instances of virtual entertainment showcasing.

Affiliate Marketing

Subsidiary showcasing is probably the most established type of advertising, and the web has carried new life to this old reserve. With partner advertising, powerhouses advance others' items and get a commission each time a deal is made or a lead is presented. Some notable organizations like Amazon have member programs that compensation out large number of dollars each month to sites that sell their items.

Video Marketing

YouTube is one of the most famous web search tools on the planet. A ton of clients are going to YouTube prior to settling on a purchasing choice, to learn something, read a survey, or just to unwind. There are a few video promoting stages, including Facebook Videos, Instagram, and even TikTok to use to run a video advertising effort. Organizations make the most progress with video by incorporating it with SEO, content showcasing, and more extensive online entertainment promoting efforts.

SMS Messaging

Companies and nonprofit organizations also use SMS or text messages to send information about their latest promotions or give opportunities to willing customers. Political candidates running for office also use SMS message campaigns to spread positive information about their own platforms. As technology has advanced, many text-to-give campaigns also allow customers to directly pay or give via a simple text message. Internet marketing differs from digital marketing. Internet marketing is advertising that is solely on the internet, whereas digital marketing can take place through mobile devices, on a subway platform, in a video game, or via a smartphone app.

Native Advertising

Native advertising refers to advertisements that are primarily content-led and featured on a platform alongside other, non-paid content. BuzzFeed-sponsored posts are a good example, but many people also consider social media advertising to be "native" i.e. Facebook advertising and Instagram advertising.

Marketing Automation

Marketing automation refers to the software that serves to automate your basic marketing operations. Many marketing departments can automate repetitive tasks they would otherwise do manually, such as:

1. Email bulletins: Email computerization doesn't simply permit you to send messages to your endorsers naturally. It can likewise help you recoil and extend your contact list depending on the situation so your pamphlets are simply going to individuals who need to see them in their inboxes.

2. Web-based entertainment post planning: If you need to develop your association's presence on an interpersonal organization, you want to regularly post. This makes manual posting a digit of a wild interaction. Virtual entertainment booking instruments push your substance to your web-based entertainment channels for you, so you can invest more energy zeroing in on happy system.
3. Lead-supporting work processes: Generating leads, and changing over those leads into clients, can be a long cycle. You can mechanize that interaction by sending leads explicit messages and content once they fit specific models, for example, when they download and open a digital book.
4. Crusade following and detailing: Marketing efforts can incorporate a huge load of various individuals, messages, content, website pages, calls, and that's only the tip of the iceberg. Showcasing computerization can assist you with arranging all that you work on by the mission it's serving, and afterward track the presentation of that mission in light of the headway these parts make over the long run.

Online PR

Online PR is the act of protecting acquired web-based inclusion with computerized distributions, web journals, and other substance based sites. It's similar as customary PR, however in the internet based space. The channels you can use to expand your PR endeavors include:

1. Columnist outreach by means of web-based entertainment: Talking to writers on Twitter, for instance, is an extraordinary method for fostering a relationship with the press that produces procured media open doors for your organization.
2. Connecting with online audits of your organization: When somebody surveys your organization on the web, whether that survey is fortunate or unfortunate, your intuition may be not to contact it. In actuality, drawing in organization surveys assists you with adapting your image and convey strong informing that safeguards your standing.

3. Connecting with remarks on your own site or blog: Similar to the manner in which you'd answer audits of your organization, answering individuals who are perusing your substance is the most ideal way to create useful discussion around your industry

Inbound Marketing

Inbound advertising alludes to a showcasing approach wherein you draw in, connect with, and amuse clients at each phase of the purchaser's excursion. You can utilize each advanced advertising strategy recorded above, all through an inbound showcasing procedure, to make a client experience that works with the client, not against them. Here are a few exemplary instances of inbound advertising versus customary showcasing:

1. Writing for a blog versus spring up advertisements
2. Video advertising versus business publicizing
3. Email contact records versus email spam

Web search tool Marketing (SEM)

At the point when a potential lead is looking for an item or business that is connected with yours, it's an incredible chance for advancement. Paid publicizing and SEO are two extraordinary systems for elevating your business to gain by those future leads. Internet searcher advertising is one more method for expanding site traffic by putting paid advertisements on web indexes. The two most well-known SEM administrations are Bing Ads and Google Ads. These paid promotions fit consistently on the highest point of web index results pages, giving moment deceivability. This is likewise an illustration of powerful local promoting.

Challenges of Digital Marketing:-

Digital marketing poses special challenges for its purveyors. Digital channels proliferate rapidly, and digital marketers have to keep up with how these channels work, how they're used by receivers, and how to use these channels to effectively market their products or services. The challenge of capturing and using data effectively highlights that digital marketing requires an approach to marketing based on a deep understanding of consumer behavior.

For example, it may require a company to analyze new forms of consumer behavior, such as using website heat maps to learn more about the customer journey

Not losing all sense of direction in the volume

The computerized world is blasting, and pretty much every business out there has taken its items/administrations online to contact the majority. As per a report by Experian, most advertisers are presently confronting the test of making their image hang out in the volumes accessible on the web. This ultimately prompts the trouble of running a brand mindfulness mission or obtaining new clients.

Driving important traffic to the site

Progressing forward with the point above, advertisers today are reliably confronting a test in spreading brand mindfulness in the right objective market. This additionally makes it harder for them to drive the best traffic to their business sites. In this way, understanding which channel to take advantage of and driving the pertinent crowd to your site to transform them into clients is turning into a continuous test for advertisers

Focusing on the right crowd actually

The most importantly thing that a viable advertiser would do is distinguish their ideal interest group on the lookout. With the quantity of web clients expanding continuously and their requirements changing consistently, focusing on the right crowd has become probably the greatest test for advertisers. Remembering what your business brings to the table and what sort of issues it would tackle when put to utilize, make your offer. This will assist you with recognizing who for sure socioeconomics would reverberate with it the most when designated.

Lead age utilizing virtual entertainment

With regards to the different social channels, most organizations and advertisers don't have the foggiest idea how to stay predictable. A large portion of them feel that everything revolves around the paid missions they should run for brand mindfulness and lead age. Albeit, the two of them is a steady test with

the always expanding market rivalry. Despite the fact that extensive promoting spending plans are saved by organizations, most advertisers can't run their commitment into income. Yet, you mustn't simply construct your social following - you really want to get transformations that amount to the general business objective.

Streamlining showcasing spending plans and ROI

With the increment of computerized channels and progressed investigation instruments, advertisers are currently expected to upgrade the showcasing financial plans and the ROI to best suit the business' requirements. He is supposed to quantify every work and its worth to accomplish the ultimate objective - the quantity of leads produced or the income raised.

Staying aware of the changing patterns

The computerized market and showcasing strategies have changed definitely throughout the most recent couple of years. What's more, it keeps on changing even today to take special care of the current addressable market needs. Consequently, advertisers need to keep awake to-date with this multitude of changes. Be it the sendoff of another online entertainment stage or an innovation that would put forth an advertising attempt more vigorous, advertisers need to stay in control to guarantee their business doesn't miss out on potential transformations.

A Check on Increased Security Risks

We have come across cases wherein online security has been compromised. The news and media keep it afresh. Since more information is shared online, hackers get more incentives to find ways to get through security. Shopping, bill payment, application submission, order copies, certificates, and other essential documents, and so much more are stored online for easy access – making these spaces a treasure trove for hackers and thieves. Venturing into digital marketing sure comes with its cost of security getting compromised as most of the work remains online.

Lesser Focus on Keywords

Catchphrases were the bread and butter of SEO at some point in the prompt past. You simply expected to observe the right catchphrases and use them right, and your site could shoot up to the top in the query items assisting you with more openness and traffic. Now Google has changed calculations making the watchwords less basic. Nonetheless, they are still to be utilized yet are not the concentration. All things being equal, it has turned into an effective methodology as opposed to looking for and observing one, implying that Google initially gets a general extent of your site.

Successful Ad Copies for PPC Campaigns

Gone are the days when you could type in a 'surmise' catchphrase in the PPC account, load a few spending plan and empower a mission. That used to be adequate! It is an alternate world now for the PPC promotion crusades. Your duplicate needs to appear to be legit as well as needs to stand apart to be seen by the sought after 'clickers.' Below are a few hints to remember while composing PPC advertisement duplicates (Google) for your online business site and items;

1. Make H1 infectious - Using trust-implementing terms like Top, best, grant winning, and so on, in the principal feature is basic. This either catches the client's consideration in a brief instant. E.g., Most Awarded Cosmetic Store or Top Camping Vendor are some that will function admirably.
2. Save H2 and H3 for Solution and Benefit - Your H2 should convey the arrangement in one fresh sentence, and H3 ought to expect to feature a basic advantage. E.g., for a telephone frill brand, H2 can be Latest iPhone Accessories, and H3 can be the Best Price Guarantee.
3. Use Site connect Extensions actually - Many web based business brands, particularly those simply beginning, don't involve website interface expansions in their PPC crusades. Site link expansions are those interactive promotion connects that immediate the client to explicit interior pages.

E.g., Today's Deals, Contact Us, Sign-Up, and so on. The principle advantage of utilizing site joins is that Google tracks its investigation independently. In this way, you'll continuously know which expansion interface is getting more snaps

and how would they contrast with your general advertisement's exhibition. Then, at that point, you can change the duplicate and connections likewise.

Conclusion: Today's world is Digital so anywhere, everywhere only Digital tractions. Save time, safe tractions, save energy with stay home and leave sound life with digitalization.



ROLE OF SOCIAL MEDIA PLATFORM IN AGRICULTURAL MARKETING

Mr.D.N.Karle¹ ,Dr.Amit kumar Mishra ²

¹Research Scholar, Faculty of Management Sciences, Bhagwant University,
Ajmer(Rajasthan)

²Asst. Professor, Faculty of Agricultural Sciences, Bhagwant University,
Ajmer(Rajasthan)

Email id- dheerajkpatil@gmail.com

Abstract:

Social media are interactive technologies and digital channels that facilitate the creation and sharing of information, ideas, interests, and other forms of expression through virtual communities and networks. In Agriculture sector it provides growers (Farmers) with a quick and easy way to build relationships and interact with people in agriculture. Social media marketing is the use of social media platforms and websites to promote a product or service and also to establish a connection with its customers. Social media marketing has increased due to the growing active user rates on social media sites. In India, **Instagram** is the **most used social media platform** in **2022** with **76.50%** of the social media users enrolled. Few other social media platforms in India are **Twitter**, Facebook, WhattsApp, Linkedin, Telegram, Youtube, Blogs, Snapchat,etc. Social media is very useful tool in agricultural marketing. It saves time and cost for getting information to the farmers regarding Markets, arrival of commodities, supply, demand, etc.

Digital marketing is the component of marketing that uses the Internet and online based digital technologies such as desktop computers, mobile phones and other digital media and platforms to promote products and services. Agricultural marketing brings producers and consumers together through a series of activities and thus becomes an essential element of the economy. Agricultural marketing system is an efficient way by which the farmers can dispose their surplus produce at a fair and reasonable price. National Agriculture Market or eNAM is an online electronic trading platform for agricultural commodities in India. The market facilitates farmers, traders and buyers with online trading in commodities. The market helps in better price discovery and providing facilities for smooth marketing of produce.

Social media is helping to raise awareness, strengthen communities, increase access to education and resources, change and influence cultures, and bringing economic opportunities.

KeyWords:- Social Media, eNAM-National Agriculture Market, Digital Marketing , Agricultural Marketing, Electronic Trading, economic opportunities.

Introduction:-

Agriculture plays a vital role in the Indian economy. Over 70 per cent of the rural households depend on agriculture. Agriculture is an important sector of Indian economy as it contributes about 17% to the total GDP and provides employment to over 60% of the population. India's economic sector is based on different activities in agricultural sector which plays a vital role in the national development. Agriculture and allied activities contributes country's largest employment source and a significant piece of its overall socio-economic development.

The key success of Indian agriculture largely depends upon infrastructure facilities such as irrigation network, flood control system, electricity supply, production capacity, cold storage facilities, user of information and communication technology, use of digital marketing and Social Media Platform in Agricultural Marketing. The term agricultural marketing comprises of two words- Agriculture and Marketing. Agriculture, generally means growing and/or raising of crops and livestock while, marketing encompasses a series of activities involved in moving of goods from the point of production to point of consumption. Farmers in India are using various ICT Information and Communication Technology platforms viz. mobiles, web-portals, information kiosks, e-markets, etc for marketing their produce. ICT platform adds market knowledge and give farmer greater confidence in understanding the demand and enhance ability to the control production and manage supply chains. Information and Communication Technology (ICT) supports farmers by facilitating access to markets by providing information and real-time data on market prices, weather forecasts, information on pests, seed varieties, planting techniques,etc. ICT application in the agriculture sector has started bringing transformation in the Indian agriculture by ensuring the free flow of information to the farmers

regarding the newer and better production techniques, agri management, commodity prices and agri marketing etc.

Major problems and challenges faced In agricultural marketing system in India are transportation cost, inadequate market infrastructure, lack of market information, lack of processing units, storage facility, price fluctuation, etc.

The primary dairy cooperatives are positively influencing the development of villages in India especially in Maharashtra. This paper highlights the important position of dairy industry in India's rural economy. The primary dairy cooperatives are positively influencing the development of villages in India especially in Maharashtra. This paper highlights the important position of dairy industry in India's rural economy. The primary dairy cooperatives are positively influencing the development of villages in India especially in Maharashtra. This paper highlights the important position of dairy industry in India's rural econo

Objectives:

1. To highlight the use of social media platforms in Marketing of Agricultural Commodities in India.
2. To examine the various challenges faced in utilization of social media platforms, Digital Marketing.

Results & Discussions:

To Highlight the use of social media platforms in Marketing of Agricultural Commodities in India.

Digital marketing and use of social media platforms in the agriculture industry in India is not so popular, due to lack of education, lack of knowledge on how digital marketing will help their business in the new era of marketing. Digital marketing and use of social media platforms in Marketing of Agricultural Commodities will provide Good opportunity to the producers, processors, traders, etc to market their products not only to local and national but also in global market. Major benefit of use of social media in agricultural marketing is ability to gain wealth of knowledge and ideas, opportunity to establish key partnership, opportunity to reach wider consumers, experts in the field of Agriculture and

Allied sector. Different types of Social media platforms: Blogs, Microblogs (Twitter), Social Photos, Social Networking (Facebook, LinkedIn, Instagram, Snapchat), Video Sharing (YouTube). The use of social media in the field of agricultural marketing offers great opportunities for the buying, selling of agricultural commodities.

Digital marketing platforms are helpful to the farmers as they increase the selling price and reduce the marketing cost of their agriculture (products) output like cotton lint, paddy, maize grains, pulses, vegetables etc. Information, particularly through social media, has become an important commodity in today's digital world.

To examine the various challenges faced in utilization of social media platforms, Digital Marketing.

Social media is now a mainstream form of communication around the world, and continues to grow in popularity with the increase in the number of smart phones. Challenges faced in utilization of social media platforms, Digital Marketing are:-

-Adoption of social media as tool of marketing. -Most of the people are less trusted on e-buying, e-selling of agricultural commodity on social media. -Lack of knowledge of Electronic Medias. -Some of the farmers do not have computer knowledge & unable to operate android mobiles. -Risk of security Issues such as - Sometimes farmers may face risk of fake websites or fake online portals. -High risk factor in marketing of Farm products and manufactured products. As Farm products are produced in a particular season; they cannot be produced throughout the year. In the harvest season, prices fall, Perishable in nature. But the supply of manufactured products can be adjusted or made uniform throughout the year. Their prices therefore remain almost the same throughout the year.

Conclusion:

Using internet or electronic trading platforms and social media platforms in selling of agricultural products is changing marketing channels in the agribusiness industry. Now farmers will be able to sell their produce through

various e-market platforms, Digital Marketing. The pandemic of Covid-19 has created a platform to adopt innovative practices in marketing of farm products, fresh agricultural commodities through use of social media platforms.

Social media is helping to increase awareness, strengthen communities, increase access in education and resources, change and influence cultures, and bringing economic opportunities. Due to rapid growth in users of android mobile phone there is huge increase in social media users which has increased the scope of use of social media in various sectors of Development, Infrastructure, Digital Marketing, Education, Employment, Communication, etc. Social media platforms can be efficiently used among different stakeholders in agriculture and allied sectors through proper communication, to communicate and deliver all forms of information, data and to build a effective relationship among them. Social media plays an influential role and is very useful tool in agricultural marketing. It saves time and cost of the farmers for getting information related to various parameters in agricultural marketing. It enables Networking of (Farmer –Farmer) which can Reduce social isolation of farmers. Enable farmers & agribusinesses professionals to meet and create effective relationships and network with other farmers, producers, different stakeholders in agribusinesses and consumers at domestic or global level. Social media is the fastest way to communicate worldwide. Facebook is the most preferred social media platform by a large majority followed by Whatsapp, Google Plus, Twitter, Blogs and YouTube. YouTube is the most popular social media platform for agriculture professionals about 51% of farmers that use the site.

References:

1. Mukherjee, P. Joshi, N. Sharma, Raksha, and G. S. Mahra, "Social media in agriculture: A new paradigm for extension and advisory services," *Indian Farmers' Dig.*, vol. 3, pp. 4–7, 2017.
2. Anitha, H., Navyashree, C. (2015). Role of Information Technology in Agricultural Production and Marketing. *Adarsh Journal of Management Research*, 5(2), 11-16..

3. B. Balkrishna and A. A. Deshmukh, "A study on the role of social media in agriculture and its scope," *Global J. of Manage. and Bus. Res.: E-Marketing*, vol. 17, no. 1, 2017.
4. Bhargava, Y. 2015. Social media use doubles in rural India. *The Hindu*. <http://www.thehindu.com/todayspaper/social-media-use-doubles-in-ruralindia/article7335017> (Published on June, 20, 2015; Accessed on June 21, 2015).
5. Thakur and M. Chander, "Use of social media in agricultural extension: Some evidence from India," *Int. J. of Sci., Environment and Technol.*, vol. 7, no. 4, pp. 1334–1346, 2018.
6. Jijina C. K. and Raju G., "Social media and farmers," *Int. J. of Res. in Eng. and Technol.*, vol. 5, no. 19, pp. 20–25, 2016.
7. Meena, MS., Singh, K. (2012). *ICT Enabled Extension in Agricultural Sector*. Social Science Research Network.



DIGITAL MARKETING: AN OVERVIEW

Dr. B. D. Girigosavi

Professor and Head , The New College, Kolhapur

E-mail- balwantgiri09@gmail.com

Abstract:

Today's era is changing very fast, so everyone needs to know what digital marketing is. The world is becoming digital and everyone needs it. Many companies now hire digital marketing experts so that they can spread their business digitally as well as marketers are faced new challenges and opportunities within this digital age. Digital marketing is the utilization of electronic media by marketers to promote the products or services into the market. The key objective of digital marketing is attracting customers and allowing them to interact with the brand through digital media. This article throws light on importance of the digital marketing for both marketers and consumers. Furthermore this article focuses on the components of the digital marketing.

Keywords: Digital marketing, Traditional marketing, Importance, Components.

Introduction:

Today's era is changing very fast, so everyone needs to know what digital marketing is. The world is becoming digital and everyone needs it. Many companies now hire digital marketing experts so that they can spread their business digitally as well. But there is also the question of how to learn digital marketing. Those who know this already know how to make money from it. Many people still do not know its significance. Everyone is aware of education, but many parents still do not know much about digital marketing and that is why they tell their children to focus on traditional studies. Digital marketing is a modern way to spread your business and increase its brand value, so today every company builds its website with its business name and does digital marketing through it. When a company starts a new business or a new product, so after that, to make it successful, its marketing is the most important. Because marketing is the only way business product can reach as many people as possible. More than half the world's population uses the Internet, and the number is growing speedily. This is why digital marketing is expanding so fast. ,

<http://www.ijaar.co.in/>

If you look at the market statistics, there are about 80% of shoppers doing online research before buying a product or service. In such a scenario digital marketing becomes an important tool for any company or business. Day by day the number of internet users in India is increasing. There are now 624 million Internet users in India in 2021 and this number is expected to reach 820.99 million next year. Therefore, the future of digital marketing in India is going to be very big.

Objectives of The Study: The objectives for this study have been determined as follows,

1. To know the importance of digital marketing.
 2. To highlight the traditional marketing and digital marketing.
 3. To focus on the various components of the digital marketing.
3. Research Methodology of the Study:

The present study is based exclusively on secondary data source. Secondary source is a source from where we collect data that has been already collected by someone. For present study we have gleaned secondary data from various books, National & International Journals and public and private publications available on various websites and in libraries focusing on this respective research work. Collected data and information has been organized and explained in descriptive manner.

What is Traditional Marketing?

Traditional Marketing: When any company or business advertises its products and services through television, newspapers, radio, hoardings or banners is called as traditional marketing. Traditional marketing is an old form of marketing, and it is also very expensive. Traditional marketing takes more time and more money to advertise. It takes a long time to get back the money you spent on marketing. In this century of traditional marketing you can't expand your business much. Now is the digital age, and our India is also going digital. So in this 21st century, you need digital marketing to grow your company. Let us see what digital marketing is?

What is Digital Marketing?

Digital Marketing: When any company or business advertise their products and services on the Internet through online platforms such as Website,

Facebook, Instagram, WhatsApp, Tweeter, YouTube, this marketing is called digital marketing. Digital marketing is a new and cheaper method. Digital marketing is very useful for getting customer orders online and creating brand awareness and building brand community in the market. It takes a very short time to get back the money you spent on marketing. Digital marketing is less expensive and has a higher impact, e.g.

1. Business growth in less time.
2. Help to get more local and non-local customers.
3. Business can be run 24 * 7.

Traditional marketing Versus Digital Marketing

Traditional marketing is the well known type of marketing. It is non-digital way used to promote the product or services of the business organization. Whereas digital marketing is the marketing of products or services utilizing digital sources to reach customers. Some comparisons are presented below.

Table 1: Traditional marketing and digital marketing comparison

	Traditional Marketing	Digital Marketing	
hi	Traditional marketing is a marketing which includes print, broadcast, direct mail, and telephone	Digital marketing is a marketing which includes online advertising, email marketing, social media, text messaging, affiliate marketing, search engine optimization, pay per click	
	In traditional marketing there is no interaction with the audience	Whereas in digital marketing there is interaction with the audience	
In	traditional marketing the results are easy to measure	But in digital marketing results are to a great extent easy to measure	
camp	In traditional marketing advertising campaigns are planned over a long period of time.	On the other hand in digital marketing advertising campaigns are planned over short period of time	
T time-	traditional marketing is expensive and consuming process as compare to digital marketing.	But digital marketing is reasonably cheap and rapid way to promote the products or services	
In can	traditional marketing success strategies can be celebrated if the firm can reach large local audience	In digital marketing success strategies can be celebrated if the firm can reach some specific number of local audience	

T	Traditional marketing One campaign prevails for a long time	Digital marketing campaigns can be easily changed with ease and innovations can be introduced within any campaign	
Lim	ited reach to the customer due to limited number of customer technology	Wider reach to the customer because of the use of various customers technology	
In	traditional marketing 24/7 year-round exposure is not possible	In digital marketing 24/7 year-round exposure is possible	
I	Traditional marketing there is no ability to go viral	In digital marketing there is huge ability to go viral	
	Traditional marketing has one way conversation	Digital marketing has two ways conversation	
In	traditional marketing responses can only occur during work hours	In digital marketing response or feedback can occur anytime	

Advertising mediums that might be used as part of digital marketing strategy of a business that could consist promotional efforts made by way of Internet, social media, mobile phones electronic billboards and via digital television and radio channels for the placement of products e.g. downloadable music, initially for communicating with stakeholders e.g. customers and investors about brand, products and business progress.

Now we need to understand why digital marketing is important.

From last three years we are facing Kovid-19 virus. This is extremely detrimental to small to large businesses. Many industries have come to a standstill due to this Kovid-19 virus. Lockdown has been made mandatory in the market. As a result, consumers are unable to enter the market and businesses are automatically shutting down. To do business effectively, businesses need to take advantage of all the digital marketing resources and technology and do business using the internet in the modern world. This will make every business digital. So need to understand the importance of digital marketing. Let's take a look at the reasons for doing digital marketing.

Online Presence: You can start your business online but through Website, What's App business. Website is your online shop. If you market your business digitally, the online presence of your business grows and your business is known to more and more people. The online presence of your business grows and people

understand your business. In this way more customers are added to your business.

Look Professional: There is a saying in English, “first impression is last impression” Whether your business is on social media or business website, your business looks professional and it attracts customers to your business.

Flexibility: Digital marketing allows you to provide flexibility to your business. You can maintain a stable and strong relationship with your customers. Thus the feature of flexibility plays an important role in maintaining the strong relationship with customers.

Tracking: With digital marketing, you can track your business. You can use these tools to keep track of how much and how little your business is growing. You can maintain all your customer records. But you can also keep track of your products and move your business in the right direction.

Business Run 24 * 7: Your company may have work in shifts, but your online presence runs your business 24 * 7. Anyone can contact you anytime through your website if the customer needs it. This will increase the sales of your product. Customers can buy your product 24 * 7 and your business grows. Therefore, digital marketing is very important.

Let's take a brief look at how digital marketing works and what types / components of digital marketing are?

Various components of Digital Marketing:

The Internet is the only digital marketing tool. We can do digital marketing through various websites on the internet. We are going to discuss about some of its types / components of digital marketing:

Search Engine Optimization (SEO): Search engine optimization allows you to rank your blog or website at the top of search engines, which will get more visitors to your website. There are two types of SEO: on-page SEO and off-page SEO.

Search engine marketing: Search engine marketing, which we call SAM for short, is a process by which we purchase advertising space in the search engine results page. For this we use some platforms like Google ads etc.

Social media marketing: Nowadays social media has become very important for marketing. It gives you a very easy way to reach customers. Using it you can get valuable customer feedback and through which you can provide products and services to your customers in one way or another. Best Platforms for Social Marketing Instagram, TickTock WhatsApp Facebook YouTube Twitter etc. When you post your best product, you can reach most people through social media marketing. This way, the way you can spread your business through social media is called social media marketing. When you're on Twitter, Facebook or Instagram, it's all called social media marketing.

Content marketing: When we create very good quality content for our users so that the product can produce good sales. It also increases your brand value and customers. Content marketing works great because it covers both search engine optimization and social media marketing.

Pay Per Click (PPC): PPC Marketing is Pay Per Click Pay Per Click is a great way to get customers to your website. In PPC marketing, advertising is done through Google Ads. In which publishers are paid per click on advertising. For this, most people use Google ads, in which companies pay Google per click to visit the site. PPC is a part of Social Media Marketing.

Video Marketing: Video marketing means making videos and advertising on Youtube, Instagram, Facebook. Video marketing has increased a lot in recent times. Big companies advertise their products on the YouTube platform and they get good response from it.

Affiliate Marketing: Affiliate marketing is when you ask people to buy or sell a product or service of a company and sell that product or service to the people and you get a few percent commissions from the product or service that is sold, this is called affiliate marketing. You can select niche according to your skill or preference. E.g. you can choose topics like health, cooking, digital marketing, game, technology etc. It is important to decide which product or service you are going to affiliate. If you are new to affiliate marketing, you should choose only one niche (subject) and affiliate the product from it. By choosing a niche, your full focus is on that niche and so you can study about it well and do affiliate marketing of that product in the right way. You can affiliate their products by

joining affiliate programs of different companies. Thus in affiliate marketing, you promote a product or service of a company and you get commission for it. Suppose your friend wants to buy mobile from Amazon, then you can get him to buy it with your affiliate link and you will get some percentage commission for it. If you have a lot of companies that sell products like website hosting, gadgets, electronics, fitness food then you can join their affiliate program and become their affiliate partner. Some Affiliate Marketing Websites are as below,

Associ Amazon associates

Flipkart associate

Ho Bluehost affiliate

Go-daddy affiliate

eBay Partners

Shopify Affiliate Program

Ban Clickbank

Mail Email marketing affiliate

JVZoo

Influencer marketing: Influencer marketing is a new form of digital marketing, in which such people are used. People who follow a lot of people, and they can tell their followers about your product on social media which can increase your sales.

Email marketing: Email Marketing can mail all the email lists you have, you can mail them information about your product, or you can mail them offers to buy.

Findings:

Digital marketing is a new and cheaper method.

Digital marketing is very useful for getting customer orders online and creating brand awareness and building brand community in the market.

It takes a very short time to get back the money you spent on marketing.

Digital marketing is less expensive and has a higher impact, e.g. business growth in less time.

Digital marketing helps to get more local and non-local customers.

Business can be run 24 * 7.

Conclusion:

The way of marketing in the form of digital in today's challenging marketing has become essential part of strategy of many companies. Even for small business owners there is a very cheap and efficient way to market business products or services. Digital market has no limitation of boundaries. Any company has lot of devices to utilize such as Smartphone, tablets, laptops, televisions game consoles, digital billboards and media like as social media, SEO (search engine optimization), videos, e mail and lot more to promote company itself and its products and services. Thus any may be small or big business entity needs to be the heart of all digital marketing initiatives. Business should create innovative customer experiences and specific strategies for media to find out the best way for increasing digital marketing performance. The number of internet users in India is increasing. Therefore, the future of digital marketing in India is going to be very big. There are now 624 million Internet users in India in 2021 and this number is expected to reach 820.99 million next year, but digital marketing will be very important in the future. Therefore there is a huge opportunities to the marketers in digital marketing in order to drive up performance of the business.

References

1. Merosavo, M and R.Mika (2004) impact of e-mail marketing on brand loyalty. Journal of product and Brand Management
2. Chaffey D. (2011)- business and e-commerce management, Pearson Education
3. Chaffey D. Smith. P (2008) E-marketing Excellence: Planning optimizing your Digital marketing Routhledge.
4. Sheth J.N., Sharma A .(2005) International e- marketing: opportunities and issues International Marketing Review 22 Websites
5. http://.wikipedia.org/wiki/Affiliate_marketing
6. <http://.en wikipedia.org/wiki/ Methodology>
7. http://.en wikipedia.org/wiki/ Search_engine_optimization
8. <http://lexicon.ft.com/Term?term=digital-marketing>
9. <http://lwww.entrepreneur.com/encyclopedia/affiliate-marketing>
10. http://lwww.sas.com/en_us/insights/marketing/digital-marketing.html



GROWTH AND STRATEGIES OF DIGITALMARKETING

Dr Sanjay Shivaji Omase

Asst Professor in Economics, Mahavir Mahavidyalaya , Kolhapur.

Email- sanjayomase2013@gmail.com

Introduction

The techniques of marketing have evolved as the ways in which consumers get information change. Radio advertising led to TV advertising, which then shifted to digital marketing with the rise of the internet. Nowadays most of the consumers are using smart phones and search products online before buying. The digital marketing strategies are also becoming more crucial to businesses. Hence the companies across the globe are adopting the various tools and techniques of digital marketing to target their audiences. The aim of the present research paper is to put light on various reasons which are responsible for rapid growth of digital marketing. Further this paper focuses on the strategies and examines the prospects of digital marketing in a business perspective.

Objectives and Methodology of the paper

The objectives of the present research paper are as follows:

1. To explain the term digital marketing
2. To find out and discuss the causes of growth in digital marketing
3. To suggest the more appropriate strategies of digital marketing

The present research paper is based on secondary data. The necessary secondary data is collected from internet and web sites related to digital marketing. The earlier part of the paper explains the term digital marketing and the latter deals with growth and strategies of digital marketing.

What is Digital Marketing

According to David Edelman and Jason Heller (2021), digital marketing operations involve the application of capabilities, process, structures and technologies to cost effectively exploit and scale the targeting personalization and optimization of digital channels. Digital marketing is not merely adding channels to the media mix but it is about integrating digital to all facets of marketing. Digital marketing strategy is not like traditional marketing avenues of years past. It is driven by data and analytics; focused on personalization

rather than a one-size-fits-all approach; delivered via both social media marketing and broadcast media; interactive and “always on” rather than static and periodic; and iterative rather than pumped out as a single campaign.

Digital Marketing:

Reasons Behind the Growth The present research paper put light on the several causes which pave the way for the growth of digital marketing in the recent era.

1. Restrictions laid down by the government during the COVID-19 pandemic.
2. Tremendous growth in Mobile and Internet users.
3. Customers are now spending more time and resources on owned-media channels such as websites, mobile apps, and customer-service channels. There is also a noticeable increase in customer-conversion rates, with social and digital video channels driving the highest ROIs.
4. According to McKinsey, companies are responding to accelerated marketing trends by diversifying their spend across paid and owned media. As a result, digital marketing has never been more important. This report also indicates that some financial institutions have seen up to a fivefold increase in digital sales, while tele companies can reduce absolute churn by 15 to 40 percent and retailers can significantly increase sales.
5. Digital marketing is crucial for business because it provides several advantageous in the terms of wide reach to the customer ,cost effective advertising ,cost effectiveness, better revenue and improved ROI that can help grow the business:

Beside these prime causes another reasons of growing digital marketing shall include

Digital Marketing Costs Less

Traditional marketing campaigns, including print and television, are more costly because of pricey resources and the difficulty of tracking ROI. Digital marketing uses targeted research and analytics to quickly determine which approaches are working well and which aren't worth the cost or resources. So, most digital marketing channels tend to be less costly from the start and prevent overspending on underperforming campaigns.

More opportunities to improve competitiveness

Digital marketing closes much of the gap between large, medium, and small companies because it avails each level with many of the same resources. While big companies with larger budgets will be able to spend more on paid ads and advanced software, digital marketing gives SMBs more opportunities to compete, improve brand awareness, and build an audience.

ROI Measures Program Results

The Return on Investment (ROI) is critical and essential metric in digital marketing which measures the successes of the campaign. The operations of digital marketing can target specific audiences; it is easier to determine which ad led to which sale. Other methods of measuring ROI are attribution across multiple programs and people, test and control groups, and market mix modeling.

Easier A/B Testing Hones Communications

One of digital marketing's best allowances is the ability for a company to experiment with almost every aspect of a marketing campaign. A/B testing the location of an email sign-up CTA, the color of a promotional banner, a subject line, etc., is much easier—and results are available much faster—on digital channels. With some diligence, simple changes can be tracked and used to target customers more effectively. For example, testing can be used to better engage a target audience, improve CTRs, help drive buyers through their journey and more. The results of A/B testing can be used to improve targeting of print ads as well. For example, if a company is targeting the same audience on Google as it is in a print magazine ad, the same language will be effective for both.

Mobile Marketing Increases Engagement

Mobile marketing opens up a whole world of opportunities for increased engagement, from creating a more personalized user experience to reaching new users. According to Global Web Index, more than 80% of internet users own a smart phone, and 90% of the time spent on their smart phone is devoted to apps. Mobile marketing—from email and social ad design to SEO to branded apps—allows you to reach users in their most native environment.

Analytics Improve Business Models

Measuring digital analytics helps companies make informed decisions about where to invest their resources, improving efficiency. Gathering numbers for traditional marketing channels is a manual process, while most digital platforms, including social media and marketing automation, have built-in analytics dashboards with all of the data automatically available. View reports on dashboards for easy visuals, and map the customer journey, measuring performance metrics at each step.

Digital Delivers Personalized Attention

Tech-savvy marketplaces have led customers and buyers to expect individual, personalized attention. Click To Tweet Digital marketing eliminates the old “one size fits all” approach to marketing by giving companies better insight into segmentation. Using results from customer behavior tracking to personalize outreach creates the ideal customer experience. A better customer experience means increased trustworthiness and loyalty, more closed accounts, and a growing team of brand advocates.

Account-Based Marketing Closes Big B2B Accounts

Digital channels and tools have enabled a new strategy, account-based marketing, which uses highly, personalized messaging to communicate with individual prospect accounts as markets of one. Account-based marketing is extremely targeted, which results in a more efficient use of resources and more significant B2B accounts.

Marketing Automation to Grow Big Than Ever

Many simple, routine marketing tasks such as reporting can be automated when they're done digitally, by a robust marketing automation platform. This allows managers and marketing teams to focus on creating effective strategies and measuring meaningful analytics. These systems let marketing and sales teams focus on their expertise, and optimizing strategies, without wasting resources on smaller tasks.

Email Marketing Still Communicates Best

Email marketing is being considered as a good digital marketing strategy with an average ROI of 42:1 cater to the audience's preferences. Most people, 72%, in fact, prefer to hear from brands via email, making a strong case for an engaging email marketing strategy. Email marketing puts targeted messaging right in front of customers and potential customers. When automated, trigger emails can even be sent automatically based on customer activity, further personalizing interactions.

Social Media Builds Trust

A referral from a friend instantly makes a company seem more trustworthy to potential customers. Digital advertising leverages social media to make "likes" and other online reviews visible to friends of customers. Recommendations make a company stand out from the competition, automatically building trust.

Brand Promotion

Everyone uses Google. In fact, 81% of B2B purchase cycles begin with a web search. That may be why search engine optimization (SEO) has the best ROI (22:1) of any digital marketing channel. SEO, a tool of digital marketing, puts the Brand where the audience can easily find it. For a company to be seen on Google, it must show up on the search engine's first page. A solid SEO strategy is used to improve a company's Google ranking.

Digital Marketing Strategies and Meeting Business Goals

A better cost efficiency, more data to inform better decisions, and building on customer trust are the advantages that can be gained from digital marketing. A set of strong digital marketing strategies will serve as the path to reaching business goals

, finding success and gaining the advantages of digital marketing. **Successful long-term digital marketing strategies can include**

1. Tracking and analyzing the consumer behavior
2. Designing the customer journey based on insights
3. Setting a protocol for piloting a new technology sharing data across the

business and manage the external capabilities

4. Employing flexible and multiple ecosystem
5. Selecting the appropriate technology
6. Enhancing customer experience with performance marketing
7. Be sensible about martech capabilities such as Campaign execution, Audience management and Data analytics and performance
8. Form agile marketing and tech squads to target key performance indicators
9. Defining balance spend allocation through use of behavioral & income data define and design specific campaigns with balance spending
10. Be responsible with audience's trust and first-party data management

Conclusion

Digital marketing is more affordable, flexible, and engaging than traditional marketing methods. Even top-performing small and mid-sized companies are finding better competition, improved best practices, and increased engagement through digital marketing. The digital marketing stream is not reserved for large corporations. Regardless of size, industry or geography, digital is a necessity for growth and business innovation. The digital marketing operations can transform business. The above stated strategies of digital marketing will certainly help businesses to transform their business into a more tech savvy and competent environment. Just they may recognize the capabilities of digital marketing strategies in the area of customer insight and experience, key performance indicators and measurement and marketing technology and infrastructure.

References

1. <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/how-digital-marketing-operations-can-transform-business>
<https://timesofindia.indiatimes.com/readersblog/manish-kumar-singh/future-of-digital-marketing-in-india-30738>
2. <https://www.simplilearn.com/the-scope-of-digital-marketing-article>
<https://stefanini.com/en/trends/news/how-digital-marketing-drives-the-growth-you-need-for-2022#:~:text=As%20such%2C%20digital%20marketing%20is,engaging%20with>

%20consumers%20more%20effectively.

3. <https://blog.marketo.com/2018/02/digital-marketing-crucial-no-matter-size-business.html>
4. <https://www.mckinsey.com/business-functions/marketing-and-sales/how-we-help-clients/digital-marketing>
5. <https://www.marion.com/which-online-marketing-strategy-has-the-biggest-impact-on-roi/>



PERCEPTION TOWARDS CASHLESS TRANSACTION AMONG RETAIL CUSTOMERS IN BEED DISTRICT

Mr. B. B. Rajemane

*Assistant Professor and HOD, Department of Commerce Vaishnavi
Mahavidyalaya, Wadwani, Dist. Beed (MS) India*

Abstract -:

The main objective of the present paper is to analyzing the people are too much dependent on cash, whether they are living in urban as well as rural areas regularly use cash in their transactions. Peoples are living in villages, towns; small cities are facing problems of hard cash. In this study opinions of 120 regular retail customers to the shop were selected from Beed District, which comes under semi urban area. The result shows that peoples were not completely aware about cashless transactions.

Keywords: Cashless transaction, physical currency, Mobile banking, E- banking

Introduction:

A Cashless Economy is an economy in which all types of transactions are carried out through digital means. Since the removal of the notes, the government has been working hard to promote digital payment systems to consumers, proactively offering different incentives and rewards. So far, it seems to be working: the government has reported a 400-1,000% increase in digital transactions since the demonetization. It includes e-banking (Mobile banking or banking through computers), debit and credit cards, card-swipe or point of sales (POS) machines and digital wallets.

Cashless transaction is a process of buying goods and services against money where there is no physical currency is involved. The physical currency is replaced by a number of methods that are powered by digital information technology and are capable to transfer money from one person's bank account to another person's. All these money transfer 3 methods have their own, features, qualities, and mechanisms that work together with other devices or equipment's therefore they are termed as "systems"

Modes of cashless Payments

For making India cashless, these are the various modes available in the form of digital transactions. These can be highlighted as follows:

Banking Cards- Banking cards offer consumers more security, convenience, and control than any other payment method. The wide variety of cards available – including credit, debit and prepaid – offers enormous flexibility, as well.

Banks Prepaid Cards- For this service, a bank account is there with wallet or a pre-paid card and a smart phone to generate the MPIIN.

USD (Unstructured Supplementary Service Data): The innovative payment service *99# works on Unstructured Supplementary Service Data (USSD) channel. This service allows mobile banking transactions using a basic feature mobile phone; there is no need to have an Aadhaar Enabled Payment System

AEPS- AEPS is a bank led model which allows online, interoperable financial transaction at the POS (Point of Sale / Micro ATM) through the Business Correspondent (BC) /Bank Mitra of any bank using the other authentication. mobile internet data facility for using USSD based mobile basic feature mobile phones Interface (UPI) is a Aadhaar Enabled Payment System accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience.

Mobile Wallets: A mobile wallet is a way to carry cash in digital format. Most of banks have their e-wallets and some private companies. Such as. Amazon pay, Paytm, Mobikwik, Oxigen, Rupee, Airtel Money, Jio Money, SBI Buddy, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, Speed Pay etc.

Point of Sale: A point of sale (POS) is the place where sales are made. On a macro level, a POS may be a mall, a market or a city. On a micro level, retailers consider a POS to be the area where a customer completes a transaction, such as a checkout counter. It is also known as a point of purchase.

Internet Banking: For this type of digital service to take benefit of, the individual must hold a bank account and opt for the online service same.

Electronic Fund Transfer Systems: Two popular methods RTGS and NEFT are increasingly used by people on a large scale for making funds transfer from one bank to another leading to less time and economy in operations.

Review of Literature:

Olatokun and Igbindion (2009) “discovered that the limitations of Relative Advantage, Complexity, Observe Capacity, Compatibility, and Trial Capacity were positively linked to the Indian attitude towards using ATM cards”. In its qualitative survey, Morufu and Taibat (2012) “suggest that bankers in India perceive electronic banking as a tool to minimize difficulties, reduce transaction costs, alter customer queuing patterns and save customer banking time”. Alawiye Adams Adewale (2013) has explained that the cashless payment systems have a great impact on the economy and the part of the population which is illiterate cannot access these methods. Jashim and Margaret (2014) revealed that when a credit card based payment is used, the volume, value and type of products purchased increase. This is due to the credit element, or to the cashless element of the transaction. The perception may well have a direct impact on purchase behavior of customers. D. Kumari, (2016), studies of cashless transaction its different methods, advantages and challenges. Her paper will help to understand the basic of the cashless transaction.

Statement of the Problem:

The current study work is therefore aimed at filling the gap in the current body of information on changing retail customer’s perception of cash-to-cash-free transaction. This element is similarly crucial when one thinks about the country's cashless economy and contributes to the Digital India Programme.

Objectives of the Study:

The present study has been conducted on the following concrete objectives.

1. To study the issues and challenges of cashless transaction
2. To study the present socio-economic status of customers in Beed district
3. To analyzed the cashless payment and retail customer behaviour in Beed districts

Research Methodology:

The study was mainly based on primary data. The required data was collected from the people of the rural, semi urban and urban area of Beed district and the Secondary data- The data collected from various book and research journal and government agencies. This study is based on the field survey conducted with the help of a well-structured questionnaire and interviews with retail customers. The study is confined to Beed district in Maharashtra state and the primary data was collected from deliberate sampling method and 120 respondents had been selected from Beed district.

Limitation of the study

Research was based on small sample size and was limited to Beed district only. It is limited to filed survey year of 2020-21

Result and discussion**Demographic Profiles of Respondents**

It was observed from table 1.1 Age wise distribution of the respondents indicated that majority of the respondents i.e. 46.67 per cent were in the age group 25-35 years, working and dynamic group age of the respondents. As regards to marital status of the respondents, it was found that 76.67 per cent of the respondents were married and 23.33 per cent respondents were unmarried. It was noteworthy that majority of married respondents contribution in the study. With regard to literacy level, the study disclosed that majority of the respondents i.e. 92.50 per cent were literate whereas 7.50 per cent respondents were illiterate.

Table 1.1 Demographic Profiles of Respondents

Sr. No.	Demographic Variables	(Sample size 120)	
1.	Age (Years)	No. of Respondents	Percentage
	Below 25	9	7.50
	25 - 35	56	46.67
	35 – 45	29	24.17
	45 – 55	21	17.50
	Above 55	5	4.17
2.	Marital status	No. of Respondents	Percentage
	Married	92	76.67
	Unmarried	28	23.33

3.	Gender	No. of Respondents	Percentage
	Male	86	71.67
	Female	34	28.33
4.	Literacy level	No. of Respondents	Percentage
	Illiterate	9	7.50
	Higher secondary	12	10.00
	Graduation	66	55.00
	Post Graduation	33	27.50
5.	Occupation	No. of Respondents	Percentage
	Agriculture	41	34.17
	Labour/ Worker	36	30.00
	Service	14	11.67
	Business	29	24.17

Source: Field Survey - 2020-21

It was also observed that majority of the respondents i.e. 34.17 per cent were farmers, 30.00 per cent respondents were labors/workers and 24.17 per cent respondents were business man. It was noticed that the earnings of these respondents were uncertain and irregular, 11.67 per cent respondents were engaged in services.

Table 2 Respondents using cashless modes for payments

Particulars	Yes always	Some time	No	Total
No. of Respondents	36	23	61	120
Percentage	30.00	19.17	50.83	100.00

Source: Field Survey - 2020-21

From the above table 2 indicated that the no. of respondents using cashless modes for payments. It was found that (61) 50.83 per cent of respondents were not using cashless modes for payments; (36) 30.00 per cent respondents were always using cashless modes for payments and only (23) 19.17 per cent respondents were sometimes using cashless modes for payments.

Figure 1 Respondents using cashless modes for payments

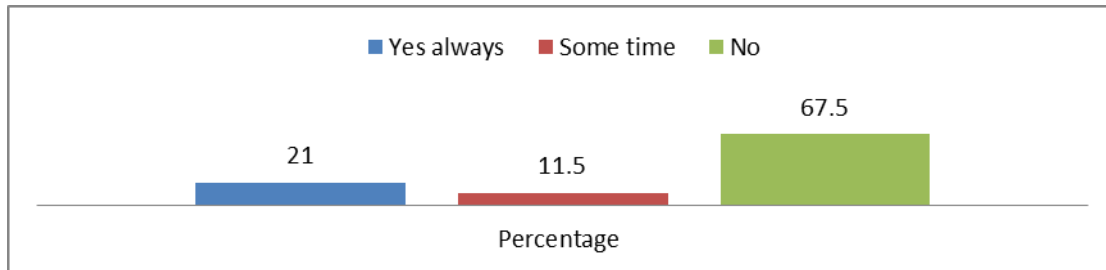


Table 3 Reasons behind not using modes of cashless service for payments

Reasons	No. of Respondents	Percentage
Don't have bank Account	2	3.28
Not using internet banking	6	9.84
Not trust on classless	11	18.03
Fair of fraud	29	47.54
Don't know how to use	13	21.31
Total	61	100.00

Source: Field Survey - 2020-21

It was observed from table 3 that the most 47.54 per cent respondent's not using modes of cashless service for payments because of fair of fraud; 21.31 per cent respondent's not using modes of cashless service for payments because of they don't know how to use it; 18.03 per cent respondent's not using modes of cashless service for payments because of they not trust on classless it; 9.84 per cent respondent's not using modes of cashless service for payments because of they not using internet banking and only 3.28 per cent respondent's not using modes of cashless service for payments because of they don't having bank Account.

Table 4 Types of cashless mode using of respondents

Modes of cashless payment	No. of Respondents	Percentage
Internet Banking	5	8.47
Debit/ Credit card	15	25.42
UPI	34	57.63
Mobile Wallets	5	8.47
Total	59	100.00

Source: Field Survey - 2020-21

It was noticed from table 4 that 120 respondents out of these 59 respondents were using cashless payment modes, it was found that most of 57.63 per cent respondents using UPI; 25.42 per cent respondents were using debit/credit card; 8.47 per cent respondents were using internet banking and 8.47 per cent respondents were using mobile wallets for cashless transactions.

Conclusion:

With above discussion concluded that the cashless payment systems have a great impact on the economy and the part of the population which is illiterate cannot access these methods. This illiterate part of the society plays an important role in the success of the cashless economy of a country. It is also observed that there is not too much awareness of cashless transactions and that a significant proportion of people are actually waiting for the cashless transaction to be introduced. The outcome indicated that the cashless economy has a beneficial effect on preventing money laundering and stimulating economic growth, but the research area's people are not conscious of the cashless transaction due to many of the problems mentioned above.

References:

1. Olatokun W. M. and Igbindion L. J., (2009). The Adoption of Automatic Teller Machines in Nigeria: An Application of the Theory of Diffusion of Innovation. *Issues in Informing Science and Information Technology*, 6, 373-393.
2. Jashim Khan and Margaret Craig-Lees (2014), "Cashless transactions: their effect on purchase behaviour", *University of Auckland, International Business & Economics Review*, vol.1, n.1 ISSN 1647-1989.
3. Deepika Kumari, *Cashless Transaction: Methods, Applications and Challenges*, *International Journal of Enhanced Research in Educational Development (IJERED)* Vol. 4 Issue 6, Nov-Dec,2016,
4. Karamjeet Kaur et al (2016) "E-Payment System on E-Commerce in India" *Journal of Engineering Research and Applications*, www.ijera.com ISSN: 2248-9622, Vol. 5, Issue 5, and (Part 6) May 2015, pp: 63-73.
5. *Economic Survey of Maharashtra 2018-19*, Directorate of Economics and Statistics, Planning Department, Government of Maharashtra, Mumbai

6. Kothari C.R. (2012), Research Methodology; Methods and Techniques, New Age International, New Delhi.
7. Gupta, S.P. 1990., “Statistical Methods”, Sultan Chand and Sons, New Delhi,
8. <http://cashlessindia.gov.in>
9. <https://www.mygov.in/group/digital-india/>
10. [http://www.npci.org.in/incentivizing digital payments](http://www.npci.org.in/incentivizing-digital-payments)



ETHNOBOTANICAL STUDY OF WILD EDIBLE PLANTS OF KHED REGION, PUNE DISTRICT, MAHARASHTRA, INDIA

Admuthe N. B. and¹ Pokale S. T.²

¹ Department of Botany, Rayat Shikshan Sanstha's Annasaheb Awate Arts,
Commerce and Hutatma Babu Genu Science College, Manchar, Tal.- Ambegaon,
Dist.-Pune.

² Department of Zoology, Rayat Shikshan Sanstha's Annasaheb Awate Arts,
Commerce and Hutatma Babu Genu Science College, Manchar, Tal.- Ambegaon,
Dist.-Pune.

Affiliated to Savitribai Phule Pune University, Pune, Maharashtra.

E-mail: namdeoadmuthe@gmail.com

Abstract:

An ethno botanical study deals with different wild edible plant use by tribal peoples as a food. The field survey was carried out in Khed region of Pune district. Local people were using plants to use food in terms of the nutritional content of wild edible plants used commonly occurring in this area. Total 73 plant species belonging 45 families were documented uses food in the region.

Key Words: wild edible, fruit, food, consumed.

Introduction:

All of today's common vegetables and fruits were previously wild plants that were cultivated and enhanced for their nutritional value. Wild edible plant species used as a food (Kiran et al., 2019). For vegetarians, eating wild edible plants is a major source of vitamins and micronutrients. The diversity of wild food plants available for usage was noted throughout these studies, which included data on wild uses of the plants consumed by people. Earlier investigations on wild edible plants and their uses were conducted by a variety of researchers. Kar A and Borthakur SK, (2008), Kuvar S D and Shinde R D (2019) , Deshpande, S., Joshi, R., and Kulkarni, D. K. (2015), ,Sinha, R. and Lakra V., (2005), Patil M. V .and Patil D. A. (2000), Mishra A., Swamy S.L., Thakur, T.K.; Bhat R., Bijalwan A., Kumar, A. (2021), Panta S., Parajulee D., Subedi G. Giri B. (2021).

Methodology:**Study Area:**

Khed tehsil is situated in the Pune District and lies between Lat. 18° 37' 1" - 19° 17' 4" N and Long. 73° 30' 51" - 74° 3' 5" E on the north -western part of Deccan plateau and is composed of undulating hilly country. It is bounded on the north by Ambegaon tehsil, on the south by Maval and Haveli tehsils and on the east by Shirur tehsil. The western boundary is formed by the range of Sahyadris. Bhimashankar, Vandra, Tambarvadi etc. are some of the areas covered by Sahyadris in the tehsil. In Khed tehsil total villages are 98. The human population according to the 2001 census approximate 3,43,214, and tribals population 38,272 percentage of total population to the tribal population 11.15 %. Tribals are found in large number in this region.

The present study has been conducted in two steps:

Step I- A survey was conducted among the tribal peoples of Khed region Pune district during 2019- 2021 to gather knowledge on wild plants used for food.

Step II- Plants of flowering and fruit were identified by the help of Cooke, T. (1958), Hooker, J. D. (1872-1897). The tribals of Khed tehsil shared their expertise of plant applications and plant species that they utilized for food.

Results and Discussion:

The present study brought knowledge of tribal for use of wild edible plants. The plant specimens have been identified by the flora and the plants species are alphabetically arranged.

1. *Alternanthera sessilis* (L.) R. Br. ex DC. Family- Amaranthaceae, Local name- Matala, Part used- Leaves, Use- Leaves are used as vegetable.
2. *Amaranthus spinosus* Family- Amaranthaceae, Local name- Katerimath, Part used- Leaves, Use- Leaves are cooked and eaten as vegetable.
3. *Amorphophalus paeonifolius* Dornst Family- Araceae, Local name- Suran, Part used- Corm, Use- The corm is cooked as the vegetable and eaten as food.
4. *Ampelocissus latifolia* (Roxb.) Planch Family- Vitaceae, Local name- Bahinicha vel, Part used- Fruit, Use- Fruits are eaten.

5. *Antidesma acidum* Retz. Family- Euphorbiaceae, Local name- Surpela, Part used- Fruit, Use-Ripened and semi-ripened fruits are eaten.
6. *Bombax ceiba* L. Family-Bombacaceae, Local name- Kate Savar, Part used- Flower, Use- Flower is used as vegetable.
7. *Boerhavia diffusa* (L.) Hook. Family- Nyctaginaceae, Local name- Punarnava, Part used- Leaves, Use-Leaves are cooked as a vegetable.
8. *Bridelia retusa* (L.) Juss. Family-Euphorbiaceae, Local name-Asan, Part used- fruits, Use- Ripe fruits are eaten.
9. *Caesullia axillaris* Roxb. Family-Asteraceae, Local name- Bondala, Part used- Leaves, Use- Leaves are used as vegetable.
10. *Capparis zeyalinica* L. Family- Capparidaceae, Local name- Waghati, Part used- Fruit, Use- Cooked fruits are eaten as vegetable.
11. *Canavalia gladiata* (Jacq.) DC. Family- Fabaceae, Local name - Jungli abhui, parts used- Fruit, Use- Fruits are used as vegetable.
12. *Careya arborea* Roxb. Family-Lecythidaceae, Local name- Kumbhi, parts used- Fruit, Use- Fruits are eaten.
13. *Carissa carandas* L. Family- Apocynaceae, Local name- Karvand, Parts used- Fruit, Use- Fruits are eaten.
14. *Casearia graveolens* Dalzell Family-Flacourtiaceae, Local name-Kirmira, Part used- Fruit, Use: Fruits are eaten.
15. *Cassia tora* L. Family- Caesalpiniaceae, Local name-Tarota, Part used- Leaves, Use-Tender leaves are cooked as a vegetable.
16. *Celastrus paniculatus* Willd. Family- Celastraceae, Local name- Pimpli cha baar, Part used-Flower, Use-Flowers are boiled and water is removed and cooked as a vegetable.
17. *Celosia argentea* L. Family- Amaranthaceae, Local name- Kurdu, Parts used- Leaves, Use- Leaves are used as vegetable.
18. *Centella asiatica* (L.) Urban Family- Apiaceae, Local name- Bramhi, Part used- Leaves, Use-Leaves are crushed to paste and pinch of Pepper and salt is added and mixed to make chutney be eaten.

19. *Cheilocostus speciosus* (J. Konig) C. Specht Family- Costaceae, Local name- Pewda, Parts used- Tuber, Use- Tuber is used as vegetable.
20. *Chenopodium murale* L. family- Chenopodiaceae, Local name- Chilni bhaji, Parts used- Entire plant, Use- Entire plant is used as vegetable.
21. *Colocasia esculenta* L. Family- Araceae, Local name- Tera, Part used- Leaves, Use- Leaves and core of petioles are cooked and eaten a vegetable.
22. *Commelina forkalae* Vahl Family- Commelinaceae, Local name- Kulu, Part used- Leaves, Use- Leaves are cooked and eaten as vegetable
23. *Corchorus capsularis* L. Family- Tiliaceae, Local name- Fotakani, Part used- Leaves, Use- Young and tender leaves are cooked as a vegetable.
24. *Cordia dichotoma* Forst. f. Family- Ehretiaceae, Local name- Bhokar, Parts used- Inflorescence and fruits, Use- The inflorescence is used as vegetable and fruits are eaten.
25. *Cucumis setosus* Cogn. Family- Cucurbitaceae, Local name- Mekkha, Parts used- Fruits, Use- Fruits are used as vegetable.
26. *Curcuma pseudomontana* Graham Family- Zingiberaceae, Local name- Ran Halad, Parts used- Rhizome, Use- Rhizomes are used as vegetable.
27. *Diosporas wallichii* Hook f. Family- Dioscoreaceae, Local name- Chaichamur, Part used- Leaves and inflorescence, Use- Leaves and young inflorescence are used as vegetable.
28. *Digera muricata* (L). Mart. Family- Amaranthaceae, Local name- Tanduli – Matala, Part used- Leaves, Use- Leaves are used as vegetable.
29. *Diospyros melanoxylon* Roxb. Family- Ebenaceae, Local name- Tembhurni, Parts used- Fruit, Use- Fruits are eaten.
30. *Diplocyclos palmatus* (L.) C. Jeffrey Family- Cucurbitaceae, Local name- Mahadevpind, Part used- Leaves, Use- Leaves are used as vegetable.
31. *Dioscorea bulbifera* L. Family- Dioscoreaceae, Local name- Kadukand, Part used- Tuber, bulbils, Use- Boiled tubers and bulbils are eaten.
32. *Dioscorea oppositifolia* L Family- Dioscoreaceae, Local name- Chaiken, Part used- Leaves and inflorescence, Use- Leaves and young inflorescence are used as vegetable.

33. *Embelia basaal* (Roem. & Schult). A. DC. Family-Myrsinaceae, Local name- Ambati, Parts used- Fruit, Use- Fruits are eaten.
34. *Ensete superbum* (Roxb.) Cheesm Family-Musaceae, Local name- Ran-Keli, Part used- Inflorescence, Use- Inflorescence is used as vegetable. Rhizomes are eaten.
35. *Ficus amplissima* Sm. Family-Moraceae, Local name-Payar, Part used-Fruit, 36. Use- Fruits are eaten.
37. *Ficus racemosa* Linn. Family- Moraceae, Local name- Umber, Part used- Fruit, Use-Ripened fruits are eaten.
38. *Flacourtia indica* (Burm.f.) Merrill Family-Portulacaceae, Local name- Bam, Part used- Whole plant, Use- Whole plant is used as vegetable.
39. *Flueggea leucopyrus* Willd. Family-Euphorbiaceae, Local name- Pichrun, Part used- Leaves and fruits, Uses: Leaves are used as vegetable and fruits are eaten.
40. *Gmelina arborea* Roxb. Family-Verbenaceae, Local name- Shivan, Part used- Fruits, Use- Ripe fruits are eaten.
41. *Grewia hirsuta* Vahl. Family-Tiliaceae, Local name- Kirmid, Part used- Fruits, Use- Ripe fruits are eaten.
42. *Holoptelea integrifolia* (Roxb.) Planch. Family- Ulmaceae, Local name- Papada, Part used- Seeds, Use-Seeds are roasted and eaten as food.
43. *Holostemma ada-kodien* Schult. Family-Asclepiadaceae, Local name- Shiri, Part used- flower, Use- Flowers are eaten.
44. *Indigofera cordifolia* Heyne ex Rot Family- Papilionaceae, Local name- Barbada, Part used- Seeds, Use- Dried seeds are ground, chapattis made form flour are consumed.
45. *Ipomoea aquatica* Forsk. Family-Convolvulaceae, Local name- Nali, Parts used- Leaves, Use- Leaves are used as vegetable.
46. *Ipomoea nil* (L.) Roth. Family-Convolvulaceae, Local name- Nilya, Part used- Leaves, Use- Leaves are used as vegetable.
47. *Ipomoea turbinata* Lag. Family-Convolvulaceae, Local name, Phang, Part used- Leaves, Use- Leaves are used as vegetable.

48. *Jasminum malabaricum* Wight Family- Oleaceae, Local name- Kanser, Part used- Fruit, Use- Fruits are sour in taste, they are boiled and eaten as vegetable.
49. *Lantana camara* L. Family- Verbenaceae, Local name- Kaamoni, Part used- Fruits, Use- Ripened fruits are eaten.
50. *Limonia acidissima* L. Family- Rutaceae, Local name – Kavath, Part used- Fruit, Use- Ripe fruit is eaten.
51. *Madhuca longifolia* (Koen.) Mac Bride, Family- Sapotaceae, Local name- Moha, Part used- Flower, fruit, Use- Fleshy flowers and fruits are eaten.
52. *Manilkara hexandra* (Roxb.) Dub. Family- Sapotaceae, Local name- Khirni, Part used- Fruit, Use- Ripened fruits are eaten.
53. *Merremia hederacea* (Burm. f.) Hall. Family- Convolvulaceae, Local name- Diwati, Parts used- Seeds, Use- Seeds are eaten raw and roasted.
54. *Momordica dioica* Roxb. ex. Willd. Family- Cucurbitaceae, Local name- Kartule, Part used- Fruit, Use- Fruits are used as vegetable.
55. *Moringa concanensis* Nimmo ex Dalz. and Gibs. Family- Moringaceae, Local name- Jungli Shewaga, Part used- Fruit, Use- Fruits are boiled in water and used as vegetable.
56. *Mucuna pruriens* L. Family- Papilionaceae, Local name- Khajol, Part used- Leaves, Use- Leaves are cooked and used as vegetable
57. *Mukia maderaspatana* (L.) Roem. Family- Cucurbitaceae, Local name- Math Ghughri, Part used- Fruit, Use- Ripe fruits are eaten.
58. *Nicandra physalodes* (L.) Gaertn. Family- Solanaceae, Local name- Ran popati, Part used- Fruit, Use- Fruits are eaten.
59. *Oroxylum indicum* (L.) Vent. Family- Bignoniaceae, Local name- Tattu, Part used- flower and fruit, Use- Flowers are boiled and cooked as a vegetable. Fruits are chopped to small pieces and used to make pickle.
60. *Oxalis corniculata* L. Family- Oxalidaceae, Local name- Chihoda Bhaji, Part used- Leaves, Use- Leaves are cooked as a vegetable.
61. *Persicaria glabra* (Willd.) M. Gomez. Family- Polygonaceae, Local name: Mendi, Part used- Leaves, Use- Leaves are used as vegetable.

62. *Phyllanthus reticulatus* Poir. Family-Euphorbiaceae, Local name- Pichrundi, Part used- Fruit, Use- Ripe fruits are eaten.
63. *Physalis minima* L. Family-Solanaceae, Local name- Phuga, Part used- Fruit, Use- Fruits are eaten.
64. *Portulaca oleracea* L. Family-Portulacaceae, Local name-Bam, Part used- Whole plant, Use- Whole plant is used as vegetable.
65. *Pueraria tuberosa* (Willd.) DC. Family-Fabaceae, Local name- Shirvala, Part used- Tubers, Use- Tubers are eaten.
66. *Rivea hypocrateriformis* Choisy Family-Convulvaceae, Local name- Phang, Part used- Leaves. Use- Leaves are used as vegetables.
67. *Schrebera swieteniodes* Roxb. Family-Oleaceae, Local name- Mokha, Part used- Leaves and fruit, Use- Leaves are used as vegetable and fruits are eaten.
68. *Schleichera oleosa* (Lour.) Merr. Family-Sapindaceae, Local name-Koshimb, Part used- Fruit, Use- Fruits are eaten.
69. *Semecarpus anacardium* L. f. Family-Anacardiaceae, Local name- Biba, Parts used- Flower thalamus, Use-Ripened thalamus is eaten.
70. *Senna tora* (L.) Roxb. Family-Caesalpinaceae, Local name- Turtha, Part used- Leaves, Use- Leaves are used as vegetable.
71. *Smilax zeylanica* L. Family- Smilacaceae, Local name- Sherdire, Part used- Shoots, Use-Young tendril and shoots are boiled and cooked as vegetable.
72. *Smithia conferta* J.E. Sm Family- Papilionaceae, Local name- Kawali, Part used- Leaves, Use- Leaves are cooked and used as vegetable.
73. *Sphaeranthus indicus* L. Family-Asteraceae, Local name- Bothada, Part used- Leaves, Use- Young shoots and leaves are used as vegetable.
74. *Terminalia bellirica* (Gaertn.) Roxb. Family- Combretaceae, Local name- Behada, Part used -Seed, Use-Seed testa is removed and cotyledons are eaten as food.

Conclusion:

Ethno-botanical research work is an enlist the wild edible plants for consumption by tribals. In this investigation 73 plants belonging 45 families have been documented. The wild vegetables provide better taste and good health.

Acknowledgments:

Authors are thankful to the Principal, Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College, Manchar, Dist. Pune for encouragement. The authors are also thankful to all tribals for providing necessary information at field survey.

References:

1. Cook, T. (1901-1908) The Flora of Presidency of Bombay Vol. I-III, (Reprint 1958) Botanical Survey of India, Calcutta.
2. Chopra RN, Nayar SL and Chopra IC (1956), Glossary of Indian Medicinal Plants, CSIR, New Delhi.
3. Deshpande, S., Joshi, R., and Kulkarni, D. K. (2015), Nutritious wild food resources of Rajgond Tribe, Vidarbha, Maharashtra state, India, Indian J of Fundamental and Applied Life Sciences, 5 (1) 15– 25.
4. Hooker J. D. 1872-1897. The Flora of British India, VII vols. London.
5. Joshi, S. G. (2000), Medicinal Plants, Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi, 102.
6. Kar A and Borthakur SK, (2008) Wild vegetables of Karbi - Anglong District, Assam, Natural Product Radiance, 7(5) :448-460.
7. Kiran K.C., Dhanush C., Gajendra C.V. and Reddy B.M. (2019). Diversity and Seasonal Availability of Potential Wild Edible Plants from Vidarbha Region of Maharashtra State, India. Int. J. Curr. Microbiol. App. Sci., 8(2): 1434-1446.
8. Kuvar S D and Shinde R D (2019) Wild Edible Plants used by Kokni Tribe of Nashik District, Maharashtra. Journal of Global Biosciences 8(2): 5936-5945.
9. Mishra, A.; Swamy, S.L.; Thakur, T.K.; Bhat, R.; Bijalwan, A.; Kumar, A. (2021). Use of Wild Edible Plants: Can They Meet the Dietary and Nutritional Needs of Indigenous Communities in Central India. Foods 10, 1453

10. Nadkarni, A.K. (1927) K. M. Nadkarnis Materia Medica, Popular Book Depot. Lamington Road, Bombay 3 rd edn, Vol. I,II
11. Panta S., Parajulee D., Subedi G., Giri B., (2021) Ethnobotanical Study of Wild Edible Plants in Pyuthan, Nepal International Journal of Environment, Agriculture and Biotechnology 6(4):79-87.
12. Patil, M. V .and Patil D. A.(2000) Some more wild edible plants from Nasik district, Anct. Sci. of Life, 19 (3 and 4): 102 – 104.
13. Sharma, B.D., Karthikeyan, S., and Singh, N. P (1996) Flora of Maharashtra State Monocotyledons BSI, Calcutta.
14. Singh, N. P., Karthikeyan, S, (2000) Flora of Maharashtra State Dicotyledons Vol. 1 BSI, Calcutta.
15. Singh, N. P., Lakshiminarsimhan, P. Karthikeyan, S and Prasanna, P. V., (2001) Flora of Maharashtra State Dicotyledons Vol. 2 BSI, Calcutta.
16. Sinha, R. and Lakra, V., (2005), Wild tribal food plants of Orissa, Indian J of Traditional Knowledge, 4 (3): 246 - 252.



DIGITAL ECONOMY AND ITS BENEFITS

Dr. Magar S. R.

Smt. S. K. Gandhi collage, KAda

Abstract-

Digital technology is a technology, which use of digital or computerised devices, methods and systems etc. use this technology was to start in 20th century, in the beginning it is limited use by various sectors. In 21st century it is used for various purposes. Nowadays, digital technology has adopted by every sector in the world. Without digital technology, we can't do anything. In India Digital technology acquire every sector, Finance sector is not exception of to use digital technology. To using of digital technology money transfer is very easy and efficient way. Digital economy word to firstly coined by Japanese professor and research economist in the midst of Japan recession of the 1990s. The digital economy referred to wide range of economic activities that use digitised information and knowledge as key factor of production. To use of digital economy, people are more cheaply access of products and services from any location. Every sector is friendly with digital economy. Due to digital economy, the people effortlessly transactions of money from any place to another. Digital economy is developing rapidly worldwide. In digital economy, most of the transactions and payments are online modes. For support of digital economy, there are so many apps are emerged. These are Google Pay, Phone Pay, YONO, Bhim, Paytm and many more. The UPI system is also a main gateway of online transaction.

Introduction:

The digital economy make easier to the customers and businesses for receiving their products and order also. The digital economic grades many more benefit to the people. Digital technologies have a potential to boost more inclusive and sustainable growth by spurring Innovation. Digital economy based on the computing. Computing technologies, banking cards. UPI, Mobile wallets, Bank Prepaid Cards, Point of Sale, Internet banking, Mobile Banking and Micro ATMs are the mode of digital payments. These modes are promoting the cashless transaction and converting less cash society.

<http://www.ijaar.co.in/>

Status of digital economy in India:

India is the second largest country in the world in terms of population. More than 60% population live in rural area. The rural area population is not literate of computer knowledge and also they do not have sufficient smartphones with compare to urban population. Digital India is a flagship program of Indian government due to this Program day by day increases the use of digital economy by the citizens, Cashless or digital economy belong to no physical cash is circulated, all types of monetary transactions are done through digitally like E-wallet, Internet Banking, Debit or Credit Cards, Electronic Fund Transfer, Mobile Payments, etc. According to RBI in the finance year 2020-21 the digital payments growth recorded 30.19%. Following table shows the growth rates in selected payment methods.

Table 1. Growth Rates in Selected Payment System

Sr. No.	Payment Systems	Transaction Volume Growth (YoY, per cent)				Transaction Value Growth (YoY, per cent)			
		Jan 2021	Jan 2022	Feb. 2021	Feb. 2022	Jan 2021	Jan 2022	Feb. 2021	Feb. 2022
1	RTGS	14.1	15.7	18.4	14.3	-7.2	13.9	0.7	14.1
2	NEFT	10.3	26.2	13.6	28.8	12.3	12.8	15.1	15.1
3	UPI	76.5	100.5	73.0	97.5	99.4	93.0	91.0	94.5
4	IMPS	33.5	27.0	28.7	32.0	33.1	34.1	28.3	39.7
5	NACH	-14.6	28.8	-18.4	28.0	11.6	26.4	-1.3	30.2
6	NETC	60.4	54.8	44.3	53.3	48.1	50.0	38.8	42.0
7	BBPS	84.0	130.2	89.1	121.2	106.0	148.8	115.7	136.2

Source: RBI Bulletin March 2022.

Above table reflects that how transaction volume and value growth per cent changes in January and February 2021 and January and February 2022 of various methods of digital transactions like Real Time Gross Settlement (RTGS), National Electronic Funds Transfer (NEFT), Unified Payments Interface (UPI), Immediate Payment Service (IMPS), National Automated Clearing House

(NACH), National Electronic Toll Collection (NETC) and Bharat Bill Payment System (BBPS).

Table 2 NEFT, RTGS and Mobile Banking Transactions.

National Electronic Funds Transfer (NEFT) - February 2022				
Total	Total Outward Debits		Received Inward Credits	
Number of Banks	No. Of Outward Transactions. (in Lakh)	Amount (Rs. Crore)	No. Of Inward Transactions. (in Lakh)	Amount (Rs. Crore)
226	3632.6	2477058.6	3632.6	2477058.6

Source: RBI Report February 2022

RTGS

Total No. of Banks	Bank Wise RTGS Inward and Outward - February 2022															
	Inward								Outward							
	Volume				Value (in Rupees Crore)				Volume				Value (in Rupees Crore)			
	Interbank	Customer	Total	%	Interbank	Customer	Total	%	Interbank	Customer	Total	%	Interbank	Customer	Total	%
238	113068	17915484	18028552	100	104726	9277355.75	10324617.82	100	113068	17915484	18028552	100	104726	9277355.75	10324617.82	100

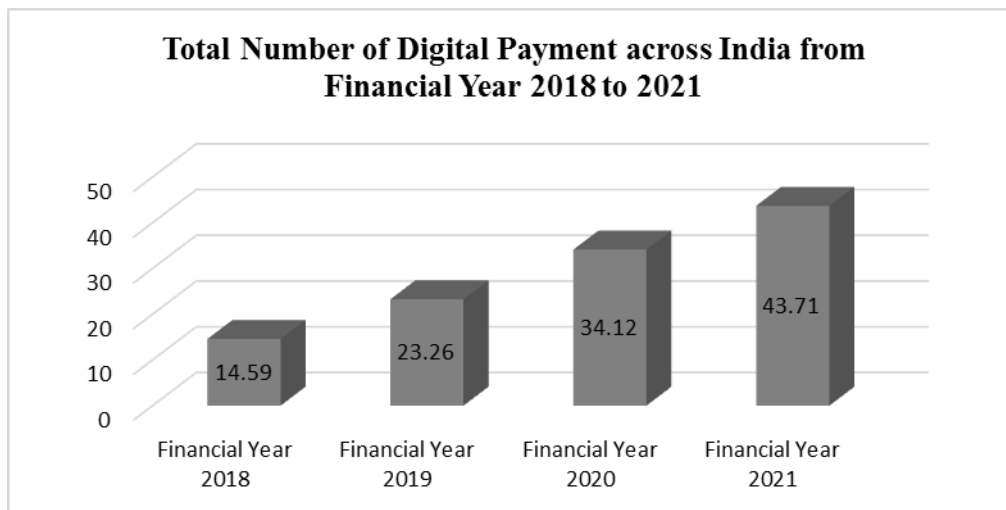
Source: RBI Report February 2022

Mobile Banking

Mobile Banking Transactions For The Month Of February 2022		
Total Number of Banks	Volume (in Lakh)	Value (in Crore)
462	48508	1395093

Source: RBI Report February 2022

Above table's reveals that the fund transfer in February 2022 by Indians using NEFT, RTGS and Mobile Banking.

Digital Payment across India:

Source: Statista.

According to above graph total number of digital payment across India in financial year 2018 was 14.59 to 43.71 in financial year 2021. This pattern shows to continue increases of digital payments in the country.

Benefits of Digital Economy:

There are so many benefits of digital economy, here are several important benefits.

Faster Payment:

In digital economy electronic payment system use for money transaction. It is a faster and instant payment method. There is no need to wait for transactions. The traditional transaction methods are too much lengthy. Now you don't need to line up for payment. Everyone can make payments at any time from any location.

Security:

Digitally transfer money is more secure than the traditional methods. To carry cash is a risky because of thefts and other reasons, but electronically transfer money is more secure because electronic payment uses secure gateway which are very hard to tamper and no need to carry physical cash.

Wide Range of Options:

Traditionally limited ways to transfer and withdraw money, but in digital economy there are so many ways to transfer money, like different cards, e-

wallets, different apps and many more. To use of this options people no need to line up for payment transfer and withdraw. More options are helps to faster payments.

Easily Track:

In online or digital payments all online transaction activities stored in merchants database, due to this merchant and customers are easily track online transactions. This helps to avoid confusions of payment transactions.

Convenient:

digital payments are more convenient with compare to traditional methods. Everywhere and anytime you don't need to carry physical money for any purpose. Digitally you transfer money for any task.

Save Processing Cost:

When we use traditional methods we need to spend some money for transaction, the bankers charge processing fee for transactions and this charges are depend on the how amount is for transfer. But in electronic mode we don't need to spend some money as a processing fee. This is a most important benefits for customers as well as merchants.

Transparency:

In every field transparency is an essential for trust. Traditionally it is lengthy method to detect payments for merchants, to use of electronic payment methods no worry about payments. Every record of credit and debit are electronically save on the servers. Merchant and customers easily access this record. Due to this maintain transparency in payment transactions.

User Friendly:

Traditional payments methods are complex and not easy to understand for common people. The new and advanced electronically or digital payments methods are very easy and user friendly. This method provide various range of payment facilities and also users view their payment details.

References:

1. Understanding the Digital Economy: What is it and how can it Transform Asia - ASEAN-India Center (AIC) and Research and Information Systems for Developing Countries (RIS), 22 February, 2018.
2. Reserve Bank of India Bulletin – March 2022.
3. Report of February 2022, Reserve Bank of India. March 2022.
4. Digital Economy: Trends, Opportunities and Challenges – Dr. James Manyika, May 2016.
5. Price Report, 2020 – National Payment Corporation of India.
6. Digital payments up 30.2% in FY21: RBI data, The Economics Times, 04 April 2022.
7. Digital Payments in India: Methods and Benefits Ketki Jadhav, Feb 04, 2022.
8. Digital Economy Report 2019, United Nation, September 2019.
9. Annual Report 2020-21, RBI, May 2021.
- 10.7 Benefits of Electronic Payments, Nikunj Gundaniya, 08 January 202.
11. Volume of digital payments India FY 2018-2021, published by Statista Research Department, 01November, 2021.



OMNICHANNEL RETAILING: A NEED OF INDIAN MARKET

Dr. Mansingh Sambhajirao Dabade

*Asst. Prof. and Head, Department of Commerce and Management
SBSK Patil College, Kurundwad (MAHARASHTRA)*

Email: dr.msdbade@gmail.com

Abstract:

Omnichannel retailing refers to the use of various sales channels (physical and digital storefronts) to create a unified, seamless brand experience for consumers on any platform, at any time. When done effectively, users should be able to move freely from one channel to the next, building a relationship that improves the overall buying experience and encourages brand loyalty. Advancement in technology and emergence of new technologies like artificial intelligence, IoT, chatbots, robotized customer service, augmented reality is uniting the physical and digital world of shopping. Further, in-store digital payment options are blurring lines between the brick-and-mortar and e-commerce model, leading to hybrid retailing and improved user experience. In addition to traditional physical and online stores, new channels, such as smart phones and social media, are changing user habits, shopping behavior and transforming their buying process.

Key words: Omnichannel, retailing, seamless, social media, retention.

Introduction:

Omnichannel retailing refers to transacting across multiple channels, which may include market places, social media, bricks and mortars and more. Omnichannel has become a popular buzzword, but it's not just another way of saying that you sell on multiple channels. There are many different channels available for omnichannel organizations to participate in, from digital marketplaces to social media platforms. Omnichannel commerce is a strategy that provides a seamless shopping experience from the first touch point to the last. Consumers are discovering brands in brand new ways and seeking contemporary conveniences to guide their shopping decisions. Today, India's hyper-connected consumers are rapidly entering into an era where they expect brand owners to provide consistent and unparalleled service across all touch

points. They are not only looking for the right product that suit their needs but are also seeking a smooth journey in finding the product irrespective of various platforms that they use, buying it from and get it delivered at their doorstep. However, to better integrate in-store and online shopping experience, brand owners and retailers encounter multiple challenges to successfully execute the omnichannel strategy. This article covered the integration of online and offline channels.



Fig. 1: Scope of Omnichannel Retailing. Source: <https://medium.com>

Review of literature:

Banerjee M. (2019) states that omnichannel term originates within the business house and practitioners. However, of late, it has drawn more attention in the academic field as well. It has completely changed the retailing concept and perceptions of changing consumer habits and shopping manners of the prevailing retailing wave. Ozturk & Okumus, (2018) states that digital technology has provided many relevant success features, along with several opportunities and challenges to implementing with strategic use of omnichannel systems. With high-quality digital technologies, many omnichannel system initiatives, these issues have surfaced to provide values and importance of omnichannel marketing to achieve excellence in the omnichannel system.

Verhoef, Kannam & Inman, (2015) states that companies competing in the global scenario have already transformed the entire markets, with their new marketing concepts and advanced technology.

Statement of Problem:

Omnichannel retailing refers to the use of various sales channels (physical and digital storefronts) to create a unified, seamless brand experience for consumers on any platform, at any time. In India there are heterogeneous groups of buyers based on age, education, economically etc. Some persons are very much techno savvy and some persons are technically not sound. The people from different groups think differently, and therefore, the retailers adopt different selling techniques to reach to the customers and increase the sales. Therefore, there is need to study the omnichannel retailing.

Objectives of the study:

1. To know the concept of Omnichannel retailing.
2. To know the importance of Omnichannel retailing.
3. To understand the need of Omnichannel retailing.

Importance of Omnichannel Retailing:

Omnichannel retailing refers to a multi-channel approach that allows customers not only to shop across channels, but also to interact with the brand. It provides them with a unique, complete and seamless shopping experience, breaking down barriers between virtual and physical stores, and offering exactly what they need, the moment they need it. According to a study by CMO Council, 94 percent of marketers believe that providing an omnichannel experience is crucial to business success and customers are retained by companies who work with such omnichannel engagement strategies. Advancement in technology and emergence of new technologies like artificial intelligence, Internet of Things(IoT), chatbots, robotized customer service, augmented reality is uniting the physical and digital world of shopping. Further, in-store digital payment options are blurring lines between the brick-and-mortar and e-commerce model, leading to hybrid retailing and improved user experience. In addition to traditional physical and online stores, new channels, such as smart phones and social media, are changing user habits, shopping behavior and transforming their buying process. Staying in the game will require a holistic approach by retailers and brand owners, where the focus will need to be on customer engagement and

fulfillment. To serve their customer in a delightful manner, brands require creating customer personas and marketing products basis the personas. Integration of technology, in-store operations, omnichannel retailing and merging physical & digital experiences will provide customers an inclusive and interactive retail experience. Further, certain common consumer challenges faced by brand owners can be resolved through discussions under dedicated forums for retailers and FMCG companies. Going forward, given the strong consumer outlook and changing retail landscape, India is expected to witness redefining trends as the markets mature. The omnichannel strategy will not only make it easier for brands or retailers to converse with their customers but will also help customers to have better experiences.

Research Methodology:

This paper is based on the secondary data. Data is collected from various books, articles and through websites.

Need of Omnichannel retailing:

Omnichannel retail involves creating a consistent customer experience across mobile commerce, websites, social media advertisement and physical stores. Omnichannel allows retailers to achieve more availability, drive sales and traffic and integrate digital touch points. Omnichannel retail strategy improves the customer experience and provides more channels for customer purchase whether it is on mobile, web or in store. All a business communication and marketing channels feed into one another to provide the customer with a seamless and positive view of the brand. One of the main benefits of an omnichannel strategy is that it tracks the customer's journey and continues, rather than restarts it, across various touch points.

There are some crucial advantages of omnichannel retailing which one can capitalize these are:

1. High customer retention and loyalty.
2. Smoother customer journey.
3. Instant revenue growth.
4. More integrated business.

5. Better customer insight.

The Omnichannel Retail marketing in India provides research insights on digital, Information and Communication Technology (ICT), displays Multichannel-Omnichannel concepts, sprouting retailing landscape and emphasizes on Multichannel to Omnichannel retailing transformation. The new-age Indian customer wants to purchase products from different platforms - all effortlessly and seamlessly. They are comfortable shopping directly from social media or in-store and expect retailers to adapt to newer technologies. That acceleration due to COVID-19 “has forced everyone to operate at a much higher level of digital maturity,” said Sharon Gee, General Manager, Omnichannel at Big Commerce. “To succeed today, retailers need to put a stake in the ground and define a unified channel strategy from a digital and physical perspective.”

Conclusion:

It is very important to know the concept, importance and need of Omnichannel retailing for betterment of business. In an era of pandemic situation it is necessary to adopt all the marketing strategies i.e. physical and digital storefronts. Several companies have already investigated the retail marketing technology very effectively and carefully. Companies using the omnichannel strategies assert that the company enhances the customer values by having the ability to remain in regular contacts with customers.

References:

1. Banerjee M.(2019), Development of Omnichannel in India: Retail Landscape, Drivers and Challenges. In: Piotrowicz W., Cuthbertson R (Eds) Exploring Omnichannel Retailing. Springer, Cham.
2. Ozturk S.& Okumus A.(2018), The Birth of Omni-Channel Marketing and New Dynamics of Consumer' Approach to Retail Channels, in Selcen Ozturkean, Elif Yolbulan Okan (Ed.) Marketing Management in Turkey (Marketing in Emerging Markets, Vol.I, Emerland Publishing Ltd.,pp247-272.

3. Verhoef P.C., Kannan P.K. & Inman J.J.(2015), From Multi-Channel Retailing to Omnichannel Retailing: Introduction to the Special Issue on Multi-Channel Retailing. *Journal of Retailing*, Vol.91, Issue-2, pp174-181
4. Agates, N.A.H., M. Fleischmann, & J.J.A.E.E. Van Nunen. (2008.) E-fulfillment and multi- channel distribution—a review. *European Journal of Operational Research*, Vol. 187, Issue. 2, Page. 339–356. Ansari, A., Mela, C.F., Neslin, S.A. (2008). “Customer channel migration”. *Journal of Marketing Research*, Vol. 45, Issue. 1, Page. 60-76.
5. Bucklin, L. P., Ramaswamy, V., & Majumdar, S. K. (2006). Analyzing channel structures of business markets via the structure-output paradigm. *International Journal of Research in Marketing*, Vol. 13, Issue 1, Page. 73-87.
6. Birkett A. (2017). The Importance of an Omni-Channel Customer Experience, eCommerce marketing, real time marketing, Omnichannel retail,
7. Bell, B. D. R., Gallino, S., & Moreno, A. (2014). How to Win in an Omni-channel World. *MIT Sloan Management Review*, Vol. 56, Issue. 1, Page. 45–54.



A GEOGRAPHICAL REVIEW OF MODERN AGRICULTURAL PRACTICES

Dr. Ashok Shamrao Patil

*Associate Professor Department of Geography, Rajarshi Shahu Arts and Commerce
College, Rukadi, Kolhapur*

Email- patilashok824@gmail.com

Introduction

Agriculture is the backbone of the Indian economy. India is the country with 70% population living in the villages and having agriculture as the major earning source. The farmer's lot is reeling under poverty since ages. The successive government has cared to increase the productivity. The new techniques thus invented and practiced elsewhere. Should be introduced for the poor farming community in our country to enhance the production and also bring down the skyrocketing prices of agriculture products.

Agricultural production improvement, cropping practices and maximizing the harvest are perhaps the oldest of human occupation, which continue to be of highest priority in most region of the world till date, because hunger continues to exist, at times in many parts of the world, crop production trends economics of cultivation distribution and consumption demand of different crops however naturally uneven depending on the geographical area and population growth even in within and area it has fluctuated during a decade, year of seasons hence during recent decades there has been a concentrated effort all over the globe to make each specific zone self-sufficient in terms of food requirements. We have accumulated knowledge of production of improved legumes, oil-seeds, fiber crops sugar and search crops and narcotics, greater emphasis has been placed on aspect such as global distribution climatologically requirements land preparation, agronomic practices availability of improved varieties and post harvested technologies.

Objectives

1. To identify the new Agriculture technology.
2. To study the effects of new technology on Agriculture production.

Significance of Study

India's the total population depends upon the Agriculture sector. The farmers are using the traditional method of agriculture. It has effected on the productivity of agriculture. In the present era, new agricultural technologies are invented. But majority of the farmers are unknown about such agricultural technologies. In the light of this, present study has been undertaken.

Data Base & Methodology

The present study is a theoretical study. The study is depends upon secondary data. The Data is collected through references books, research magazines and unpublished environmental Projects. The researcher has discussed with the farmers.

Discussion:

The use of hybrid seeds, irrigation and modern practices of agriculture has changed the farming picture. Now with more yield of crop per acre, you can see variety of threshing machines operating in the farms during harvesting time. While talking about farm machinery let us look to the alarming figure of farm accidents. Due to either negligible or over confidence operators of these machines give scant respect to safety. Many farmers have got their fingers cut, just for not ensuring cover over moving parts. And yes there are many tractor accidents as tractors and trolleys have become preferred mode of travel particularly for marriage parties. As far as micro irrigation systems are concerned all the advanced world class technologies in drip, sprinkle and other systems are available in India. Non-conventional energy sources like Gobar gas, wind energy, solar pumps and protection systems of electrified fences can be seen at many places. Thanks to IREDA and their state agencies. Agricultural engineering institutes in the country have developed various tools and invented new equipments to meet the needs of common farmer. Indian scientists and small entrepreneurs do not lag behind. They have developed many small tools, which are invented by scientists in developed countries. CFTRI, Mysore is a leading organisation in food processing. They have developed a host of technologies to

suit modern life style. Defense research organisation has developed various food technologies to meet the needs of defense personnel.

Impact of Modern Agricultural Techniques

1. Management of Tillage
2. Methods of Irrigation-Sprinkler, Drip, water Storage
3. Rain water harvesting
4. Selection of seeds and plants
5. Use of integrated weed management
6. Use of proper Fertilizers, pesticides and Herbicides-Nonorganic-Organic farming
7. Methods of Harvesting
8. Storage facilities
9. Greenhouse technology

Management of Tillage

10. To make soil loose and porous
11. To operate the soil
12. To have the repeated exchange of atmospheric air with soil air
13. To increase the soil temperature
14. To control the weed
15. To remove the stubbles of previous crops
16. To destroy the insect
17. To incorporate organic manure and fertilizers in the soil
18. To invert the soil to improve fertility

Methods of Irrigation-Sprinkler, Drip, water Storage

1. Flood Irrigation
2. Overhead Irrigation
3. Sprinkler, Drip
4. Water Storage

Rain water harvesting

1. To reduce run off loss
2. To avoid Flooding of roads

3. To meet the increasing demands of water
4. To raise the water table by recharging ground water
5. To reduce ground water contamination
6. To supplement water supplies during lean seasons

Rainwater can be mainly harvested by anyone of the following methods

1. By storing in tanks or above or below ground
2. By constructing pits, tube wells, lagoons, trench or check dams on small rivulets
3. By recharging the ground water

Advantages of Rainwater Harvesting

1. Low cost
2. Little maintenance cost
3. Helps in recharging aquifers, improves ground water quality.
4. Helps in improving soil moisture and reduces soil erosion by minimizing runoff water

Selection of seeds and plants

Any material used for planting propagation, whether it is in the form of seed of food fodder, fiber and vegetable crop or seedlings, tubers, bulbs, rhizomes, roots, cutting or grafts and other vegetative propagated material is defined as seed

Types of seeds

1. Hybrid seed
2. Composite seed
3. Mutants
4. HYV
5. Tissue culture
6. Nano culture

Use of integrated weed management

1. Prevent weed resistance to herbicides
2. Shift in crop-weed competition in favor of crops
3. Prevent weed shift towards perennial nature
4. Danger of herbicides reduce in soil or plant can be minimized

5. Minimum environment pollution.
6. Contributes to Economic crop Production

Use of proper Fertilizers, Pesticides and Herbicides-Nonorganic-Organic farming

Bio-fertilizers are the preparations containing live or latent cells of efficient strains of nitrogen fixing, phosphate solubilizing or cellulolytic micro-organisms used for application to seed or composting areas with the objective of increasing the numbers of such micro-organisms and accelerating those microbial processes which augment the availability of nutrients that can be easily assimilated by plants. Bio-fertilizers harness atmospheric nitrogen with the help of specialized micro-organisms which may be free living in soil or symbiotic with plants. 'Microbial inoculants' are carrier based preparations containing beneficial micro-organisms in a viable state, intended for seed or soil application, designed to improve soil fertility and help plant growth by increasing the number of desired micro-organisms in plant rhizosphere. Microbial Inoculants- In soil the activities of Nitrogen fixation, mobilisation of plant nutrients and degradation of ligno-cellulotic wastes are being carried out by a large number of micro-organisms. Artificially multiplied cultures of selected micro organisms augment the natural recycling of organic resources. There are different types of microbial inoculants.

Nitrogen fixers

Symbiotic- Rhizobium, inoculants for legumes.

Non-symbiotic- For cereals, millets, and vegetables.

Bacteria-

1. Aerobic- Azotobacter, Azomonas, Azospirillum.
2. Anaerobic- Closteridium, chlorobium
3. Facultative anaerobes- Bacillus, Eisherichia

Blue green algae-

1. Anabaena, Anabaenopsis, Nostoe
2. Phosphate solubilizing micro-organisms.
3. Cellulolytic and lignolytic micro-organisms.

4. Sulphur dissolving bacteria.
5. Azolla.

Rhizobium Inoculant

Agronomic importance- Response to Rhizobium inoculation has been amply demonstrated with most of the legumes- ahar, urd, mung, gram, soybean, etc. Besides, legume cultivation also leaves behind a naturally nitrogen enriched soil for subsequent cultivators.

Azotobacter Inoculants

Azotobacter inoculants on onion, wheat, rice, brinjal, tomato, cabbage, sugarcane, oat, barely, maize, potato can increase 7-12 % crop yields.

Blue Green Algal Inoculants

These algae also possess photosynthetic activity. Besides they excrete vitamin B12, auxins and ascorbic acid which contribute to growth of rice plants.

Azolla-an Organic Manure

Crop response- Soil application is more beneficial than dual culture method; 10 tonnes fresh Azolla/ha is equivalent to 25-30 kg N/ha and increasing application rate from 5-20 tonnes/ha has direct response in grain yield of paddy.

Pesticides and Herbicides

Role in agriculture to improve crop yield, role of controlling disease
Herbicides- The chemicals used for Killing the weed or inhabiting growth weeds are called Herbicides

Nonorganic-Organic farming

Organic farming for reducing the cost of cultivation and to increase the profitability could use acid-delinted seeds in order to avoid seed borne pathogenic infections and achieve optimum plant stand. If fuzzy seeds are used, however, higher seed rate is to be used in order to achieve the same goal.

Methods of Harvesting

Harvesting is the process of gathering mature crops from fields, physically removing the crop, cooling, storing, cening, soaring, packing up to the point of farm processing or shipping to the wholesale or consumer market, Tractor harvesting.

Storage Facilities

1. Room Storage- The room should have high plinth and good ventilation.
2. Pit Storage- 60-75 cm deep, 2.5 m long and wide, some cool, shady places, water sprinkled inside the pits to cool it.
3. Cold Storage- This is the best method of storing as temp and humidity can be regulated in such storage. R.F. for cold storage.

Greenhouse Technology

This technology is advanced artificial and manmade technology that technology is any season any crop production available for any time green house technology a very important present day

Conclusion & Suggestions

After adapting the modern techniques of agriculture, the productivity of agriculture has been increased. Due to the increase in the productivity, it has been possible to fulfill the need of food of increasing population. Taking agricultural practices the farmers should aware the land as a natural resource to be transmitted the next generations in the healthy form. The traditional farming farmers are unable to get the production as per the requirement. Due to the lack of knowledge about properties of soil, fertilizers, irrigation facilities to over come these problems modern agricultural practices are introduced which consists of following things-

1. Use of modern equipment's for plugging.
2. Selection of proper seeds, irrigation facilities.
3. Use of proper fertilizers, pesticides, manures.
4. Use of machines for harvesting.
5. Use of modern methods for storage of seeds, farm products.
6. Use of organic agriculture should be followed on large scale.
7. Use of Green House technology.
8. Use of integrated weed management.
9. Use of Bio-fertilizers, Bio-pesticide.

Reffrences

1. Agricultural Geography- Majid Husain

2. Green Revolution- Farmer B. H.
3. Agro one newspaper
4. www.britahnica.com
5. www.wikipedia.org
6. www.google.com



DIGITALIZATION IN INDIAN AGRICULTURAL SECTOR

Dr. Satish Ashinath Gonde

*Head and Assistant Professor , Department of Economics
Arts, Science & Commerce College, Kolhar , Savistribai Phule Pune University
Email: tushar.gonde@gmail.com*

Abstract:

The 21st century man is also running at the speed of internet. He is willing to pay for everything he wants. In the online market, many companies deliver electronics, clothing and other useful items in attractive packaging; Therefore, there is a huge scope for farmers' goods. Today's smart farmer is trying to increase agricultural production in the current digital age by embracing modern technology and implementing new experiments in agriculture. Many young farmers are absorbing the latest information in the field of agriculture through new media like what's app, Facebook, Internet, Android Mobile.

Key Words: Digitalization, Digital, Agricultural, Indian Agricultural..

Introduction:

Agriculture has been the livelihood of the Indian people since ancient times and is still the largest source of livelihood for the Indian people. In 2019-20, agriculture and allied sectors accounted for 16.5 per cent of GDP. According to the 2011 census, agricultural workers constitute 54.6 per cent of the total workforce in the country, which means that even today more than half of the population is dependent on agriculture for their livelihood. In 2018-19, the share of agriculture in India's total exports and imports was 9.9 per cent and 4.9 per cent, respectively, while India's share in global agricultural exports was 2.15 per cent and 1.54 per cent in global agricultural imports. Similarly, the food supply to the country's population of over 125 crore is from this sector. Considering the importance of agriculture in the country, Hon'ble Prime Minister Narendra Modi had said that his government was committed to double the income of farmers by 2020. For this, various schemes are being implemented by the government for the farmers. All these schemes are definitely benefiting the farmers in the country and will continue to do so. But for that, accurate and fast dissemination of information about these schemes needs to reach the farmers. For this, the importance of digitization in agriculture has increased uniquely. In addition, the farmer can sell his vegetables based on cash on delivery, which will help in getting some of the expected rates and avoid loss of agricultural produce.

Objective and mythology of study:

The purpose of this study is to understand what digitalization is, to explain the need for digitization in Indian agriculture, to study the components of digitalization in Indian agriculture and to explore mobile applications related to agriculture. The study presented is holistic and descriptive. The material required for the study is obtained by the second fact-finding method. It has collected facts from various sources such as various reference books, dissertations, research dissertations, annual reports of the Ministry of Agriculture, annual reports of NABARD, various articles in Shetkari and Baliraja Magazine.

Analysis and findings of Study

Digitization promotes expansion and development of any sector. The agriculture sector is no exception. The use of computer in the work of agriculture department at the government level, use of computer and internet in the office from state to taluka level as well as use of various software and apps has started.

Department of Agriculture website

The Department of Agriculture's website provides up-to-date information on technology, various initiatives implemented in agricultural schemes, and statistical information.

Kisan Call Center

Kisan Call Center is a central government service for farmers through IFFCO. For this toll free number 1800-180-1551 has been provided. The service runs daily from 6 am to 11 pm. This number communicates with farmers in 22 different local languages across the country. Farmers' questions are answered in Marathi and Konkani from the Kisan Call Center at the Pune headquarters for the two states of Maharashtra and Goa. The work is carried out in two shifts daily with the help of seventy two subject matter experts. Along with technology and information in the field of agriculture, counseling is also given on the economic and social problems facing the farmers.

Mahakrishi Sanchar

Mahakrishi Sanchar-1 Yojana was started in 2010 through Bharat Sanchar Nigam Limited, Department of Agriculture, State Government. Also in 2012 Mahakrishi Sanchar-2 scheme was newly launched and a total of 14 lakh 87 thousand farmers in Maharashtra are not benefiting from these two schemes. Considering the response of farmers to this scheme, in March 2014, the Department of Agriculture has started Mahakrishi Sanchar-3 scheme. The scheme provides 300 minutes free for BSNL network, 100 minutes free for other networks, 200 free SMS for BSNL network and 100 free SMS for other networks at the rate

of Rs. 128 per month. In addition, up to 200 MB of free internet access is provided. It is planned to provide crop related advice to the registered farmers in Mahakrishi Sanchar through Kisan SMS service as well as to provide information about various schemes of the Department of Agriculture. For this, work is in progress to increase the registration of 4.50 lakh registered farmers to 20 lakh. Both Kisan MMS and Krishi Sanchar Seva provide farmers with information on agriculture at home and easily, which is definitely beneficial for them to plan for the season.

Collective All India Radio Centres:

Five Collective All India Radio Centres have been set up in Maharashtra under the program 'Assistance for Improvement of Agricultural Extension Programs in the State'. These include Krishi Vigyan Kendra Babhaleshwar (Ahmednagar), Krishi Vigyan Kendra, Jat (Sangli), Krishi Vigyan Kendra, Karda (Washim), Krishi Vigyan Kendra, Baramati (Pune), and Krishi Vigyan Kendra, Durgapur (Amravati). Success stories of successful farmers are told through these radio stations to inspire the farmers.

Mahakrishi Sanchar:

Mahakrishi Sanchar is a cheap mobile service made available to farmers from 01 July 2010 for easy access to the officials and staff of the Department of Agriculture, experts and successful farmers in the University of Agriculture. Beneficiaries get 1.5 GB of data and unlimited calls at a cost of Rs. At present 11.50 lakh farmer officers, employees, scientists and vendors in the state are availing this service.

M Kisan Portal:

The M Kisan Portal has been developed by the Central Government since May 25, 2013 with the objective of sending SMS to farmers on weather and rainfall forecasting, technology, pest control, market prices as well as animal husbandry, fisheries and silk industry via SMS. Maharashtra State has the highest share of 11.82 per cent.

Mobile Applications:

Through mobile messaging technology, various types of information are also being made available to the farmers in the agribusiness. A wealth of agricultural information is available from a variety of mobile apps. This information can be obtained from this app in Hindi as well as English language in local language. Farmers are using the app developed by Maharashtra State Government, Farmers Magazine, CropSap, Crop Clinic, Krishi Mitra. Here you can find information about some of the mobile apps available for farmers

Farmers Portal India:

A mobile app developed by the Ministry of Agriculture, Government of India to provide farmers with information on agriculture, meteorological information, horticulture, animal husbandry as well as market prices of various crops, pest and disease control, soil testing, fertility, mapping, import-export and livestock census. Can be obtained.

Krishik App:

Krishik Application has been launched on 8th November 2016 through Krishi Vigyan Kendra Baramati of 'Agriculture Development Trust'. The agricultural app includes weather forecasts for farmers, agricultural advice, latest agricultural news, market prices of major commodities, agricultural expert guidance, improved cropping practices, estimated cost of drip design, ideal fodder for animals, number of seedlings per acre, cost and other agricultural Useful information is provided. The agriculture app provides taluka wise weather forecast for the next seven days as well as agricultural advice on weather based seasonal kharif, rabi, summer crops, vegetable and fruit crops. The app also offers advice on agribusinesses such as goat rearing, poultry rearing and dairy management.

Agrowan:

Agricultural news, latest agricultural developments, market prices of various crops, success stories of successful farmers, information on agro-agro technology, agri-supplement business, agro-processing industry, editorial special articles, agro guide, agricultural advice, rural development Helps to get information about agricultural education, agricultural laws, government decisions etc.

Dee Pdkv- Transfer of Technology:

Through this app developed by Dr. Punjabrao Deshmukh Krishi Vidyapeeth Akola. PDKV- WEED MANAGER: This app developed by Dr. Punjabrao Deshmukh Krishi Vidyapeeth Akola. Farmers have been informed about control, use of organic farming management research recommendations, use of herbicides in intercropping system.

Phule Krishidarshani:

Developed by Mahatma Phule Krishi Vidyapeeth Rahuri, this app provides information on agro-climates, crop information, water conservation, animal husbandry, drip irrigation, pest and disease management, agricultural implements, silk production, earthworm farming, soil testing, etc. Apart from this, many government and private organizations have developed various types of mobiles in the Daily Market Price developed by the Ministry of Agriculture, Government of India, Shetkari Monthly developed by the Department of

Agriculture, Government of Maharashtra, Satbara Utara, Maharashtra Agriculture India, Agriculture Student, CCRI Agriculture, Kisan Seva, Silk Brothers, Missionary Guide, Crop Advice, Digital Market, Guide Market, Price Skill Development Scheme, Organic Farming, Agro Connect More than 50 mobile apps are currently available.

Conclusion:

The above analysis of the study shows that the increased use of improved agricultural technology due to the hard work and digitization of farmers has helped in improving the economic condition of farmers and rural development. Farmers will also be able to reap maximum benefits if they use the digitalization tool not only for entertainment but also for various activities in their farming business.

References

1. Sony R. N., (2012), Krushi Arthshastra ke Mukhya Vishay, Vishal Publication , Jalandhar, Delhi
2. Sinha S. P. (2014), Krushi Arthshasta, Sahitya Bhavan Prakashan, Agra, Delhi
3. Kavimandan Vijay (2002), Krushi Arthashastra, shri Mangessh Prakashan, Nagapur
4. Kolambe Ranjan (2021), Krushi Shastr Ani Krushi Vikas, Bhagirath Prakashan Pune
5. Tripathi Badri Vishal(2008), Bhartiya Krushi, Kitab Mahal Publication, Ilahabad
6. Vani Nita (2015), Krushi Arthshastra, Prahant Publication, Jalgaon
7. Bansode Anil (2019) , shetkari Masik, Maharashtraatil Krushi Kshetratil Digital Parv
8. Tekale Visupant (2019), Shetkari Masik, Krushi Kshetratil Mobail App Cha Vapar
9. Shinde K. T. (2016), Shetkari Masik Krushi Kshetratil Mahiti Tantradnyanache Yogdan
10. <http://krishi.maharashtra.gov.in/1231/Mobile-App>
11. https://mpra.ub.uni-muenchen.de/90359/1/MPRA_paper_90359.pdf
12. https://tapipedia.org/sites/default/files/_promoting_digital_agriculture_through_big_data_for_sustainable_farm_management.pdf



USE OF TECHNOLOGY IN MEDIA

Tisha Ashok Uchil

*Affiliated Vivek College of commerce, Sidharth Nagar, Goregaon W, Mumbai,
Student*

Abstract:

In Today's modern world, technology is getting advanced day by day. Due to which our life has become easier. Media and technology are interrelated with each other. Media are channels which are used to transmit information or by which communication takes place. Technology refers to all the tools or devices used in our daily life. These devices are the result of advancement of science and technology. Change in information technology had made the information process speedy. News and information can be sent or shared in a flash of time to any corner of the world. Before, when printing press was not invented at that time newspapers were produced in handwritten form. Now because of new technology, online newspapers are also available. Advertising Industry has also changed due to technological advancement. As it is the age of information technology, the technology has brought a dramatic change in every field especially in the field of mass media.

Keywords: Media, Technology, Information, Communication, Advance.

Introduction:

Rationale of the Study:

Media are channels for Information that is transmitted or which helps the communication to take place. Technology is the application of Scientific Knowledge to fulfil the practical aims in human life. Technology creates Media. Technology plays a big role in making the mass media more accessible to the people. Technology makes communication easier, quicker, and more efficient. Mass Media techniques such as televisions, radio, newspapers, journals, etc. help us to reach out to millions of people because of technologies which are used by them. Advertisement is also impacted by the changes with technology. New means of mass media enables the consumers to bypass traditional advertising fields and makes companies to be more innovative and gain expertise to appeal to the attention of millions. Technology speeds up the communication between people, and it provides various convenience to communicate such as Email, Chat

<http://www.ijaar.co.in/>

messengers, Video calls, social media, Video conferencing, Videos, Images, Diagrams, Symbols, Charts etc.

Information Technology (IT) has changed the way of communication and connection with the world in almost all areas. It includes the rapid changes and upgrades of technologies into the fields of telecommunications and related technologies, cable television, fibre optics, satellites, compact disk, video cassettes, computerized Image, and other computer and digital technology and many more. Therefore, Information Technology has brought drastic change in the field of mass media industry. Means of communication has been changed in the recent past because of technological advancement. The medium of communication has been changed and also it has become innovative. Latest Media such as television, computers, laptops, iPad are called Electronic Media. Fibre optics in the television and satellite technologies has introduced new products which are used in media and media transmission of variety of programs. Talking about the Electronic media, Now-a-days most news are read and spread electronically and same are the advertisements. Electronic media makes communication easier for the people to communicate or connect with each other only because of this media facility. It is the media which transmit information via electronic means to the audience. The mass media are the technology which was created with the intension to reach the large number of audiences through mass communications. The print media also circulates its information to a large number of the people across the globe.

Objective of the Study:

- 1.To know the meaning of technology and media
2. To review the impact of technology in media
3. To understand the use of technology
4. To understand new media
5. To understand social media

Research Methodology:

For this research paper, secondary data has been referred and on the basis of conversations with college students, the article has been written. It i9s on the

basis of observational methods, the topic is analyzed. Everyday we watch movies and spend time in front of TV etc. which has been used as a practical method of learning about media in everyday life.

Review of Literature:

1. The research is done with the help of following article related to the topic.
2. By Prabhjeet Bhatla December 17, 2020 How Social Media Is Changing Technology.
3. Abraham Das May 2020, IMPACT OF DIGITAL MEDIA ON SOCIETY.
4. Ruth A. Harper 2010, The Social Media Revolution: Exploring the Impact on Journalism and News Media Organizations

The Pre 21st Century Of Mass Media:

The pre 21st century Mass Media is classified as Indigenous and traditional since it does not “*Incorporate Information Technology*” into its operation. It will be classified as Indigenous because of media which was used by society and to enhance the self-pride of indigenous people. In the earlier days, humans had intimate connect, through self-representation, indigenous people through folk tales, closeness with community and society acquire a collective memory. One of the techniques of an indigenous media is the Aboriginal Peoples Television Network (APTN).

The traditional media ways of mass media include newspapers, magazines, Books, Movies, radio, television, telegrams and postage which were used to send out information to the audience. *‘I still remember the time when the movie shows in Malgudi days were the post master, and postman would occupy an important place to share news of a family member or a distant relative’*. Since many years, this traditional media has been used in Advertising, Sales promotion, Public relations and Direct marketing by people using speakers on bicycle and hand-driven carts. Even election announcement was done in a most simple way and there are still many people who are using this traditional media, as many elders are not everyone is used to this World Wide Web. But way before the classifications of these two-mass media *‘indigenous and traditional media’*, there were other means of local, religious and cultural mass media for communication. We would often find ballads, tamasha, magic shows, circus mythological place which were often moving from village to village and cities to

cities. This broadcast was also done for a smaller group of people but was very popular. Both the kids and elders would enjoy such mass gatherings together and the women folk of the house would talk about it and wait for the next occasion. We even found that whenever a national leader would ask the people to come together to fight against the British tyranny, many people would run on foot to spread messages on national freedom movements. Many a times the visit to pilgrimages or attending a wedding would also be a way to communicate. Often the nears and dears would visit each other during festive seasons, stay with each other for longer time.

Impact of Information Technology in Mass Media:

Due to technological advancement involved in the transmission, the mass media has seen a lot of improvement. Information Technology has been an immense help in the development of mass media, as it invents technologies which uses the internet. In the field of mass media there is great role of Internet as it is used for many processes like delivering of news and information, publishing, broadcasting, digital conversations etc. Before, it was very common that lot of time was Consumed to prepare news, videos, bulletin etc. but now due to technological advancement it can be done in a short span. Invention of Mobile phone has made mass media to get lot more information from the people without using the traditional way. It had made life much more on going and easy. When computer had started to store the information, it was the best thing for human development. Before, the storage material like cassettes, CD's etc were not able to store large quantities of information and also it last for short time. Now the trend has been changed. You can now store all your information in the computer even for the longer period of time. Talking about the advertising agencies, Information technology has developed the advertising processes. Advertising agencies depends on Information Technology for increasing their productivity as it can easily share the information to the customer or clients with the help of research from the internet. If the organization do not have enough capital to set up their own advertisement on products and services of their client it can be easily done with cheaper broadcast.

The New Media and Social Media:

Information technology has helped with new media and social media. New media basically includes social networks, it is a technological advancement which allow people or group of people or the companies to connect and share information within short span of time. Social network form includes the companies such as Facebook, snapchat, and Instagram. Social media means the use of web as an interactive medium of communication, mainly with a huge number of audiences. New social media has largely benefited businesses. Social media helps the businesses to communicate with the customer in real-time and can respond to issue quickly as compared to manual system. This social media as well as the new media provide young people with lots of benefits and opportunities in various ways. Social media helps people to stay connected with each other.

Conclusion:

Digital media is digitized content that can be transmitted over the internet or computer networks. This can include text, audio, video, and graphics. This means that news from a TV network, newspaper, magazine, etc. that is presented on a Web site or blog can fall into this category. Most digital media are based on translating analog data into digital data. The Internet began to grow when text was put onto the Internet instead of stored on papers as it was previously. Soon after text was put onto computers images followed, then came audio and video onto the Internet. Digital media has come a long way in the few short years to become as we know it today and it continues to grow. It has entered in all fields of everyday life and its role in media is very commendable.

In this world of globalization, Mass media and Technology both play an important role in our life. Mass media has many advantages to communicate with large number of people anywhere around the globe. Obviously, information technology has made the transmission much easier and faster. Information technology has made mass media more interactive than before. Therefore, it is said that Information technology plays a huge role in the development of mass media.

Reference:

1. <https://courses.lumenlearning.com/sociology/chapter/media-and-technology-in-society/>
2. <https://www.ojcmnt.net/article/the-role-of-information-technology-in-media-industry#:~:text=Composing%2C%20printing%2C%20animation%2C%20diagrams,possible%20through%20this%20rapid%20technology.>
3. https://www.researchgate.net/publication/235417104_The_Role_of_Information_Technology_in_Media_Industry
4. <https://philipatawura.wordpress.com/2014/10/10/what-is-the-impact-of-it-on-mass-media/>
5. <https://neilpatel.com/blog/technology-communication/>
6. <http://www.inquiriesjournal.com/articles/202/the-social-media-revolution-exploring-the-impact-on-journalism-and-news-media-organizations>
7. <https://www.entrepreneur.com/article/361871>



ROLE OF GOAT FARMING IN FINANCIAL DEVELOPMENT OF GOAT FARMERS IN MAHARASHTRA

Mr. Adinath. S. Kamble¹, Dr. M. A. Koli²

¹*Asst. Prof. Padmashree Dr. G. G. Jadhav Mandalik Mahavidyalaya,
Gaganbawda*

Email akamble056@gmail.com

²*Associate Prof. Sadashivrao Mahavidyalaya, Gaganbawda*

Abstract: -

In the present study researcher will be analyzed financial position, strength, performance and accounting practices adopted by goat farmer Maharashtra State. Along with this the present study will be identify the problems, future prospectus, current situation of their farms and problems in maintaining accounts and financial management practices. The researcher also reviewed literature about technical efficiency, socio economic status, aspects and prospectus of goat production as well as shepherds in rural area. The financial crunch was the foremost constraint for the tribal goat farmers it may because of widespread poverty amongst the tribal people in this area. As per their research, high cost of feeding, non-availability of bank loan and fluctuating market price for inputs were main constraint faced by the goat farmers. Non availability of fodder during summer, lack of training and non-remunerative price for adult goats was another important constraint faced by the tribal goat farmers.

Introduction: -

In this researcher paper conducting reviews about goat farmers coping strategy, sustainable livelihood security and its role in rural poor farmers' life, commercial goat farming, rearing practices, production performance, challenges and opportunities of goat production. The researcher also reviewed literature about technical efficiency, socio economic status, aspects and prospectus of goat production as well as shepherds in rural area. This chapter focused on supply chain management, constraint, feasibility for sustainability and profitability in goat farming and production. The reviews also related with animal health, milking hygiene and raw milk quality.

Research objectives:

The following are the main objectives of this research paper.

1. To study the conceptual framework, present condition and financial problems of goat farming in Maharashtra.
2. To take the reviews of study and offer recommendations for the improvement of problems in goat farming in Maharashtra.

Research Methodology: - In this present research work researcher was decided to take data from the secondary sources. The secondary data will be collected from published literature, website and relevant information published in journals and books of various authors, relating to the topic selected from different libraries.

Review of Literature:-

Mr. Sarnaik D. G. (2015) he has submitted a research project namely “A Study on Goat Rearing Management Practices Followed by Goat Keepers in Kolhapur District.” He has studied that the gap between recommended management practices of goat rearing and actual practices followed by the goat keepers.

Matawork Milkias Gobena (2016) he published research namely ‘Production Performance, Challenges and Opportunity of Goat Production in Ethiopia’. In this paper, he conducted reviews about production performance, challenges and opportunities of goat production. The aim of this study was to deliver summarized and synthesized information for the beneficiaries and users. He conducted review about goat production systems, mixed crop-livestock farming system, agro pastoral and pastoral system and urban and per-urban (landless) goat production system in Ethiopia. According to this study, he found feed shortage, diseases and parasites occurrence, marketing problem and lack of appropriate breeds and breeding technology were the key challenges in study area.

Kristina Linderot de Cardona, Abelardo De Gracia Scanapieco, and Peggy G. Braun (2017) they published a research paper on ‘Goat Production in El Salvador: A Focus on Animal Health, Milking Hygiene, and Raw Milk Quality’. The study assessed the general health of Salvadoran goats, national

husbandry systems and goat products and milking hygiene. They selected 178 farmers from 43 cantons using random sampling method with an existing goat population was carried out between May 2013 and May 2014. Out of these, 178 farmers only kept a few animals per establishment, 13 large herd animal owners that sell milk for a commercial purpose entered the study. Totally, they were interviewed 191 goat owners on animal management and production whereas 434 goats were undergone a basic clinical exam, and raw milk samples which was taken from 60 lactating does.

Sarveshwar Koma, Sariput Landge, Vaishali Banthiya and Giridhar Shende (2017) they published a research paper on ‘Constraint in Goat Farming for Tribal Goat Keepers in Maharashtra’. The study selected 150 goat keepers from five villages from Korchi, Kurkheda, and Dhanora talukas. The selection was based upon the highest number of goat keepers out in the tribal area of Gadchoroli district. The villages and Taluka were purposively selected for the present study due to large goat population and they selected 10 goat keepers from each village were selected as per random sampling.

P M Mandavkar, A A Hanmante and M S Talathi (2015) they published a research paper on ‘Status of Goat Farming Practices, Knowledge and Adoption Status of Technologies in North Konkan Coastal Zone of Maharashtra’. For this study purpose they selected 30 respondents out of 100 participants who attended vocational training on goat rearing organized by Krishi Vigyan Kendra, Roha-Raigad and technological interventions provided to goat rearing farmers in between 2010 to 2012 years. This study conducted in Raigad district of North Konkan Coastal Zone of Maharashtra. The data collected with help of well structure interview schedule. The aim of this study was to know the status of goat farming practices the knowledge and adoption level of technologies learned during training programme by the goat keepers in study area.

S. G. Shirsat, S. R. Kolhe, M. P. Nande, A. V. Khanvilkar and T. C. Shende (2019) they published a research paper on ‘Socio Economic Status and Sheep Husbandry Practices of Migratory Shepherds in Western Maharashtra.’ The objective of this paper was to assess the socio-economic status of migratory

shepherds and sheep husbandry practices of sheep in Western Maharashtra. They selected Pune and Sangli district of Western Maharashtra as research area. They used purposive random sampling 60 migratory shepherds were selected from each district. They collected data through the structured schedule.

Mahmoud Abdel Aziz (2010) he wrote a research paper on “Present Status of the World Goat Populations and Their Productivity.” In this research article he studied the present status of goat populations and their productivity. The data collected and discussed number of goats in different parts of the world and the top countries having goats. The aim of this article was to review the status of goat milk and meat production. Genetic improvement programs for milk and meat were discussed giving some examples of the reputable goat breeding projects. He also discussed advantages of goat keeping, reasons of their expansion and reminding to goat farmer. There should careful management for avoiding irreversible damage to the vegetation and environmental degradation.

C. Nimbkar () he published a research paper on “A Village Goat Cross-Breeding Project in Maharashtra, India”. The proposal of a comprehensive project to enhance the income of rural goat-keeping women in Phaltan taluka (shire) by improving the productivity of their goats was submitted in 1991 to the funding agency of Government of India, the Council for Advancement of People’s Action and Rural Technology (CAPART). The objective of this research was in a wide range of agricultural activity to improve the quality and quantity of agricultural produce and to bring genetic improvement in local goats and sheep to increase their productivity and efficiency. This survey was made in the middle of the third year of the project. The data was collected depends on only the first kidding of the cross-bred.

Eduardo Morales-Jerrett¹, Juan Manuel Mancilla-Leytón² , Manuel Delgado-Pertíñez¹ and Yolanda Mena¹ (2020) they published a research paper “The Contribution of Traditional Meat Goat Farming Systems to Human Wellbeing and Its Importance for the Sustainability of This Livestock Subsector” The main purpose of this research paper is to analyze the current situation of those systems, focusing on their connection with human wellbeing, and to

formulate proposals which can contribute to guaranteeing their profitability and continuity. Secondary object is that analyses limiting factors affecting the subsector and technical-economic and environmental study of a sample.

A. S. Rahane¹, R. D. Shelke^{2*} and V. S. Thombre¹ (2020) they published a research paper on “Profitability of Goat Rearing in Ahmednagar District of Maharashtra, India” This study was conducted to collect the information from the 60 goat rearers with through personal interview using a well-structured questionnaire regarding profitability of goat rearing in Ahmednagar district of Maharashtra during year 2019-20. They were identified three groups of farmers on the basis of flock size like small, medium and large.

Khushpreet Singh^{1*}, Ravdeep Singh¹, Rajesh Kasrija¹, Kulvinder Singh¹, S. K. Kansal¹ and H. K. Verma² (2020) they wrote a research paper on “Impact of Specialized Goat Training Programme on Knowledge Level of Farmers” The main purpose of this research was to assess the effectiveness of specialized goat training programme in improve knowledge.

Findings, Suggestions and Conclusion:-

Findings:- After analyzing above secondary data, researcher found following findings and suggestions.

1. The goat keepers in Kolhapur district were middle age group, educated up to secondary school level, possessed marginal holding and medium level of annual income, source of information and social participation.
2. The opportunities of goat production in the Metema district of Amhara region there are enough grazing land which is not utilized for growing food crops. If this grazing land was properly managed, it could be a good source of good quality feed to boost goat production in the area.
3. In the world market, the demand for mutton and goat meat have been increasing due to an increase in income and population hence there is a growing demand for goats in both the domestic and export markets. Young male flocks have huge demand by the export abattoirs.
4. This study revealed the necessity of development programs in Salvadoran goat husbandry. The literacy rate of goat farmers was improved; accessibility

of veterinary services as well as promotes animal health, wellbeing and enhances goats' productivity.

5. The financial crunch was the foremost constraint for the tribal goat farmers it may because of widespread poverty amongst the tribal people in this area. As per their research, high cost of feeding, non-availability of bank loan and fluctuating market price for inputs were main constraint faced by the goat farmers. Non availability of fodder during summer, lack of training and non-remunerative price for adult goats was another important constraint faced by the tribal goat farmers.
6. This study also revealed that the tribal goat keepers facing constraints like non-availability of good quality buck, lack of government schemes, lack of extension support and non-availability of veterinary service in time.
7. The study revealed that migratory shepherds had medium level of socioeconomic status and medium level of extension contacts and least social participation. Whereas women were actively involved in care and management of sheep and village level market was preferred mostly for marketing of sheep and sheep byproducts.
8. According their research they found some advantages of goat farming like great adaptability to adverse climatic and geophysical conditions efficiently utilize poor quality forage and cover long distances looking for food, peculiar feeding habits, faster reproduction contributes to the genetic progress.
9. He revels that in his project the absence of libido in some bucks and variation of libido in others were major problems. There was uncertain whether any treatment was effective in such cases and the buck-keepers always considered it a prestige issue. He also found that the butchers spread propaganda that the meat of cross-bred kids is not as tasty as that of local kids and offered lower prices for cross-bred animals in study area.
10. This study observed that reduction of the number of farms because of the low income derived from the sale of kids, the role of those systems as suppliers of presently non-remunerated ecosystem services becomes more relevant identified the problems of lack of acknowledgement, remuneration of some

services like environmental and cultural, provided by those systems and the low selling price of kids standing are the main threats. They observed that decline traditional livestock practices in worldwide and large implications for the sustainability of grazing agro-ecosystems.

11. This study reveals that goat rearing is the profitable business in their study area and it provides regular opportunity of income and employment to the small, marginal and landless farmers.
12. The study found that training program has played tremendous impact in knowledge gain on scientific practices of goat rearing. It is observed that Lack of knowledge is one of the main factors restraining in adoption of scientific goat farming and the scientific knowledge about any enterprise is crucial for success. According to this research the farmers has great interest in the handling, first aid, preventive measures and value addition training programme and majority (88.13%) farmers improved knowledge level.

Suggestions:-

1. The government should make available veterinary services and medical treatment for goat keepers in their village with free of cost. They also provide the information of vaccination, credit facility, and quality improvement of goat breed, shelter facility and training of advance rearing management.
2. They use modern production system with improved technology in urban and per-urban area and Producer should use feed storage systems for dry seasons and cultivate forages through irrigation.
3. They recommended that a better management system implies an advanced subsistence of rural households that own goats and the implementation of official microbiological controls of goat milk.
4. They recommended that availability of veterinary doctors in these remote tribal villages were ensured by the recent appointment of veterinary doctors in the region. Similar constraints were also reported by other researcher with varying difference in terms of the various factors
5. They recommended that for overall improvement in status of goat management practices in enrichment or gain in knowledge and increase in

adoption of improved technologies, increase in employment and increase in total income was possible by organizing trainings and technological interventions through diagnostic visits, animal health camp, farm and home visits by the subject matter experts in the rural area at the door step of the poor farmers.

6. They suggested that if want to build capacity of migratory shepherds should organization of appropriate farmers training and awareness campaign which is amplify the level of adoption of sheep husbandry practices.
7. Goats broad range of products and socio-economic services which played an important role in their social life of many people being used as gifts, dowry, in religious rituals and rites of passage. Goats were playing important role and an ideal species for poverty reduction and economic development for the poor in developing countries.
8. NARI suggested that to the goat-keepers that they slaughter a couple of cross-bred kids themselves to see if they could note any difference in the taste of the meat. Goat-keepers were convinced that the meat tasted the same and then insisted on getting the same price for cross-bred kids.
9. They recommended that future policy measures must pay more attention to local characteristics and needs which will help to develop future scenarios to address imminent challenges in ecosystem service.
10. They suggest that the socio-economic conditions of goat rearers could be improved with combination of modern and indigenous knowledge of goat rearing which will not only generate income for their livelihood but also contribute much to the nutritional and health security.
11. They suggested that they want research programmes for increase milk production by developing crossbred goats and value-added products for financial profitability and strengthening of extension professionals and training system has to be done for taking up more training programmes to make the farmers knowledge rich, which in turn leads to adoption of scientific rearing practices.

Conclusion: -

After conducting reviews of goat researcher studied about farmers coping strategy, sustainable livelihood security and its role in rural poor farmers' life, commercial goat farming, rearing practices, production performance, challenges and opportunities of goat production. The researcher also reviewed literature about technical efficiency, socio economic status, aspects and prospectus of goat production as well as shepherds in rural area. This research paper focused on Financial Problems of goat farming, supply chain management, constraint, feasibility for sustainability and profitability in goat farming and production. The reviews also related with animal health, milking hygiene and raw milk quality. After detail and sincerely study of all review of literature related to research topic the researcher reveals that the present study is differ from the existing research. This study also revealed that the tribal goat keepers facing constraints like non-availability of good quality buck, lack of government schemes, lack of extension support and non-availability of veterinary service in time. The financial crunch was the foremost constraint for the tribal goat farmers it may because of widespread poverty amongst the tribal people in this area. As per their research, high cost of feeding, non-availability of bank loan and fluctuating market price for inputs were main constraint faced by the goat farmers. Non availability of fodder during summer, lack of training and non-remunerative price for adult goats was another important constraint faced by the tribal goat farmers. The study revealed that migratory shepherds had medium level of socioeconomic status and medium level of extension contacts and least social participation. Whereas women were actively involved in care and management of sheep and village level market was preferred mostly for marketing of sheep and sheep byproducts.

References:-

1. Mr. Sarnaik D. G. (2015) "A Study on Goat Rearing Management Practices Followed by Goat Keepers in Kolhapur District" Research Journal of Animal Husbandry and Dairy Science Volume 3 | Issue 2 | December, 2012 | 105-107 http://researchjournal.co.in/upload/assignments/3_105-107.pdf

2. MataworkMilkiiasGobena (2016)“Production Performance, Challenges and Opportunity of Goat Production in Ethiopia” Advances in Life Science and Technology ISSN 2224-7181 (Paper) ISSN 2225-062X (Online) Vol.50, 2016www.iiste.org
3. Kristina Linderot de Cardona, AbelardoDeGraciaScanapieco, and Peggy G. Braun (2017) “Goat Production in El Salvador: A Focus on Animal Health, Milking Hygiene, and Raw Milk Quality” Hindawi Journal of Food Quality Volume 2017, Article ID 8951509, 7 pages <https://doi.org/10.1155/2017/8951509>
4. SarveshwarKoma, SariputLandge, Vaishali Banthiya and Giridhar Shende (2017) “Constraint in Goat Farming for Tribal Goat Keepers in Maharashtra”Trends in Biosciences 10(44), Print: ISSN 0974-8431, 9199-9200, 2017
5. P MMandavkar, A AHanmante and M S Talathi(2015) “Status of Goat Farming Practices, Knowledge and Adoption Status of Technologies in North Konkan Coastal Zone of Maharashtra”J Krishi Vigyan 2015, 3(2) : 93-96 DOI: 10.5958/2349-4433.2015.00020.3<http://iskv.in/wp-content/themes/iskv/volume-pdfs/cd908f2f612be4c6126940c380a0b76ejkv-3-2-020.pdf>
6. S. G. Shirsat, S. R. Kolhe, M. P. Nande, A. V. Khanvilkar and T. C. Shende (2019) “Socio Economic Status and Sheep Husbandry Practices of Migratory Shepherds in Western Maharashtra”Available online at ISSN: 2320 – 7051 Int. J. Pure App. Biosci. 7 (2): 105-112 (2019) www.ijpab.com DOI: <http://dx.doi.org/10.18782/2320-7051.7181>
7. Mahmoud Abdel Aziz (2010) “Present Status of the World Goat Populations and Their Productivity.” Lohmann information vol. 45(2), Oct.2010, page 42
8. C. Nimbkar () he published a research paper on “A Village Goat Cross-Breeding Project in Maharashtra, India”.https://www.icar.org/Documents/technical_series/ICAR-Technical-Series-no-3-Bella/Nimbkar

9. Eduardo Morales-Jerrett, Juan Manuel Mancilla-Leytón , Manuel Delgado-Pertíñez and Yolanda Mena (2019) “The Contribution of Traditional Meat Goat Farming Systems to Human Wellbeing and Its Importance for the Sustainability of This Livestock Subsector”*Sustainability* 2020, 12(3), 1181; <https://doi.org/10.3390/su12031181>
AS. Rahane¹, R. D. Shelke^{2*} and V. S. Thombre¹ (2020) they published a research paper on “Profitability of Goat Rearing in Ahmednagar District of Maharashtra, India”*International Journal of Current Microbiology and Applied Sciences* ISSN: 2319-7706 Volume 9 Number 11 (2020) 2629-2633
<http://www.ijcmas.com>
10. Khushpreet Singh^{1*}, Ravdeep Singh¹, Rajesh Kasrija¹, Kulvinder Singh¹, S. K. Kansal¹ and H. K. Verma² (2020) Impact of Specialized Goat Training Programme on Knowledge Level of Farmers - A Review *International Journal of Current Microbiology and Applied Sciences* ISSN: 2319-7706 Volume 9 Number 6



5G TECHNOLOGY & DIGITALISATION

Dr. Shubhangi B. Patil

*Head, Department of economics, K J Somaiya college of Arts & Commerce
Email-shubhnagi.p@somaiya.edu*

Abstract:

With rising population of the world, rising world income, growing demands for varieties of goods & services & growing globalisation, there is huge potential for business to grow. However the decision on what, how, how much to produce & whom to sell in this globalised world Industry 4.0 needs the support of Information & communication technology. ICT plays very important role in collecting & analysing information of the market which helps industries in rational decision making about production, sales, use of resources in the production etc. Global consumers with greater income in the hands are looking for better quality unique products along with better quality customer care services. This all needs a direct information transmission from customers to producers. If the world wishes to see 4th industrial revolution with limited resources, demand for better quality customised good & services then we need technological revolution to support it. A shift from fordist to post fordist era has made world to experience a shift from assembly line of production to decentralised project based production process. This new production system is data intensive & so we need technology which can collect, process & analyse data fast so as to bring changes in the production accordingly. The latency and speed limitations of current technologies (4G and wired networks) are the predominant reasons hindering the ability of enterprises to move toward a decentralized workforce. 5G can fully support a decentralized workforce and thereby reduce the non-productive workspace and support real time interactions.

Introduction:

Most of the countries especially developed countries are operating with 4 G technology but industries now need 5th generation of wireless network to support further industrial growth. Covid 19 have highlighted the pressing need of 5G technology. Covid 19 crisis have made us realise that how deeply we rely on internet in every aspects of our modern life. Our activities in day to day life can be performed even better with the help of internet. Countries like China, Republic of Korea, Japan, USA & Europe has already taken steps to create <http://www.ijaar.co.in/>

infrastructure & awareness about 5 G technology. Taking view of the benefits 5G can bring to the entire value chain across consumer and business, Government of India (GoI), through Department of Telecom (DoT) has released the Draft National Digital Communication Policy (DNDCP), and emphasised on creating an actionable plan for the rollout of 5G application and services. To address timely development of 5G infrastructure, DoT has also setup a high level forum '5G India 2020' to develop the roadmap for operationalising 5G services in India by the year 2020.(Deloitte Report 2018) The current businesses & industry are using AI, IOT, Big data these are impossible to perform efficiently in the absence of 5G technology. The 5th Generation Wireless Network brings with it impressive data speeds and latency rates thereby benefiting many sectors in the economy. Some of the benefits to the sectors are as follows:

Benefits of 5G to business –

Business can explore their potential better by using IOT, Big Data which can be supported by 5G. 5G helps in impressive data speeds & Latency rates. Businesses can take the benefits of 5G technology in its digital marketing. 3G & 4G technology were not able to support mobile video advertising. But 5G technology enable quicker & easier loading of content allowing for seamless integration across various social media platforms. Thus businesses now need to create innovative content creating technologies including AR & VR. 5G will also help in improved personalisation & customization as this technology will help in collecting user data in real time.5G will also allow more interactive experience for consumers & producers. Interactive advertisement are heavy & data intensive. Thus existing digital technology can be made more accessible with the help of 5G technology.

Benefits to industry –

Introduction of new technology in production like use of robotics which can perform labour intensive work requiring precision as well as work in hazardous environment with better process quality & less time in production.

Benefits to agriculture & allied industry- India is although called an agrarian economy, this sector is however able to explore only 50-60 % of its

potential. The main causes for the remaining unrealised potential can be attributed to uneven agro climatic conditions, mismanagement of water & land resources, infrastructural bottleneck, asymmetric information & lack of data capture & analysis. Introduction of digitalisation with IoT, Big Data, AI & Drones will help in overcoming most of the above obstacles in efficient production & distribution of farm output.

Benefits to automotive industry –

In automotive industry where one vehicle with other elements like devices, infrastructure, other vehicles etc. could enable real time traffic routing, emergency breaking. To use all these potentials of this industry however needs high speed network. 5 G technology can definitely support growth of such industry.

Benefits in terms of sustainable global growth-

Use of 5G technology with digitalisation of energy sector will enable better utilisation of energy resources helping in attainment of environmental sustainability. Smart power generation, smart meters for homes, remote sensing of energy sites to avoid human error & identify energy leakages are some of the benefits that will accrue with digitalisation associated with 5G technology.

Benefits to health care industry –

Use of 5G technology in healthcare industry will help in attaining inclusiveness of health care sector in remote areas where medical facilities can not reach easily. Doctors can remotely diagnose patient & thereby provide quick expert treatment to cure patient's illness. Online consultation with high data speed will help to reduce long waiting time for the patients. During covid 19 Vaccination data was centralised & drive was successfully implemented because of digitalisation of its administration. We could have reduced no. of death due to lack of supply of oxygen cylinder wherever required if we would have digitalised this data with high speed network

Benefit to Media & entertainment sector –

This sector is very sensitive to consumer preference. Thus maintain the quality of service is the main task of the business in this sector. Increasing

popularity of Netflix, Sonyliv with increasing numbers of short films & web series entertaining viewers is showing bright future for media industry. However, all this needs low latency period & high internet speed which can be fulfilled by 5G technology. People enjoy watching IPL match on television as it provides enriching experience to viewers through it features like replay, real time language translation, players view from different angles etc. 5G network will enable live streaming of events which will help in increasing viewers & thereby media business.

Benefit to retail industry –

With growing income, living standards & consumerism retail industry is likely to have bright future. Consumers with high income but less time available for shopping in crowded city, retail industry can explore its potential business through online shopping. Even interactive magic mirrors in the shopping mall can help in sending customised alerts regarding discounts or most suitable product for every particular customer on real time basis which helps in enhancing shopping experience & boost sales. Thus 5G will enable online retailers to gather more data & create more business opportunities, increase revenues & sales & gain consumer loyalty.

Benefit in terms of smart cities –

Rising national income with rising per capita income creates pressing demand for better quality of life by citizens. Video surveillance & analytics, GPS, intelligent traffic & transport management, smart grid & metering system, intelligent solid waste management are assumed to be features of smart city. Attaining all these features of smart city needs use of 5G technology. Digitalisation with 5G technology of such smart city will help in reducing operating & maintenance cost & improve the quality of municipal services of such cities. Given all these benefit of 5G technology in this digital world, every country needs to build up infrastructure to enable 5G technology to function. India has already stepped in 2017 to develop 5G technology. Government of India is also seen keen to undertake various measure for the implementation of 5G

technology. However India faces following challenges in implementation of this technology. They are as follows:

Lack of uniformity in policy framework-It has been observed that in different states of India, different levies & charges are imposed on telecom service providers. Non uniform policy framework hampers the rolling out of optical Fiber Cables & towers. As mentioned above the benefits of 5G technology to so many sectors, it necessitates extensive infrastructural development which is delayed due to lack of public funds.

Limited giga backhauling – To bring 5G technology in India, a strong backhaul network is required which needs support of broadband network, IoT, Big data, cloud. But all these are capital intensive in nature. India atleast need approximately USD 8 billion to provide tower assets in cities. E band & V band which are cost effective solutions for 5 G technology are yet to be introduced in India.

Lack of digital literacy – Implementstion of 5G technology is hindered by lack of digital knowledge among employees. Education system of the country need to transformed to suit the need of job market so as to supply digitally intelligent workforce to the market. Along with this India suffers with digital divide between rural & urban India which may reduce its uses.

Human factors – lack of political will, ego,fear of losing jobs & skepticism are some of the human barriers in the implementation of 5G in India.

Conclusion:

India having rising national income with rising standard of living of people, there is scope for India to benefit from 5G technology. India being a part in global supply chain may lose its share if it does not upgrade with 5 G technology. Indian government need to carefully plan with cost benefit analysis the implementation of this technology. With lack of resources, Govt needs to population & end users to be covered, identification of cities for rolling out of 5G, provision of cybersecurity, minimization of cost of digitalisation etc.

References:

1. Deloitte report (2018) “ 5G – The Catalyst to Digital Revolution in India”

2. Fangwei Zhao (April 2020)” Imagination of Mobile Media Through Advertising: Thematic Analysis of 4G and 5G Ads in China and the US”
3. <https://economictimes.indiatimes.com/tech/internet/indias-internet-economy-to-reach-250-billion-by-2020-report/articleshow/58065967.cms>
4. Report of World Economic Forum (Jan 2020)“Impact of 5 G – Creating New Values across Industries & Societies”



DIGITAL MARKETING AND EMPLOYMENT OPPORTUNITY

Shaziya Mohammed¹, Irfan Momin²

*Assistant Professor, Department of Chemistry, G.M.Momin Women's College,
Bhiwandi, Dist Thane, Maharashtra, India
Email-farhanmomin9890@gmail.com*

Abstract:

Digital marketing is such a ground which acquire and got lot of significance due to Covid-19 because each and every segment of marketing need to develop the skill of online means of work for marketing and digital marketing and various online resources and tools.

Keywords: Digital marketing, Employment opportunities

Introduction:

During covid 19 all world shift to digitalization as all physical interaction were not allowed and people learn the concept of online transaction, payment, money transfer and all types of marketing done electronically through online mode and each and every business at that time and now a days also tried to develop online presence which is made popular by using different kinds of digital resources and concept of digitalization become very significant and important for all, and everybody started learning it through various webinar, conferences, workshop and training. Digital marketing leads to increase in the online job opportunity, online employment opportunities for the large number of people. In this review paper, what are the past, present and future concept and trends of marketing are mentioned. How does digital marketing made this world so fast and it creates the connectivity among all people in the world. From digital marketing concept we can understand the nature of business in the world and there will be much transparency as all data and documents are generated electronically so there will be no question of any fraud or cheating as documentary proofs are available within a second. For writing the this review article, various research article is been studied and reviewed. Far-reaching changes are observed in India due to process of

<http://www.ijaar.co.in/>

digitalization. There are traditional or conventional method of marketing also but the traders prefer and find more easy the use of internet for any kind of business deal. Digital marketing definitely creates a benefit in business as it possess different kinds of marketing search engine and tools like search engine marketing (SEM), search engine optimization (SEO), influencer marketing, content marketing, content automation, campaign marketing, e commerce marketing and social media marketing, social media optimization, e-mail direct marketing, display advertising, optical disks, e–books, and games and are becoming more and more common in our advanced technology. Attraction of customer all over the world by using whatsapp group,telegram group,face book and other different type of online platforms and alarming use of social media are now a days significant,very common and business also , these all are responsible for creating novel opportunities for digital marketer.Great commercial impact on business is due to digital marketing which is cost effective. Company’s target market as social media sites utilizes is another key factor in assuring that online marketing will be flourishing and successful. Different business can be analyzed with respect to the effectiveness of Internet marketing[1].

Rationale:

The term Marketing has many definitions. One of the most well-known definition says that “Marketing is the social process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others. By connecting these two fields “We can apply marketing principles within the internet area. This can be done mainly by creating a web pages, internet advertising, and also marketing research on the internet, electronic commerce etc. However internet marketing demands a little bit different approach in certain aspects than traditional marketing. Simply speaking internet marketing, also referred to as online-marketing, web-marketing, e-marketing, or i-marketing, is the marketing of products or services over the Internet[1].

Large companies are regarding social media sites as strategic tools and some businesses are even hiring employees to oversee their social media pages. Social

media should be regarded as an integral part of an organization's integrated marketing strategy and should not be taken lightly. It is demonstrated that we all are connected through whatsapp and facebook and the increasing use of social media is creating new opportunities for digital marketers to attract the customers through digital platform. Awareness of consumer's motives is important because it provides a deeper understanding of what influences it has on users to create content about a brand or store [1].

The future of digital marketing will be integration of successful past technology and growing interest to personalise and customise need of individual. It has changed most in last 5 years than the shift seen in last 50 years. It has resulted owing to change in human lifestyle and their interest on technology. Every individual business is now tech-savvy and wishes to be more productive and profitable in shortest possible time. Optimization is happening all around, and deliverable made to happen within available resources. Every industry and its segment want to gain and prove his product best in class with superior quality. The real difference in past and future scenario is not the quality of product someone delivering but the service someone offering along with the product will create differentiating factor and put him ahead in business race. Service of delivery and need based customization is the future of all and any product. The digital transformation trends and strategies are evolving in data cloud, internet-based platform where script post is changing to voice search dominated with artificial intelligence. There are majorly four factors contributing to the transformation of digital marketing [2,3].

This volume presents a pragmatic approach to understanding and capitalizing on contemporary m-commerce trend. It comprehensively encapsulates the evolution, emergent trends, hindrances and challenges, and customer perceptions about various facets of how physical and online retail channels are merging, blurring, and influencing each other in new ways. The rapid rise of m-commerce (or mobile commerce) has led to the emergence of new paradigms in the marketplace. The difference between physical and digital retail is diminishing, and a new "phygital retail" phenomenon is on the

rise. Marketers need to understand this emerging paradigm and consider the new opportunities and challenges involved. This volume, M-Commerce: Experiencing the Phygital Retail, provides a comprehensive discussion of the contemporary m-commerce concepts along with the emerging paradigms in a pragmatic way. It presents empirical analyses and reviews on the myriad aspects of m-commerce, including both contemporary academic and business research[4]. Use of face book as social media is mentioned[5].

Substantial attention is received by Academic social networking sites (ASNS) in recent years. The information quality and tools of academic resources are crucial to users. In order to develop the users information quality experience, it is essential to understand how users recognize information quality in Academic social networking sites and what factors or relations affect their results of information quality insight. Drawing on the approach of the means-end chain, our study implemented a laddering interviews with users of Academic social networking sites. Elucidation of various factors influencing information quality perception and constructed a hierarchical value map, all of the complex associations were quantitatively premeditated and represented in a hierarchical structure. This leads to identification of various relation. This study contributes by addressing the process of users' information quality perception in the Academic social networking sites and by giving a deep and clear understanding of the factors affecting information quality. This is different from prior research that mainly focused on information quality evaluation. The results not only enrich the information quality research but also can be used to guide Academic social networking sites platform design and management . This academic social network sites also connects the people to each other through online mode and leads to creation of numbers of groups, channels where people can exchange and interact with each other[6].

Identification of the extent of usage and perceived effectiveness of various online marketing tools among Business-to-Consumer (B2C) firms in Singapore are discussed. It is been explained and understand that there are some significant differences between the extent to which websites utilizes the various

online marketing tools and the apparent efficacy of such tools. Implications of the Business-to-Consumer (B2C) firms should be useful in helping B2C firms and it decide on the appropriate marketing tools to implement which leads to an increase in job opportunities, it is also one of the important and significant parameters in employment and this also result in the customer attraction, demand, interest and increase in online business [7].

Objective:

The digital marketing and opportunities for employment are significant for every organization very clearly indicated by alarming use of social media and internet. Expanding threat to many companies are the power of smart phones in combination with social media. Another factor is more and more excessive use of electronic means of communication and marketing by children, adolescents, and teenagers. So one can study and understand through this study that internet marketing is much successful in today's era which creates an awareness regarding traditional and digital marketing and advantage of using internet marketing than traditional or conventional marketing for different work marketing sector and companies.

Methodology:

Internet marketing involve use of internet in which all the computer devices are interconnected globally with each other , it is net work of computers which are attached with each other throughout the world. This network possess billions of private, public, academic, business, and government networks. Internet is the largest and biggest source of information that was not thought by mankind even before. Foundations of more information channels than people have created until the 20th century is because of internet. By application of technology involving use of computers, internet, the online marketing and digital marketing become very easy and is been carried out throughout the world and by the methodology of advanced technology the employability and job opportunities also increases.

Conclusion: Digitalization leads to change in the world, more comprehensive changes are observed in the country of India due to digitalization.As compared to

traditional method of marketing, in current era due to digitalization process of marketing ,demand for the job opportunities also increases as demand for the product also increases due to feasibility of product to be seen ,selected by the consumers which leads to increase in the job opportunities as consumers are not suppose to take any efforts to go out in market and to select and see the products. The work of marketing for the companies, shopkeepers,become easy and also it become convenient to the consumer also. And this result in the increase in job opportunities. Businesses can really benefit from Digital marketing such as search engine optimization (SEO), content marketing, search engine marketing (SEM), influencer marketing, e-commerce marketing, content automation, campaign marketing, and social media marketing, e-mail direct marketing, social media optimization, display advertising, e-books, games , optical disks and are becoming more and more common in our advanced technology.

References:

1. A Critical Review of Digital Marketing, International Journal of Management, IT & Engineering Vol. 8 Issue 10, October 2018, ISSN: 2249-0558 Impact Factor: 7.119
2. <http://www.ijmra.us>
3. Online available at:
4. <https://www.researchgate.net/publication/328253026>
5. Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory , U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A
6. Chapter in book, Digital Marketing: Scope Opportunities and Challenges by Chandan Kumar Mishra
7. DOI: <http://dx.doi.org/10.5772/intechopen.92329>
8. Ismagilova E, Dwivedi YK, Slade E, Williams MD. Electronic Word of Mouth (eWOM) in the Marketing Context: A State of the Art. January 2017

9. Punita Duhan, Anurag Singh, M-Commerce Experiencing the Phygital Retail ,March 2019 ,new York, eBook ISBN9780429487736
10. DOI <https://doi.org/10.1201/9780429487736>
11. Devadas Menon, H.R.Meghana, Unpacking the uses and gratifications of Facebook: A study among college teachers in India, Author links open overlay panel
12. Online available at: <https://doi.org/10.1016/j.chbr.2021.100066>
13. Ning Zhang, Qinjian yuan, The means-end cognitions of perceived information quality in academic social networking sit, 3 September 2019
14. Online available at: <https://doi.org/10.1177/0961000619871612>
15. Thompson S.H. Teo , Usage and effectiveness of online marketing tools among Business-to-Consumer (B2C) firms in Singapore, Department of Decision Sciences, School of Business, National University of Singapore, Business Link, Singapore 117592, Singapore, International Journal of Information Management 25 (2005) 203–213



ONLINE / DIGITAL EDUCATION & ITS STRESS TO TEACHERS IN HIGHER EDUCATION

Gorakhnath Rangrao Patil¹, Dr. Sharvari S. Kulkarni²

¹Email Id: grpatil1521@gmail.com

²Email Id: ssk0803@yahoo.com

Abstract :

Online learning is education that takes place over the Internet. It is often referred to as “E-learning” among other terms. However, online learning is just one type of “digital learning” - the umbrella term for any learning that takes place across digital and not in a traditional classroom. Constant working hours, extra workload, fear of job security, job dissatisfaction, lack of rights and responsibilities, lack of morale and motivation all affect the health of teachers both mentally and physically. This negatively affects the productivity of the workplace and affects the development and progress of the workplace. Stress is a worrying factor for a teacher. The purpose of this study is to educate the community about the stresses that come upon the teacher while teaching the class online.

Key Words: E-Learning, Digital Learning, Stress, Perception etc.

Introduction:

Coronavirus epidemic has affected the economy of the whole country. This includes economic, social and educational sectors. Both teachers and students have had to endure many hardships in the field of education. This includes millions of enrolled students and teachers. Regular classes were closed during the Corona period. Students and teachers were stranded in their homes due to the epidemic. To continue the learning process, online classes were introduced in most countries, including India. In this mode, both teaching and learning are done by electronic devices. The education sector is a business sector which seeks to enhance mental capacity. Increasing competition among students to achieve their goals raises awareness about education, putting more pressure and stress on teachers. This study focuses on the factors that create stress in teachers

Objective:

1. To know about online teaching & learning & stress.
2. To study online educational stress creator factors of teachers.

Review of Literature:

1. Lewis (1999) in his study on 'Teachers Coping with the Stress of Classroom Discipline' examined that they would prepare overall maintaining discipline emerged as a stressor with those worst affected teachers who placed particular emphasis on pupil empowerment.
2. Singhal (2004) in their study on job satisfaction among female teachers reveals that anxiety, high pressure of job creates maximum stress among it compare to male teachers.
3. Sargent (2005) in their study on 'keeping Teachers Happy job Satisfaction among Primary School Teachers in Rural North-west China'. The findings of the study shows that, high workload creates negative satisfaction among teachers. It's also impacts on their productivity.
4. Ch. Lakshmi Narahari & Kalpana Koneru (2015) in their study a Study on Stress Management among College Teachers found that Workplace stress occurs when there is an imbalance the demands and perceived pressures of the work environment and a specific ability to cope.

Concept of Stress:

Stress is a situation one is not able to cope up with. It is a critical part of our life. It affects our mental as well as physical health. Stress is a part of everyone's life which is difficult to avoid in certain situations. It creates an effect on one's physical, mental as well as emotional state of mind. Stress has been on a rise in this era of hightechnology speed, global competition, and consumerism. Taking its toll on the physical and psychological health of the employees, it is affecting the productivity and functioning of an organization. The relationship between stress and employee performance has been to show that increased levels of stress can negatively affect work performance.

Stress in the workplace is increasingly a critical problem for teachers. Stress is associated with impaired individual functioning in the workplace. Stress is the way human beings react both physically and mentally to changes, events, and situations in their lives. Occupational stress is a growing concern of today in comparison to three decades ago. It has become a key problem not only

for individuals working within an organization but also for the organization itself.

Online Teaching & Learn

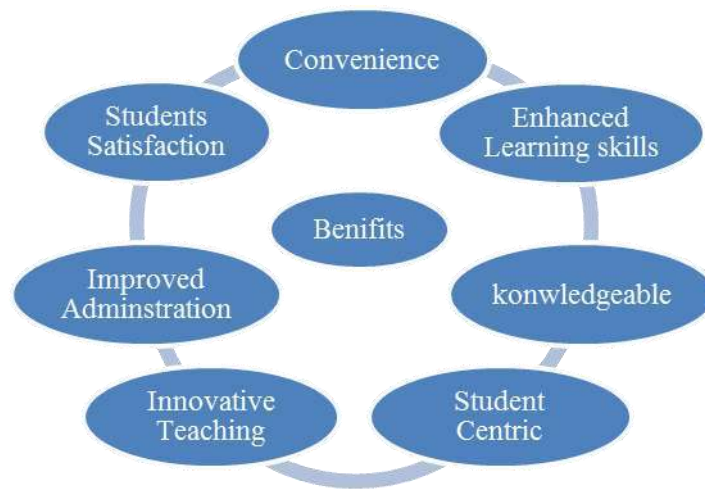
Online learning is the newest and most popular form of digital education today. Within the past decade it has had a major impact on postsecondary education and the trend is only increasing. Online learning is education that takes place over the Internet. It is often referred to as “elearning” among other terms. However, online learning is just one type of “digital learning” - the umbrella term for any learning that takes place across distance and not in a traditional classroom. Online learning is catalysing a pedagogical shift in how we teach and learn. There is a shift away from top-down lecturing and passive students to a more interactive, collaborative approach in which students and instructor co-create the learning process.

Online learning meets the needs of an ever-growing population of students who cannot or prefer not to participate in traditional classroom settings. These learners include those unable to attend traditional classes, who cannot find a particular class at their chosen institution, who live in remote locations, who work full-time and can only study at or after work, and those who simply prefer to learn independently. The minimum requirement for students to participate in an online course is access to a computer, the Internet, and the motivation to succeed in a non-traditional classroom.

Online courses provide an excellent method of course delivery unbound by time or location allowing for accessibility to instruction at anytime from anywhere. Learners find the online environment a convenient way to fit education into their busy lives. The ability to access a course from any computer with Internet access, 24 hours a day, seven days a week is a tremendous incentive for many of today’s students.

Benefits of Online teaching & Learning:

Some of the main advantages of online learning explained as follows.

Diagram: 1

Convenience: Online education is convenient twenty-four hours. It is flexible to all the time. It is access from any online computer.

Enhanced Learning skills: Online learning plays the major contribution to increase enhance learning capacity. It is emphasis on writing skills, technology skills, and life skills like time management, independence, and self-discipline.

Shy students become knowledgeable: it increases the learning capacity of shy students. Students can take more time to think and reflect before communicating.

Student's centric learning environment: online teaching creates a student's centric environment. It less passive listening and more active learning. It increases student to teacher and student to student interaction and discussion.

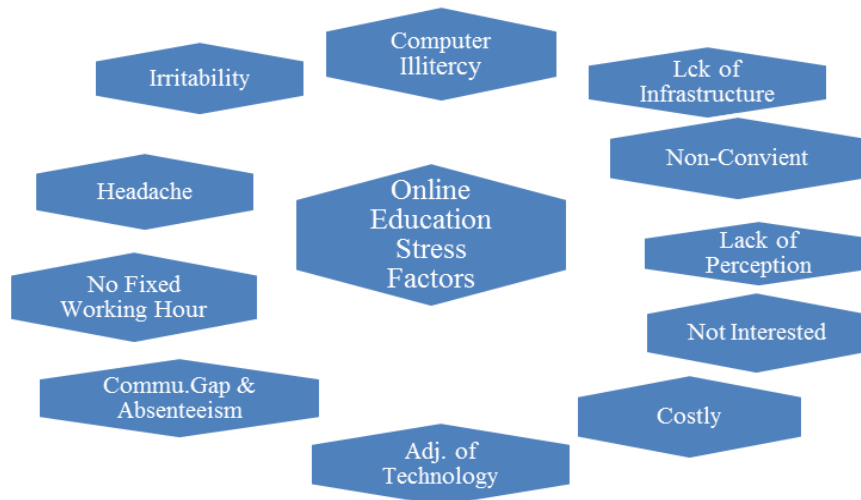
Innovative teaching: online learning is innovative method of learning for the students to obtain knowledge. It increased variety and creativity of learning activities; address different learning styles.

Improved Administration: it increases the storing capacity of document and maintains records immediately.

Increase the student's satisfaction: as more data available for students to concept building, they get more satisfied

Online Education Stress Factors:

In online education teaching mode, there are various types of stress factors which is explained as follows.

Diagram: 2

Computer Illiteracy: Due to computer illiteracy teachers have face mental stress.

Lack of Infrastructure: Sometimes due to lack of infrastructure teachers have considered economical stress.

Non – Conveniently: Some teachers have realised that, they are not teach conveniently in online education system.

Lack of Perception: a lot of teachers have assumed, lack of perception regarding to online teaching leads to increasing stress among teachers.

Not interested in online education mode: Some teachers have not interested to teach in online education mode, so he face psychological stress.

Expensively / Costly: Some teachers have assumed that online education mode has expensively, so he faces economical stress.

Problems of adjustment in on line education technology: Some teachers have face problems in adjustment of online education technology. So he faces a lot of mental stress.

Communication gap between teachers & students: In online education teaching mode, there is big communication gap ad eye coordination between students and teaches, so he faces mental stress.

No fixed working hours: In online education teaching mode, working hours are not fixed, teachers realised physical stress.

Headache and eye-sight problems: In online education teaching mode, they are teaching consistently so they faces some health issues such as headache and eye sight problem.

Irritability, loss of temper: Due to online education teaching, the behaviour of teachers is slightly changed. Some symptoms found in their nature such as insomnia, irritability and loss of temper.

Higher student absenteeism: In online education teaching, the level of student absenteeism is high. Due to high percentage of absenteeism, teachers realised mental stress.

Analysis of Online Education Stress Creator Factor:

The questions inquired about various aspects of online classes such in various aspects. The questionnaires were circulated electronically as google forms. The responses were received from the 50 teachers / professors of Arts, Commerce & Science college considering all courses.

Table :1 Analysis of Online Education Stress Creator Factor

Sr.No.	Factors	No of Respondents			
		Agree	Disagree	No Response	Total
1	Computer Illiteracy	30 (60%)	18 (36%)	02 (4%)	50
2	Lack of Infrastructure	26 (52%)	20 (40%)	04 (8%)	50
3	Non - Conveniently	22 (44%)	22 (44%)	06 (12%)	50
4	Lack of Perception	25 (50%)	23 (46%)	02 (4%)	50
5	Not interested in online Education	25 (50%)	17 (34%)	08 (16%)	50
6	Expensively / Costly	26 (52%)	20 (40%)	04 (8%)	50
7	Problems of adjusting in technology	25 (50%)	15 (30%)	10 (20%)	50
8	Communication gap between teachers & students	35 (70%)	10 (20%)	05 (10%)	50
9	No fixed working hours	30 (60%)	17 (34%)	03 (6%)	50
10	Headache and eye-sight problems	24 (48%)	19 (38%)	07 (14%)	50

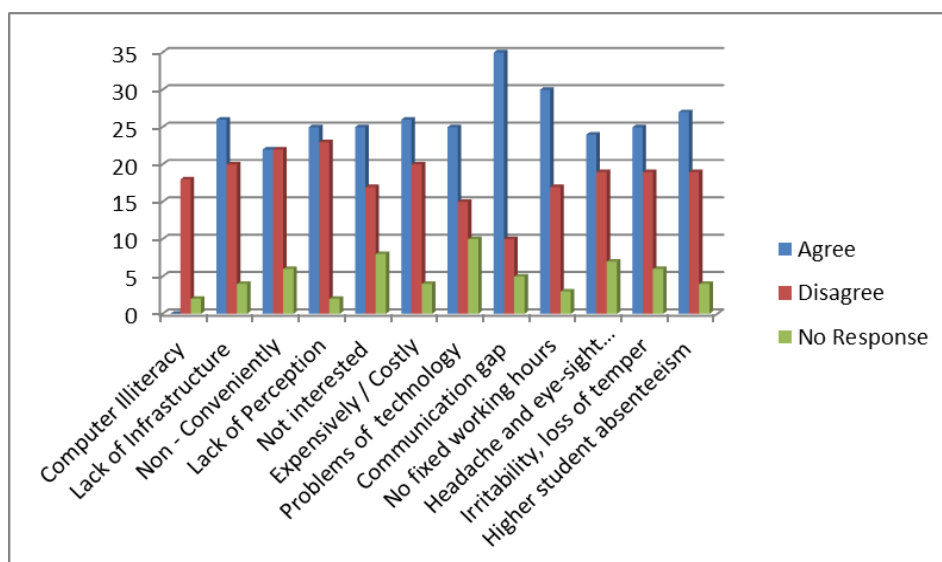
11	Irritability, loss of temper	25 (50%)	19 (38%)	06 (12%)	50
12	Higher student absenteeism	27 (54%)	19 (38%)	04 (8%)	50

(Source: Primary Data)

The above table shows that online educational stress factors of teachers in higher education. 60% of the teachers of higher education assume computer illiteracy, 52% teachers assume online education infrastructure has not available on higher education level. 44% teachers has considered as inconvenient for online teaching mode. 50% teachers have assumed, lack of perception about online education mode of teaching. 50% teachers have not interested in online education in mode. 52% teachers think that online education is costly. 70% teachers assume that communication gap create between teachers and students due to online education teaching mode. 60% teachers have considered there are no fixed working hours in online education teaching mode. 48% teachers have faced headache and eyesight problems , 50% teachers also face Irritability and loss of temper problems and 54% teachers has considered higher level students are absent in online education teaching mode.

Graphical Presentation:

Graph: 1 Graphical presentation of online education stress factors



The above diagram shows that communication gap between students and teachers, computer illiteracy and working hours of teacher create maximum mental, physical & psychological stress to teacher. Due to this stress teachers

are not efficiently working, its effects on their productivity. Average teachers have face problems regarding to lack of infrastructure, lack of perception, adjustment of technology, Headache and eye-sight problems, Irritability, loss of temper and higher student absenteeism.

Findings:

1. Online /digital education creates mental, physical and psychological stress to teacher.
2. Online /digital education stress factors affects on the working efficiency of teacher in higher education

Conclusion:

The epidemic of Covid 19 caused many radical changes in the field of education. As the situation changed, the teacher started teaching the students using various online tools. Although there is some relief in learning / teaching at home, various technical problems are constantly created in it, and its mental stress has to be borne by the teacher many times. It includes such as Computer Illiteracy, Lack of Infrastructure, Non – Conveniently, Lack of Perception, Not interested in online Education, Expensively / Costly, Problems of adjusting in technology, Communication gap between teachers & students, No fixed working hours Headache and eye-sight problems, Irritability, loss of temper and Higher student absenteeism etc. All those stress factors impacts on the productivity of teacher's performance.

References:

1. Sargent T and Hannum E, 2005. Keeping teachers happy job satisfaction among primary school teachers in rural northwest China. *Comparative Education Review*, Vol. 49, No. 2, pp. 173-204
2. Singh AK and Sehgal P, 1995, Men and women in transition: patterns of stress, strain and social relations. *Vikalpa*, Vol. 20, No. 1, pp.13-22.
3. Lewis R, 1999. Teachers coping with the stress of classroom discipline. *Social Psychology of Education*, Vol. 3, pp. 155-171.

4. Ch. Lakshmi Narahari & Kalpana Koneru, 2015. A Study on Stress Management among College Teachers in Andhra Pradesh, Volume 6 ,Issue 6, pp.830-835.
5. The Impact of Online Teaching on Higher Education Faculty's Professional Identity and the Role of Technology: The Coming of Age of the Virtual Teacher: Doctor of Philosophy ATLAS Institute 2012.
6. Strategies for Learning at a Distance (<http://www.uidaho.edu/eo/dist8.html>)
7. The Future of Online Learning (<http://www.downes.ca/future>)
8. Advantages and Disadvantages of Online Learning by Gary James.
9. T, Muthu Prasad and S, Aiswarya and Aditya, K.S. and Jha, Girish K., Students' Perception and Preference for Online Education in India during COVID -19 Pandemic.SSRN: <https://ssrn.com/abstract=3596056>.
10. Aditi, N. And Kumari, B., 2005, Impact Of Personality Patterns and Employment Status on Psychological Stress Tolerance of In Kerala. Indian Psy.Rev. 61(2): 103- 108.
11. Job Satisfaction", University Of Florida Sheppard, (1997), "Stress Management", Human Relations, New Delhi.



SOURCE OF DIGITAL MARKETING

Dr.Sujata Jitendra Patil
Mahavir Mahavidyalaya, Kolhapur
E – Mail –sujatapatil0882@gmail.com

Abstract

Digital marketing is an umbrella term for the marketing of products or services using digital technology, especially online, but also for mobile phones, advertising and any other digital terms. Digital marketing, also called online marketing, promotes product promotion to potential customers using the Internet and other forms of digital marketing. Any marketing that uses electronics and can be used by marketing professionals to convey promotional messages and measure its impact on your customer journey. In fact, digital marketing usually refers to marketing campaigns from your computer, phone, tablet, or other device. It can take many forms, including online video, display ads, search engine marketing, paid social media and social media posts. Digital marketing is often compared to normal marketing such as magazine ads, bill boards, and direct mail. Television is often linked to mainstream marketing.

Keywords: digital marketing, promotional message, campaign, internet

Introduction:

Digital marketing also known as Internet marketing, product promotion to connect with potential customers using the Internet and other forms of digital communication. This includes not only emails, social media, and web-based advertising, but also mixed text and media messages as a marketing channel. In fact, if a marketing campaign involves digital communication, digital marketing.

Objective:

- 1 - Understanding digital marketing
- 2 - Discovering Resources for digital marketing

Methodology:

The present study is essentially based on published secondary data, and it will be collected from various report, book, journal and website.

<http://www.ijaar.co.in/>

Discussion:**What is digital marketing?**

Digital marketing actually uses all marketing methods on digital channels. A variety of sources can be used to improve services and products such as SMS, search engines, email, websites, social media and mobile devices. The digital environment of this marketing approach makes it an inexpensive way to grow one's business. Digital marketing means more than just having a website. A website needs to be attractive and easy to navigate, and it also needs quality content to show the type of business.

Source or Types of Digital Marketing

Digital Marketing is divided into 12 categories. Here is a list of the different types of digital marketing you should know

Search Engine Optimization (SEO)

SEO stands for search engine optimization and optimization as the name suggests that the science and art of finding web pages rank high on a search engine results page. There are many ways to approach SEO in order to generate relevant traffic to your website. These include:

One SEO page:

This type of SEO focuses on all the content on the "page" when you look at a website.

Closed SEO page:

This type of SEO is focused on every activity that happens "off the page" if you want to improve your website.

Technical SEO:

This type of SEO focuses on the back of your website, and how your pages are coded. Image compression, structured data, and CSS file development are all types of SEO techniques that can increase the loading speed of your website - an important aspect of eye quality in search engines like Google.

Pay Per Click (PPC)

Pay per click on marketing with paid search results on Google and involves bidding on certain keywords that will be the best web traffic player for you.

Other channels where you can use PPC include:

Paid Ads on Face book:

Users can pay to customize a video, photo post, or slideshow, which Facebook will publish on the news feed of people like your business audience.

Twitter ad campaigns:

users can pay to place a series of posts or profile badges on specific audience news feeds, all dedicated to achieving a specific goal for your business. This policy could be website traffic, more Twitter followers, tweet engagement, or app downloads.

LinkedIn Messages:

Here, users can pay to send messages directly to specific LinkedIn users based on their industry and domain.

Social Media Marketing (SMM)

This practice enhances your brand and content on social media channels to increase brand awareness, drive traffic, and generate leads for your business.

Channels you can use in social media marketing include:

Facebook, Twitter, LinkedIn. Instagram, Snapchat, Pinterest

Content Marketing

This term refers to the creation and promotion of content assets for the purpose of product awareness, traffic growth, high productivity, and customer satisfaction.

Channels that can participate in your content marketing programs include:

Blog Post:

Writing and publishing articles on a company blog helps you showcase your industry expertise and generate search traffic for your business. This ultimately gives you more opportunities to turn website visitors into leaders of your reseller team.

E books and white papers:

E - books, white papers, and similar long form content help continuously educate website visitors. It also allows you to exchange content for student contact information, generate leads for your company and lead people on a customer trip.

Infographics:

Sometimes, students want you to show up, not say. Infographics is a type of visual content that helps website visitors visualize an idea you want to help them learn.

Audio or visual content:

Television and radio are popular digital marketing channels. Creating content that can be shared online as video or heard on the radio by your audience can greatly increase your audience.

Email Marketing:

Email marketing is the process of sending marketing messages to a group of people by email.

Types of emails you can send to an email marketing campaign include:

A - Newsletters for blog subscriptions. B - Tracking emails for website visitors to download something. C - Customer acceptance emails. D - Holiday promotion for members of the loyalty program. E - The same series of tips or emails for customer growth.

Influencer / Affiliate Marketing

This is a type of performance-based advertising where you find a commission to advertise the third party products or services on your website. Related affiliate marketing channels include:

A - Managing video ads through the YouTube Partner Program.

B - Sends relevant links from your social media accounts.

Viral Marketing

Viral marketing means any strategy that encourages people to pass on the marketing message to others, creating opportunities for significant growth in the presentation and impact of the message.

Mobile Marketing: Mobile phone marketing is a form of SMS marketing.

Indigenous Advertising

Indigenous advertising refers to ads that are primarily based on content and that are displayed on the platform next to other, non-paid content. Buzz - Feed-sponsored posts are a good example, but many people also look at social media advertising as "native" - Facebook advertising and Instagram advertising, for example.

Online PR

Online PR is a practice for discovering online instances gained through digital publications, blogs, and other content-based websites. It is very similar to traditional PR, but in the online space. Channels you can use to maximize your PR efforts include:

Journalist access via social media:

Talking to journalists on Twitter, for example, is a great way to develop relationships with the media that generate media opportunities gained in your company.

Online reviews of your company:

When someone reviews your company online, whether that review is good or bad, your natural instinct may be to not touch it. In contrast, affiliate marketing reviews help you personalize your product and deliver powerful messages that protect your reputation.

Involvement comments on your personal website or blog:

Similar to how you would respond to reviews of your company, responding to people who read your content is the best way to generate productive conversation in your industry.

Other Marketing Sources

Radio and TV commercials

Radio and TV ads are a form of marketing that uses Radio or TV ads as a marketing source.

Electronic Billboard Boards

Depending on the location of the electronic advertising board, your advertising competition and features (additional flashing lights, life-size

statistics of mascots or product agents, etc.) you want to include, of course. However, many argue that the popularity of digital collections is lost in modern times when everyone has their nose buried in their phone and completely oblivious.

Conclusion:

Marketing is about communicating with customers in the right place and at the right time. In the last few years, with the advent of the Internet and smart phones, information has often been conveyed by television, radio, newspapers, and word of mouth. These were also often popular marketing methods. Nowadays, however, the internet brings in more employers and potential customers in the same area.

Digital marketing has no limits. The company can use any devices such as smartphones, tablets, laptops, televisions, game consoles, digital boards, and media such as social media, SEO (search engine optimization), videos, content, email and much more to promote the company itself and its products and services. With your favorite digital marketing more than anything else, it is important to spread your marketing efforts and track campaign results from time to time. Having a team of digital marketing professionals, whether indoors or otherwise, who are unfamiliar with the company's mission and vision is also essential.

If you have a question about digital marketing or proposals for future posts, let us know. And for all that related to the latest trends in online marketing and news, keep checking out our Digital Marketing blog.

References :

1. Yasmin. S. Tasneem and K. Fatema, "The success of digital marketing in challenging years: dynamic research," *Journal of International Business Research and Marketing*, vol. 1, no. 5, Apr., pp. 69-80, 2015.
2. P. Kotler and G. Armstrong, "Selling: an introduction," Upper Saddle River, NJ: Pearson Prentice Hal, 2009.
3. Kingsnorth, S., 2016. *Digital Marketing Strategy: Integrated Online Marketing*, Kogan Page, Business and Economics

4. <https://act-on.com/blog/digital-marketing-7-essential-channels/>
5. <https://www.digitalseoguide.com/digital-marketing/how-to-create-a-digital-marketing-strategy/>



DIGITAL MARKETING: ELEMENTS, CHALLENGES AND OPPORTUNITIES FOR PRESENT TIME

Warvadkar Rohit Rajendra¹, Shinde Saurabh Uttam²

¹(Assistant Professor, Department of English Dr. D. Y. Patil ACS College Akurdi
Pune)

²(Assistant Professor, Department of Commerce Dr. D. Y. Patil ACS College Akurdi
Pune)

Email- rohit143w@gmail.com

Email -saurabhshinde4254@gmail.com

Abstract

Digital marketing, at its most basic level, is advertising distributed through digital channels like as search engines, websites, social media, email, and mobile apps. Digital marketing is the process of organisations endorsing goods, services, and brands through the use of these online media channels. In marketing, the digital channel has become an important aspect of many organisations' strategies. Even small business owners can now sell their products or services in a highly cost-effective and efficient manner. There are no limits to digital marketing. All companies have recognised the value of digital marketing, and it is currently growing at a quicker rate with each passing day. Small firms will soon be able to compete with large-scale competitors on the same platform. As technology advances. Digital marketing, social media marketing, and search engine marketing are all becoming more popular. Digital marketing is a component of the promotion that is frequently overlooked in the overall marketing. Internet users are continuously expanding, and digital marketing has reaped the biggest benefits due to its reliance on the internet.

The buying habits of consumers are evolving, and they are becoming more receptive to digital marketing rather than traditional marketing. The purpose of this research paper is to study the challenges and opportunities of digital marketing in 21st century.

Keywords

Digital Marketing, Opportunities, Challenges, Costumer, Technology.

Introduction

Digital selling or marketing may be a kind of selling that's ordinarily wont to promote product or services and reach resolute customers via digital channels. Digital selling includes retailers that don't need the employment of net the web
<http://www.ijaar.co.in/>

the net additionally to internet selling. Mobile phones (including SMS and MMS), social media selling, show advertising, program selling, and a spread of different digital media area unit all a part of it. Shoppers will get data through digital media at any time and from any location. shoppers will not solely consider suppose deem trust admit accept have confidence have faith in place confidence in what the firm says about their whole, however conjointly on what the media, friends, associations, peers, et al. area unit oral communication regarding it, due to the appearance of digital media. Digital selling may be a broad word that refers to a spread of promotional ways that use digital technologies to succeed in purchasers. additionally to mobile and ancient TV and radio, digital selling encompasses a good vary of service, product, and whole selling ways that primarily leverage the net as a basic promotional channel.

Elements of Digital Marketing

Online Advertising:

The importance of online advertising in digital marketing cannot be overstated. It's also known as online advertising, and it's a way for a firm to spread the word about its products or services. Consumer interests are best served by internet-based advertising, which gives the most relevant content and advertisements. Publishers post information about their products or services on their websites so that customers or users can learn more about them for free.

Email Marketing:

Email marketing is described as sending a message about a product or service to a current or potential customer via email. Direct digital marketing is used to convey advertisements, increase brand and consumer loyalty, increase customer trust, and raise brand exposure. This part of digital marketing allows a company to quickly promote its products and services.

Social Media:

Today, one of the most essential digital marketing channels is social media marketing. It's a computer-based application that lets individuals create,

share, and exchange information and images about a company's products and services. Internet users continue to spend more time on social networking sites than any other category, according to Nielsen. Facebook, Twitter, LinkedIn, and Google+ are examples of social media marketing networks. Companies can use Facebook to promote product and service events, run promotions that adhere to Facebook's guidelines, and explore new prospects. Companies can boost brand awareness and visibility by using Twitter. It is the most effective instrument for promoting a company's goods and services. Professionals create profiles on LinkedIn and share information with others. A company's LinkedIn page can be developed so that professionals can examine and learn more about the company's products and services.

Text Messaging:

It is a method of sending product and service information from cellular and smart phone devices. The company can communicate information in the form of text (SMS), photos, video, or voice utilising phone devices (MMS). Text messages can be used to convey order confirmations and shipping alerts. SMS campaigns yield faster and more significant results. Companies can use this technology to deliver marketing messages to their customers in real time, at any moment, and know that they will be viewed.

Affiliate Marketing:

Affiliate marketing is a type of pay-per-click advertising. A firm rewards affiliates for each visitor or customer they bring to the company through marketing efforts they create on behalf of the company in this sort of marketing. The merchant (also known as "retailer" or "brand"), the network, the publisher (also known as "affiliate"), and the client are the four main participants in the industry. The business has become so sophisticated that a secondary tier of companies has emerged, including affiliate management organisations, super-affiliates, and specialised third-party vendors.

Challenges of Digital Marketing at present time

Digital marketing is a corporate expansion tool, but it faces several obstacles and roadblocks. Few challenges are:

Limited Internet Access

The internet plays an important role in digital marketing. Consumers may not be able to access the internet in some remote places or may have bad internet connections. In locations where there is no or limited internet connectivity, digital marketing may be unsuccessful over there.

Competition

When a consumer searches the internet for a certain product from a specific firm, many competing goods and services with similar marketing methods emerge on the customer's home page. Customers are displeased, and a cheaper and higher-quality product from another company is offered as an alternative. As a result, some customers don't believe a lot of adverts that appear on a website or social media, mistaking them for fraud and making the company appear dishonest.

Advertisement for limited Products

Another disadvantage of digital marketing is that it is only useful for consumer products. Digital channels cannot be used to promote industrial items or pharmaceutical products. The preceding data may aid digital marketers in comprehending the benefits and drawbacks of digital marketing. Visit the links under related posts to learn more about digital marketing.

Risk of Hackers

One of the hazardous disadvantages of digital marketing is that the risk of a company's promotion efforts being hacked always falls on digital channels. Hackers or competitors can simply track and copy a well-known company's valuable promotional methods, which they can then use for their own goals.

Opportunities of Digital Marketing

Digital selling or marketing is fortunate and opportunities when utilizing completely different tools and techniques. These tools facilitate marketers to induce most edges of digital selling such as:

Direct Advertisement

Digital marketing allows for direct advertising and raises product or brand awareness. Companies can now effortlessly display product and service marketing across various digital media. However, in a highly competitive

marketing climate, a smart online advertising strategy and promotional tools can help digital marketers perform successfully.

Easy Promotion

With the advancement of new technology and the widespread use of the internet in business, brands can effectively engage with their customers.

Marketing Activity Accountability

Digital marketing allows businesses to track their marketing actions, such as whether or not digital marketing is working, how much activity is being generated, and how much dialogue is being generated. Digital marketing also aids marketers in evaluating and auditing the quality of their online material.

Ads displayed indefinitely

Advertisements are more available to target customers at any time and from any location thanks to digital marketing. Prospects can visit any website and read ads at any time and from any location. The constantly displayed adverts entice prospects to contact you and learn more about the items and services that they require. However, in order for these adverts to appear on a webpage, they must be successfully managed. Also, take a look at the four-step procedure for displaying ads on a webpage.

Simple customer accessibility

Digital marketing is an effective approach for businesses to communicate with a large number of potential customers at once. Using the internet as a marketing channel is a rapid way to reach out to a large number of potential customers and prospects all around the world at the same time. These marketing operations on social media platforms such as Facebook, Twitter, LinkedIn, and Pinterest have also been transformed by social media marketing.

The Convenience of Online Shopping for Consumers

Customers have found it easier to shop online at any time, whether the stores are over or across borders, as digital marketing has grown in popularity and capability. Digital marketing has given businesses and shops the ability to direct customers to an online store's outlet.

Conclusion

In the last half-decade, digital marketing has become a buzzword. E-commerce has elevated the company notion from the physical part of delivery to the virtual aspects of marketing and selling. Digital marketing and sales activities are becoming a more vital aspect of any marketing and sales plan. From the old approach to the E-commerce model, there has been a fundamental shift in how business is conducted. Products and markets are expanding, and at the same time, obstacles are arising to make players more competitive in the industry. Most businesses are either considering or pursuing digital transformation initiatives nowadays. Every business has a website, and few marketing plans are complete without a mention of social media. While social media is an important part of any digital strategy, a comprehensive reaction to the digital transition requires much more.

The world is changing because of digital, and progress is not always linear. In a world where a Smartphone is no longer simply a Smartphone, but a possible revolution, we encourage businesses to consider the implications of digital advancements for themselves and their stakeholders. We agree with executives who see digital as an opportunity to be capitalised on rather than a risk to be avoided. Not every digital endeavour will be successful for every company, so it's critical to assess competence and change readiness before implementing a digital strategy. However, the more comprehensive the initiative, the better the chances of success. We believe that those who take a holistic approach and act quickly will have the most competitive edge.



E- MARKETING AND NEW OPPORTUNITIES FOR IMPROVING FOOD SUPPLY CHAIN MANAGEMENT

Dr. Mrs.Madhuri R. Shinde

*(Assistant Professor), Dept. of Commerce Smt. G.K.G.Kanya Mahavidyalaya
Jaysingpur*

Abstract

E-marketing means to connect the people and processes through Internet and Web, which is cost effective strategy. E-marketing provides unique insight into Global village. Internet and Web help to streamline process and new types of Marketing opportunities. Internet offers sites that helps to keep up with new development in never ending race to find and retain customers. E-marketing is evolving rapidly every thing from advancing technology to heightened competition to growing power of the customer. Internet helps marketing professionals to keep up with new developments in never ending race to find and retain customers. Internet is rich resource for information on your markets, competitors and customers, feed back on your services. E-mail is the stealth vehicle of interactive marketing. TQM is an effort of continuous quality improvement of all process products and services through increasing customer satisfaction and improved marketing results. To face the competition to produce best product through constant innovation but total quality is an be achieved with improvement in purchasing, marketing after sales. Today quality means more than conformance of standards for purpose of reliability. E-marketing evaluates the level of quality which customer wants and pay for it. E-marketing is an integrated approach in delighting customer by meeting their expectations on continuous basis through everyone involved within the organization working on continuous basis towards improvement in quality of work understanding customer needs and satisfy their needs. E-marketing is the new way to do business. A well supply chain helps manufacturer to deliver the goods in time Relationship market is an new concept in marketing management. Building relationship programmes has expanded concept of lifetime customer. Computer systems have become a vital component of successful marketing. Internet has become necessity for all commercial and professional

activities. An efficient supply chain management insure smooth and good from manufactures to customers.

Introduction

Supply chain management is a business strategy that creates new opportunities and helps to diagnose company's supply chain problems and there are essential steps to setting up company's e-supply chain architecture to gain competitive advantage. To improve efficiency engineering of the business process is necessary. It includes spending time to market, reducing distribution cost, getting right product at right place.

The supply chain is the process under which products are created and delivered to customers from a structural point a supply chain refers to the network of relationship that organization maintain trading partner to manufacture and deliver products. In competitive field, manufacturer reduce costs, minimize order cycle times and improve manufacture efficiency and logistics operations while responsive to market conditions bond customers demand.

Objectives of the study

1. To study concept of Digital Marketing.
2. To study concept of E-supply chain management through E-marketing.
3. To study new opportunities in Supply chain management.

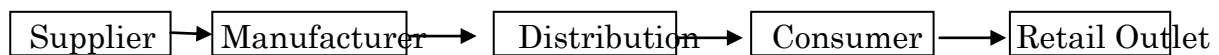
Research Methodology

This research paper is based on secondary data. Which is collected from various reference books, related to E-marketing, Internet Marketing and also various research journals, and various websites.

What is E-marketing ? or Digital Marketing -

1. E-marketing means to connect the people through Internet and Web which is cost effective strategy.
2. Internet and Web helps to steamline process and new types of marketing opportunities.
3. E-marketing is web enabling existing business process to conduct the transactions over the Internet. E-marketing provides unique insight into global village.

The supply chain is a collection of physical entities linked together into process that supply goods or services from source through consumption. The physical entities in supply chain consist of supplier's, manufacturers, distributors, retail outlets and consumers. The following diagram shows that flow of goods through supply chain starting with supplier and ending with consumer.

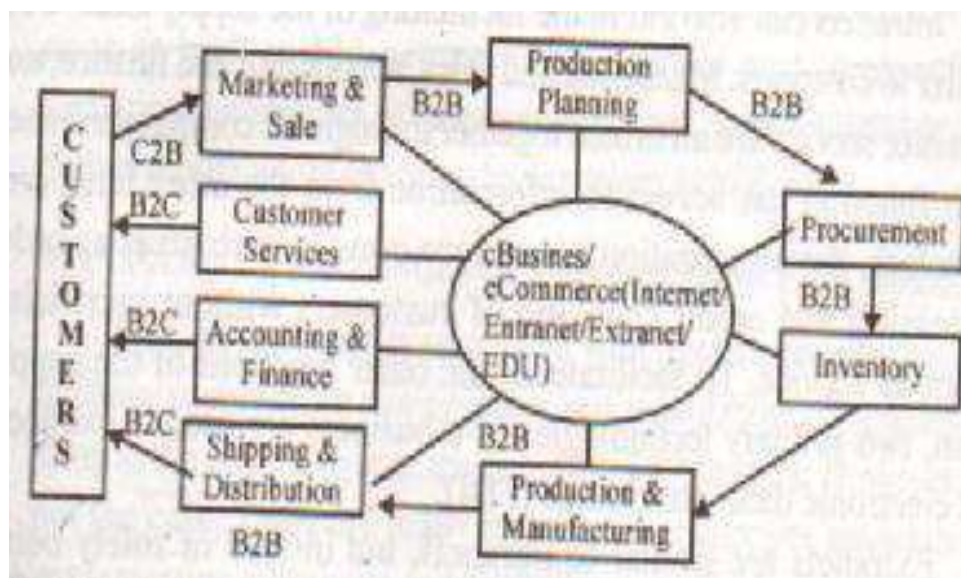


Reoter1996

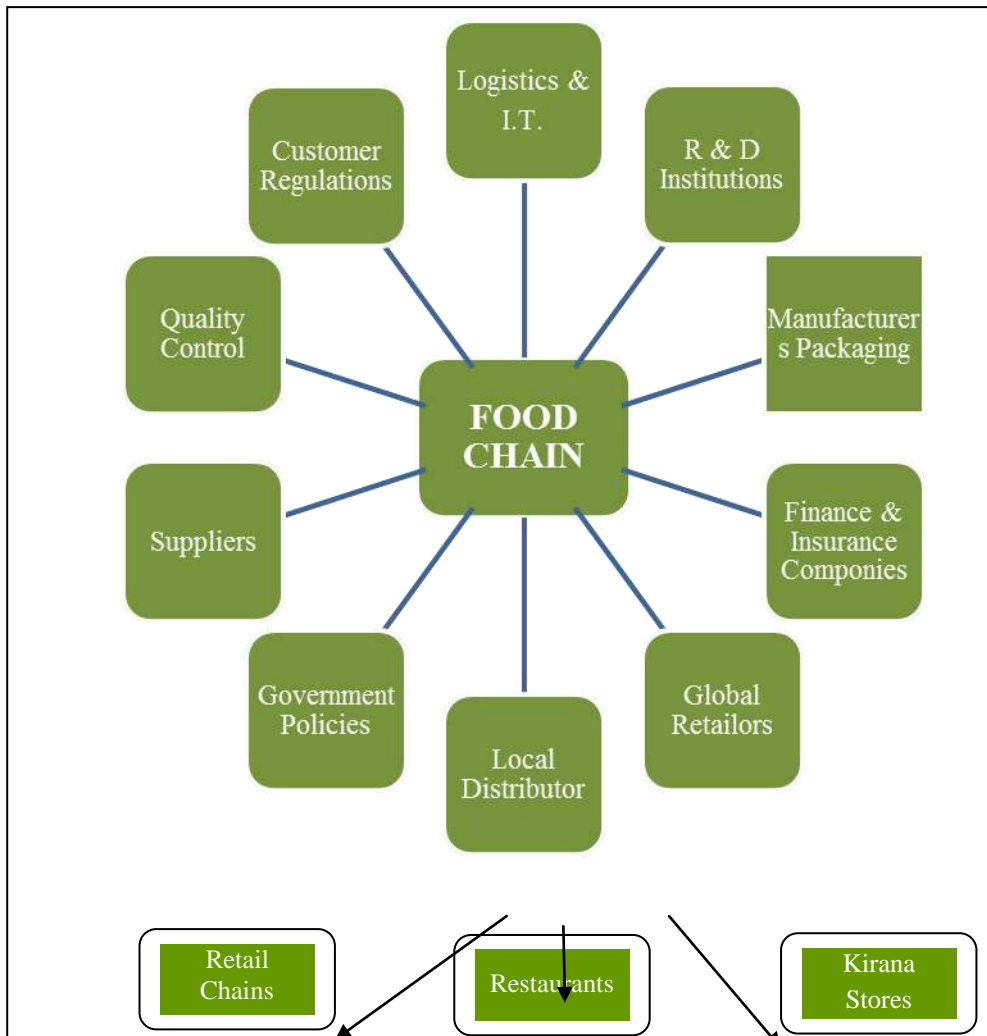
While using raw material, manufacturer convert it into finished products. These are transferred to distribution center. The distributor delivers them to retail outlets, such as grocery and departmental stores, then store the goods until, purchased by the consumer.

Facilitating Supply Chain Management with E-Business

To efficiently manage the supply chain, all functions and entities of the supply chain must be fully integrated. This integration can be made possible through the use of communications networks, which allow collaboration among the various entities and functions of the supply chain. This communications network is the heart of ebusiness.



Food Supply Chain Cluster



The Cold Chain

It is a logistic system that provides a facilities for maintaining ideal storage conditions for perishable from point of origin to point of consumption in food supply chain. Chain starts from farm level to consumer level. A well organized cold chain reduces spoilage, retains quality of products. The main prefare of the chain is that if any of the link is missing or is weak, the whole system fails. The cold chain infrastructure consists pre-cooling facilities, cold storage, packaging, Refrigerated camiers, warehouse, financial and Insurance institutions fast food, ready meals and broze products have increased market share in recent year. The range of temperature is dependent on product cold

chain management involves maintaining appropriate temperature, when product travels.

Supply Chain Expert

There is need to concept of self client / consumer response introduces in United status in 1990. ECR referes to set of strategies. The food chain cluster are formed with all stakeholders, such as farmers, merchants, wholesaler, retailer, etc. recent advances in RFID technology will have tremendous impact in management of Food chain for source identification and also in providing supply chain visibility.

Supply Chain Expertise

There is need to know the concept of Efficient Customer Response. ECR refers to set of strategies, that aims to supply better goods at lowest cost tom customers.

Food Packaging

Package has become a competitive tool to reach the customer efforts should be made to reduce these costs through the use of manufacturing and economics of scale.

Standard

Standardization is a powerful tool for improving supply chain efficiency.

Food Safety and Hygiene

Need of food safety growing day by day Greater assurance about safety and quality of food to consumers is most important.

Training

Training, Coaching, Counseling, mentoring extended to all the parties in supply chain. It is important to conduct training sessions on cold chain management.

Opportunities for Research in Food Supply Chain

In India fresh food stuffs, wasted away and have a very large local market, Govt. can invite processed food manufactures to set up mass production shops in country which may be marketed through fair price shops. Another important area of research is to develop predictive models, such as what happens it 100% FDI is allowed intail "ROI models for establishing cold chain infrastructure.

Opportunities for improving food supply chain

Cold Chain Infrastructure

Investment in real estate and cold chain infrastructure are capital intensive and it will slow returns, however 100%, Foreign Direct Investment. The infrastructure consists coolers, warehouses, Refrigerated trucks, shopping malls etc. are needs to study the potential risks.

Third Party Logistics

The food supply chain is temperature sensitive and manual handling reduce produce quality and life. Logistics provides air conditioned trucks, automatic handling equipments and trained manpower will provide end to end support. Cross docking reduce transit time and inventory.

Food Processing Inventory

The Govt. of India allows 100% FDI in this sector. There are incentives for setting up processing plants in Agri zones.

Conclusion

Supply chain management is a business strategy that creates new opportunities and helps to diagnose company's supply chain problems, and there are essential steps to setting up company's e-supply chain architecture to gain competitive advantage. India is all set to become food supplier of world. In all seasons varieties of fruits and vegetables, well developed Agricultural business that works in it's own way. Rapid growth of economy, technological innovations in home appliances, like Refrigeration, Microwave - oven, increasing in care and changing food happits, all points increasing need for healthy food.

References

1. Internet Marketing - Yashpal Nayak.
2. E-marketing search for Excellence - Vasu Deva.
3. Retailing Logistics and fresh food Packaging.
4. managing change in the supply chain - Alpna Bhatnagar
5. Marketing Management Analysis, Planning and Control - Philip Kotler.



DIGITAL MARKETING OF MEDICINE IN INDIA:-TRENDS AND CHALLENGES

Mrs. Anagha P. Bartakke¹ Dr. Mrs. Sharvari S. Kulkarni²

¹*Asst. Professor, B.C.A College, Satara*

Email: apbartakke@gmail.com

²*Principal, Kanya Mahavidyalay, Miraj*

Email: ssk0803@yahoo.com

Abstract:

Covid-19 pandemic has affected all the countries of the world. In this situation many businesses had to face difficulties. Millions lost their jobs. While this is true, there is significant impact on the health care industry. It creates challenges to India as well as opportunities in India for development in Health Care Industry. It is immediately and extensively expanded across the India. Everyone is aware of the stress on the healthcare industry in pandemic situation but there is a lot of scope for development in this sector. This paper will talk about development, challenges of E-pharmacy which is part of the health care industry.

Key Words: Digital Marketing, Health care, Tele-medicine, E-Pharmacy

Introduction:

Covid 19 imposed lock down restrictions everywhere. In this situation many businesses had to face difficulties. Many lost their jobs. But some businesses got boosted in Pandemic situation e.g. online banking, online shopping- online grocery, online electronics, Telemedicine etc. With increasing online services and smart phone apps availability, people have started purchasing most of their requirements by online deliveries. Digital marketing is a element of marketing which uses internet and online based technologies like mobile phones, computers to promote products and services. Government of India launched Digital India campaign to ensure the Government services by improved online infrastructure and by increasing internet activity.

There were 624.0 million internet users in India in January 2021. The number of internet users in India increased by 47 million (+ 8.2%) between 2020 &2021. Internet penetration in India stood at 45% in January 2021. Out of the total internet connections, 61% connections were in urban areas. The Indian E-

commerce market is expected to grow to US\$ 111.40 billion by 2025 from US\$ 46.2 billion as of 2020. By 2030, it is expected to reach US\$ 350 billion. (1)

Objectives of the study:

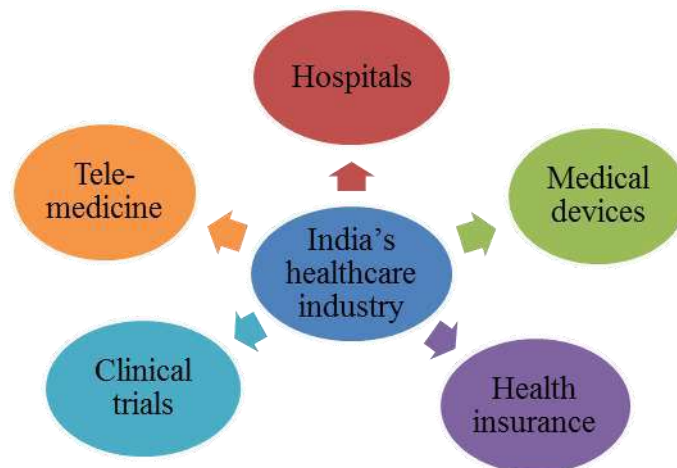
1. To understand the sectors of healthcare industry in India.
2. To assess the trends and growth of E-pharmacy in India.
3. To study the challenges in E-pharmacy.

Limitations of the study:

Indian health sector have various sectors like medical devices, hospitals, Telemedicine, clinical trials etc. For this study, E-pharmacy aspect of health care industry has been considered. The study mainly focused on E-pharmacy in healthcare industry.

Research Methodology:

The major thrust area of present study is E-pharmacy in India. This paper is theoretical and based on secondary data. Research papers, journals, websites, Government records and publication of commercial institution used for the collection of secondary data.

India's Healthcare Industry:

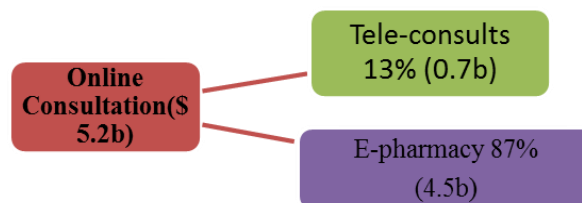
Source: Medical Device Manufacturing in India – A Sunrise

Telemedicine:

World Health Organization has defined telemedicine as, “The delivery of health care services, where distance is critical factor, by all health care professionals using information and communication technologies for the

exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of healthcare providers, all in the interests of advancing the health of individual and their communities.” Telemedicine technologies includes like video conferencing, internet, telephones etc. Health care providers such as e-pharmacies and hospitals have integrated tele medicine platforms and scaled up their existing digital offerings. E-pharmacy platforms have showed a steep growth in adoption by both doctors as well as patients.

Tele consultation and e pharmacy markets in India

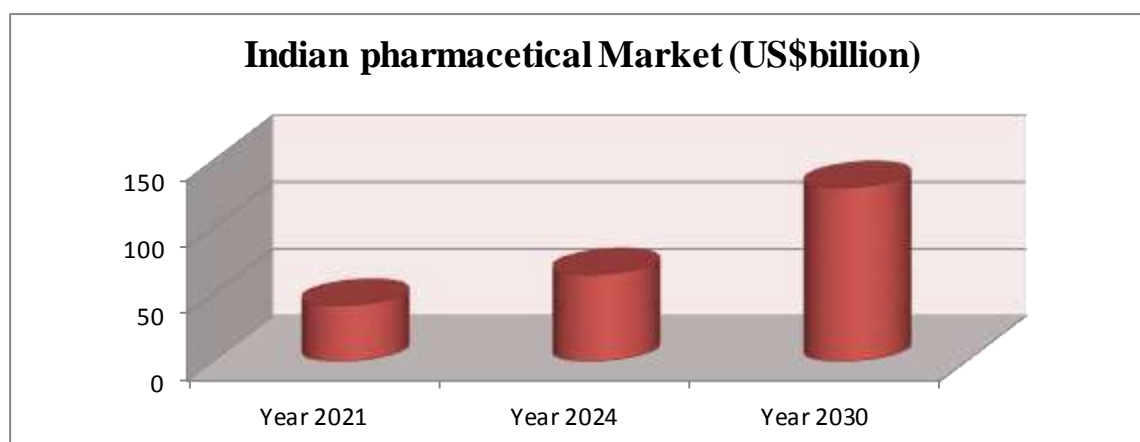


(Source: EY analysis)

Across the world, Pharmacies followed a basic business model which underwent a little change over the last 2-3 decades. The first E-pharmacy was started in the US in late 1990s which focused solely on selling drugs. E-pharmacies in India do not offering drugs to patients without prescription. If a patient does not have a prescription and they cannot upload it to the pharmacies portal. In such a situation the pharmacies have their own doctor consultants who advises the patient then generates the prescription for the patient. After that, patients upload it on the E-pharmacy app or website. Then place an order. The number of E-pharmacies has increased in coronavirus pandemic to avoid unnecessary interaction and practicing social distancing in India. India is significant and rising player in the global pharmaceutical sector. India E-pharmacy market is segmented into:

1. On the basis of Drug: E-pharmacy market can be divided into Prescription drugs and over the counter (OTC) drugs.
2. On the basis of Product: Chronic Diseases, Skin care, Medical Equipment, Nutritional supplement etc.

3. On the basis of Business Model: Inventory based model, market place based model
4. On the basis of Region: South, North, East, West.



(Source: Indian Pharmaceutical Industry: IBEF)

According to the Indian Economic survey 2021 the domestic market is expected to grow 3× in the next decades. India's domestic pharmaceutical market is estimated at US\$ 42 billion in 2021 and likely to be reaching US\$ 65 billion by 2024 and further expand to reach US\$ 120-130 billion by 2030.(2) Investors also invest their funds in e-pharmacy channels. Collaboration, agreements mergers and acquisition are happening in e-pharmacy market.

The major players operating in E-pharmacy market in India:

1. API Holding pvt. Ltd(PharmEasy)	4.Tata digital Limited (1 mg Technologies Pvt.Ltd)
2. Apollo Pharmacy Pvt.Ltd	5..Net meds Marketplace Ltd. (Reliance Retail)
3. CareOnGo	6.Medilife 7.Myra

Benefits to consumers:

Convenient:

Consumers can order their medicine through any internet support gadget from anywhere.This is beneficial for elderly and patients that may difficulty to go local medical store.

Consumers got medicine at home delivery.

Consumers place order anytime and anywhere.24*7 online customer support they got medicine at home.

Lower affordable cost with discounts.

E-pharmacy provides medicine at lower cost because it comes from directly from manufacturer in store. It also provides discount. There are no middlemen in distribution channel.

More accessible to find medicine & Digital payment facility.

Local medical stores have limited stock. E-pharmacy allows consumers to purchase medicine from highly organized platform, digital payment infrastructure from anywhere.

Value added information related medicine.

E-pharmacies provide information about side effects of medicine, substitutes of lower cost etc.

Genuine Authentic medicines.

E-pharmacies ensure supply variety of medicines which is safe for consumption..

Challenges:-**Threats of personal Data misuse:**

The online highly organized platforms available for digital marketing but it depends on valuable insights derived from customer's personal details. So there is risk of misuse of personal information of customers.

Need for technology up gradation.

Industry that use digital marketing platform depends on strong technical infrastructure. For the success E-pharmacies need to focus on utilizing latest technological advancement.

Need for special legal framework:

E-pharmacies involves the health of people so it must be regulated a special legal framework.

Need rural population awareness & Lack of internet connectivity.

Peoples in rural areas still face many problems like electricity problem, poor internet connectivity.

Increasing in rates of smart phone and internet use.

There is constantly increasing in rates of smartphones and internet use. It is not affordable to economically backward peoples.

In emergency it is not useful for patients.

Most important challenge of e-pharmacy is in emergency it is not useful for patients. E-pharmacies take more time for delivering medicines in emergency.

Findings & Conclusion:

1. Due to pandemic, Digital marketing has grown rapidly. Health awareness is increase among the people. Various sectors of healthcare industry rapidly grow in covid pandemic situation. Telemedicine consultancy increased tremendously to avoid unnecessary interaction and practicing social distancing in India.
2. The government launched various schemes and programs for the development health care sector. For the ensure acceptability, accessibility and affordability of quality medicines for the poor Jan Aushadi program launched by the government. . India's pharmaceutical market is likely to be reaching US\$ 65 billion by 2024 and further expand to reach US\$ 120-130 billion by 2030. There is scope for development of E-pharmacies in India.
3. E-pharmacy needs constant regulation and innovation. Increasing global competition, development of digital marketing, advanced technology is positive impact on this sector. Ultimately, every segment of the health care industry needs to take a developmental approach.

Suggestion:

The E-Pharmacy has observed increased number of private players setting up specialized health care facility. Considering the scope of the e-Pharmacy, Qualified pharmacists team essential in E-Pharmacy for validation of prescription and for handling any drug related queries from the patients. To develop the e-pharmacy system, special set of regulations established for e-pharmacies must be in India as early as possible.

E-Pharmacy provided information such as the side effects, cheaper substitutes. Online pharmacy will give boost to self-medication. Online pharmacy gives access 24 × 7 along with information and offers. . Peoples in rural areas still don't have gadgets, poor internet connectivity. There is need of awareness among

the people about online shopping. Govt. of India need to take initiatives in rural area for Digital India then India will become a self-sufficient country.

References:

1. <https://datareportal.com>
2. <https://www.globenewswire.com>
3. www.ibef.org
4. www.ficci.com FICCI Report
5. Medical Device Industry in India / Investment in medical sector;
www.investindia.gov.in
6. Department of Pharmaceuticals Annual Report 2020-21



COVID-19 LOCKDOWN IMPACT ON RURAL ECONOMY

Mr. Kadam Rajaram¹, Mr. Shende Popat², Dr. Jadhav Ashish³

¹ Vice Principle, Sahakarbhushan S. K. Patil College, Kurundwad, Tal. Shirol,
Dist. Kolhapur

² Ph. D Research Scholar, Department of Geography, Shivaji University, Kolhapur.

³ Asst. Prof. Geography Dept, ShikshanMaharshi Dr. Bapuji Salunkhe College,
Miraj, Dist. Sangli

Introduction

Agriculture and its allied activities are the main source of income and food for more than seventy percent population. It have need various man-power to doing a work but these days agriculture is not very rewarding enterprise especially for marginal and small farmers with small land holdings. On the other hand, allied agricultural sectors such as vegetable cultivation, floriculture, dairy farming, Poultry and Beekeeping etc. have greater potentialities for uplifting the growth and livelihood sustainability. India has achieved a rapid and remarkable growth in agriculture during last few decades. But we facing the challenging task of maintaining food security, and how to meet the demand of its ever over growing population. India is a high densely populated country and maximum people live in villages. Out of them are involved in agriculture. Most of people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. The impacts of that virus on people various sectors; mostly in agricultural & economy. Present research paper shows that the corona lockdown impacts on economy in Sangavi Village. Incomes sources are very low in that period, so most of the peoples affected & their problems to loss of money.

Covid-19 Lockdown

Coronavirus disease Covid-19 is an infectious caused by a newly discovered coronavirus. The global pandemic of Covid-19 lockdown is suffering in a Satara district as well as Phaltan tehsil. Sangavi village have same condition

<http://www.ijaar.co.in/>

as like headquarter. In the first phase of (March 2020) the Corona affection in lesser than the second phase of (March 2021). Because of the precaution taken by each and every people of each limit, but nowadays people are taking it easily and the effects of this is on eye.

Study Region

The Sangavi village is located in Phaltan tehsil of Satara district in Maharashtra State (Fig. 1). It is situated on bank of Nira river; It is situated 10 km away from sub-district headquarter Phaltan and 75 km away from the district headquarter Satara. As per 2020 stats, Sangavi village is also a *Gram-Panchyat*. The total geographical area of village is 1762.88 hectares. Sangavi has a total population of 6,195 peoples there are about 1,267 houses. Boundaries of village are Nira River in North Side, South boundary is bounded by Vidni Village, Eastern side is bounded by Songaon and Western side bounded by Somanthali Village. Sangvi village promoted by the *Gram-Panchyat* is a main administration center.

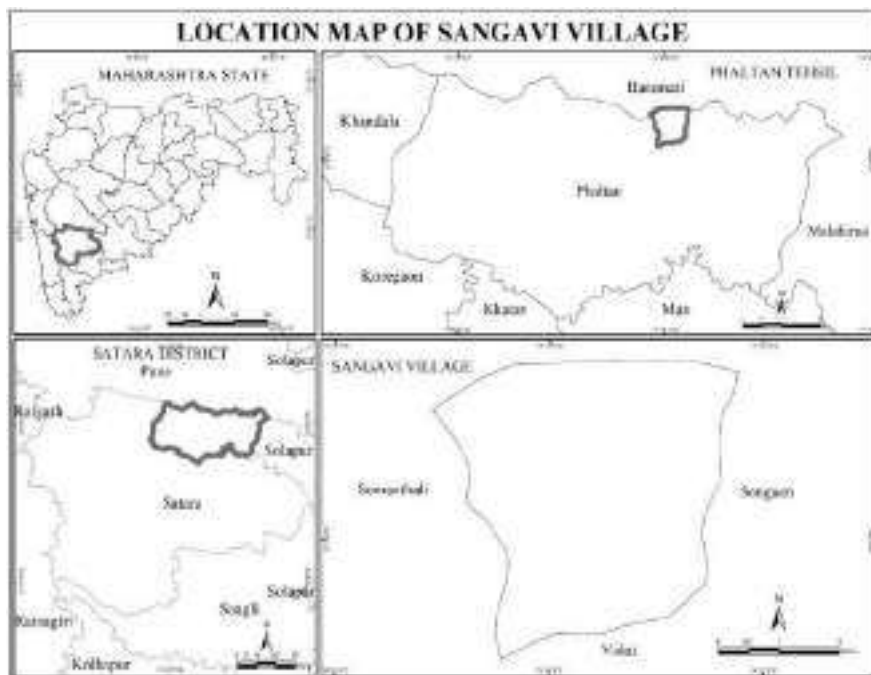


Fig. 1: Location Map of Sangavi Village

Objective

1. To study the COVID-19 lockdown impact on rural economy of Sangavi village.

Database and Methodology

The proposed research paper work researcher are collected the primary and secondary data. The primary data obtained by observations, direct interviews of respondents through questionnaire. All the primary data are collected in February to May 2021. In a secondary data sources researcher obtained a Sangavi village .shp file (Village area boundary) from USGS data bank, household record of study area are collected from Sangavi *Gram-Panchyat* office. Out of the total households, for the details study researcher are selected those households who are affiliated to mentioned activities of the study region. 250 households are selected for sample basis. These samples are based on random sampling method. The sample size is 20 percent of the total household's. The obtained data are calculated by using simple percentage method.

Discussion

Researchers discussing the Sangavi village scenarios of rural population, family size, mode of workers, daily income, per capita income, etc. Here, the covid-19 lockdown impact on economic conditions of rural people in study region.

Agronomy of Sangavi Village

Sangavi village is the vibrant village in agronomy especially in dairy activity and fresh vegetables production in key activities. It have a two private milk unions and one chilling center in a village limits and vegetable market centers are between 10 km limits. Dairy Farming and vegetable products are supporting of each and every families to managing their daily routine. A Cow play a crucial role in Dairy Farming, more than 700 cows are in-milk condition. The Tomato, Chili, Karla, Cauliflower, Cabbage, Lady Fingers, Potato, Cucumber, Onion are key vegetables of the village; these vegetables have daily fresh market.

Table 1: Daily Activity of Rural Populations in Sangavi Village

Sr. No	Activity	People	Engaged People	Percentage
1	Agriculture	Male	86	6.75
	Worker (Labours	Female	66	5.18

		Total	152	11.93
2	Sales Worker (Agricultural Products)	Male	86	6.75
		Female	87	6.83
		Total	173	13.58
3	Animal Husbandry	Male	147	11.54
		Female	80	6.28
		Total	227	17.82
4	Poultry Farming	Male	25	1.96
		Female	25	1.96
		Total	50	3.92
5	Goat Farming	Male	47	3.69
		Female	0	0.00
		Total	47	3.69
6	Private Job	Male	214	16.80
		Female	66	5.18
		Total	280	21.98
7	Government Job	Male	24	1.88
		Female	1	0.08
		Total	25	1.96
8	Own Business	Male	37	2.90
		Female	0	0.00
		Total	37	2.90
9	Education (Enrolled Students)	Male	130	10.20
		Female	153	12.01
		Total	283	22.21
Total Sampled People			1274	100.00

Source: Based on field work, February to May-2021

Out of the total sampled population (1274) more than 50 percent (649) population of direct engaged in agronomical activity. Remaining is based on Jobs, Business or educational activity. The highest working populations (22 %) of the village are engaged in private job. 22 percent young generation are engaged

in obtaining a knowledge within a school and colleges of the nearest cities. It is interesting picture shows that more than 50 percent populations sharing in agricultural & agro allied activities.

Before Lockdown: Family Income Status (February 2021)

The Income is money what an individual or business receives in exchange for providing labor, producing a good or service or through investing capital. Individuals most often earn income through wages or salary. Businesses earn income from selling goods or services above their cost of production. In the Sangavi village, there 78 percent people are obtaining a money doing any mentioned economic activity. More than 50 percent populations are engaged in agriculture and its allied activity.

Table 2: Sampled Households Family Income of February, 2021

Sr. No	Income Class (In Rupees)	Income Group	Families	Percent
1	Less than 25000	Very Low	13	5.2
2	25001 to 50000	Low	27	10.8
3	50001 to 75000	Moderate	144	57.6
4	75001 to 100000	High	53	21.2
5	More than 100001	Very High	13	5.2
	Total		250	100

Source: Based on field work, February to May-2021

In the above mentioned table 2 shows that the family income of February month. Out of the total surveyed families population more than 55 percent populations are obtaining moderate income after that the 21 percent families are obtained high income. 16 percent families are getting low and very low income. Only 5 percent families are obtaining more than 1 lakh family income in February month that is before lockdown period in study region.

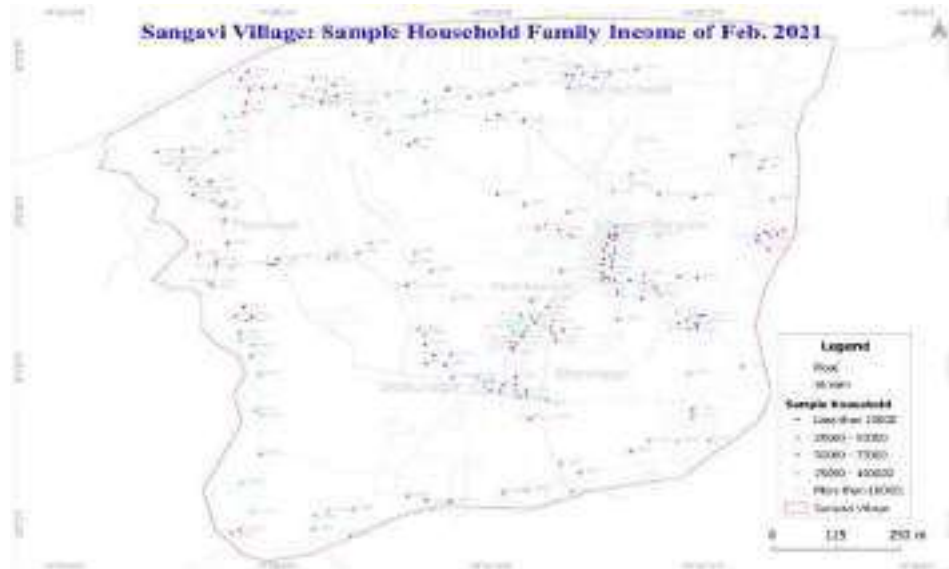


Fig. 2: Sampled Households Family Income of February, 2021

In Lockdown: Family Income Status (March to May 2021)

The lockdown of the Sangavi village are started in first week of the march 2021 because of the corona infections are spread over the village limits. The remarkable patients are found in that time so local government is decided to lockdown the village for 15 days.

Family Income Status: In Lockdown (March, 2021): The first week of the March 2021 village workers passed in regular type but after that the working days are come down due to mentioned lockdown. The officials are doing their work from home but agriculture and business workers are breakdown their work. The incomes of peoples are stepped down.

Table 3: Sampled Households Family Income of March, 2021

Sr. No	Income Class (In Rupees)	Income Group	Families	Percent	Changes in Family Over Feb. 2021
1	Less than 25000	Very Low	23	9.2	10
2	25001 to 50000	Low	131	52.4	104
3	500001 to 75000	Moderate	83	33.2	-61

4	750001 to 100000	High	10	4	-43
5	More than 100001	Very High	3	1.2	-10
	Total		250	100	0

Source: Based on field work, February to May-2021

The large number of families are comes under the low income group. They have 131 families (52 %), they earned 25000 to 50000 rupees monthly income after that 33 percent family (83 Families) are comes under the moderate group of income; this group having 50000 to 75000 rupees per month income. Only 4 percent families are having 75000 to 100000 rupees income per month that is high. Less than 10 percent (23 families) are earned in less than 25000 rupees very low income group in March, 2021.



Fig. 3: Sampled Households Family Income of March, 2021

As compare to February month, there are drastic changes in monthly income of March, 2021. The 10 families are losing their previous month position and come under the very low (less than 25000 rupees) group. The 104 families are behaving as like same trend and come in the low income group (25000 to 500000 rupees). In the moderate income group families are changes; the February month (144 families) trend and they comes down to 83 number family earned monthly income between 50000 to 75000 rupees in March, 2021. In the high income group (53 families) these families are comes down in less than 75000 to 100000 rupees income group. In the March 2021 only 10 families are denotes this income group.

Family Income Status: In Lockdown (April, 2021)

In the month of March 2021, the lockdown are follows a very strictly by government as well as local peoples for the breaking the chain of corona spread. In this month all economic, social and political activities are stepped down. So the incomes of individual person as well family are come down and the economic balance of family as same as society is slow down and the people facing economic crisis with social emergency.

Table 4: Sampled Households Family Income of April, 2021

Sr. No	Income Class (In Rupees)	Families	Income Group	Percent	Change in Family Over Feb. 2021	Change in Family Over March, 2021
1	Less than 25000	83	Very Low	33.2	70	60
2	25001 to 50000	155	Low	62	128	24
3	50001 to 75000	11	Moderate	4.4	-133	-72
4	75001 to 100000	1	High	0.4	-52	-9
5	More than 100001	0	Very High	0	-13	-3
	Total	250		100	0	0

Source: Based on field work, February to May-2021

In the month February, 2021 near about 40 percent families of their monthly income are come down in below the 50000 rupees. With respect to March month 238 families (95 %) are come down to low and very low income category from its high & very high category in April, 2021. More than 50000 rupees income group maintained by only 12 families (4.4 %).

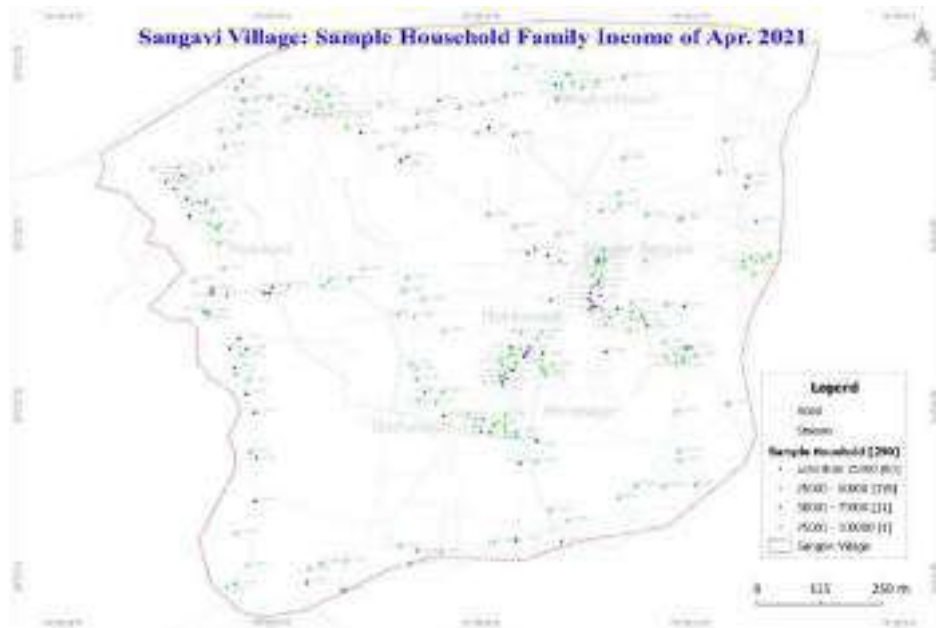


Fig. 4: Sampled Households Family Income of April, 2021
Family Income Status: In Lockdown (May, 2021)

In the May, 2021 the Covid-19 condition of the village are slightly coming on the track with taking care of social distance, making quarantine system and the office work are starting with optimum workers in presence. The working places again flowing with workers. The agriculture workers are taking care of wearing a mask, using hand wash, using self-water bags and important things is that they are making a specific distance during a work. In the month of April the income trend are same in condition. The families are not changed their position in the income category. Slightly one or two families are changed position otherwise all is well.

Table 5: Sampled Households Family Income of May, 2021

Sr. No	Income Class (In Rupees)	Families	Percent	Change Over Feb. 2021	Change Over March, 2021	Change Over April, 2021
1	Less than 25000	84	33.6	71	61	1
2	25001 to 50000	154	61.6	127	23	-1
3	50001 to 75000	10	4	-134	-73	-1

4	75001 to 100000	2	0.8	-51	-8	1
5	More than 100001	0	0	-13	-3	0
	Total	250	100	0	0	0

Source: Based on field work, February to May-2021

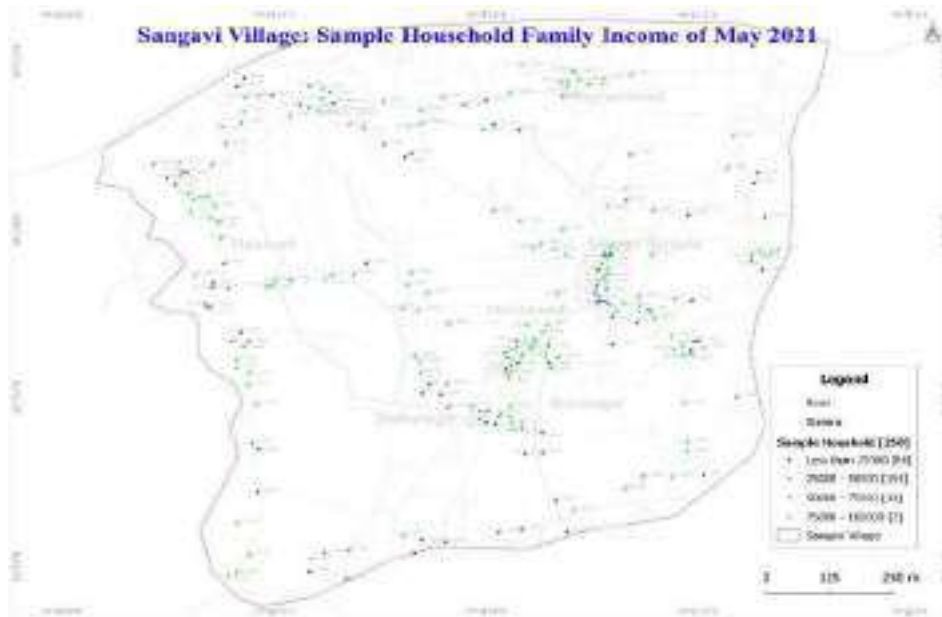


Fig. 5: Sampled Household Family Income of May, 2021

Income Status: Compare to District

In the Sangavi village, below mentioned table 6 show that the income loss details of sampled households to Satara district within the February to April, 2021 months period. Per capita incomes of sampled households are drop down from 12632 to 5899 Rs. per month. The loss of each people between these mentioned periods is 6733 Rs. but with respect to Sangavi *Grampanchayat* this income the loss are goes to near about 66 lakh. With respect to Vidni *Mahsul Vibhag* the income loss are marked 18 Cr. We are calculating income as a Phaltan tehsil this loss may goes to 226 Cr. If we calculate the district level loss of income it will be marked position 1783 Cr.

**Table 6: Income Status Compare to District of Sampled Households
Family in February to May, 2021**

Description	Pop ⁿ	Per Capita Income (in Rupees)			
		February	March	April	May

	(Approx.)				
Sampled Households of Sangavi Village (2021)	1274	12632	9678	5791	5899
	Monthly Income	16,093,168	12,329,772	7,377,734	7,515,326
Sangavi Village (2021)	5915	12,632.00	9,678.00	5,791.00	5,899.00
	Monthly Income	74,718,280	57,245,370	34,253,765	34,892,585
Vidni Mahasul Mandal (7 Villages)	30557	12,632.00	9,678.00	5,791.00	5,899.00
	Monthly Income	385,996,024	295,730,646	176,955,587	180,255,743
Phaltan Tehsil (128 Villages)	383667	12,632.00	9,678.00	5,791.00	5,899.00
	Monthly Income	4,846,481,544	3,713,129,226	2,221,815,597	2,263,251,633
Satara District (11 Tehsils, 1722 Villages)	3023741	12,632.00	9,678.00	5,791.00	5,899.00
	Monthly Income	38,195,896,312	29,263,765,398	17,510,484,131	17,837,048,159

Source: Based on field work, February to May-2021

Conclusion

Most of people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. The impacts of that virus on people various sectors; mostly in agricultural & economy. Present research paper shows that the corona lockdown impacts on economy in Sangavi Village. Incomes sources are very low in that period, so most of the peoples affected & their problems to loss of money. Within the study this four months period of global pandemic (Covid-19 Lockdown) creating very immoral economic scenario crisis. If this pandemic are suffer single year what is the condition of rural economy as well as rural people those who are based on agriculture and its allied works. The conclusion is that, the global pandemic (Covid-19 Lockdown) is not beneficial to rural as well as urban economy. For breaking this virus's people should be aware about the Precaution is better than illness.

Reference

1. Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., & Vaz, A. (2013): The women's empowerment in agriculture index; *World Development*, 52, 71-91.
2. Amin, R., Becker, S., & Bayes, A. (1998): NGO-promoted microcredit programs and women's empowerment in rural Bangladesh: quantitative and qualitative evidence; *The Journal of Developing Areas*, 221-236.
3. Basu, J. P. (2006): *Microfinance and Women Empowerment: An Empirical Study with special reference to West Bengal*; Indira Ghandi Institute of Development and Research http://www.igidr.ac.in/money/mfc_10/Jyotish%20Prakash%20Basu_submission_55.pdf (cited 2 Mar. 2012), 14.
4. Bathwala S. (1995): Defining women's empowerment: a conceptual framework, education for women's empowerment. In ASPBAE Position Paper for the Fourth World Conference on Women, Beijing, September 1995, New Delhi, Asia-South Pacific Bureau of Adult Education.
5. Blattman, C., Green, E., Annan, J., & Jamison, J. (2013): *Building Women's Economic and Social Empowerment through Enterprise: An Experimental Assessment of the Women's Income Generating Support Program in Uganda*.
6. Buvinić, M., & Furst-Nichols, R. (2014): Promoting women's economic empowerment: what works? *The World Bank Research Observer*, lku013. (<http://wbro.oxfordjournals.org/content/early/2014/11/27/wbro.lku013.full.pdf>)
7. Sethuraman, K. (2008): The role of women's empowerment and domestic violence in child growth and under nutrition in a tribal and rural community in South India (No. 2008/15); Research Paper, UNU- WIDER, United Nations University (UNU).
8. Sharaunga, S., Mudhara, M., & Bogale, A. (2015, January): The Impact of 'Women's Empowerment in Agriculture 'on Household Vulnerability to Food Insecurity in the KwaZulu-Natal Province; In *Forum for Development Studies* (No. ahead-of-print, pp. 1-29), Routledge.
9. Somjee, G., & Somjee, A. H. (1989): *Reaching Out to the Poor: The Unfinished Rural Revolution*, Macmillan.



DIGITAL BANKING : A NEED OF TIME

Dr. Bhavna Sharma¹ ,Ms. Anugya Dubey²

¹Assistant Professor (Department of Commerce)

JIMS Engineering Management Technical Campus, Greater Noida

bhavnasharma.gn@jagannath.org

²Bachelors in Commerce (Honors)

JIMS Engineering Management Technical Campus, Greater Noida

Email-anugya.d23@gmail.com

Abstract

Banks play an important role in the financial system of an economy by facilitating the creation and maintenance of a robust payment system to meet the requirements of government and general public. The modernization of banking sector , after the introduction of IT & Technology has benefited both customers and banks . The banking now is not just limited to the physical transactions in banks but has made its way into hand held devices. This current phase of banking is aptly called as ‘Digital Banking’. The ongoing COVID-19 pandemic has made the need for digital banking greater than ever. This pandemic has forced consumers to access their funds and use banking services only through digital channels. This change has left banks rushing to ensure that they have the technology infrastructure set up , which can give start to finish contributions of administrations and items, by means of advanced channels. This paper discusses the impact of COVID-19 on digital banking in India. The present study is descriptive and uses secondary data to study the challenges and opportunities using digitalized banking.

Keywords- Digital Banking, COVID-19, Technological infrastructure

Introduction

Defining ‘Digital Banking’

Digital Banking also known as E-banking or online banking or internet banking is a system which enables banking transactions like payments, deposits, withdrawals of cash virtually with the help of internet rather than physically visiting the bank branches. Digital banking is a term which is synonym to the frequently used term e-banking. Both these terms are used in place of each other

many a times stating no or very minimal use of paper cash and shifting to plastic money Jain et al (2020).

Modernization of banking

Modernization of banking sector and shifting to digitization is a ceaseless cycle that influences both the outside and inside environment by updating inner cycles and existing techniques. There are many reasons that digital transformation happens, for example, overhauling far off regions without physical branches, separation from contenders or decrease of working expenses. Regardless, there are a great deal of questions about the acceptance of digital technologies (Kitsios, Giatsidis, & Kamariotou, 2021). The patterns and progress in the Indian Banking the innovation advancements area is show: The send off of United Installments Interface (UPI) in April 2016 and Bharat Interface for Money in December 2016 by Public Payments companies of India (NPCI) are huge strides for development in the installment framework space (Jain, Sharma, Kumar, & Kansal, 2020).

UPI is a portable connection point where individuals can make moment subsidizes move between accounts in various banks based on virtual location without referencing the financial balance. In August 2016, around 93,000 UPI exchanges occurred through 21 banks. This, in July 2018, increased complex to 23.5 crore exchanges through 114 banks. The shift towards UPI accumulated pace post-demonetization, when there was a shortage of money on the lookout. BHIM application, which was sent off in December 2016, has additionally seen a tremendous leap in the exchanges from a simple 43,000 toward the starting to 1.64 crores in July 2016 (Jain, Sharma, Kumar, & Kansal, 2020).

Covid-19 and Digital Banking

Coronavirus has altogether changed our way of life on numerous fronts. From the manner in which we take care of our expert responsibilities, approach our day to day obligations to arranging or overseeing funds, we as a whole have been pushed to embrace digital technologies. ATM cash withdrawals and footfall at actual bank offices are down, while online business and contactless installments have expanded altogether. The information shows a significant

expansion in advanced reception during the hour of COVID-19, the monetary foundations should constantly audit the necessities of retail client portions and make it simple for their clients to embrace the computerized innovations Sharma, B. & Gupta (2017).

Banks can take a gander at the computerized reception across fragments and gadget means to build the reception rate. The Essential Banking needs like survey records and exchanges, making installments, benefiting advance and credits, stay comparable for various sections in spite of the pandemic. The pandemic has essentially affected how much traffic to branches, and money withdrawals from ATMs. It has likewise brought about a flood sought after to utilize computerized channels to do fundamental banking, look for virtual help assuming there are issues and furthermore have online instructional exercises to assist clients with understanding how to utilize web based financial devices. Furthermore, the pandemic has affected the monetary prosperity of the retail client portion, driving interest for difficulty help, extra credit, and ordinary cash the executives instruments on the web, Sharma(2021).

Rationale

COVID-19 has recently hit the Indian economy and has impacted digital banking in this respect. Many research works are conducted in the field of digital banking nationally and internationally but only a handful are done in the field of digital banking with respect to COVID-19 scenario. Therefore , the presented descriptive study will help in identifying and analyzing the impact of pandemic on digitization and to provide further with different opportunities and challenges in the adoption of digital banking.

Review of Literature

Jain et al. (2020) examined the development of Digital financial scene in India and the difficulties which are lying ahead, which should be handled so the country can go on in the way of becoming digitalized economy. Kitsios et al. (2021) shown the view of bank representatives concerning new advancements and gave a commonsense commitment to chiefs of Greek financial associations to plan designated instructive projects to work with the progress to the new

computerized period for their workers. Shettar et al. (2019) studied the role of digitization in Indian Banking and found that the overall operating costs of banks is reduced due to digital shift. (Lakshmi & Kavitha, 2020) studied the demographical profile of customer using digital banking and found the level of customer satisfaction on digital banking. Joshi et al. established the fact that customers are in the process of getting acclimatised with the notion of digital banking and that despite all the challenges, their perception towards digitalization is fast changing. (C.B & V, 2020) examined recent trends in digital banking services, benefits, opportunities, hurdles and challenges of Digital Banking System in India.

Objective

- 1- To analyse the impact of Covid 19 on digital banking in India.
- 2- To study the challenges and opportunities using digitalised banking.

Hypothesis

Covid-19 Pandemic has increased the number of users on the digital platforms.

Methodology

The paper analyzes the impact of COVID-19 on digital banking platforms and presents some opportunities and challenges pertaining to this field. The research is based on secondary data and the paper has used explorative method to draw conclusions and come up with the suggestions and recommendations. The information is collected from various authentic websites, journals, articles and e-support. The major information is collected from the government publication also.

Findings

Digital banking has become increasingly more throughout the long term, and the COVID-19 pandemic just underlined the requirement for helpful, sans contact monetary foundations. Customers presently expect that advanced financial will be accessible to them, paying little heed to where they do their banking. That request has placed tension on many banks to extend their advanced contributions and stay up with the quick changing monetary administrations industry. Advanced banking conveys various advantages to the

business in general, like simpler and more helpful exchanges with clients. All things considered, advanced financial carries its own arrangement of difficulties to monetary establishments, as well, for example, greater online protection risk and a more noteworthy requirement for dependable, "on all of the time" IT frameworks. Banks need to consider that large number of difficulties and open doors cautiously to execute an effective advanced change.

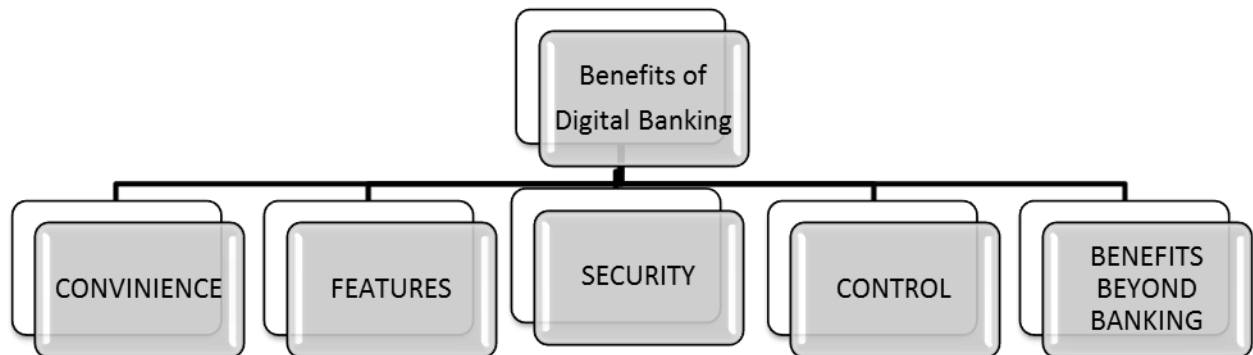


Figure 1

Convenience-

The capacity to bank any place and anyway you need is one of the principle advantages of portable and web based financial arrangements. Our cell phones and PCs are ordinarily promptly accessible, permitting day in and day out account admittance to deal with quite a few financial undertakings rapidly. Versatile banking applications. Simultaneously, you can check your equilibrium, move assets and set up a notice to alarm you in the event that you overdraft your record all without the need to visit a branch. It's an ongoing saver. Computerized banking additionally offers longer-tail comforts.

Paying with cash isn't as convenient as an electronic transaction. Electronic transactions are more secure (you aren't carrying cash), they're better from a cleanliness standpoint (you aren't touching cash) and you can track what happens with your transaction electronically. "A cashless society with digital transactions is much more efficient and it allows for much better management of your financial resources".

Features-

Many banks' portable and online encounters are rich with highlights. "Banks could offer customized monetary counsel, reserve funds apparatuses, huge buy

mini-computers or even menial helpers who can assist them with concluding what goes overboard they can really bear, all inside the accommodation of an application". Versatile really look at store. Finding close by ATMs, cardless ATM withdrawal and planning and following instruments are advantages your portable application might propose too. "Buyers ought to search out banks that focus on offering a human touch even in their advanced channels, finding some kind of harmony between the human component and computerized computerization".

Security-

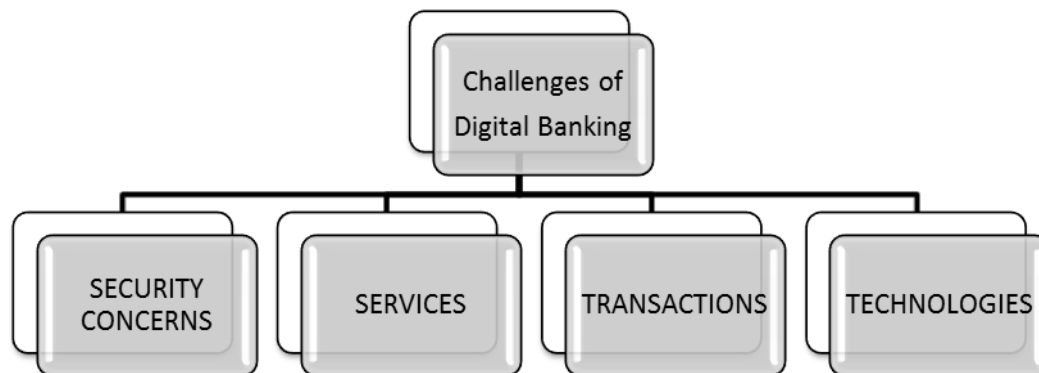
"Security is a No. 1 need for monetary organizations" . Also, that reaches out to versatile and internet banking. Dangers, obviously, exist all over the place, including inside the bank office. Luckily, many banks make it simple to play it safe. For instance, your bank might permit you to add multifaceted validation to your versatile application and online financial balance. Numerous versatile banking applications presently permit you to utilize biometric confirmation to sign in. Axis Bank's application. In general, you might be safer than you suspect utilizing computerized banking. "It's been accounted for that advanced instalments and e-wallets really offer more security sometimes than an actual card, giving a few clients significantly more motivation to utilize computerized financial devices".

Control-

Having command over your funds with the capacity to self-serve is one more critical advantage of advanced banking, as is constant admittance to oversee and move cash as you see fit. "The universe of innovation is offering the potential chance to have the option to get cash and to burn through cash in manners that are a lot more straightforward than they were in previous times". Banks are proceeding to propel the highlights presented on their advanced financial stages. Computerized reserve funds instruments and pop-up message alarms for things like low adjusts or overdrafts are typical. At times, you could in fact actuate another charge or Visa from your application.

Benefits beyond banking-

Digital banking offers a large group of significant advantages for buyers that can make their lives more straightforward and make them better stewards of their cash. In any case, on a lot bigger scope, he says we can utilize this freshly discovered network that we have in our general public to make monetary, social and financial change. "This internet banking item takes into account a more extensive base of correspondence that can be utilized for things like showing monetary proficiency".



The opportunities lying in the pathway of digital banking may be impressive , but there are certain challenges that follow the process:

Security concerns

This is quite possibly the most basic worry with the computerized switchover to the digital banking . Different organizations and foundations have observed network safety as the worry that they have not had the option to totally survive. Utilization of complex programming that intends to safeguard information can't give 100 percent security from phishing, con artists, programmers etc.

Services

The present moment, there are not an excessive number of banks that give an assortment of online administrations. They might in any case require the actual presence at the customary bank offices.

Transactions

For making complex exchanges, the physical presence might be expected at the bank offices. In addition, worldwide transactions are as yet impractical with all digitalised banks .

Technologies

The digitalized banking system gives online based financial services which should be consistently refreshed so they might have a satisfactory security level. The banks should set up a definite system and select proper innovations to transform thoughts into the real world. The course of digital transformation is perpetual as technologies keep on upgrading every day; therefore, it's significant is to remain refreshed. This is a challenge with digital banking. New advances will achieve new administrations that should be overhauled and constantly upheld.

Conclusion

The computerized change of banking establishes perhaps the best development lately. At a worldwide level, the digitalization of all cycles is relentless, including the utilization of cutting edge innovations and the execution of programming to streamline their activities. For this to occur, nonetheless, it is critical to comprehend that there are difficulties that should be met. The first is to acknowledge that the advanced change of banking is a framework wide interaction and in addition to a business elective. Indian economy has progressed significantly from late 1980s when the computerization in financial area has just started to the current time of advanced financial where PDAs are administering. There is little uncertainty that advanced banking has acquired astonishing client experience with critical improvement in the conveyance of banking administrations. Nonetheless, Indian financial area should survive many difficulties to make advanced banking inescapable. Web network and related advanced foundation is to be guaranteed for making the computerized dream a reality.

Then there is the gamble of digital dangers which might cause huge disturbances in the financial administrations separated from gambles with connected with delicate client data and web cheats. It will be intriguing to perceive how these difficulties are managed by the financial area. The public authority and different partners play a significant part to play here. That will choose the speed and course of the advanced excursion of our country.

Suggestions/Recommendations

The banking industry needs to move past observing the ideal channel blend to figuring out what turns out best for every individual client. It is likewise about a consistent coordination between contact focuses. Sadly, not very many (if any) associations can uphold the starting of an excursion on one channel and the finishing on another. This turns out to be particularly obvious during the onboarding phase of commitment at banks and credit associations. To serve the advanced purchaser, monetary establishments should move past FAQs to chatbots and intuitive substance (particularly video). Both of these innovations, when utilized related to cutting edge knowledge (AI) and AI, will work on the conveyance of administration while bringing down costs. "Secure chatbots will turn into a center part of numerous advanced banking propositions. While there are very few models today, progress is being made across the financial business and particularly outside banking). "Past chatbots, the mix of voice banking might be one of the most thrilling development regions for a superior client experience. "To handle the uncertainty of the future, banks need to make sure that they future-proof, both in terms of digital proposition and organizational structure".

References

1. (n.d.). Lakshmi, N. M., & Kavitha, M. (2020). A STUDY ON CUSTOMER SATISFACTION ON DIGITAL BANKING. Xi'an University of Architecture & Technology, 727.
2. C.B, S. A., & V, S. V. (2020). THE DIGITAL BANKING IN INDIA-RECENT TRENDS, OPPORTUNITIES. Global journal for research analysis.
3. Jain, V., Sharma, P., Kumar, A., & Kansal, A. (2020, December). Digital Banking: A Case Study of India. Solid State Technology •, 63(6), 3-5.
4. Joshi, R., Goel, R., & Garg, S. (n.d.). A study on customers' perception on adoption of.
5. Kitsios, F., Giatsidis, I., & Kamariotou, M. (2021). Digital Transformation and Strategy in the Banking Sector:. Journal of Open Innovation: Technology, Market, and Complexity, 1-2.

6. Shettar, R., Samiti's, H. A., Jigalur, K., & Sheshgiri, S. (2019). DIGITAL BANKING AN INDIAN PERSPECTIVE. *Journal of Economics and Finance*.
7. Sharma, B. (2021). Reasons of Using Paytm: An Empirical Study, *MDIM Business Review*, 2 (1),78-88
8. Sharma, B. & Gupta, A. (2017). Digital India: Transforming India into a Knowledge Economy, *Conference Proceeding of Indirapuram Institute of Higher Studies, Ghaziabad*



MERITS AND DEMERITS OF DIGITALIZATION: EDUCATION

Ms. Mohd. Hussains. Z¹, Ms.Gujar S. M²

^{1,2} Dhananjayrao Gadgil College of Commerce, Satara (Maharashtra)

Abstract

Integrating technology in education is the prevalent emergence witnessed in recent years. Digital education had not been possible without technology. Technological advancements have played important role in incorporating digitalization in the field of education. From three dimensional objects used as learning materials, to using photographs for education, to having audiovisual devices in the classrooms, technology has made rapid advancement feasible in pedagogy. Apart from technology digital education also involves instructions and digital content. Besides everything else that has been endowed with digitalization, distant learning programs have also been made possible through the digitalization of education. Even though the concept of digital education has been around for quite some time, its importance has been accentuated in the past few years due to the pandemic. The study recapitulates the merits and demerits of digital education. This paper is an attempt to discuss the merits and demerits associated to the application of digital methods in education.

Rationale of the study

In today's environment, digital learning has become commonplace. With the advent of the internet, the modern world has been presented with a plethora of opportunities. Learning in schools was revolutionized by the digital education system, which replaced the conventional chalk and board method. It has made learning more mobile, dynamic, and engaging, encouraging students to pursue and sustain an interest in digital learning. Because of the current situation, most schools and institutions are adopting this technology as a remedy while the traditional education system is suspended for a period of time, hence the merits and demerits of digital education are discussed in this paper.

Objective of the study

This study aims to find in what way the digitalisation in education has impacted the traditional learning method by listing its merits and demerits

Methodology

The research methodology was completely based on secondary sources obtained from the internet.

.Introduction

Digital education puts into operation various technological contraptions like computers, smart phones, tablets, and more of the similar electronic hardware and software. It makes use of these technological gizmos to disseminate the andragogy to the students. Digitalization in education incorporates dimensions which are individuals, methodology, ideas, gadgets, and institutions to identify the challenges, formulation of plans, implementing them and managing solutions to those problems with a setup with purposeful and systemized learning.

The digitalization of education has witnessed a great amount of augmentation since the integration of technological gadgets with education and it is still moving forward. The application of digital equipment for education began in twentieth century by introducing silent films for instructional purposes. It was made feasible for the schools in 1910 to rent Catalogue of Educational Motion Pictures which had more than 1000 titles of films, published by George Kleine. Subsequent to 1931, films were an acceptable medium of education in schools, although it were never utilized to the maximum extent owing to the facts that the teachers were either lacking skills to operate the devices, or were unable to find suitable films to present. The cost of films, devices, and their upkeep, were another reason for the negligible utilization of films by the teachers.

The next technology to play the part in earlier years of digital education was the radio. Commercial and educational stations were first licensed by the Radio Division of the United States Department of Commerce in 1920. Schools began to receive radio programming from schools, colleges, departments of education, and commercial stations. In 1923, Haaren High School in New York City was the first to broadcast accounting classes over the radio. Similarly to the films, radio in like manner failed to play a noteworthy part as an agency for education. the reason being poor audio receptors and the equipment costing at

inestimable value. The efforts to implement the use of radio instructions in schools were later given up on completely with the expanding availability of the television.

The audio visual education gained rising demand during the world war 2. The projectors were utilized as means to train the military recruits and new occupational workers. The military also used overhead projectors for lectures, slide projectors for ship and aircraft recognition training, and audio equipment for teaching foreign languages in addition to films. The knowledge gained from the use of these media in wartime fueled their usage in classrooms in the decades that followed. Instructive television, on the other hand, seemed to thrive mainly in areas where there was strong public, corporate, or commercial support. Schools struggled to cover the high expenditures of programme development, as well as the acquisition and upkeep of equipment. Furthermore, despite numerous attempts, broadcasting lessons particular teachers required it proved practically impossible. Computers were the next players to participate in the field of digital education. Many schools and government officials did not become passionate about computers until the 1980s, when microcomputers first appeared. By January 1983, computers were being used in 40 percent of all primary schools and 75 percent of all secondary schools in the United States for educational reasons. However, these figures can be deceiving. In most situations, students had only limited access to computers, which was usually limited to an hour or so every week in a computer lab. The Office of Technology Assessment assessed in 1995 that a five-to-one computer-to-student ratio was optimal, while the National Center for Educational Statistics stated in 2000 that there was an average of one computer for every five students and 97 percent of the schools had internet connections.

Merits

Availability of contemporary data

Digitalization is conducive to provide contemporary set of data which was an uphill battle before the coalition of technology with education. Before digitalization it was like getting blood out of a stone to get one's hands on

resuscitated data for the populace. In today's bustling world it has become conforming to accepted standards to acquire up-to-the-minute cognizance.

Active participation

Getting the modern day learners to skip out on their gadgets is like herding cats. Hence it is preferable to use those gadgets for learning itself. The conventional classroom only extended to three factors: the textbooks, students and the pedagogues which is not the case in digital education. Digital education gathers together technological tools that goes as far as digital images, videos, virtual reality etc. which assists in making digital learning more monopolizing.

Blotting out confinement of students entirely to classrooms

In traditional education system, the learners were bound to classrooms which have been totally transubstantiated in the scenario of digital education. Digital education provides liberty to the learners to learn everywhere possible. It provides the learners and the educators the option to participate from any place of their liking, as it maybe their home, institutional campus, or an amusement park for that matter.

Constricting the disparity

There are rich countries and developing countries, countries with easily accessible schools and countries with failing education systems in our planet. Digitization helps to level the playing field in education around the world by delivering current technologies to the most remote locations.

Gearing up for the future

With greater technology entering the marketplace, the application of digitalization in teaching helps to prepare pupils for a long-term future. Important skills such as focusing on preparing a presentation, maintaining good etiquette, composing emails, and so on can be instilled in the classroom. It raises learners' awareness of the corporate world ahead of them, albeit at a slow rate.

Demerits

Generation gap

Teachers, especially older teachers, may be less prepared for digitization than students and even parents. Professors must begin employing technologies

that they are typically less familiar with than their pupils, as some techniques that they have used for years have become obsolete. It leads to conflict and ineffective use of new technologies. The technologically educative school network is often a generation behind the student's parents. Due to a lack of technology, parents of students will be unable to assist them in providing the necessary supervision. Due to a lack of awareness and understanding in the home digitalization of their learning procedures, children will be completely at a loss when they are unable to rely on their parents for their educational needs or fundamental necessities such as schoolwork.

Lacking social skills

Digital teaching gadgets are used as coaching equipment in smart learning. Students who are accustomed to learning through smart technology will lose touch with their teachers. The value of a skilled instructor diminishes as a result of this shift in learning. Students will be riveted to their computers and laptops, treating professors as if they were a simple entity in their opulence. It's as simple as that: the more time kids spend with devices, the less time they spend with each other, communicating openly and working in groups.

Dependency on technology

The failure of an electronic device is sufficient to justify the loss of instructional hours. Because some of these are fragile gears, restoring them to working order requires time and money. Teachers are required to return to the conventional blackboard approach of training in such circumstances, which might cause dissent from the students. Such technical issues can detract from the learning environment and put a strain on teachers. Teachers must not only prepare for the day's topic but also switch between the two forms of teaching suddenly and forcibly in such an unforeseen situation. More severe situations can also lead to reversal of the educational development for about a decade back.

Cost of updation

We have witnessed the hesitancy of the schools in the past to fully embrace a technology in education due to its high updation cost. Digital learning can be quite costly, and school administrators may have to dig deep into their

resources to keep their institution up to date with new teaching technology. A new version of software is released every day, making it challenging not only to keep up but also to fund these assets. Budgetary concerns arise when universities spend money on training their faculty, given that all types of instructors are unable to adapt to the usage of electronic teaching aids. When instructors are not knowledgeable about the latest coaching technology, pupils' learning can suffer significantly.

Conclusion

It can be concluded that no matter how much development transpires in the field of digital education, its a long way from replacing the traditional student-teacher relationship. Digital education can be viable to take the traditional way of learning t the next level. But it can in no near future will be able to replace teachers.

Suggestions/ recommendations

Although technology has become the integral part of the recent education system, it is not recommended to abandon the traditional methods completely. Traditional way of education is also necessary to carry out the education process successfully.

Bibliography

1. Bansal, D. (2021, May). *Merits and Demerits of Online Education: All you need to know*. Retrieved from <https://www.shiksha.com/>:
<https://www.shiksha.com/engineering/articles/merits-and-demerits-of-online-education-dimpy-ggsipu-blogId-40935>
2. Makosa, P. (2013, october). *Advantages and disadvantages of digital education*. Retrieved from <https://www.researchgate.net/>:
https://www.researchgate.net/publication/264419797_Advantages_and_disadvantages_of_digital_education
3. MEHLINGER, H. D., & POWERS, S. M. (2022). *Technology in Education*. Retrieved from <https://education.stateuniversity.com/>:
<https://education.stateuniversity.com/pages/2495/Technology-in-Education-SCHOOL.html>

4. Senses. (2021). *Pros and Cons of a digital Classroom in India*. Retrieved from <https://senseselec.com/>: <https://senseselec.com/blogs/pros-and-cons-of-a-digital-classroom-in-india/>
5. singh, A. (2020, September). *What Is The Digital Education System And Its Advantages For Students*. Retrieved from <https://www.theasianschool.net/>: <https://www.theasianschool.net/blog/what-is-the-digital-education-system-and-its-advantages-for-students/>
6. Valverde-Berrocso, J., Fernández-Sánchez, M. R., Dominguez, F. I., & Sosa-Díaz, M. J. (2021, august). *The educational integration of digital technologies preCovid-19: Lessons for teacher education*. Retrieved 2022, from <https://journals.plos.org/>: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0256283>
7. Zeeshan. (2021). *Digitization of Education: Advantages and Disadvantages*. Retrieved from <https://digitalglobaltimes.com/>: <https://digitalglobaltimes.com/digitization-of-education-advantages-and-disadvantages/>



CONSUMER PERCEPTION TOWARDS ONLINE SHOPPING

Pratibha Dattatrya Pudale

Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burl)

Email-pratibhapudale2904@gmail.com

Abstract

The paper discusses on Consumer Perception towards Online Shopping. Online shopping is the process by which consumers buy products/ services over the Internet. Online shopping is a modern phenomenon in business world. Online shopping is a type of web commerce which allows consumers to purchase products and services from a particular seller through the internet using web browser. Online shopping becomes a modern phenomenon in business world. Online shopping consumers are the people who depends on technologies to buy and sell products, viewing contents online. With the birth of internet and technology, it made every one of us digital consumers. Besides, changes in lifestyle of people clear the way for online shopping which is profitable convenient venture to purchase desired product. While online shopping the consumers can be performed through tablet, smart phone, and personal computer. As traditional shopping is time-consuming that's why consumers prefers online shopping. The perception of online consumers is influenced by consumer attitude, product information, online payment, accessibility, convenience and variety, flexibility, price, consciousness etc. This paper will highlight on consumer satisfaction with regard to online shopping.

Keywords: Consumer, Perception, Online shopping, Cyber laws

Introduction

Online shopping is a new e-commerce innovation that is sure to be a shopping future worldwide. Online shopping is a recent trend in web commerce which allows to directly purchase goods or services from a seller over the internet using a web browser or a mobile app. The term online shopping is also known as online marketing, internet marketing, web marketing. Consumers can buy online using a range of different computers and devices, including desktop computers, laptops, tablet computers and smartphones. An online shop, e-shop, e-store, internet shop, web shop, web store, online store, or virtual shop evokes the physical analogy of buying products or services in a shopping center. In order

to shop online, one must be able to have access to a computer, Android mobile, Laptop, bank account and debit card. The tremendous use of Internet in India provides wide ranging opportunities for online shopping from both customer and seller perspective. Online shopping plays a very crucial role in attracting and retaining customers who always prefer a particular branded product for use. From groceries and greeting cards to cell phones and ringtones for the mobile phones, everything can be purchased online by the consumers. Consumers can visit more sites via search engines and compare the price on various sites, which significantly reduce search costs, to find and compare many different offers for the same product. And even online market allow consumers to shop at anytime from anywhere, avoiding the problem of opening hours, distance to shop or availability of items. In fact online shopping is mostly affected by several factors like technology, personal factors and external factors. Therefore, due to an uncertainty in understanding consumer awareness, problems and expectations which effects on changing consumer satisfaction in online shopping. No doubt many consumers will perceive online shopping as it is a very alternative way of purchasing.

Objectives of Study:

1. To examine the consumer awareness level on online shopping.
2. To find out the satisfaction level of consumer towards online shopping.
3. To assess the different problems faced by the consumers in online shopping and access their expectation in online shopping.
4. To offer suitable suggestions to the online marketer in order to improve the current situation.

Advantages of Online Shopping:**Convenience:**

In online shopping online shops give the opportunity to shop 24/7. Consumer can buy any products in a couple of clicks online rather than spending hours browsing through multiple shops. Online shopping is also convenient to shop from where you are located.

Comparisons:

There are wide range of products and variety of choices in online shopping. It enables the consumers to choose from a variety of products after comparing the finish, features and price of the products on display. Sometimes price comparisons are also available online.

More Variety:

In online shopping there are much amazing choices. The consumer can find more varieties, brands, latest trends etc. at different sites. And as the stock is much more plentiful in colors, sizes which makes the consumers to choose the best.

Time Saving:

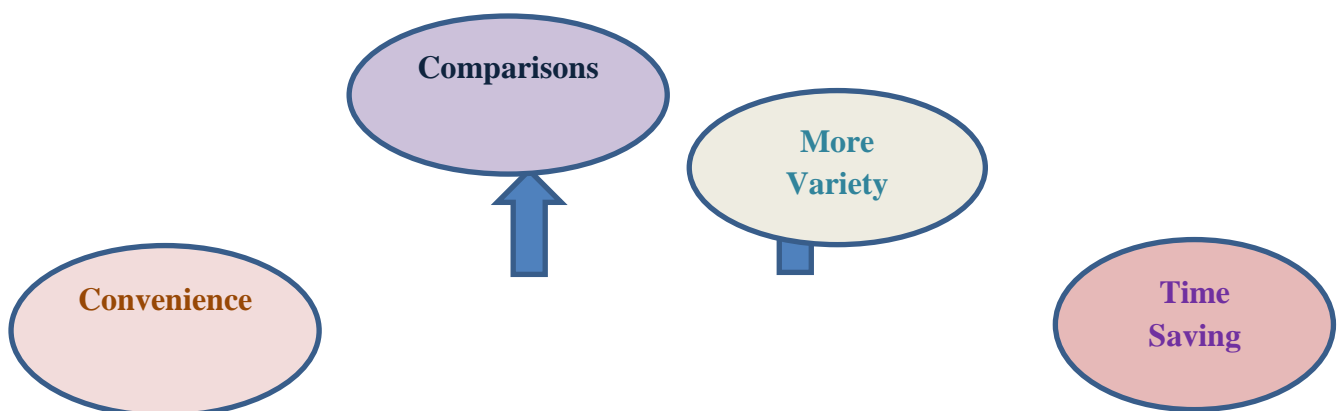
At the time of offline shopping one have to wait in a ling queue at any grocery store even for small things. But in online shopping consumer can buy anything they want by sitting at home. And also there is no time restrictions to shop anytime and from anywhere. Customers no need to waste their energy by going to physical stores and bargaining.

No Crowds:

It may be rush at shops on the occasion of festivals, holidays, or on weekends which makes huge headache. And even customer have to battle for a parking place. All of these problems can be avoided in online shopping.

Better Prices:

In online shopping the customer get the products by cheap deals and better prices because he buy the product direct from the manufacturer or seller without involving middlemen. Some online shopping sites allows discounts and free shipping for purchase a certain amount.





Disadvantages of Online Shopping:

Risk of Fraud:

The most disadvantage of online shopping is risk of fraud. Some fake online shopping portals display some great products on the website and attract customers to buy the product. It may be the risk to customers will either receive the fake product or sometime it will not receive the products at all.

Delay in Delivery:

In case of offline shopping, customer can receive the product immediately after shopping. And in online shopping it hardly take 10-15 minutes to buy the product but the delivery of the product would take more than 4-5 days. So it frustrates the consumer which prevents them shopping online.

Lack of Handling:

The most demerit of online shopping is that the customer cannot touch the product and feel how it is. Customer can just see the image and read the description. Online shopping is not suitable for those consumers who wish to buy the product only after trying it or by touching it.

Loss or Damage of Goods:

In online shopping products bought online stores may be damaged or destroyed at the time of shipping or transportation. It may happen due to delay in the delivery, accident or negligence of the shipping or logistics Company.

Cyber Crime:

Online consumers may have chances to be targeted by the fraudsters and hackers. They may fall victim to credit card fraud, phishing sites etc. in the course of shopping.



Conclusion and Recommendations:

Shopping has evolved drastically over the past several decades, providing consumers with more choice and convenience either they shop offline or browse online for their purchases. Online shopping is a modern concept, saving time, becoming available easily, varied and more fascinating. Availability of product is found everywhere but it is very hard to select a store to purchase all kinds of product. It is very hard to any physical shop retailers to market all products in one roof but it is possible in online shop. Now a day's online shopping is growing all over the world and the consumers get the special brands, products easily available online. In spite all this the consumer should be aware at the time of online shopping. The consumer should get advice and recommendations about good sites from third parties, should collect ample information about the company and its background for avoiding online frauds. As well as the consumer should also analyze and find out the hidden cost before purchasing goods through the web. And the very important thing is that he should aware of cyber laws related to online shopping.

Bibliography

1. <https://thevisualcommunicationguy.com> ›
2. https://en.wikipedia.org/wiki/Online_shopping
3. Article published in The Hindu on 'Consumer behavior is changing with Internet penetration'.

4. <https://www.thehindu.com/sci-tech/technology/internet/%E2%80%98Consumer-behaviour-is-changing-with-Internet-penetration%E2%80%99/article12514687.ece>
5. Article published in The Economic Times ‘What is Online Shopping’
6. <https://economictimes.indiatimes.com/tech/internet/what-is-online-shopping/articleshow/916214.cms>
7. <https://ablemagazine.co.uk/online-shopping/>
8. <https://toughnickel.com/frugal-living/Online-shopping-sites-benefits>
9. <https://accountlearning.com/advantages-disadvantages-online-shopping/>
10. <https://blog.nationwide.com/shopping-online-vs-in-store>
11. <http://bazarpe24.com/blog/traditional-shopping-vs-online-shopping>
12. Ganeshkumar K (2018) Consumers perception towards online shopping as empirical study. [Bhartiyar University.] <http://hdl.handle.net/10603/304666>



MERITS AND DEMERITS OF DIGITALISATION

Smt. Asmita D. Ghorpade¹, Dr. Hindurao V. Sankpal²

^{1,2} Rajarshri Shahu Arts and Commerce College, Rukadi – Dist Kolhapur,
Department of Commerce

¹asmitaghorpade1212@gmail.com

²hinduraosankpal@yahoo.in

Introduction: -

Digital marketing is the used for the targeted, measurable and interactive marketing of products or services using digital technologies to reach the viewers. Digital marketing is called as online marketing is the promotion of brands to connect with potential customer using the internet and other forms of digital communication In the modern world, we are surrounded by digital media. We use our smart phones, computers, tables, TVs and games consoles to access the internet for all kinds of reasons. If you have always faced getting started in digital marketing this is the article for you. In the past, every major company used tools like TV, newspapers, magazines, radio, paper posters and banners o carry out their marketing campaigns, and man companies went from house to house talking about their product. But over time, that is likely to change.

Now the internet has become the largest marketing space in the world. Everybody uses the internet for marketing now big or small. This marketing option is called digital marketing. More than half of the world's people use the internet, and the number is growing. This is why digital marketing is growing so fast.

Key Words :- Current Trend , Business , Internet , Network , Security , IOT , Framework , Technology .

Definition:-

“Digital marketing is the promotion of brands to connect with potential consumer using the internet and other forms of digital communication.”

“Digital marketing is a form of direct marketing which links consumer with sellers electronically using interactive technologies like emails, websites , online forums and news groups , interactive television , mobile communication etc.”

**Objective of study:**

1. Suggest solutions to increase the use of digital marketing.
2. Explain the concept of digital marketing
3. Digital marketing and e-commerce training for adults in dealing with digital marketing online
4. Study of the relationship between digital marketing and consumer.

Methodology of study:-

Digital marketing is the new method of marketing commodities using digital technology, mostly through internet. Digital marketing is built on the internet that can create and convert brand value from producer to the potential customer by various digital networks. In marketing, sales and other business growth methods, methodologies give you guidance to define your goals for growth and the processes to achieve them. They help to fit in everything from departments and individual job roles or tasks all the way to the use of tools and services to achieve those goals.

Objective of digital marketing:-

Digital marketing is important in many states. With digital marketing you can easily tell your customers about your product. Digital marketing is product marketing on the internet using digital marketing. One of the major benefits of digital marketing is that you can get your content or product to people at home with digital marketing you can easily tell your customers about your product. You can create your own brand by bundling your content or product through digital marketing. You can blog emails or comments from your customer's r

consumers. Anyone who uses it can find out the result of your product by reading it.

Importance of digital marketing:-

Digital marketing is important in many states. With digital marketing you can easily tell your customers about your product. Digital marketing is product marketing on the internet using digital marketing. One of the major benefits of digital marketing is that you can get your content or product to people at home with digital marketing you can easily tell your customers about your product. You can create your own brand by bundling your content or products through digital marketing you can blog emails or comments from your customers or consumers. Anyone who uses it can find out the result of your product by reading it.

Types of digital marketing:-

1. Search Engine Optimizations or SEO:
2. It is a technical medium that puts your website at the top of the search engine results which increases the number of visitors. For this we have to make our website according to the keywords and SEO guidelines.
3. Social Media:
4. Social media is made up of many websites - like face book, twitter, instagram Linked in, etc. One can put ones thoughts in front of thousands of people through social media. You know we visit this site, we see ads on it at regular intervals, and this is an effective and efficient way for advertising.
5. E-mail Marketing:
6. E-mail marketing is when any company deliver its products via-e-mail email marketing is a must have, for any affiliate, promoting any program.
7. Apps Marketing:
8. App marketing is the process of reaching out to people and promoting your product on the internet by creating different apps. This is a very good way of digital marketing. Nowadays a large number of people are using smart phones big companies build their apps and deliver the apps to the people

Need of digital marketing:

In today's world everything is online. The internet has made our daily lives easier. You can enjoy any facilities from internet only through mobile or laptop. Whether they can avail the facility of online shopping, ticket booking, movie ticket, recharge, online transaction, bill payment etc. Through phone or laptop. Everyone is using social media (what's app, face book, instagram, twitter.) If you ask a friend to meet him, he will agree but talk on the same what's app chat day and night , he will never agree. This means that in today's internet age no one has time.

**Merits of digital marketing :-**

1. The great advantage of digital marketing is that you can reach your content or product to the people sitting at home through it.
2. With digital marketing you can easily tell your customers about your products.
3. Through digital marketing, you can create your own brand by branding your content or product.
4. In this you can also make your brand popular through social media.
5. Through digital marketing you can give notification of any of your new product to your customers.
6. In digital marketing you can create your own blog and give time FAQs related to your new product to your customer.
7. Any user can find out about our product by reading its reviews.
8. You stay connected to your client or user via email or blog commenting.

9. Through reviews, you can know the shortcoming of any of your products or content.
10. In digital marketing you can tell your customer or user about yourself through the created page on your website or blog.

Demerits of digital marketing:-

The traditional way of digital marketing cannot go completely. As easy and simple as digital marketing. The biggest disadvantage of this is that it has to be digital i.e. in this marketing you have to be completely dependent on technology. It is through technology that we go to the digital way where we have to do digital marketing of our products if failed then we will not be able to convey our message to the customer. In addition to this, sometime there are issues regarding security and privacy, you cannot bargain the price of the product in digital marketing, you have to pay special attention to the price fluctuations, otherwise your product will lag behind the other, so you complete. You can't depend on digital marketing you have to keep using marketing and other methods.

1. Some people steal your personal data illegally through social media. It falls in the category of a crime.
2. Some social media hackers can hack your social media account, giving them your confidential information so people on social media need to be careful in this regard.
3. Nowadays the craze of social media has increased a lot. He spends a lot of time on social media every day, which has a bad effect on study's.
4. School children's have also become more interested in social media, as they are seen chatting with their friends and uploading pictures throughout the day. A parent needs to take a hard line in situations.
5. Addiction is when you get in to the habit of doing more than you need to. I would not be wrong to say that social media addiction has spread among the youth.
6. Cyber fraud is taking place on social media this type of crime should be reported to the cyber bureau.

7. Privacy is not always kept on social media. on facebook people put a picture on their personal profile .
8. Any anon person can steal your picture with the wrong mind and you can get in trouble so it is important to be careful.

Conclusions:-

In the digital age digital marketing not only allows brands to market their products and services, but also allows online customer support through services at all times to make customers feel supported and valued. Using social media interactions, brands can get positive and negative feedback from their customers. As such digital marketing has become a growing benefit for brands and businesses. It is how common for consumers to respond online to their experience with a product or brand through social media sources, blogs and websites. It has become increasingly popular for businesses to use and encourage these conversations through a direct contact with customer and manage the response they receive appropriately.

Reference:

1. Complete digital marketing tutorial- 2021 kailash Chandra upadhyay
2. Digital marketing - 2020 Seema Gupta
3. Modern marketing principles and practice - 1987 S. Chand
4. Principles of marketing - 2021 kavita sharma
5. The art of digital marketing - 2020 by krishana kant chura
6. www.edureka.co
7. www.brightedge.com



CONTRIBUTION OF WOMEN LEADERSHIP IN 21ST CENTURY

Dr. Savita R. Rasam

Shahaji Law College, Affiliated to Shivaji University, Kolhapur

Email-rasamsavita@gmail.com

"Each time a woman stands up for herself, without knowing to possibly, without claiming it, she stands up for all women."

- Maya Angelou

Abstract :

Women Leadership seeks to encourage women participation in every decision making. United Nation, various conventions, treaties played an important role in bring a change in the society. Indian Constitution as fundamental law of the land contains various provisions for the overall development of women. Economic empowerment allows women to control & benefit from resources, assets & income. It also aids the ability to manage risk and improve women's well being. It can result in approaches to support trivialized genders in a particular political, economic & social context. In this paper, researcher focuses on most successful & influential women in India & their contribution for the development of the nation.

Keywords :

Women Leadership, Economic empowerment, contribution, development.

Introduction :

Women have been dominated over years. Women's empowerment is basically a process of empowering women. First and foremost, if women are consulted at home for taking decision by their family members in India, one would easily agree that women are empowered at home. If women get recognition from the society for their talents, skills and leadership abilities, there will not be any conflict and violation of human rights.

International Instruments such as CEDAW (1993), Mexico Plan of Action (1975) Beijing Declaration etc. specified clearly equal rights to women. Vienna conference 1993 also urges the full & equal enjoyment by women of all human rights & that this be a priority for Governments. Constitution of India also made

various provisions under Article 14,15,16 etc. for gender equality. Due to globalization, liberalization & technological development, the women literacy rate was increased in Modern Era. Today we have seen Women Chief Minister, Presidents, Advocates, Bureaucrats, Political Leaders, well established businessmen etc. It shows that the society in on its footsteps in empowering women & giving them equal status.

International Concern :

Article 1 of Universal Declaration of Human Rights stated that "All human beings are born free & equal in dignity & rights". All civil, political, social, economic rights of everyone is also protected by the Declaration. Article 11 of Convention of the Elimination of All forms of Discrimination against Women, 1979 (CEDAW) & Vienna Declaration stated that the State parties are required to take all appropriate measures to eliminate discrimination against women in the field of employment in order to ensure social security, free choice of employment, equal remuneration, right to protection of health etc.

The Beijing Platform for Action was the first UN world conference on women to include a specific focus on the girl child and young women's rights and needs and was the most comprehensive and progressive blueprint. This action was carried out in 1995. In addition to that, in 1995 The World Program of Action for Youth provided for a framework and practical guidelines for national action and international support to improve the situation of young people around the world with special emphasis on girls and young women. The World Summit for Social Development Copenhagen recognise that empowering people, particularly women, to strengthen their own capacities is main objective of development and its principal resource. The millennium declaration 2000 also emphasised on equality in men and women.

National Concern:

It is significantly important to note that the Government of India has contemplated enough through discussion, research and finally ratified various international conventions and human rights instruments committing to secure equal rights to women. The principle of gender equality is enshrined in the

Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles. Article 14 of the Constitution of India guarantees equality before law. Article 15 prohibits discrimination on the grounds of sex. Article 16 states about equality of opportunity for all citizens in matters relating to employment. In India, the Ministry of Human Resource Development (MHRD-1985) and the National Commission for Women (NCW) have been worked to safeguard the rights and legal entitlement of women. The 73rd & 74th Amendments to the Constitution of India have provided reservation of seats to 33% in local self Govts. & Municipalities for women.

The Government has been adopted different schemes and programs i.e. the National Credit Fund for Women (1993), Food and Nutrition Board (FNB), Information and Mass Education (IMF) etc. favouring the women.

Justice Bhagwati in *Meneka Gandhi Vs Union of India*¹ pointed out that "The fundamental rights represented the basic values cherished by the people of India since the vedic times & they are calculated to protect the dignity of the individual & create conditions in which every human being can develop his personality to the fullest extent.

Article 39(d) directs the state to secure equal pay for equal work for both men & women. At the central and state levels too women are progressively making a difference. The framers of the constitution of India included certain general as well as special provisions for upliftment of the status of women.

Women holding various important positions & their contribution :

There have been many examples where women have played an important role in the development, freedom fighting & other circumstances. They have become a role model for many & have been contributing to the development of the society. Of late, women are getting leadership positions. In 2017, the cabinet committee on security has included two women ministers, Minister of External Affairs Sushma Swaraj & Minister of Defence Nirmala Sitharaman, the four

¹ AIR, 1978 SC 597.

main high courts were headed by women chief justices & the three powerful administrative agencies i.e. (Lal Bahadur Shastri National Academy of Administration in Mussorie, Sardar Vallabhbhai Patel National Police Academy in Hyderabad & the Bureau of Police Research & Development in Delhi) are, for the first time, headed by women officers. ²

Today we have seen women in many fields. There were many areas such as Army, RAW, Intelligence Bureau etc. were often closed to women but at present women shows their ability & compel the government to assign work to women also in these fields. Now a days there are reservations in these fields for women also.

It is good to note that there are 25 most successful and influential women in India. They are namely: Nehwal for Badminton, Kareena Kapoor Khan for Acting, Reshma Shetty, the Managing Director of Matrix India Entertainment Consultants, Ekta Kapoor, Joint MD of Balaji Telefilms, Chitra Ramakrishna, Joint MD of National Stock Exchange, Zia Mody, Managing Partner of AZB & Partners, Indra Nooyi, Chairman & CEO Pepsi Company, Vandana Luthra, Founder of VLCC Health Care Ltd., Kiran Mazumdar-Shaw, Chairman and MD of Biocon Ltd., Shikha Sharma, CEO of Axis Bank, Chanda Kochhar, Ex. MD, CEO of ICICI Bank, Vinita Bali MD of Britannia Industries, Nita Ambani, Chairman, Dhirubhai Ambani Foundation, Vanitha Narayanan, MD of IBM India, Kumud Srinivasan, President of Intel India, Naina Lal Kidwai, President, FICCI & Country Head for HSBC, Roshni Nadar Malhotra, CEO for HCL Corporation, Rakhee Kapoor, Business Manager for Yes Bank, Nisaba Godrej, President, Human Capital and Innovation for Godrej Industries, Jayanti Chauhan, Director for Bisleri Group, Aruna Jayanthi, CEO for Capgemini India, Zahabiya Khorakiwala, MD for Wockhardt Hospitals, Aisha De Sequeira, MD for Morgan Stanley India Investment Banking, Mallika Srinivasan, CEO of TAFE, Kirthiga Reddy, Head for Facebook India, Neelam Dhawan, MD for Hewlett Packard India, Abanti Sankaranarayanan, Managing Director of Diageo. These

² Amita Singh 'What Women Want' India Legal stories that count, January 22, 2018 Pg. 40

entrepreneurs are living proof that women can do anything they want to. Generations of women to come will be impacted by their work and success.³

In the political arena too, we could find that some women excelled in the past and still some of them are in their peak of glory and success because of their boldness and leadership qualities. The most notable amongst these are: Mrs. Protibha Devi Singh Patil, the Ex President of India, Shila Dixit, the Ex-Chief Minister of Delhi, Ms. Jayalalita, Chief Minister of Tamil Nadu, Mayawati, the Chief Minister of Uttar Pradesh (UP), Sonia Gandhi, President of the Indian National Congress Party since 1998, Binda Karat, the General Secretary of the All India Democratic Women's Association (AIDWA) from 1993 to 2004, and thereafter its Vice-President, Late Sushma Swaraj, former lawyer and Ex. Minister of External Affairs of India, Mamta Benarji, the founder the party All India Trinamool Congress (AITMC) and at present Chief Minister of West Bengal since 2011, Indira Gandhi, India's Ex. Prime Minister from 1966 until 1984 etc.

Women are also involving in human development issues of child rearing, education, health, and gender parity. Many of them have gone into the making and marketing of a range of cottage products, pickles, tailoring, embroidery etc. The economic empowerment of women is being regarded these days as a sine-quo-non of progress for a country; hence, the issue of economic empowerment of women is of paramount importance to political thinkers, social thinkers and reformers.

Fortune India Most Powerful Women 2021⁴

1.	Nirmala Sitharaman	-	Union Minister of Finance
2.	Nita Ambani	-	Reliance Foundation Chairperson & Goodwill Ambassador
3.	Soumya Swaminathan	-	Chief Scientist WHO
4.	Kiran Mazumdar - Shaw	-	Executive Chairperson Biocon

³ [Fincash.com/1/investment](https://www.fincash.com/1/investment) last visited on 29 March, 2022

⁴ <http://currentaffairs.adda247.com.>, last visited on 28th March 2022.

Conclusion :

Thus from above we can conclude that the concept of women empowerment basically deals with empowering women and treating them equally like men. It has been a topic which was never considered in the past. However, due to changing dynamics and society, awareness has been created and the society in on its footsteps in empowering women and giving them equal status like men. Women Leadership mainly focuses on encouraging & enabling women to be independent & self reliant in all the aspects. Equality of access to and attainment of educational qualifications is necessary if more women are to become agents of change.

References :

1. https://en.wikipedia.org/wiki/Women%27s_empowerment
2. <https://www.unfpa.org/resources/issue-7-women-empowerment>
3. <https://www.unwomen.org/en/what-we-do/youth/global-norms-and-standards>
4. <https://www.unfpa.org/resources/issue-7-women-empowerment>
5. R. Seyon , “Legislative And Judicial Initiatives Towards Women Empowerment,” available t:<http://www.krishnastudyacademy.com/legal-essays/294-judicial-activism-in-the-area-of-womenempowerment>.



SOCIAL CHANGE: IMPACT OF DIGITAL MARKETING ON YOUTH

Dr. Hina Shah¹, Ms. Shanthi Seshadri², Smt. Maniben MP Shah³

^{1,2,3}Women's College of Arts and Commerce Autonomous Matunga-19

¹Email id: shahhina65@gmail.com and

²Email Id: seshadrishanti@gmail.com

Abstract:

Society is dynamic. Man is a social animal. There is a need for change. Progress was also the key idea in 19th-century theories of social evolution, and evolutionism was the common core of social evolution, and evolutionism was shared by the most influential social theories of that century. The paper is very much relevant to the theory of evolution. Digital marketing is quickly developing in front of our eyes and it is almost impossible to reject and hide from this new system of media. Digital technology has transformed the way we live and work and has impacted every industry from retail to healthcare. Whoever controls the door to the internet, controls the internet and now search engines have become the default entry point to the internet. Google's knowledge Graph tries to understand searcher's intent while anticipating their end goals. The Facebook platform has exploded over the past 10 years as a social and marketing tool for millions of people around the world. Users can be reached 24 hours a day, 7 days a week. The objective of the paper is to study the impact of digital marketing on youth. The paper tries to highlight the shopping behaviour in the present digital age. The paper is based on goggle survey and secondary sources of data

Keywords-Social Change, Digital marketing, Youth, Shopping mode

Introduction

Digital marketing is quickly developing in front of our eyes and it is almost impossible to reject and hide from this new system of media. Digital technology has transformed the way we live and work and has impacted every industry from retail to healthcare. Whoever controls the door to the internet, controls the internet and now search engines have become the default entry point to the internet. Google's knowledge Graph tries to understand searcher's intent while anticipating their end goals. It tries to help people discover key information about a particular business that they may not have been able to

discover through an organic listing. Understanding your customers is the cornerstone of every successful business which is why search marketing is such an important medium for gathering customer insight with every search, users leave small crumbs of personal information behind. The Facebook platform has exploded over the past 10 years as a social and marketing tool for millions of people around the world. Users can be reached 24 hours a day, 7 days a week. Facebook is one of the best platforms to engage people.

Objective/Hypothesis

1. To study about the impact of digital marketing on the youth.
2. To study the impact of the internet on the shopping behaviour of the youth.
3. To study the impact of internet on the shopping behaviour of the senior citizen

Sources of data collection

The paper is based on the primary and secondary sources of data. A goggle survey was done to study the impact of the internet on the shopping behaviour of the youth and senior citizens. It covers the city of Mumbai. The study has a small sample. This is the limitation of the paper.

Society is dynamic. Man is a social animal. There is a need for change. Progress was also the key idea in 19th-century theories of social evolution, and evolutionism was the common core shared by the most influential social theories of that century. The paper is very much relevant to the theory of evolution. In traditional society barter system was practiced. Later on goods were sold for money. Digital transactions have brought about revolutionary changes in our society. Evolutionism implied that humans progressed along one line of development that this development was predetermined and inevitable, since it corresponded to definite laws, that some societies were more advanced in this development than were others, and that Western society was the most advanced of these and therefore indicated the future of the rest of the world's population. Karl Marx and Frederick Engels were influenced by revolutionary ideas.

Any marketing that uses electronic devices and can be used by marketing specialists to convey promotional messaging and measure its impact through your customer journey. In practice, digital marketing typically refers to

marketing campaigns that appear on a computer, phone, tablet, or other device. It can take many forms including online video, display ads; search engine marketing, paid social ads and social media posts. Some marketing experts consider digital marketing to be an entirely new endeavour that requires a new way of approaching customers and new ways of understanding how customers behave compared to traditional marketing. Digital marketing is the use of the internet to reach consumers. Digital marketing is a broad field including attracting customers via email, content marketing, search platforms, social media and more. Digital marketing can take place through mobile devices, on subway platforms, in a video game, via a smartphone app. At a high level, digital marketing refers to advertising delivered through digital channels such as search engines, websites, social media email and mobile. Digital marketing is defined as a marketing approach that primarily relies on the internet to connect with the target audience through various digital media channels and platforms. Digital marketing is a form of direct marketing which links consumers with sellers electronically using interactive technologies. The Social Web visibly connects your business or organisation and its stakeholders-customers, suppliers and influencers, each of whom have defined new roles for themselves very much in control of the information they share as they evaluate competing options. Online marketing is the practice of leveraging web-based channels to spread a message about a company's brand, products or services to its potential titles in customers. Digital marketing is the engine that drives today's business, big or small. Effective digital marketing is the marketing that bridges electronic technology with psychology in the market place.

With online shopping, shoppers no longer have to suffer the costs and incomplete information of traditional hierarchical search, making product searches easier and more effective. For example, a shopper is able to search over 3 million titles in Amazon.com from the computer screen at average of 80,000 titles The use of the internet as a shopping medium has empowered shoppers with advantages over traditional store front shopping. Shopping via the internet especially for computer hardware software, books, music cassettes and compact discs is becoming common place among internet uses. Shopping on the internet

offers convenience traditional brick- and mortar stores. Changing consumer lifestyles and lack of time may make it more difficult for customers to shop at physical locations such as stores and shopping malls. Shopping on the internet addresses this problem as shoppers can shop in the comfort and convenience of home. Shoppers can expect to browse and purchase goods on the internet anytime, unlike traditional storefronts that have fixed opening hours. Shoppers can also purchase goods that are unavailable at their location, and are able to bypass restrictive import policies, as the internet allows shoppers to make purchases from vendors in other locations around the world. Ernst and Young's reports 'Internet shopping' and 'Global online Retailing'(1998,2000) noted that in comparison to brick-and-mortar stores, when shopping on the internet, there were no store lines, surely clerks, pickpockets or panhandlers to contend with, no bad weather to travel under, nor any transportation cost involved, the internet allows the shoppers to develop their own timetables for research and purchasing. Shoppers are able to use the internet as a powerful research instrument in the purchasing process. The study by Grayson1998) indicated that there was no tax in e- Commerce, the higher the income group of customers who always transact via- e-commerce would enjoy high tax- saving in the long run. Another aspect of e-commerce is security. Lack of security can be the leading barrier to widespread shopping on the internet due to inherent openness of the web (Wen2001)

Findings:

1. Around 66.4% of the respondents said that they were aware of the cashless transactions.
2. Around 54.5% of the respondents said that they used cashless mode for payment. Though the digital payments started long ago but presently we can visualise these changes in our society.
3. Around 46% of the respondents said that they used debit and credit card frequently.40% of the respondents said that they used UPI.36% of the respondents reported that they used net banking .36% of the respondents used NEFT while resorting to online purchases.

4. 36.6% of the respondents said that they were very comfortable in using cashless transactions. 8.2% of the respondents said they were not comfortable in using cashless transactions. Around 2.7% of the respondents informed that they found cash transactions very uncomfortable.
5. Around 75.5% of the respondents said that the pandemic has increased their usage of digital payments. —revolution
6. Around 72.7% of the respondents reported that they felt that cashless transactions were more convenient than cash transactions. The study indicates that digital shopping is more safe and secure. It is less tiring and easy to make the payments.
7. Around 47.3% of the respondents said that they did not use cashless payment due to security reasons. 24.5% of the respondents said that they were not using cashless payment method due to connectivity issues. 23.6% of the respondents reported that they were not using cashless payment method due to lack of technical knowledge.
8. 39% of the respondents reported that they were using online payment method as it was time saving. 27.3% of the respondents said that they were using online payment due to safety. 19.1% said that they used online payment method due to discount offers. This motivates them to make more online purchases. Around 13.6% of the respondents said that they used online payment method due to shortage of cash.
9. Around 43.6% of the respondents reported that they make online payment once a month. 13.6% of the respondents said that they used the digital payment fortnightly. 14.5% of the respondents said that they make online payment weekly. 17.3% of the respondents said that they use online payment method 2 to 3 times a week. Around 10 % of the respondents said that they make online payment daily.
10. 64.5% of the respondents said that they would continue to use % of the respondents said that they learnt about the digital payments on their own. 24.5% reported that they learnt from their parents and children about digital payments. 12.7% of the digital payments even in the post pandemic period. Around 35.5% of the respondents said that they would not continue

using digital payment methods in the post pandemic. It has been observed that social change is very easily accepted by the young generation.

11.34.5 respondents said that they learnt about cashless payments from their friends.64% of the respondents said that they learnt about digital payments from their spouse.21.8% of the respondents said that they learnt about digital transactions from others.

12.29.1% of the respondents said that going cashless will uplift the standard of living in the society.59.1% of the respondent said that cashless transactions will improve the standard of living. Around 11.8% of the respondents did not agree that going cashless will uplift the standard of living. The study shows the young generation plays a pivotal role to embrace the changes brought about by cashless transactions.

Swoc analysis

Strengths: Cashless transactions on a large scale signify that people are ready for the change. It saves time and it is more convenient.

Weaknesses: The study does not cover children. The paper doesn't have gender bias. The sample size is small. The study is not specific.

Opportunity: Digital transactions provide more opportunities for the buyer as it can be done from anywhere and anytime.

Challenges:

Digital marketing poses special challenges for its Purveyors. Digital channels are proliferating rapidly, and digital marketers have to keep up with how these channels work, how they are used by receivers, and how to use these channels to effectively market their products or services. In addition, it's becoming more difficult to capture the receiver's attention, because the receivers are increasingly inundated with competing ads. Digital marketers also find it challenging to analyse the vast troves of data they capture and then exploit this information in the new marketing efforts. The challenge of capturing and using data effectively highlights that digital marketing requires an approach to marketing based on a deep understanding of consumer behaviour.

References:**Websites**

1. researchgate.net
2. mailchimp.com
3. investopedia.com
4. blog.hubspot.com
5. <https://www.marketo.com>
6. <https://neilpatel.com>
7. <https://www.kbmanage.com>
8. <https://www.sas.com>
9. <https://mediawatchjournal.in>
10. <https://www.britannica.com/topic/social-change>

Books

1. Dave Evans, J. M. (2010). Social Media Marketing- The next generation of Business engagement. Indiana: Wiley publishing, Inc. Indianapolis.
2. Dodson, I. (2018). The art of digital marketing. New Delhi: Digital Marketing Institute Ltd.
3. Kumar, K. J. (1994). Mass communication in India. Mumbai: Jaico Publishers.
4. Ranjit, S. (2018). Digital Marketing. Delhi: Wisdom Publishing.



WOMAN LEADERSHIP IN INDIAN PERSPECTIVES

Mrs. Sunita Amar Powar

Smt. Akkatai Ramgonda Patil Kanya Mahavidyalya, Ichalkaranji

Tal. Hatkanangale Dist. Kolhapur,

Email- sunitapowar1979@gmail.com

Abstract

The present paper highlights study of woman in different area especially in corporate area and their achievement is discussed. In today's situation of globalization there are many opportunities available to the women as well as male, but women are making great progress in every aspect of the life. Women are found vanguard in the sports, politics, industries, service sector, education, Science and technology, military forces, media, social work, management, advertisement and digital marketing. Their advancement is not that much easier, they have struggled due to conventional limitations on them. Women having great potentials and played varieties of the role in the family, and in the service place as well. There are many women in Indian context have acquired success and these women are discussed in this research paper. This research paper focuses on the accomplishment of some of the frontierswoman in Indian perspective. Women are the greatest human resource having excellent potential of leadership in the family as well as their working position. A woman is the source of inspiration for the family especially for her life partner, she is key to create positive energy and environment in the family A woman is effective administrator in the family and it is applied the same at her working place. Therefore it is interesting to know that how a woman has achieved such success in all aspects of life.

Introduction:

Leaders are very effective by setting their own examples, they are able to share their vision, leaders must be effective communicator, and he must

be hard decision makers, need to find the success and must be able to find capable people. There are many effective leaders in the India and among them some women leaders are also there. Women are traditionally dominated by customs and traditions in the religious perspectives, but in the new modern situation there are many new emerging women faces that have done something exceptional in the development of nation. This research paper trying to focus on such emerging women leaders in different area of the nation. It would be interesting to know some important aspect of leadership in the context to women because as compared to male they have work with more expectations of male as well as female. Women leaders compare to male leaders facing many larger and enormous challenges than male leaders because they have to fight against the perception also. Women have to work balance both work as well as home and again with unshakeable pressure to prove themselves. Therefore it is interesting to understand some of the women as leaders in the different aspects of the nation; it is explored here in this research paper.

There are many areas where women have worked effectively likewise sports, industry, education, politics, media, service sector, film industry, management, military forces, medical profession and advertisements.etc. Let's discuss in the detail regarding such effective women leaders.

Leadership:

Leadership is most discussed concept in the new modern area. Leaders are the people who work together with the group in order to achieve the targets or the goal of the organization. According to Kevin Kruse- Leadership is a process of social influence, which maximizes the efforts of others, towards the achievement of the goal. In any kind of organization there is need of combine efforts to achieve the goal or the target productions and leader plays vital role. Wikipedia Define leadership as a process of social influence in which one person can enlist aid and support in the accomplishment of a common task. There are always such discussion about leadership is that seniority is important but it is same with leadership because senior person may not be capable to lead the team. Management is also not connected with the leadership; leaders are leading the team in the organization. Leaders are such people who transfer their visions into

the reality. Leaders are effective motivators to the common employees towards the target of the organizations In short leaders are good with planning, inspiration, controlling, coordinating, supervision, community relations and monitoring productions or services.

Women Leaders:

There are many women leaders in the every sector of the nation let us see in detail the effective women leaders. There are many sports events and everywhere we are able to find the effective women leaders.

Sports:

In sports some effective leaders are found who have successfully represented the events. In tennis- Sania Mirza, Boxing- Mary Kom, Cricket- Mithali Raj, Badminton- Saina Nehwal and P.V. Sindhu, Wrestling- Geeta Phogat and Sakshi Malik, Archery-Deepika Kumari, Gymnastics- Dipa Karmarkar, Chess- Tania Sachdev, Hockey- Rani Rampal, Squash-Deepika Pallikal, These are some of the effective representative in above mentioned sports events.

Film Industry:

Film industry from India is one of the glamorous sector which attracts everyone around the nation women are also no exception for this, Actress- Radhika Apte, Priyanka Chopra, Anushka Sharma, Zoya Akthar, Kira Advani, Madhuri Dixit, Aishwarya Roy, Kajol, Tabbu, Mumtaz, Madhubala, Rekha, Sharmila Tagore, Sridevi, Hema Malini singing- Lata Mangeshkar, Asha Bhosale, Shreya Ghosal, Alka Yadnik, Neha Kakkar, Anuradha Paudwal, Sunidhi Chauhan Directors- Ekta Kapoor, Charuvi Agrwal, Pooja Bhatt, Tanuja Chandra, Nandita Das, Priyanka Raina

Politics:

There are many impressive political leaders in the country they are Indira Gandhi, Jaylalita, Mamta Banerjee, Mayawati, Sonia Gandhi, Sushma Swaraj, Sushma Swaraj, Shila Dixit, Vasundhara Raje Sindhia, Ambika Soni, Supriya Sule, Agatha Sangama, Brinda Karat, Chhavi Rajawat, Priyanka Gandhi, Maneka Gandhi, Mehbooba Mufti Sayeed, Nirmala Sitaraman, Smruti Irani

Social Activity:

Social reformation is one of the important aspects where women have made impressive contribution Mother Teresa, Medha Pathkar, Aruna Roy, Arundhati Roy, Ifrom Sharmila, Manasi Pradhan, Pramila Nesargi, Amla Akkineni, Laxmi Agrwal, Shaheen Mistri and Sindhutai Sankpal.

Industry:

Indian industry sector is one of the fast developing fields in the world; women have made remarkable contribution to industries as well. Nirmala Sitaraman- Finance minister, Nita Ambani- Reliance Foundation, Soumya Swaminathan- Chief Scientist WHO, Kiran Mazumdar-Shaw- Executive chairperson- Biocon, Suchitra Ella- Co- Founder Bharat Biotech, Arundhati Bhattacharya- General Manager SBI, Gita Gopinath- Chief Economist International Monetary Fund, Tessy Thomas- Director General DRDO, Rekha M. Menon-MD Accenture in India, Reddy Sisters- MD Apollo Hospital, Anshula Kant- MD World Bank, Renu Sud Karnard- MD HDFC, Shobhana Bhartia – Director HT Media, Kallie Puri- Vice chairperson India Today group, Revathi Advaiti-CEO Flex, Lena Nair- Chief Human Resource officer Unilever, Malika Srinivasan- MD –TAFE, Swati Piramal- vice chairperson Piramal Group. These are the some of the female's major achievement in the different fields of the nation.

Conclusion:

There are many Indian women leaders in new modern situations, in every area women are emerging as new global leaders of the nation. Women are stronger leaders and they have proved themselves while carrying the burden of social responsibility and tradition against women. There are many successful area for women in the country and they are trying to acquire new area to accept the challenge of leadership, list discussed here in the paper is very limited and still there are many women leaders other than discussed here. There is always lower status given to women than men. There many measurements taken in to consideration for the empowerment of women and therefore we are able to find that many emerging women leaders are found everywhere in the India. Women should be given the rights of education, rights of their family responsibilities,

developments for their personal carrier, freedom for their carrier selections and need to reduce their family responsibilities in order to focus their attention on their carrier. In short there are many women who have contributed for the development of nation, and it is remarkable achievement as leader in different area.

References:

1. Blackmore, J.(1999) Troubling Women: Feminism, leadership and educational : Bckingham : Open University Press
2. Jyoti Varma and Kaushal Kishore (April, 2012). Research on Women Leadership in India:
3. Zaharah Hassan, Abu Daud Silong (2008). Women Leadership and Community Development: European Journal of Scientific Research, Page no-361-372
4. Eagly, A.H. (1987) Sex differences in Social Behaviour: A social role interpretation N.J: Erabium.



DIGITAL BANKING : A FUTURE OF BANKING

Dr. Vivek V. Patil

Smt. Radhabai Sarada Arts, Commerce & Science College, Anjangaon Surji

Abstract: -

Digital Banking, the robotization of conventional financial administrations, is the way to client commitment, better productivity, and control. Its reclassified banking by subbing a bank's actual presence with an internet-based presence and getting rid of the client's need to visit a branch. Computerized banking empowers clients to execute through various got advanced channels while the bank deals with information security, related risk alleviation, and administrative viewpoints. This is finished by incorporating on the web and portable financial administrations with the most recent advanced advances like investigation, web-based entertainment, creative installment arrangements, and versatile innovation and surpassing client assumptions, comfort, and experience.

Keywords: -digital, economy, finance, future, banking

Introduction: -

Digital Banking is the computerization of customary financial administrations. Advanced banking empowers a bank's clients to get to banking items and administrations by means of an electronic/online stage. Computerized financial means to digitize all of the financial activities and substitute the bank's actual presence with a never-ending web-based presence, wiping out a shopper's need to visit a branch. We can define the digital banking as banking done through the digital platform, doing away with all the paperwork like cheques, pay-in slips, Demand Drafts, and so on. It means availability of all banking activities online. In India, to continue on from actual check for KYC, video-based confirmation might be presented by the market controller for a superior cycle. Computerized investment accounts are additionally being presented by a few banks. These records are like the essential investment account, offering full financial offices to clients without keeping a base equilibrium, with a virtual check card convertible to an actual charge card.

The objective of the Study: -

1. To analyze the future of banking in various aspects.
2. To study the digital banking and it's features.

Research Methodology: -

Research Methodology is a systematic and organized medium through that a selected case or drawback may be explained. It refers to the scientific procedure for getting information supported by empirical observation and logical reasoning and its analytical, descriptive, and quantitative analysis.

Data Collection:-

Widespread secondary and primary data sources had been used for this research. A secondary source contains books, journals, newspapers, and information from Internet websites. The Secondary sources, explain the theoretical and conceptual concepts towards the future and features of digital banking in Indian economy. A detailed description of all the topics is taken into consideration.

Evolution of Digital Banking in India: -

In India, computerized banking began coming to fruition in the last part of the 1990s with ICICI Bank being the first to carry the support of their retail clients. Advanced banking became standard just in 1999 as web charges were diminished and there was expanded mindfulness and entrust concerning the web. Technology has revolutionized the banking industry around the world over the last two decades. Internet and mobile access have reached the furthest places in the world and connected people and organizations. This has changed customer expectations and organizational capabilities. With mobile connectivity and the associated infrastructure, fintech technology companies have entered the banking sector and launched a variety of customer-friendly products. To catch up with it, banks had to overhaul their processes and products to retain their customers. This led to the advent of ATMs (automated teller machines) and the beginning of digital banking. The next step was to meet the expectations of new customers. This has allowed banks to create better innovations, products and services. At the end of the 20th century, banks used technology to provide their

customers with 24/7 service. Today, customers can get bank details on their smartphones anytime, anywhere without the involvement of bank staff. In digital banking, all records are kept in digital format, and analytical techniques are applied to interpret the data into useful information, improve customer retention, and generate more business through customer-specific interactions. All of this leads to higher operational efficiency and higher profitability for banks. The Indian government's vision for a cashless economy is being accelerated by deploying Internet access nationwide, and online banking needs an hour thanks to COVID-19.

Types of Digital Banking Payment: -

Bank Cards:

Cards are used not only to withdraw cash, but also to enable other forms of digital payments. The card can be used for online transactions and point-of-sale (POS) machines. Prepaid cards can also be issued by banks. Such cards are not connected to your bank account, but will process the money loaded into them.

Unstructured Supplementary Service Data (USSD):

You can perform mobile transactions without an application or internet connection by dialing the number * 99 #. This number is national and promotes local financial inclusion. This service allows callers to browse an interactive voice menu and select the desired option on the mobile screen. The only pitfall is that you need to link the caller's mobile number to your bank account.

Aadhaar-enabled payment system "AEPS":

AEPS allows customers to successfully verify their Aadhaar number before initiating a bank transfer.

Unified Payments Interface (UPI):

UPI is currently the trendiest form of digital banking. UPI uses Virtual Payment Addresses (VPAs) to allow users to transfer funds without having to enter bank account details or IFSC codes. Another great feature of UPI is that you can use the application to consolidate all your bank accounts in one place. Funds can be sent and received 24 hours a day, 7 days a week, with no time limit. UPI-based apps in India are BHIM, PhonePe and Google Pay. The BHIM

application not only allows you to transfer funds to other virtual addresses and bank accounts, but also allows users to transfer funds to another Aadhaar number. More importantly, UPI-based payments are free.

Mobile Wallet:

With a mobile wallet, you don't have to remember your 4-digit card PIN, enter CVV details, or carry cash with you. Mobile wallets store bank account and card details, easily add funds to your wallet and pay to other merchants with a similar application. Popular mobile wallets include Paytm, Freecharge and Mobifik. However, mobile wallets usually have a limit on how much you can deposit in your wallet. In addition, there may be a small fee for depositing money from your mobile wallet to your bank account.

PoS terminals:

Typically, PoS machines are portable devices that read a card to authorize and complete the payment. Supermarkets and gas stations opt for this method of payment. However, with digital banking thriving, PoS terminals have evolved into more than physical PoS devices. Virtual and Mobile PoS terminals have surfaced, which makes use of the mobile phone's NFC feature and web-based applications to initiate payment.

Internet and Mobile Banking:

Commonly known as e-banking, internet banking refers to obtaining certain banking services over the internet, such as fund transfers, and opening and closing accounts. Internet banking is a subset of digital banking because it is limited to core functionality only. Similarly, mobile banking uses banking services through mobile-based applications.

Advantages of Digital Banking:

The benefits of advanced financial expansion the degree of productivity and execution of the bank, save time and exertion for the clients as well as the representatives of the bank, as well as available 24 hours administration, including public occasions, and severe control of banking exercises, and sending and getting records rapidly.

1. Save exertion and time where the client can lead banking exercises without going to any bank central command, where he can keep it at home or in the library, which saves his time and exertion.
2. Simplicity of banking exchanges in electronic banks and speed of dealing with them.
3. Notwithstanding the dependability of income and the speed of income, give higher security and lower hazard of actually take a look at control.
4. Computerized banking is portrayed with cash installments of the organization/association, which adds to the concurred time for the translation date and sets up for the installment of the monetary exchange.
5. To go through with monetary exchanges at YUSR because of the dropping of the programmed trade process, which requires the client to visit the bank to store the expense of his exchange.
6. Decreasing dependence on paper shapes, as all exchanges are done electronically, adds to the decrease in the expense of paying their authoritative expenses for natural banks and clients.

Disadvantages of Digital Banking:

Mobile banking with that technology is still at risk, as new technologies can certainly be risky and economists warn about the potential dangers of mobile banking system transactions, including:

1. Difficulty in determining the liquidity of an electronic bank, which cannot know or limit internal and external transactions of the bank.
2. It is easy to hurt the national economy of a country that cannot monitor banks significantly and can send money at the push of a phone button.
3. Forging some cards can be a victim of fraudulent transactions. Professional computer technicians can remove information from sensitive structures by accessing your account or copying someone else's information.
4. Fraud is always expected to affect the loss of operations and accounts across banks and cause technical errors that can become viruses that infect electronic devices and destroy systems.

5. Widen the gap between customers and banks. It can act as a bullion without proper collateral or bank fraud.

Future of Digital Banking:

According to a Deloitte research report on absolute necessities for a completely advanced bank, each bank endeavoring to turn out to be completely computerized require the accompanying as the critical drivers for their prosperity

1. Choice to arrange cash
2. Adjustable standing choices
3. Accounts connected to burden exceptions status
4. Card obstructing highlight
5. Development toward security vaults
6. Mix with securities exchange speculation channels
7. Monetary administration examination
8. Empower gathering of records of various banks
9. Effectively available help

An undeniable supplanting of actual branch keeping money with advanced financial right currently appears to be an unrealistic dream. Computerized financial proves to be useful for repeating banking fundamental capacities. Nonetheless, clients lean toward human communication for more significant and unpredictable choices, for example, while taking a credit or arranging the provisions of the advance.

Conclusion: -

As clients keep on searching for helpful choices, computerized financial remaining parts an unflinchingly famous decision. While banks look to computerized to give security and cost-proficiency, the genuine worth of digitalization is what it can offer customers. This possibly raises contest among banks to remain applicable in the computerized scene, however as indicated by Raconteur, conventional banks enjoy a benefit in the reach and intricacy of items they offer, as well as a current customer. Not with standing which monetary

foundations will pull ahead in the race for business, obviously the ideal opportunity for digitizing is presently.

References: -

1. <https://www.nelito.com/blog/what-is-digital-banking-its-benefits-and-future.html>
2. <https://www.ncr.com/blogs/banking/key-benefits-digital-banking-brings-to-your-financial-institution>
3. <https://tavaga.com/blog/digital-banking-and-its-foray-into-the-banking-sector/>



DIGITAL MARKETING: 21ST CENTURY CHALLENGES AND OPPORTUNITIES

Mr.Ashok R.Herwade¹, Dr.R.N.Shendage²

¹Shikshanmaharshi Dr.Bapuji salunkhe college,Miraj

²A.R.Burla Mahila Varishth Mahavidyalaya, Solapur

Email.herwadeashokrrc@gmail.com

Email: arburla@gmail.com

Abstract :

Digital marketing is a non-conventional virtual platform basically on internet for promoting Products,Services,Connecting customers,Identifying and understanding needs of user using digital technologies and devices. It is one of most effective and prominent strategy to promote business online for brand awareness and business development. Digital media has become so wide spread that anybody can access information anytime anywhere. This gives marketers more ways to promote products and services through blogs, websites and social media channels. Marketers can also see what is trending through various tools available, what is the unique selling point of a product and why and when people search for a product or service for better targeting. This paper covers opportunities and challenges of digital marketing in 21st century

Keywords: Opportunities,Challenges,Digital Marketing, Online,

Introduction

Digital marketing is a broad term that refers to various promotional techniques deployed to reach customers via digital technologies. Digital marketing embodies an extensive selection of service, product and brand marketing tactics which mainly use Internet as a core promotional medium in addition to mobile and traditional TV and radio.

Nikon photo Gateway helps consumers share their digital photos with friends online. Titans brand Raga uses email newsletters to keep in touch with customers and hence tries to strengthen customer brand loyalty. Magazine publishers can activate and drive their customers into Internet with e-mails and SMS messages to improve re-subscription rate for Example Film fare Magazines. Marketers increasingly bring brands closer to consumers' everyday life. The

changing role of customers as co-producers of value is becoming increasingly important (Pralhad and Ramaswamy, 2004). Khan and Mahapatra (2009) remarked that technology plays a vital role in improving the quality of services provided by the business units. According to Hoge (1993), electronic marketing (EM) is a transfer of goods or services from seller to buyer involving one or more electronic methods or media. E-Marketing began with the use of telegraphs in the nineteenth century.

With the invention and mass acceptance of the telephone, radio, television, and then cable television, electronic media has become the dominant marketing force. McDonald's uses online channel to reinforce brand messages and relationships. They have built online communities for children, such as the Happy Meal website with educative and entertaining games to keep customers always close to themselves (Rowley 2004). Reinartz and Kumar (2003) found that the number of mailing efforts by the company is positively linked with company profitability over time. The primary advantages of social media marketing is reducing costs and enhancing the reach. The cost of a social media platform is typically lower than other marketing platforms such as face-to-face sales or sales with a help of middlemen or distributors. In addition, social media marketing allows firms to reach customers that may not be accessible due to temporal and locational limitations of existing distribution channels. Generally, main advantage of social media is that it can enable companies to increase reach and reduce costs (Watson et al. 2002; Sheth& Sharma 2005).

According to Chaffey (2011), social media marketing involves “encouraging customer communications on company's own website or through its social presence”. Social media marketing is one important technique in digital marketing as companies can use social media form to distribute their messages to their target audience without paying for the publishers or distributor that is characteristic for traditional marketing.

Digital marketing, electronic marketing, e-marketing and Internet marketing are all similar terms which, simply put, refer to “marketing online whether via websites, online ads, opt-in emails, interactive kiosks, interactive TV or mobiles” (Chaffey & Smith, 2008). Giese and Gote (2000) finds that

customer information satisfaction (CIS) for digital marketing can be conceptualized as a sum of affective response of varying intensity that follows consumption and is stimulated by focal aspects of sales activities, information systems (websites), digital products/services, customer support, after-sales service and company culture. Waghmare (2012) pointed out that many countries in Asia are taking advantage of e-commerce through opening up, which is essential for promoting competition and diffusion of Internet technologies. Zia and Manish (2012) found that currently, shoppers in metropolitan India are being driven by e-commerce.

These consumers are booking travels, buying consumer electronics and books online. Although spending per online buyer remains low, some 60% of online consumers in metropolitan India already make purchases online at least once in a month. Dave Chaffey (2002) defines e-marketing as “application of digital technologies - online channels (web, e-mail, databases, plus mobile/wireless & digital TV)

to contribute to marketing activities aimed at achieving profit acquisition and customers retention (within a multi-channel buying process and customer lifecycle) by improving customer knowledge (of their profiles, behavior, value and loyalty drivers) and further delivering integrated communications and online services that match customers’ individual needs. Chaffey's definition reflects the relationship marketing concept; it emphasizes that it should not be technology that drives e-marketing, but the business model.

All types of social media provide an opportunity to present company itself or its products to dynamic communities and individuals that may show interest (Roberts & Kraynak, 2008). According to Gurau (2008), online marketing environment raises a series of opportunities and also challenges for social media marketing practitioners.

The main objective of this paper is to identify the Overall Impact of digital marketing in today’s Digital competitive market where everything is setting up Digitally active. The supportive objectives are following:

1. To show the various elements of digital marketing;
2. To focus on the basic comparison between traditional and digital marketing;

3. To discuss the effects of various forms of digital marketing on the firm's sales and other activities;
4. To show the various advantages of digital marketing to the customers

Theoretical and conceptual framework

Traditional Marketing vs Digital Marketing

Traditional marketing is the most Common and recognizable form of marketing. Traditional marketing is non-digital way used to promote the product or services of business entity. On the other hand, digital marketing is the marketing of products or services using digital channels to reach consumers. Advertising mediums that might be used as part of digital marketing strategy of a business could include promotional efforts made via Internet, social media, mobile phones, electronic billboards, as well as via digital television and radio channels.

Digital marketing is a sub branch of traditional marketing and uses modern digital hannels for the placement of products e.g. downloadable music, primarily for communicating with stakeholders e.g. customers and investors about brand, products and business progress.(2016).NachiketS.Sangvikar (2016)

Various elements of digital marketing.

There are various elements by which digital marketing is formed. All forms operate through electronic devices. The most important elements of digital marketing are given below:

Online advertising

Online advertising is a very important part of digital marketing. It is also called internet advertising through which company can deliver the message about the products or services. Internet-based advertising provides the content and ads that best matches to consumer interests. Publishers put about their products or services on their websites so that consumers or users get free information. Advertisers should place more effective and relevant ads online. Through online advertising, company well controls its budget and it has full control on time.

Email Marketing

When message about the products or services is sent through email to the existing or potential consumer, it is defined as email marketing. Direct digital

marketing is used to send ads, to build brand and customer loyalty, to build customer trust and to make brand awareness. Company can promote its products and services by using this element of digital marketing easily. It is relatively low cost comparing to advertising or other forms of media exposure. Company can bring complete attention of the customer by creating attractive mix of graphics, text and links on the products and services.

Social Media

Today, social media marketing is one of the most important digital marketing channels. It is a computer-based tool that allows people to create, exchange ideas, information and pictures about the company's product or services. According to Nielsen, internet users continue to spend more time with social media sites than any other type. Social media marketing networks include Facebook, Twitter, LinkedIn and Google+. Through Facebook, company can promote events concerning product and services, run promotions that comply with the Facebook guidelines and explore new opportunities. Through Twitter, company can increase the awareness and visibility of their brand. It is the best tool for the promotion of company's products and services.

In LinkedIn, professionals write their profile and share information with others. Company can develop their profile in LinkedIn so that the professionals can view and can get more information about the company's product and services. Google+ is also social media network that is more effective than other social media like Facebook, Twitter. It is not only simple social media network but also it is an authorship tool that links web-content directly with its owner.

Text Messaging

It is a way to send information about the products and services from cellular and smart phone devices. By using phone devices, company can send information in the form of text (SMS), pictures, video or audio (MMS). Marketing through cellphone SMS (Short Message Service) became increasingly popular in the early 2000s in Europe and some parts of Asia. One can send order confirmations, shipping alerts using text message. Using SMS for campaigns get faster and more substantial results.

Under this technique, companies can send marketing messages to their customers in real-time, any time and can be confident that the message will be seen. Company can create a questionnaire and obtain valuable customer feedback essential to develop their products or services in future.

Affiliate Marketing

Affiliate marketing is a type of performance-based marketing. In this type of marketing, a company rewards affiliates for each visitor or customer they bring by marketing efforts they create on behalf of company. Industry has four core players: the merchant (also known as “retailer” or “brand”), the network, the publisher (also known as “the affiliate”) and the customer. The market has grown in such complexity resulting in the emergence of a secondary tier of players including affiliate management agencies, super-affiliates and specialized third party vendors. There are two ways to approach affiliate marketing: Company can offer an affiliate program to others or it can sign up to be another business’s affiliate.

If company wants to drive an affiliate program, then, the company owner has to pay affiliates a commission fee for every lead or sale they drive to company’s website. Company’s main goal here is to find affiliates who can reach untapped markets. For example, a company with an e-zine may become a good affiliate because its subscribers are hungry for resources. So, introducing one’s offer through “trusted” company can grab the attention of prospects which might not have otherwise reached.

Search Engine Optimization

Search engine optimization is the process of affecting the visibility of a website or a web page in a search engine’s “natural” or un-paid (“organic”) search results. In general, the earlier (or higher ranked on the search results page), and more frequently a website appears in the search result list, the more visitors it will receive from the search engine users. Search engine optimization may target different kinds of search including image search, local search, video search, academic search, news search and industry-specific vertical search engines.

Pay Per Click (PPC)

Pay-per-click marketing is a way of using search engine advertising to generate clicks to your website rather than “earning” those clicks organically. Pay per click is good for searchers and advertisers. It is the best way for company’s ads since it brings low cost and greater engagement with the products and services.

Opportunities And Challenges Of Digital Marketing**Opportunities of Digital Marketing:**

Digital marketing has the following opportunities -

Easy Brand Promotion

With the development of new technologies and use of internet in business, the brands may take a great advantage of customer’s reach and communicate its clients successfully.

Cost Effective Channel

Using the internet, Digital Marketing is found cost-effective and cheaper source of advertising as compared to traditional marketing channels like T.V, Radio, Magazines, Newspapers, and Banners etc. Digital marketing allows marketers to set their advertising campaigns subject to availability of their budget. Mostly, the websites and business profiles (displaying ads and information about products or services) generate huge traffic for free. Social media, with its numerous benefits has played a vital role in promoting digital marketing activities.

Social Media Marketing platforms such as Facebook, Twitter, Google+, LinkedIn, WhatsApp, Blogs, Yelp, Instagram, and YouTube etc. also provide a huge traffic source.

Consumer’s Convenience to Shop Online

Due to more popularity and capabilities of digital marketing, customers have become more convenient to shop online at any time (24/7 basis) whether the shops are over or across the borders. Digital Marketing has opened-up an opportunity for companies and retailers to direct its customers to an outlet of the online store.

Accountability of Marketing Activity

Digital Marketing enables the companies to measure their marketing activities such as digital marketing is working or not, the amount of activity, and the conversation that is involved. Digital marketing also helps marketers to evaluate and audit their online contents for quality purposes.

Easy Consumer Reach

Digital Marketing is an effective way of communication for companies to target a large number of potential consumers at the same time. Using the internet channel for marketing is a quick approach to target a number of potential consumers and prospects at same time all over the world. Social Media Marketing has also revolutionized these marketing activities on different social media platforms such as Facebook, Twitter, LinkedIn, Pinterest etc.

Direct Advertising

Digital Marketing enables direct advertising and creates awareness about a product or a brand. Now the companies can easily show their advertisements for products and services on different digital channels. But a good online advertising strategy and promotional tools can help digital marketers to perform well in highly competitive marketing environment.

Perpetually Displaying Ads

Digital Marketing makes advertisements more accessible to target customers at any time or any place. There is no time and place limitation for the prospects to visit any website and view ads. The perpetually displayed ads attract the prospects to get in touch with you and find the products and services of their need. But these ads should be managed efficiently to display on a webpage. See the four-step process to display Ads on a webpage as well.

Challenges of Digital Marketing:

The digital marketing has the following challenges -

Risk of Hacking Strategies

The risk of hacking promotion strategies of a company always rests on digital channels (internet) that is one of the drawbacks of digital marketing. The hackers or competitors can easily track and copy the valuable promotional strategies of a well- renowned company and can utilize for their purposes.

Anti-Brand Activities (Doppelganger)

Another drawback of digital marketing is that even a person or group of persons can harm the image of a recognized brand through 'Doppelganger'. Anti-brand activists, bloggers, and opinion leaders spread the term 'Doppelganger' to disapprove the image of a certain brand.

Advertisement for Limited Products

Another practical drawback of Digital Marketing is that it is only beneficial for consumer goods. The industrial goods and pharmaceutical products cannot be marketed through digital channels. The aforementioned information may help digital marketers to understand the strengths and weaknesses of Digital Marketing. To learn more about digital marketing, visit the links under related posts.

Limitation of Internet Access

The Digital marketing is closely reliant on internet. In some areas, internet facility may not be accessible to the consumers or with poor internet connections. The Digital Marketing can be unsuccessful in those areas having no or limited internet accessibility.

Limited Consumer Link and Conversation

As digital marketing is highly dependent on internet, so the marketers may find it hard to make their advertisements more comprehensive and start a conversation with their consumers about the company brand image or products.

High Competition of Brands

Digital Marketing has a drawback when a customer searches for a specific product of a specific company on internet, many competing goods, and services having same marketing strategies appear on the customer's home page. This conflicts the customers and provides an alternative option to choose cheaper and better quality product of another company.

As a result, some customers lack the trust on a lot of advertisements that appear on a website or social media and consider it as fraud and look like a dishonest brand.

Conclusion:

This study reveals that digital marketing have the potential to reach customers in a speedy and low cost – manner and can provide promotion to a wide range of products and services. The development of digital marketing and social media advertising has led to many business opportunities in 21st century despite globalization speed and the extent of opportunities that can be gained from digital marketing. It is filled with many challenges that can put you off track.

References

1. Chaffey, D. (2002). "Achieving marketing objectives through use of electronic communications technology."
2. Chaffey, D. (2011). E-business & e-commerce management. Pearson Education.
3. Chaffey, D., & Smith, P. (2008). Emarketing Excellence: planning and optimizing your digital marketing. Routledge.
4. G. T. Waghmare, (2012). E-commerce; A Business Review and Future Prospects in Indian Business. Internet Marketing in India. *Indian Streams Research Journal*, vol. 2, no. IV, (pp. 1-4.
5. Gangeshwer, D. K.(2013). E-Commerce or Internet Marketing: A Business Review from Indian Context” ,
6. *International Journal of u- and e- Service, Science and Technology* Vol.6, No.6, pp.187-194
7. Giese, J. L. and J. A. Gote,(2000) .Defining Consumer Satisfaction,. *Academy of Marketing Science Review* [Online]00 (01)
8. Gurau, C. (2008). Integrated online marketing communication: implementation and management, *Journalof Communication Management*, vol. 12 no. 2, pp. 169-184
9. Hoge, S, Cecil C. (1993). The Electronic Marketing Manual *ABA Journal*, 22, 175-185.
10. Krishnamurthy, S. (2006). Introducing E-MARKPLAN: A practical methodology to plan e-marketing activities. *Business Horizons*. 49(1), 49, 51, 60.

11. M. S. Khan and S. S. Mahapatra, (2009). Service quality evaluation in internet banking: an empirical study in India. *Int. J. Indian Culture and Business Management*, vol. 2, no. 1, (2009), pp. 30-46.
12. Mangles, C. a. (2003). Relationship marketing in online business-to-business Markets: a pilot investigation of small UK manufacturing firms. *European Journal of Marketing*, Vol. 37 No. 5/6, pp. 753-773.
13. Merisavo, M. and R. Mika . (2004). The Impact of Email Marketing on Brand Loyalty. *Journal of Product and Brand Management* 13 (6): 498-505.



**E - COMMERCE SITES IN TOURISM INDUSTRY IN INDIA – A
REVIEW**

Dr. A. A. Kulkarni

*Professor and Head, Department of Commerce, Gopal Krishna Gokhale
College, Kolhapur (M.S.) 416012*

Abstract:

Digitalization through e-commerce sites plays very important role in the travel and tourism sector. Travel and tourism technology is the application of information technology in the travel, tourism and hospitality industry. There are number of forms of digital applications in tourism industry such as airline booking, ships bookings, hotels and buses bookings, car rentals, hotels booking, leisure travel plans etc. It has originally initiated with the computer reservations system of the airlines industry. Online transactions in the travel and tourism industry are continuously increasing. About 80% of e-commerce market is travel related i.e. airline tickets, railway tickets, hotel booking etc. This paper covers the forms of e-commerce and travel and tourism in India.

Keywords: digitalization in hospitality, E-Commerce, tourism, e-commerce websites

Introduction

Hospitality Industry is pillar of economy in developed, developing and underdeveloped countries and one of the major source of foreign exchange. Countries like Thailand, Switzerland, Austria are mostly dependant on tourism industry. This industry is growing very rapidly and millions of people are directly and indirectly related with this Industry. With rise of internet usage on people's daily life, tourism industries are acquiring business through E-Commerce. Online travel booking or online tourism reservation is the specific business to-customer (B2C) transaction in the perspective of online tourism. Online travel booking includes online booking for single or packaged tourism products such as airline or train services, hotel rooms, vacation packages, car rentals, and so on. There is usually no physical distribution after online booking, which is different from online shopping for commodities.

The IT sector especially internet made major contribution in the tourism and hospitality industry. Today, anybody can individually arrange personalized tours through internet within the country or abroad. The services booked online are consumed in the offline environment which is different from online services such as online finance and online entertainment. For the travel enterprises, it is the expected choice to provide online booking for improving service efficiency, improving service quality and gaining competitive advantages.

With the broad adoption of third generation to fifth generation (3G,4G and latest 5G) technology, mobile has become the third screen alongside the desktop and the laptop. Business travelers now use smart phones to find local attractions, get navigation assistance, have access to supplier sites, read user reviews, and access social networking. Over 2000 travel-related mobile applications are available in the market today. Websites, blogs, online advertising, social media, online ordering and information repositories, cookies all helps influencing customers to choose a location or business, reservations systems. There are various benefits of using internet in tourism as it is fast and easy to access destination, receive price, search popular destinations and get information about destination etc., as well as it generates income for many people around the world. It is essential for travel and tourism industry to adopt E-Commerce for their growth and success.

Objectives of the Study:

1. to review tourism and hospitality industry in 21st century
2. To know the systems of E-Commerce in tourism and hospitality industry.
3. To study the relationship between E-Commerce and travel & tourism
4. To evaluate the role of Indian E-Commerce players in Tourism Industry

Methodology

1. As it is an analytical research, secondary data is used as methodology
2. The researcher has to rely upon the data through websites, internet
3. Even on the websites of ministry of travel and tourism, specific data is not available related to e-tourism

4. Due to COVID situation in last two years, there are limitations on current data

Limitations

1. There are limitations on the data collected
2. As this sector changing rapidly, there are limitations to keep pace with the data.
3. There are limitations on the reliability of data. Different websites share different data, there is no authentic data from ministry of tourism.

Forms of Electronic-Commerce

Business to Customer (B2C): B2C stands for business-to customer and applies to any business or organization that sells its products or services to consumers over the internet. It refers to the online selling of products in which the manufacturers or retailers sell their products directly to consumers over the Internet.

Business to Business (B2B): The term "Business to Business" was initially used to describe electronic communication businesses. B2B E-Commerce is simply defined as E-Commerce between companies.

Customer to Customer (C2C): Consumer to Consumer (C2C), E-Commerce involves electronically-facilitated transactions between individuals, often through a third party. One common example is online auctions, such as E-bay, where an individual can list an item for sale and other individuals can bid to purchase it.

Customer to Business (C2B): in Consumer to Business (C2B) is the most recent E-Commerce business model. In this mode individual customers offer to sell products and services to companies who are prepared to purchase them.

Mobile commerce (M-Commerce) :Mobile commerce refers to the buying and selling of products and services through wireless handheld devices such as cellular phones, personal digital assistants, laptops, tablets etc.

Relationship Between E-Commerce And Travel &Tourism

Over the last decade, the Internet has changed the way people buy and sell goods and services. Online retail or E-Commerce is transmuting the

shopping experience of customers. The sector has seen significant growth especially in the last two years. The adoption of technology is permitting the E-Commerce sector to be more reachable and efficient. Devices like smart phones, tablets and technologies like 4G, 5G with high speed broadband is helping to increase the number of online customers. Banks and other players are providing a secured online platform to pay smoothly via payments gateways

Motives Behind The Growth Of E-Tourism

Incomparable transparency: The Internet has offered customers unparalleled transparency into schedules and fares offered by suppliers. A growing number of customers believe that booking hospitality online fulfills two primary needs – convenience and the ability to find the best value for their travel needs.

Consumer Awareness: Over the past decade, there has been a significant growth in the tech-savvy online buying population. Major contributors to this trend are the ‘Generation Y’ population born between 1978 and 2000. These consumers grew up in the Internet era and see it as part of their environment rather than as new technology.

Consumer created media: Social networking with consumer generated media (CGM), as a source of travel research, has changed travel consumption patterns and become mainstream. There are several categories of web-based communities that have promoted interactivity, collaboration and sharing among users.

Websites: Websites that focus on traveler reviews such as TripAdvisor, IgoUgo, and RealTravel are influential. Hotel reviews available on OTAs such as Travelocity, Expedia, Orbitz, Priceline, bookings.com and hotels.com are growing to be more important than brand in influencing bookings.

Journals and Blogs: Online travel journals or travel blogs, such as Lonely Planet and Frommers, are popular. Finally, there are sites that are focused on building communities and CGM around travel, such as Yahoo! Travel's Trip Planner and TravelMuse.

Flare-up of mobile usage and state-of-the-art mobile travel apps are the key growth drivers: Technology has changed the way people communicate and

travel, worldwide. With developing technology and increasing use of mobiles, easy and efficient methods are being developed to make traveling easy and comfortable

Mobile Apps: Mobile travel apps are gradually acquiring pace in the market and are preferred by travelers to make their travel arrangements. Easy accessibility and hassle-free turning through online travel sites are major reasons for the market growth.

Participants In Hospitality & Tourism Industry In India

Make My Trip

MakeMyTrip.com, India's leading online travel company was founded in the year 2000 by Deep Kalra. Created to empower the Indian traveller with instant booking and comprehensive choices, the company began its journey in the US-India travel market. It aimed to offer a range of best-value products and services along with cutting-edge technology and dedicated round-the-clock customer support. After consolidating its position in the market as a brand familiar for its reliability and transparency, MakeMyTrip followed its success in the US by launching its India operations in 2005. With constant innovation and determination, MakeMyTrip proactively began to diversify its product offering, adding a variety of online and offline products and services. Today, MakeMyTrip is much more than just a travel portal or a famous pioneering brand - it is a one-stop-travel-shop that offers the broadest selection of travel products and services in India with dedicated 24x7 customer support and offices in 20 cities across India and 2 international offices in New York and San Francisco.

MakeMyTrip's Products:

1. International and Domestic Air Tickets,
2. Holiday Packages and Hotels
3. Domestic Bus and Rail Tickets
4. Private Car and Taxi Rentals
5. B2B and Affiliate Services

Irctc

Indian Railway Catering and Tourism Corporation Ltd. (IRCTC) is a Public Sector Enterprise under Ministry of Railways. IRCTC was incorporated on 27th September, 1999 as an extended arm of the Indian Railways to upgrade, professionalize and manage the catering and hospitality services at stations, on trains and other locations and to promote domestic and international tourism through development of budget hotels, special tour packages, information & commercial publicity and global reservation systems.

Services provided:

1. Food Plazas on Railway premises,
2. Private Railways(Tejas Express)
3. Railneer – Manufacturing Packaged Drinking Water
4. Rail Tour Packages
5. Internet Ticketing
6. Refreshment Rooms,
7. AVMs,
8. Book Stalls,
9. Milk Stalls, Ice Cream Stalls
10. Hotels
11. On Board Catering Services

Goibibo

GOIBIBO is a B2C online travel aggregator. It is part of the GOIBIBO travel organisation. GOIBIBO.com was developed and launched by GOIBIBO Group in 2009. The platform enable travellers to search, compare and buy from across categories and width of travel suppliers for air tickets. GOIBIBO is a B2C online travel aggregator. It is part of the GOIBIBO travel and bus tickets. It access via mobile app and is available on IOS, Android and Windows. It provide search and booking features for fights, hotels and bus tickets. GOIBIBO is the largest online hotels booking engine in India and also one of the leading air aggregator. GOIBIBO is also the number one ranked mobile app under the travel category. GOIBIBO's core value differentiator is delivery of the fastest and the

most trusted user experiences, be it in terms of quickest search and booking, fastest payments, settlement and refund processes. GOIBIBO has grown its hotels booking volumes by times in 2015 over the previous year. Seventy percent of hotel bookings take place on GOIBIBO's mobile app.

Yatra

Is an Indian online travel agency and a travel search engine based in Gurgaon Haryana, founded by Dhruv Shringi, Manish Amin and Sabina Chopra in August 2006. In April 2012, it was the second largest online travel website in India, with 30% share of 370 billion dollar market for online travel-related transactions., it also launched a "holiday-cum-shopping card" with State Bank of India (SBI), India's largest bank. Acquisition-Yatra.com has made three acquisitions including now-ticket consolidator Travel Services International (TS) in October 2010, global distribution system.

Cleartrip

Cleartrip Pvt. Ltd. is an Indian online travel company providing online booking services for flights and train tickets, hotel reservations, and domestic and international holiday packages. It is amongst the top Online Travel agencies in India. Apart from India, it is also featured as a leading Online Travel agency in Gulf Region. It was founded by Mathew Spacie, Hrush Bhatt & Stuart Crighton in 2006. Following slogan 'Making Travel Simple', it provides easy booking to travellers along with useful travel tips through their website. Cleartrip launched its first overseas venture in the UAE. In May 2012, it started services to the Gulf nations of Oman, Qatar, Kuwait, Bahrain, Saudi Arabia. In August 2014, Cleartrip established booking contracts with over 15,000 hotels across the globe and reported approximately 15,000 air transactions and 2,000 hotel bookings on its portal

Products and Services

1. Flight and Retail Booking
2. Cleartrip Mobile
3. Hotel Reservation
4. Cleartrip for Business

5. Hotel Packages

Review of online hospitality industry:

Indian domestic travel market is rising to become a \$48 billion industry by 2020 says a new report published by Google India along with Boston Consulting Group (BCG). As per the report, Indian travel market is projected to grow at 11-11.5% to \$48 billion by 2020 with the biggest contributor, air travel expected to grow at 15% to \$30 billion. Hotels will grow at 13% to \$13 billion by 2020 while railways will remain largely stagnant at \$5 billion. Additionally, as more people come online, Smartphone penetration improves and use of digital payments goes up, the report estimates that India's online hotel market will grow to US\$4 billion with 31% penetration at a CAGR of 25%. Online travel providers aim to ease travel planning and bookings for travelers. The online travel market is driven by quick and convenient flight and hotel bookings, rise in customers' trust in online payment, and ability to compare various available travel options. These days market players are extensively offering travel services through mobile websites and apps, as it is one of the most preferred mediums of travel bookings, particularly among the young professionals. Travel is a high investment – both monetary and emotional - category. Technology has led to democratization of travel through better information and price discovery.

Conclusion:

Online tourism industry is increasing very rapidly and millions of people are directly and indirectly associated with this industry. E commerce plays key role in tourism industry across the world. In India, with the emergence of smart phones, tablets, laptops and especially internet, one could see drastic changes in this industry. Especially in flight bookings and hotel bookings, these e-commerce sights play vital role. There is enormous growth potential for this industry. Market players are introducing new and enhanced versions of mobile apps, which offer great travel deals and hassle-free booking to attract young travellers. The growth is attributed to the increase in disposable income, rise in middle-class segment, and greater penetration of Internet facilities.

References:

1. Buhalis, Dimitrios: E Tourism-Information Technology for Strategic Tourism management
2. EconomicTimes.Indiatimes.Com
3. IRCTC.COM
4. Chwala R ; Transport And Tourism(2006)
5. Rai V K:Tourism And Its Development- A Geographical Analyais
6. Inc42.Com/Buzz/Google-India-Bcg-Indian-Online-Travel-2020/
7. Travelbizmonitor.Com/Images/India_Online_Travel_Industry
8. Indian Tourism: Beyond The Millennium – M P.Bezbarush



CURRENT ERA'S IMPACT ON DIGITAL MARKETING

Agarsana T K

Kongu Arts and Science College(Autonomous)

Email: agarsana299@gmail.com

Abstract

Digital marketing is also the type of marketing that promotes products and services by utilizing the internet and online – based digital technology such as mobile phones, computers and other digital media platforms. Digital marketing is a role that continues to evolve, with new trends appearing year after year, with new trends appearing year after year, leaving advertisers with a plethora of options. Though reaching the right audience with relevant material that at the right time remains a significant problem of marketers, the sheer amount of digital tools and methods available may make digital campaigns incredibly complicated. The impact of digital marketing in today's world are highlighted in this article.

Keywords

Digital, marketing, opportunities, challenges

Introduction

The promotion of brands to engage with potential customers via the internet and other types of digital communication is known as digital marketing, sometimes known as online marketing, sometimes. This includes text and multimedia messages as well as email, social media and web-based advertising. However digital marketing is defined as any marketing campaign that utilizes digital communication. Digital marketing tools are used to convert the prospects in the aspect of increasing the demand of the commodity and its reputation. A company's digital marketing strategy may include numerous channels or focus solely on one.

For good reason, digital marketing and inbound marketing are frequently conflated. Many of the same techniques that are used in inbound marketing that are used in digital marketing , including email and web content, to mention a few. Both exist to attract attention of the customers and convert into profit during the buyer's journey.

Almost every business attempted to build an online presence that needed to be popularized through digital resources during Covid 19, which boosted the area of digital marketing significantly. Digital marketing is an industry that increase the job opportunities which helps to destroy unemployment in the society. In the term of new communication the demand for qualified employees to were increased. The growing trend of business digitization has necessitated the hiring of professionals who are familiar with both the

business and workings of digital marketing. When the concept of marketing was first introduced, schools and institutions began offering post-graduate marketing degrees. With the advancement of the concept of digital marketing, many universities are now offering online digital marketing degrees, when it comes to the best online marketing packages, there is a lot to pick from. However the digital economy has pervaded every aspect of our lives, and it shows no signs of abating. In comparison to traditional marketing, there is currently a substantial expenditure allocated to digital marketing.

Right now, digital marketing is exploding. Many digital marketing businesses are looking for good and creative personnel as they grow. Some people are drawn to the field solely because they possess a creative mind. In some aspects, digital marketing is similar to traditional marketing, which have a product to sell and are seeking for ways to communicate with customers in order to create brand awareness and ultimately close a deal. Digital marketing now encompasses more responsibilities and abilities than ever before, and it is the business's adaptability and versatility that makes it so fascinating and engaging.

Conclusion

Digital technology is a driving force in society. The influence is so great that there are locations on the planet where people do not have access to clean water but do own smartphones. Digital marketing has a huge impact on people's lives nowadays. It has an impact on how people socialize, work, shop, and live. Everyday, around 3 billion people utilize social networking sites around the world. People are more likely to follow brands on social media than celebrities, according to a survey done by a marketing firm. Around 80% of users on the photo sharing platform(Instagram) follow at least one brand. As a result, its long past time for digital media to be used to improve a brand's image, as well as other business-related tasks. It is less difficult than traditional marketing and it aids in the acquisition of more clients, resulting in a rise in profit.

References

1. www.srvmedia.com
2. <https://mediaboom.com>
3. www.digitalmarketinginstitute.com
4. www.indiatoday.in
5. www.didigitalmarketinginstitute.com
6. www.wikipedia.org



DIGITAL MARKETING IN INDIAN REGIONAL LANGUAGES: AN OVERVIEW

Ms Sawant Neeta Ankush

*Assistant Professor, Dept. of Computer Applications, Dhananjayrao Gadgil College
of Commerce, Satara*

Abstract:

Today's age is digital marketing. It is a reliable means to reach implied customers. Digital marketing is certainly a boundless part of today's marketing span. Localization is the grit of any marketing. There is a variety of components that marketers look forward to and language is one of them. India is a country with 121 languages and 270 mother tongues. Most Indians prefer to read, write and communicate in their regional language. English is however invincible language in various fields. But now day's consumers are extensively discrete. Regional language use in online content can help brands acquire an enhanced amount of user commitment and response. It is needed to confine content for accumulation embracing in digital marketing. With local language advertising, brands get a chance to attain the utmost consumers at a reasonably less significant price. 9 out of 10 new internet users in India over the next 5 years are likely to be Indian language users.

Keywords: digital marketing, regional language, social media, internet

Introduction:

Digital marketing is one of the most important parts of the marketing spectrum today. Digital marketing has ample scope, but the language is the primary blemish in it. The English language is especially used on the internet. According to Comscore data, from March 2020 to March 2021, there have been nearly around 62 million new internet users from the regional markets of India. Reasonable mobile phones with cost-effective data plans and the easiness of using local language keyboards are some of the factors that are foremost to this upsurge and along with it, the growth of regional or Indian language content consumption. Making use of regional language in digital marketing will benefit companies and brands to get an exceptional amount of consumer feedback. India is a country of different religions, great heritage, and a varied assortment of languages like Hindi, Tamil, Telugu, Marathi, Malayalam, Gujarati, Sindhi, and

Urdu. The internet users in India are increasing gradually. Smartphone users are also rising in India's rural areas and that is the cause of digital marketing acquiring importance in regional languages. Nowadays, different brands acquire the market using the proper regional language marketing. In digital marketing Regional language helps to engage customers emotionally attached. Different components of digital marketing like Search Engine Optimization (SEO), Content marketing, and Social media are taking advantage of the regional language marketing and catching the customers. Today it is essential to focus on the customers consistent with locations with regional digital content.

Objectives of the Study:

The objective of this study is:

1. To analyze the impact of regional languages in digital marketing
2. To study the use and importance of Indian regional languages in digital marketing

Methodology:

This research paper is expressive and entirely based on secondary data. The essential data is collected from the different published articles, websites, national and international journals, government reports, books, newspapers, and blogs.

The exploration of the domain of vernaculars from the digital marketing perspective:

Digital Marketing advantage: High rate of consumer response & engagement:

“If you talk to a man in a language he understood, that goes to his head. If you talk to him in his language, that goes to his heart”- Nelson Mandela. In digital marketing the most important thing is to target the consumer. Language is one of the primary components of digital marketing to upsurge it. The English language is virtuous on a worldwide basis, but it comes to India it is fairly challenging. Most digital marketing websites are indeed in English. But it is necessary to make use of regional language to reach out to more consumers. India is a country with diversity and rich cultural traditions. The amount of

digital content in a regional language is barely comparable to its consumers. With native language advertising, brands have the opportunity to reach a maximum audience at a comparatively lower cost.

Use of regional language in Digital marketing:

Google Search Engine Optimization (SEO):

According to research with CSA's "Can't Read Won't Buy", 68 % of internet users found to prefer the regional language in digital content as more reliable. And 88% of users retort to a digital advertisement in their regional language. Google search engine supports the nine Indian languages Hindi, Tamil, Telugu, Bengali, Gujarati, Marathi, Kannada, Malayalam, and Punjabi. It is also possible to hear results in the Indian language. The business will successfully grow, capture the local market, and get benefited via technical SEO strategy.

Adoption of Regional language by Social Media:

Ultimate popular social Media like Facebook, WhatsApp, Twitter, Instagram, and YouTube are started to adopt this digital marketing strategy. This will fetch further stroke in the future. The early endorser brands will have a first-mover advantage, but the dawdlers may never take off.

Facebook:

Facebook also enables internet users to use the language of their choice. Users can choose any one Indian language and create content using it and run campaigns on Facebook. This approach will help to get extra freight to the business site and get more sales.

YouTube

At present, there are 467 million YouTube users in India. Video consumption and use of Indian regional languages on the YouTube platform is also sighted increasing numbers of content creators and viewers including languages like Hindi, Tamil, and Bengali. Some regional language YouTube stars such as Nisha Madhulikas is a chief and started nishamadhulika Hindi language YouTube channel, at present having 12.6 million subscribers and approximately 2.5 crores annual income, Madhura Bachal is also a chief and started Madhuras recipes Marathi language YouTube channel in 2016 and till

6.2 million subscribers with 1.5 crores annual revenue. Sandeep Maheshwari is a motivational speaker in the Hindi language on YouTube has 22.4 million subscribers and around 30 crores annual income.

Instagram:

Instagram is one of the key social networks in digital marketing. It currently supports the Bengali, Gujarati, Hindi, Kannada, Malayalam, Marathi, Punjabi, Tamil, and Telugu languages of India. It is possible to promote personal brands, small businesses, and large organizations.

Twitter:

Manish Maheshwari as Twitter India head, the microblogging network has now restructured its website to help users localize content in seven Indian languages Marathi, Hindi, Gujarati, Urdu, Tamil, Bengali, and Kannada. So Indian people can join and connect people in their language.

The Secret of Success: Brands benefited from advertising in regional languages:

In India, the use of regional languages has been a crucial part of a brand's social consequence and consumer response. Language usage growing in popularity online and benefit to set up language first digital brand campaigns at scale.

Following are some successive brands stories promoted advertising in regional language:

Policy Bazaar:

It is India's leading online insurance marketplace. Policy Bazaar uses the Google trends such as Jivan Bima Plan (life insurance plan), sabse sasta term plan (the cheapest term plan), and tailored creative messaging around search interest for these terms. This strategy leads Policy Bazaar's cost per lead to be 18% lower, leading to a 4% increase in incremental leads, and an 11% increase in clicks through local-language keywords in comparison to the English language advertisement.

Kotak Mahindra Bank:

Kotak Mahindra Bank: Kotak 811 is a brand new instant bank financial savings account presented with the aid of using Kotak Mahindra Bank that lets

customers open financial savings account through their app or online. The brand sought to improve the profitability of the accounts opened by increasing the number of new accounts while maintaining its cost per account opening.

#smarthotohrapido: Rapido Bike-Taxis

This advertisement is most popular in the Telugu language to show how the bike is for quick, comfortable rides at a low cost. Rapido is the first and fastest-developing Bike taxi application in India and at present runs operations in more than 100 cities. Bike taxi platform, Rapido has introduced the release of its new 360-degree advertising campaign 'Go Ohh with Rapido', highlighting the advantages of the use of the Rapido service.

Toofan wahi jo sab # PalatDe

As India steps into the 100th anniversary of the Olympic Games, the digital marketing campaign welcomes and celebrates Thumps up Heroes with a new advertisement. "Toofan Wahi jo sab palat de" is a new campaign, that encourages the people and the whole kingdom closer to the Olympics. The story of adaptability and strength ruled the social media platforms for ample likes and views.

Conclusion:

India, with a population of 136.6 crores in 2021 has witnessed a huge 179.8 percent boom in its social media consumer base since the beginning of the Digital India Campaign, launched in 2015. It is expected to grow its consumer base by 12 percent through 2023. So there is a need to grow business with a regional language. Brands need to develop their digital marketing strategies. Customers prefer to involve further with the content in their local language and this enhances the element of consistency along with personalized experience. With the growth in digital literacy and smartphone adoption, especially in rural India, adapting regional content and communication will play a key role in driving growth in India.

Suggestions:

Currently, 54.9% of the top 10 million websites are in English. Hindi-language sites account for only 0.1% of all websites. That is expected to change soon.

Indian consumers cannot only be reached through English. In India, the demand for regional languages will increase as more users go online. The language diversity in India makes it necessary to develop a multilingual Indian SEO strategy to maximize the potential of the Indian market. It's a challenge that's worth the effort.

References:

1. Preeti Oza (2019, August), Use and Usage- Dealing with Language in Digital Marketing, Digital Marketing (pp.23), Authorspress.
2. Holly Young, The digital language divide. Retrieved from {<http://labs.theguardian.com/digital-language-divide/>}
3. Fazan Raza. (2018,August 3).HOW LANGUAGE CAN PLAY A VITAL ROLE IN MARKETING. Retrieved from{<https://www.influencive.com/how-language-can-play-a-vital-role-in-marketing/>}
4. <https://www.digitalcrew.com.au/blogs-and-insights/a-multilingual-digital-marketing-approach/>
5. Gautam Narang (2019, June 28), Digital Marketing in local Indian languages, Retrieved from {<https://www.linkedin.com/pulse/localising-digital-marketing-india-gautam-narang/>}
6. Shashank Sharma (2018, March 24), Importance of Regional Language in Digital Marketing, Retrieved from {<https://medium.com/@thejigsaw.in/importance-of-regional-language-in-digital-marketing-22c3f8c72413>}
7. iTech.(2019, June14).Vernacular content: The new mantra for digital marketing. Retrieved from { <https://itechindia.co/blog/vernacular-content-the-new-mantra-for-digital-marketing/>}
8. Farmina B. (2021, August 25).Regional Language Advertising: Challenges & Opportunities | An Expert View. Retrieved from { <https://adgebra.in/regional-language-advertising-challenges-opportunities-an-expert-view/>}
9. <https://www.webtrainings.in/top-digital-marketing-campaigns-in-india/>
- 10.Nadeesh Ramachandran.(2020, October).Speak my language: How local language messaging can help brands offer richer experiences. Retrieved from{

<https://www.thinkwithgoogle.com/intl/en-apac/consumer-insights/consumer-trends/speak-my-language-how-local-language-messaging-can-help-brands-offer-richer-experiences/>}

11. Indulekha Arvind.(2019, July 28).How regional languages are fueling YouTube's growth in India. Retrieved from { <https://economictimes.indiatimes.com/tech/internet/how-regional-languages-are-fueling-you-tubes-growth-in-india/articleshow/70412710.cms?from=mdr>}
12. Anshuman Jha.(2021, July 23).Advantage 'Algebra' For Regional Language Publishers. Retrieved from { <https://adgebra.in/advantage-adgebra-for-regional-language-publishers/>}



IMPACT OF DIGITAL MARKETING ON CONSUMER BEHAVIOR IN 21ST CENTURY

Mrs. Pallavi Swapnil Kale

*Hirwal Education Trust's, College of Computer Science and Information
Technology, Mahad-Raigad*

Abstract:

Digital marketing has brought the business a new vision with the new marketing technique which transformed the traditional method into digital marketing style. This also impacted on consumer buying decision behavior. Digitization and easy access to the internet has made tremendous growth into the business and also consumer become aware before purchase of any goods & services. Social media is a boom in 21st century. Companies are always looking for a new marketing strategy for the business growth & profit. Digital marketing provide opportunity to the consumer to get complete information regarding the product or services provided by company. And to compare with the other product & can place order at any time 24*7 from any place. This research is to study the impact of digital marketing on consumers' behavior. And the result shows digital marketing has positive impact on consumer's behavior of all ages. Digital marketing grab all the focus than traditional marketing in 21st century.

Keywords: Digital Marketing, Consumer Behavior, 21st century, Marketing, Online Shopping, Technology

Introduction

Digital marketing is also called as online marketing. This helps in marketing of products & services done by electronic devices like mobile phones, computer, laptop, tablet or other devices. Complete marketing is done through the internet to reach out to maximum customers in less time with the help of social media, mails, blogs, websites etc.to create a brand of your product and Services Company has to use digital marketing strategy to sustain in the competitive market for a longer period of time. It will help to create good relationship and communication with the consumer.

Understanding the consumer behavior is important factor of marketing. As in this field customer is the king. You have to analyze what the need or

requirement of customer. What & when customer wants the things that should be studied by the business strategies. So to attract maximum consumer towards your brand. And retain them for longer period of time. Consumer behavior is affected by psychological, personal & social, cultural, marketing, situational factors. The simple definition is consumer behavior is the decision making process while buying any product or service on the basis of their liking to satisfy their needs & wants.

Objectives:

1. The objective is to determine the impact of digital marketing on consumer behavior.
2. The objective is to determine how the digital marketing helps to create the brand name of the product or services.
3. The objective is to find out how digital marketing becomes more important for business growth & profit.
4. The objective is to find how traditional marketing has shifted over digital marketing.
5. The objective is to determine whether consumer is aware about digital marketing.

Traditional Marketing V/S Digital Marketing:

The main difference between traditional marketing & digital marketing is the medium through which the consumer gets the information regarding the product and services. While traditional marketing uses traditional media like newspaper, magazines, pamphlet and digital marketing uses digital media like social media, websites and blogs. There should be right balance between both the strategies. As both pay important role in business marketing. Digital marketing is less time consuming and less costly compare to traditional marketing. You can grab maximum audience in less time and price than through digital marketing than traditional marketing.

Challenges & Oppourtunites in Digital Marketing:

As digital marketing is a buzz word in 21st century so there are number of challenges and oppourtunities in this digitization era. Digital marketing has

become powerful tool for communicating with existing and new customers. As in this pandemic situation there are number of changes in the consumer behavior. Due to this Covid situation there are various restrictions on our daily lives. People are forced to live differently in this pandemic, make the business to find out different strategies to reach their targeted customer. Challenges are to constantly know the need and expectations of customer and fulfill those requirements to stand in the market. To showcase your products & service brand through various ways using digital marketing to attract the maximum consumer. And to retain that consumer is the another challenge.as there is tremendous competition in the market.as digital marketing uses internet and online shopping through using Google pay, NEFT, Phone Pay etc.so security while data sharing must be maintained. Now a day's customer is aware of all the product and services before buying any goods. They review all the information before making decision of purchasing any product. They see the reviews and comments of different consumers and then decide to buy. So this is one of the challenges to give quality of goods and service to attract the consumer.

Regarding the opportunities of digital marketing as customer is now aware of internet technology so it becomes easy to attract the customer through social media, websites and blogs by creating advertisements through digital medium. In this pandemic situation digital marketing help new entrepreneurs to do their start up.it helps in freelancing in this Covid situation helps in making economic growth. As an opportunity digital marketing has given job opportunity for the job seekers like SEO, freelancer, social media marketer and etc.it helps to change the working style in the industry. It helps to grow the business internationally via digital marketing. Digitization gives the opportunity to reach to maximum number of customer with different products and services of company through online platform or e-commerce. Digital marketing is the customer centric process which gives opportunities to the business to create their image, reputation and brand in the mind of consumer. And with the view of consumer, digital marketing gives you opportunity to get all the information

before buying any product or service according to your need and wants which has impacted on consumer buying behavior.

Hypothesis:

As hypothesis is related to objective of research. Hypothesis might be as follows: There is significant positive impact of digital marketing on consumer behavior in 21st century.

Methodology

Random sampling technique with 21 respondent's data was collected for study.

Primary Data: Questionnaire with Google form circulated for response.

Secondary data: library books, internet, websites.

Limitations: This study intends to cover on sample data of 21 respondents collected from my area, relatives and friends. It may not give same results generalized to other area.

Data Analysis and Interpretation:

Findings of the study on questioner are as follows:

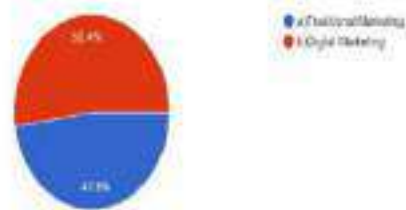
1. Questionnaire regarding do you like to do shopping through the use of digital marketing? 19% No and 81% Yes.
2. What do you like: Traditional marketing or Digital marketing: 52.4% Digital Marketing and 47.6% Traditional Marketing.
3. Do you think digital marketing is convenient & easy to use? 76.2% Yes and 23.8% No.
4. Do you think digital marketing is price & time saving? 76.2% Yes and 23.8% No.
5. Do you think digital marketing is secured?: 52.4 Yes and 47.6% No
6. Do you think information regarding the products you get is satisfactory?: 61.9% Yes and 38.1% No
7. Do you think digital marketing made impact on consumer buying behavior? 90.5% Yes and 14.3% No
8. Do you collect information before purchasing the product? 95.2%Yes and 4.8%No.

9. How often do you buy products using digital channel? 47.6% sometimes, 47.6% frequently, 4.8% Never, 0% rarely.
10. Are you satisfied with the product bought through digital channel? 90.5% Satisfied and 19% Not Satisfied

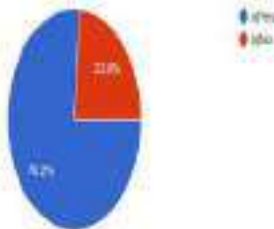
1) Do you like to do shopping through the use of digital marketing?
27 responses



2) What do you like?
27 responses



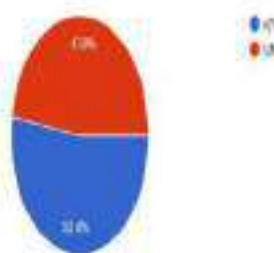
3) Do you think digital marketing is convenient & easy to use?
27 responses



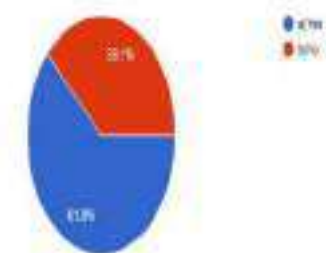
4) Do you think digital marketing is price & time saving?
27 responses



5) Do you think digital marketing is secure?
27 responses



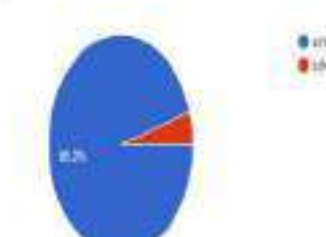
6) Do you think information regarding the products you get is satisfactory?
27 responses



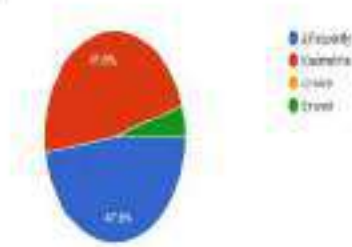
7) Do you think digital marketing has more impact on consumer buying behavior?
27 responses



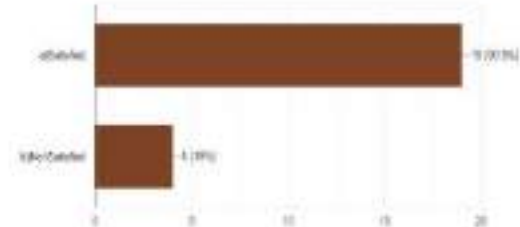
8) Do you collect information before purchasing the product?
27 responses



8) How often do you buy products using digital channel?
21 responses



9) Are you satisfied with the product bought through digital channel?
21 responses



Conclusion:

1. According to study of sample data collected & the hypothesis the consumer likes to do shopping with the help of digital marketing.
2. According to consumer it is easy and convenient to use and it is price & time saving.
3. According to the response got from consumer they feel digital marketing is secure and the information we get about the product and services is satisfactory.
4. According to response there is a impact of digital marketing on consumer buying behavior.
5. According to study consumer collect the information before purchasing the product.
6. According to study most of the consumer frequently buys the product using digital channel.
7. Study shows that consumer is satisfied with the product they bought through digital channel.

Suggestion:

1. In this pandemic situation digital marketing help the people in many ways to overcome the barriers coming in day to day basis while living in restricted situations.so digital marketing should be adopted by all age groups.
2. Awareness regarding the use and importance of digital marketing should be created among youth and all the stakeholders of the company.

3. Regarding security issues should be guided while using digital marketing strategy.

References:

1. https://www.researchgate.net/publication/324277805_Impact_of_Digital_Market_on_Consumer_Buying_Behaviour
2. <https://mailchimp.com/marketing-glossary/digital-marketing/>
3. <https://blog.hubspot.com/marketing/what-is-digital-marketing>
4. <https://www.marketo.com/digital-marketing/>
5. <https://study.com/academy/lesson/what-is-consumer-behavior-in-marketing-factors-model-definition.html>
6. <https://www.yourarticlelibrary.com/marketing/market-segmentation/consumer-behaviour-meaningdefinition-and-nature-of-consumer-behaviour/32301>
7. <https://99designs.com/blog/marketing-advertising/digital-marketing-vs-traditional-marketing/#:~:text=The%20main%20difference%20between%20digital,as%20social%20media%20or%20websites.>
8. <https://www.simplilearn.com/traditional-marketing-vs-digital-marketing-article>
9. <https://alokbadatia.com/opportunities-in-digital-marketing/>
10. <https://www.quora.com/What-are-some-hypothesis-examples-for-a-marketing-research>
11. <https://studymoose.com/digital-marketing-challenges-and-opportunities-smes-insights-essay>



A STUDY OF INTEREST IN TEACHING OF SECONDARY TEACHER TRAINEES IN COVID-19 PANDEMIC IN MEDCHAL DISTRICT

D. Gnyaneswer

Assit. Prof. of Commerce, Badruka College of Commerce and Arts

Gmail id:gnanu86@gmail.com

Abstract

Interest is a valuable tool that motivates us to work hard. Interest levels are a better measure of good instruction. Teacher educators must encourage lifelong learning in their students and encourage them to explore what makes them unique so that they can construct a life around their passions. The objective of the study was to measure the interest in teaching of male and female secondary teacher trainees as well as secondary teacher trainees of Arts and Science stream. The sample was chosen at random by the researcher, and 148 Secondary teacher trainees were chosen. The researcher used the Interest in Teaching Scale Test to collect data. Developed by a researcher. The study's main finding was that male secondary teacher trainees have a lower interest in teaching (20.25) than female secondary teacher trainees (21.93), and secondary teacher trainees in the arts stream have a higher interest in teaching (22.09) than secondary teacher trainees in the science stream (21.12).

Key words: Interest, Effective teaching, Lifelong learning, Motivate for their trainees, Build a life.

Introduction

Interest is a crucial factor in deciding whether or not to pursue a career as a teacher. Teacher trainees cannot give their dedication to teaching if they are not interested. Attention and interest are inextricably linked. Other persons have stronger interest in a matter of highest importance, as defined by interest as a sense of attachment or attractiveness toward a particular interest in reading books. Interest plays a unique role and has a unique location in the educational process. For teaching to be successful, interest is one of the criteria of learning that must exist in both the teacher and the trainees. Every process has some forms of interests and some likings, and each process delivers

temporary performance based on attitude and aptitude. Every person has a unique set of interests and experiences. The ancient and emphasise light and shadow, background and foreground comprehensible perspective in the world is given by interest alone.

Interest is a natural element of being human. The word 'interest' has now acquired a distinct meaning for him. According to Fryer, there are two types of interest: subjective and objective. 'Interest is the propensity by which, after becoming interested in a specific experience, we wish to continue in it, interest in a latent attention, and attention is interest in action,' according to William. 'Interest is an active form of some inclination,' according to driver.

Interest is a powerful internal state. It makes the teacher educators feel energetic and excited, fully engaged and focused on their teaching and pay more attention. Teacher trainees tend to engage with it at a deeper level critical thinking, make connections between old and new knowledge. Interest helps to get exploring and interested in new things. Interest plays the role in determining the quality of the educational experience and teaching in COVID period. Interest of teacher trainees is a major issue in national, state, and local educational policy. Strong interest can help teacher trainees in find out the academic difficulties and perceptual disabilities because interest increases attention, recall and levels of effort and interest correlates with both academic and classroom performance.

Internally, interest is a tremendous force. It makes teacher educators feel energised and enthusiastic about their work, totally involved and focused on their lessons, and more attentive. Teacher candidates are more likely to engage in critical thinking and establish connections between old and new knowledge. Exploration and interest in new things are aided by interest. In the COVID phase, interest plays a role in influencing the quality of the educational experience and teaching. Teacher education policy at the national, state, and municipal levels is dominated by the interests of teacher candidates. Because interest enhances attention, recall, and effort levels, and interest correlates with both academic and classroom performance, it can assist teacher trainees in

identifying academic issues and perceptual disorders. Interest's relevance as a motivator and the critical role it plays in education, particularly in affecting accomplishment and learning, has long been acknowledged. What people paid attention to and recalled was heavily influenced by their interests. Interest, according to John Dewey, aids learning, promotes comprehension, and stimulates effort as well as personal participation (Dewey, 1913).

Literature Reviews

According to United Nations (2020), “As of July 2020, 98.6% of learners worldwide were affected by the pandemic, representing 1.725 billion children and youth, from pre- primary to higher education, in 200 countries. Therefore, making learning possible and available from home-schooling has been the need of the hour. The shock of the COVID-19 crisis on education has been unprecedented. It has set the clock back on the attainment of international education goals, and disproportionately affected the poorer and most vulnerable. And yet, the education community has proved resilient, laying a groundwork for the rebound.” The Secretary-General of UNO, Mr Antonio Guterres (2020), said that “Education is the key to personal development and the future of societies. It unlocks opportunities and narrows inequalities. It is the bedrock of informed, tolerant societies, and a primary driver of sustainable development. The COVID-19 pandemic has led to the largest disruption of education ever.”

According to Hodges, Moore and Lockee (2020), “well- planned online learning is totally different from shifting online in response to a crisis, as the speed with which this shift is done could be shocking to faculty members and learners”. As per Petrie (2020), “As schools have been closed to cope with the global pandemic, students, parents and educators around the globe have felt the unexpected ripple effect of the COVID-19 pandemic. While governments, frontline workers and health officials are doing their best slowing down the outbreak, education systems are trying to continue imparting quality education for all during these difficult times. Many students at home/living space have undergone psychological and emotional distress and have been unable to engage productively. The best practices for online homeschooling are yet to be explored.”

The teacher should explore the interest, attitude, capacities, competencies and needs of the teacher trainees and guide them accordingly. A good teaching is not merely to impart information to the students but it is also to arouse self-learning in them. From this point of view the teaching should be natural and interesting, so that their students get motivated for self-learning and enabling them for establishing the contact with different subject of the curriculum and environment themselves.

Objective of the study

1. To compare the interest in teaching between male and female secondary teacher trainees.
2. To compare the interest in teaching of secondary teacher trainees between Arts and Science stream.

Research Hypothesis

1. There is significant difference in interest in teaching between male and female secondary teacher trainees.
2. There is significant difference in interest in teaching of secondary teacher trainees between Arts and Science stream.

Null Hypothesis

1. There is no significant difference in interest in teaching between male and female secondary teacher trainees.
2. There is no significant difference in interest in teaching of secondary teacher trainees between Arts and Science stream. Materials and methods were employed in this study to conduct a survey using the descriptive research method.

Population and Sample: The whole population of secondary teacher trainees in Medchal District was considered, and 148 secondary teacher trainees were chosen at random for this study.

Data collection tool- Interest scale in teaching was prepared by the researcher.

Results Objective 1. To compare the interest in teaching between male and female teacher trainees.

Table 1. Mean, SD and t-ratio of interest of male and female teacher trainees.

Group	N	Maen	S D	t-ratios
Male	73	20.25	3.01	
Female	75	21.93	3.09	3.349

Significant at .05 level of significance

From the table 1 At the.05 level of significance, the estimated t-ratio of 3.349 is bigger than the table value of t ratio. As a result, the null hypothesis that "There is no significant difference in interest in teaching between male and female secondary teacher trainees" is rejected at the 0.05 level of significance, and the research hypothesis that "There is a significant difference in interest in teaching between male and female secondary teacher trainees" is accepted. As a result, it is reported that male and female secondary teacher trainees have significantly different levels of enthusiasm in teaching.

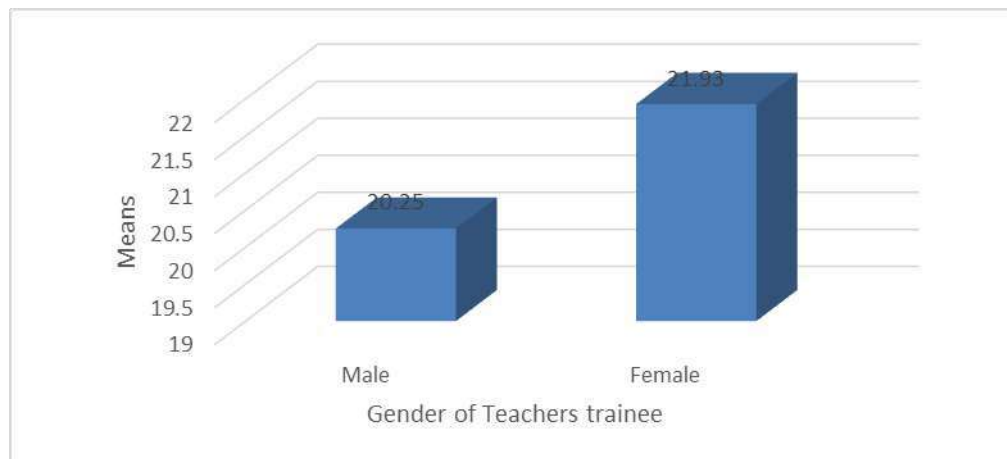


Fig 1. Mean of interest in teaching of male and female teacher trainees

Fig 1 shows that male secondary teacher trainees have a lower interest in teaching at 20.25 than female secondary teacher trainees, who have a higher interest at 21.93. At the.05 level of significance, the difference in interest in teaching between male and female secondary teacher trainees is significant. As a result, it is stated that secondary school males Objective 2. To compare the interest in teaching of secondary teacher trainees between Arts and Science stream.

Table 2. Mean, SD and t-ratio of interest in teaching of secondary teacher trainees of science and arts stream

Group	N	Maen	S D	t-ratios
Arts	76	22.09	2.98	
Science	72	21.12	2.81	2.16

Significant at .05 level of significance

From the table 02 At the.05 level of significance, the estimated value of t-ratio 2.160 is bigger than the table value of t ratio. As a result, the null hypothesis that "There is no significant difference in interest in teaching of secondary teacher trainees between Arts and Science stream" is rejected at the.05 level of significance, and the research hypothesis that "There is significant difference in interest in teaching of secondary teacher trainees between Arts and Science stream" is accepted. As a result, it is reported that there is a considerable variation in secondary teacher trainees' interest in teaching between the Arts and Science streams.

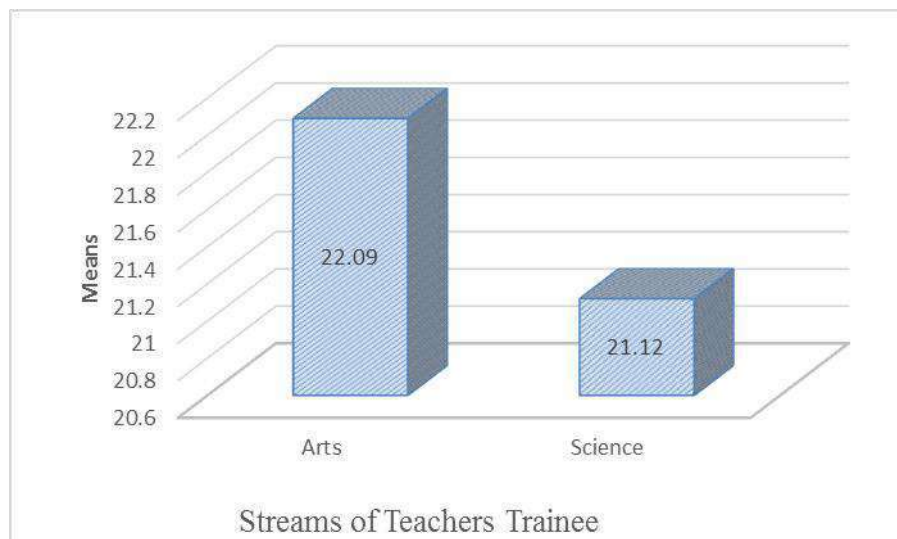


Fig. 2. Mean of interest in teaching of secondary teacher trainees of Arts and Science stream.

It is observed from Fig. 2 indicates secondary teacher trainees in the Arts stream had a higher interest in teaching at 22.09 than secondary teacher trainees in the Science stream, who have a lower interest at 21.12. There is a substantial difference in secondary teacher trainees' interest in teaching between the Arts and Science streams at the 0.05 level of significance. As a result,

secondary teacher trainees in the arts stream have a higher level of interest in teaching than secondary teacher trainees in the scientific stream. Students who receive a science education are more likely to develop scientific skills that can be applied in the workplace afterwards. Problem-solving skills and critical thinking skills were among the parents' opinions of the benefits of science education for their children. It's critical for students to be able to use their science process abilities in their daily lives. Female teacher trainees' favourable attitudes and values regarding the subject of teacher education in order to pique their children's interest in teacher education-related jobs. Sending children to teacher training classes, providing financial support for teaching activities, encouraging a culture of teaching values at home, and encouraging children to explore teaching-related careers are all examples of supportive efforts to promote and facilitate an interest in teacher education-related careers.

Conclusion

After analysing and interpreting the data, it is possible to conclude that male secondary teacher trainees have a lower interest (20.25) in teaching than female secondary teacher trainees (21.93), and secondary teacher trainees in the arts stream have a higher interest (22.09) in teaching than secondary teacher trainees in the science stream (21.12). This study found that a teacher trainee's interest in a teaching-related job can be crucial in building motivation. As a result, those in formal institutions, as well as informal and non-formal institutions, should be involved in the development of teaching curriculum through policies and programmes. One of the variables required for the successful implementation of a teacher education-friendly culture is the involvement of parents. Parents' backgrounds are thought to have an impact on how important it is to promote their children's education and teacher education. In terms of life adjustment and happiness, it is possible to regard interest to be essential. Being pleased and happy requires a high level of interest. Many colleges and universities now allow students to discover and follow their passions. Institutions are offering students a choice-based credit system depending on their interests. Teacher educators must instil a lifetime love of

learning in our students and encourage them to figure out what makes them tick so they can build a life around their passions.

References

1. Dewey, J. (1913). *Interest and effort in education*. Boston: Riverside Press.
2. Guilford, J.P. (1965). *Fundamental Statistics in Psychology and Education*, IVth edition, New York: Mc Graw Hill Book Co.
3. Gupta, S. P. (2016). *Modern Measurement and Evaluation*. Allahabad: Sharda Pustak Bhawan. Koul, L. (2001). *Methodology of Educational Research* (3rd Ed.) New Delhi: Vikas Publishing House. Singh, A. K. (2013). *Educational Psychology*. New Delhi: Bharti Bhawan.
4. United Nations. (2020). Policy brief: Education during COVID-19 and beyond. Retrieved May 15, 2021, from https://www.un.org/development/desa/dspd/wpcontent/uploads/sites/22/2020/08/sg_policy_brief_COVID-19_and_education_august_2020.pdf, Google Scholar.
5. Guterres, A. (2020, August 4). COVID-19 pandemic created largest disruption of education in history, affecting 1.6 billion students. *The Economic Times*. Retrieved May 5, 2021, from <https://economictimes.indiatimes.com/news/international/world-news/COVID-19-pandemic-created-largest-disruption-of-education-in-history-affecting-1-6-billion-students-un-sg-guterres/articleshow/77344094.cms>
6. Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. Retrieved May 5, 2021, from <https://er.educause.edu/articles/2020/3/thedifference-between-emergency-remote-teaching-and-onlinelearning>
7. Petrie, C. (2020). Spotlight: Quality education for all during COVID-19 crisis. (hundrED Research Report #01). Retrieved May 5, 2021, from <https://hundred.org/en/collections/quality-education-for-all-duringcoronavirus>



A THEORETIC PAPER ON ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE

Regina Rejith

Research Scholar at Jain deemed to be university, Bangalore

Abstract:

Artificial Intelligence in human resource management means enhancing the management of human resource workflow through adopting latest technologies and innovations in bring in great impacts on company. This study is to understand the base or evolution of human resource department in recruitment field using the secondary resources as sources of data. The study is to give pathway to work and explore more on Artificial intelligence in Human resource management and this topic on betterment or improvise of company's efficiencies.

Keywords: Artificial Intelligence, Human Resource Management, Recruitment.

Introduction:

Artificial Intelligence in Human resources helps in Scheduling with candidates, training sessions and other Human Resource Activities in another Area where Artificial Intelligence can help improve efficiency. This can help streamlining the entire process of scheduling on an organizational level. Candidate acquisition, scanning resumes without any bias, avoiding employee engagement, and answering real time questions that can help in the recruitment processes. Human Resource Chatbot is one of the major tools within Artificial Intelligence recruitment software that allows job seekers, employees to communicate through SMS, Website, other applications like WhatsApp. This application allows for meaningful exchanges without the need for Human resource managements to take their time. Workforce engagement aims to support operations planner, the team lead and agent.

Impact of Artificial Intelligence in recruitment:

1. The recruitment process has been significantly affected the organisation in identifying the suitable talent in brief period and how they will positively impact the business.
2. This technology growth also has had a positive effect on automating the

repetitive, frequent processes in selection, were the entire process is enormously saving time and more effective.

3. Reducing the line of recruiting workflow using the machine learning and auto screening resumes of candidates gives an upper hand to recruiters in more efficiency and help recruiters dedicate more time on other process and future steps.
4. Database that can be generated through internet or using these technology advances has also been one key factor in revealing the effectiveness of selection and ease in future recruitment and hiring.
5. The initial screening and verifying of candidate's profile can be carried out in simplified manner, this can be very useful for both candidates to understand the status of each stage and where they can improve along with recruiters in their recruitment process and analytically in decision making processes.

Review of Literature:

Votto, Valecha, Najafirad and Rao (2021) in their study on Artificial Intelligence in Tactical Human resource management: A Systematic Literature Review in their Conceptual Study covers the evolutions of Recruitment, tactical human resource information systems components. The objective of the study was enhanced research developments within Human resource, information systems, and Artificial Intelligence. This study suggested Artificial Intelligence applications in managerial HRIS components, the academics and professionals to explore Artificial Intelligence, gain understanding for focusing their attentions to further grow.

Oswal, Khaleeli and Alarmoti (2020) in their article on Recruitment in the era of industry 4.0: Use of artificial intelligence in Recruitment and Its Impact, the purpose of this article was to review the usage of Artificial Intelligence applications in the recruitment process, current usage of Artificial Intelligence for recruitment of high performing candidates most efficiently and effectively. The author's presents this paper on conceptual studies and secondary resources. Authors concludes the paper through his suggestions on improving the overall

recruitment process by deleting the repetitive tasks done by Human Resource in recruiting and selection process through application of Artificial Intelligence.

Geeta and Bhanu (2018) conducted research on Recruitment Through Artificial Intelligence: A conceptual study throws light on the techniques used by companies in Artificial Intelligence while recruitment. This study is based on secondary resources. It focused on what are the artificial intelligence currently used in Recruiting and its importance in recruitment. The authors concluded the paper on the growth of mart way of recruiting implementing the Artificial Intelligence and how it led to cost, time saving of organisation with more accuracy on entire recruitment.

Nawaz (2019) in his study on artificial intelligence is transforming recruitment effectiveness in CMMI level companies based on primary and Secondary data. Primary data is collected through Questionnaire. The study covered areas of artificial intelligence providing opportunities, risk, and utilization in recruitment process. It was from Initial Stages of recruitment process that is Application, selecting and potential candidate for suitable job.

Mirji (2021) paved her studies on Artificial Intelligence in Recruitment: Assessing Flipside. The purpose of this article is to assess the artificial applied in Recruitment Software. This article mainly focused on the barriers, challenges and inefficiency that was seen because of Human Resource professional absence in the process. The study was based on qualitative or conceptual in nature, Mirji also proposed there can tools designed that can help recruitment process that brings in **Socio-** Technical touch in the process.

Method

This study is completely on secondary data. The source of information is collected from articles, journals, research paper existing on the topic and websites from internet, existing data collected for the purposes of a prior study to pursue a research interest that is distinct from that of the original work. The qualitative data sets are collected through many approaches.

Objective of study

The objective of this study is to understand the existing theories of Artificial Intelligence in Recruitment.

Theories on AI in Human Intelligence.

Meta Theoretical considerations of Artificial Intelligence is based on the wide theories accepted such as “The best Model of intelligence is Human brain”. The artificial intelligence theories develop and intuit good alternatives for human capitals. The Theory of AI is on laws of qualitative structure and simulation experiments. Computer areas are mostly complex operations, to simply and fit in the real world, many tools are available.

Domain specific Knowledge and strategies initiate boundaries and theories to perform and incorporate mechanism. Boundaries lies on experimental questions on embedded programming convenience, more succinctly on qualitative structure. Designing, learning, and navigating external words anticipating domains and problem-solving concepts. Artificial Intelligence are boosting workflow and helps in forecast in management. This technology also improves organisational risk, mistakes and unusual patterns like frauds, unauthorized alerts by self- driven aspects and theories investing the human capitals and management. Many innovations have been helpful in enhancing the value of company on many ways, technologies have optimized operations and increase revenue and productivity of human resource management. The current AI in HR department has many tools such as Voice based chats and search like chatbots, Machine learning matching patterns, ATS, Assessment platform, cloud-based HR platforms, data workbench and many more.

These tools and technologies had an effective impact on predictive analysis to automate recruitment and thus making the Human resource management easier and enabling efficiency in Human resource management. Technologies had benefited the companies in decision making process along with accuracy in workflow of companies. Minimizing bias, identifying best candidates, and eliminating unreliable assessments helping sort the domain, skills and technologies based on candidates' interest on designations, skills, or necessities.

Conclusion:

There are many tools and technologies that are important to improve the companies' efficiencies. The changes in industry or economy have had a positive impact of technologies in Human resource management, Concepts like Diversity, inclusiveness and adopting the latest technologies in the human resource departments of companies has shown the lead in shift in companies' strategies and operations. Adopting Artificial Intelligence in Human resource department has given the companies added advantage in easing the recruitment process. Recruiters have seen changes in recruitment lifecycle and candidate expenditure, this is all because the company is able to understand and make decisions based on the changes in the job market.

Reference

1. <https://www.analyticssteps.com/blogs/what-role-ai-human-resource-management>
2. (Artificial Intelligence in Human Resource Management)
3. The Impact of Artificial Intelligence on Recruitment Technology (manatal.com) (Impact of Artificial Intelligence in Recruitment)
4. Votto, Valecha, Najafirad and Rao (2021), Artificial Intelligence in Tactical Human resource management: A Systematic Literature Review in their Conceptual Study covers the evolutions of Recruitment, tactical human resource information systems components. International Journal of Information Management Data Insights; Volume1,Issue2. <https://www.sciencedirect.com/science/article/pii/S2667096821000409>
5. Oswal, Khaleeli and Alarmoti (2020), Recruitment in the era of industry 4.0: Use of artificial intelligence in Recruitment and Its Impact, Palarch's Journal Of Archaeology Of Egypt/Egyptology;Volume17,Number8.
6. <https://archives.palarch.nl/index.php/jae/article/view/1113>
7. Geeta and Bhanu (2018), Recruitment Through Artificial Intelligence: A conceptual study. International Journal of Mechanical Engineering and Technology (IJMET), Volume 9, Issue 7; https://iaeme.com/MasterAdmin/Journal_uploads/IJMET/VOLUME_9_ISSUE

_7/IJ MET_09_07_007.pdf

8. Nawaz (2019) in his study on artificial intelligence is transforming recruitment effectiveness in CMMI level companies International Journal of Advanced Trends in Computer Science and Engineering, 8(6); Volume 8, No.6, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3521928
9. Mirji (2021), Artificial Intelligence in Recruitment: Assessing Flipside. International Research Journal of Science, Technology, Education, and Management, Volume 1, No. 1, https://www.researchgate.net/publication/354047551_Artificial_Intelligence_in_Recruitment_Assessing_Flipside#:~:text=The%20results%20reveal%20that%2C%20thou%20gh,for%20acquiring%20and%20training%20are



DIGITAL MARKETING: 21ST CENTURY CHALLENGES AND OPPORTUNITIES

Komal Kamlesh Gaikwad

*Hirwal Education Trust's College of Computer Science and Information
Technology, Mahad- Raigad*

Email- gaikwadkomal659@gmail.com

Abstract:

In the 21st century marketing combines both traditional and digital networks to promote products and services. Before the 21st century, organizations had no advertising options other than conventional networks such as newspapers, television, radio flyers and pamphlet to reach their target customers. They focused on mass marketing campaigns to create awareness among the target market and influence latent customers to make purchasing decisions. The arrival of the internet transformed the concept of advertising into inbound marketing from outbound marketing.

Introduction-

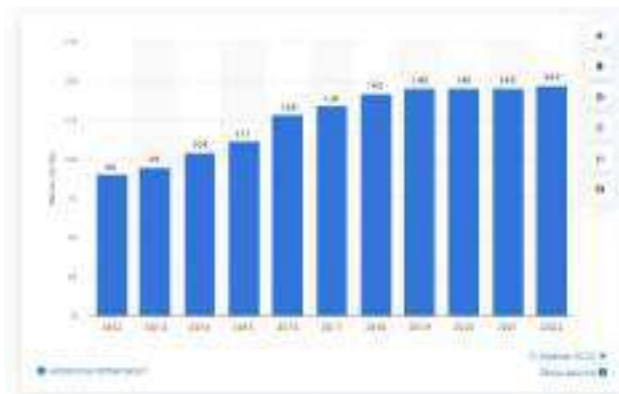
Inbound marketing facilitates two-way interactive communication between organizations and customers through search engines and social media platforms, emails etc. whereas outbound marketing involves actively reaching out to consumers to get them interested in a product. Most of the brands in market keep working to find out the changing need of consumers, according to that needs developing suitable product and finding right market place to reach the right customer. The digital reform on internet has paved a new marketplace on Internet where everything and anything is available to explore and review and have a virtual feel. The article will bring focus on the scope of different digital trends. Due to COVID 19 pandemic and the lockdown restrictions, most of the businesses had to come up with urgent strategies to promote their product. And need a different approach to reach out to the target audience, other than the digital platforms. Small as well as big companies started promoting their brand on various digital media platforms. There was a extreme change in consumer behavior and due to this, the percentage of internet sales went higher than the

retail sales which leads to sudden shift from traditional marketing to digital marketing.

Keywords: Digital marketing, Verticals of digital marketing, opportunities and challenges in digital marketing.

Digital marketing

Digital marketing is the form of marketing that uses the internet to promote its brand through digital platform. After realizing the power of the internet number of businesses started to shift from traditional ways of marketing to the digital world. Digital marketing is the best method to reach target audience in cost efficient manner and is easier to grow the business on faster rate. The Internet connects people from all across the world. So when you promote your brand over the internet, you are actually promoting it to the entire world. People from all over the world can see your product. So digital marketing offers global trade with low investments. In these days most of the customers use online shopping over going to the shops. Online shopping is feasible for both the customers as well as the brands, it makes easy to target a large audience in one space. Digital marketing is a constantly changing as it evolves very fast, changes could happen due to technological advancement, consumer's behavior, etc. For the survival of business on the digital platform, it is important for companies to be updated with the latest trends and techniques in digital marketing. According to Statista.com in current scenario average user with internet spends approximately 3 h on internet platform daily and it makes it biggest platform to promote any brands to attract user or consumer. Daily time spent on social networking by internet users worldwide from 2012 to 2022: Source: Statista.com



Verticals of digital marketing

Most of brands use digital marketing through various verticals which suits their product and means of communicating with their consumer. According to the statistics, 75% of marketers increased their company's credibility and trust with digital marketing tactics. Choosing best vertical of digital marketing that give better ROI for brand is most important aspect in brand building. Widely used verticals of digital marketing are as follow.

Content marketing

It is the online content that the brands use to create interest and entertain the customer. Its main motive is just to keep the customer engaged. It is done for brand building and awareness purposes.

Search engine marketing

For example through Google AdWords one can promote their products through pop-up visuals like GIF, images etc. on search engine.

Mobile Marketing

It is the way of reaching the audience through smartphone applications, social media platforms, emails, SMS, MMS, etc.

Social Media Marketing

It uses social media platforms like YouTube, Facebook, Instagram, Twitter, WhatsApp etc. to promote its business. It is termed as one of the efficient and cost effective way of digital marketing.

Email Marketing

Email marketing is the promotion of business by using email. It's an old but effective and cost effective way of digital marketing.

Influencer Marketing

It endorses opinion influencers for promoting a particular business. Influencers help to build brand trust. According to statistics 49% of consumers claim that they depend on influencer recommendations on social media to inform their purchasing decision (Four communications, 2018). This means if the consumer feels confident about the review given by influencer, the chances of purchasing the product will be increased.

Affiliate Marketing

It allows brands to promote their product through third party website to create traffic and publish information. This concept is also known as website marketing where commission to third party is received only on the sale of a product.

Opportunities in Digital Marketing:

AI in Marketing

The world has been buzzing about how the Artificial Intelligence wave will take over every aspect of your lives in the future. Little do we realize, the change has already started, 60% of internet users have already interacted with an AI Chatbot for solving queries across multiple apps and websites like Flipkart and other shopping websites. Most of the content we consume on our social media platforms is finely-tuned by AIs to make us stay engaged for longer! AI is a complex algorithm that teaches itself by analyzing huge numbers of data about a certain field or topic and learns the patterns that work the best. The learning capabilities of the AI provide programmers with the ability to introduce effective changes in outcomes by letting the AI use the techniques it found works the best. AI can serve many functions and act as an extension to every digital marketer who knows how to use it. It is cost-efficient, precise, and extremely effective vertical. Nowadays so many enormous companies adopting these tools, every team must have a plan to incorporate AI in their array of tools.

Chatbots

A chatbot is a AI-based technology software application used to conduct an instant on-line chat conversation via text or text-to-speech, in lieu of providing direct contact with a live customer, and with site visitors. A Chatbot is a type of software that can help customers by automating conversations and interact with them through messaging platforms. Hence Chatbots are considered one of the top digital marketing trends. Businesses can benefit by the use of chatbots to engage with customers. Since there are number of users visiting the website at same time, so it beneficial to have a technology that answers hundreds of users simultaneously. The advantages of having chatbots are 24/7 customer service, instant responses to inquiries, and answers to simple questions. This virtual technological support provides excellent customer services, this means a

Komal Kamlesh Gaikwad

business can get rid of repetitive tasks and can focus on important work. Dominos has introduced a Facebook Chatbot to make the ordering process faster. The renowned restaurant offers the easiest way to order a pizza from “Anywhere”.

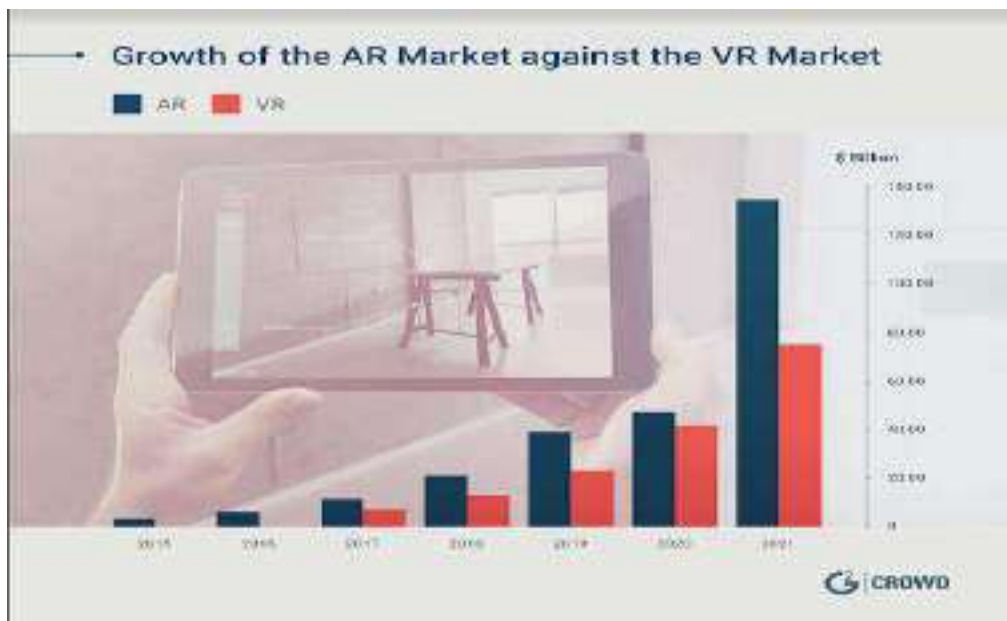
Today’s customers use different messaging networks to connect with a brand. These networks offer the benefit of ordering pizza from anywhere – through Facebook Messenger, texting, Amazon Alexa, Twitter, or a smartwatch.

Augmented Reality

By the definition of Wikipedia, Augmented Reality is an interactive experience of a real-world environment where the objects that reside in the real world are enhanced by computer-generated perceptual information.

It consists of 3 basic features

1. a combination of real and virtual worlds
2. real-time interaction
3. accurate 3D registration of virtual and real objects



AR enhances both the real world and virtual reality while VR only enhances a fictional reality. Marketing experts foresee that AR will continue to outperform VR in terms of market share

Source: Singlegrain.com

Brands are progressively using this AR technology to promote the consumer experience and increase sales. One such example is Lenskart, which has its own



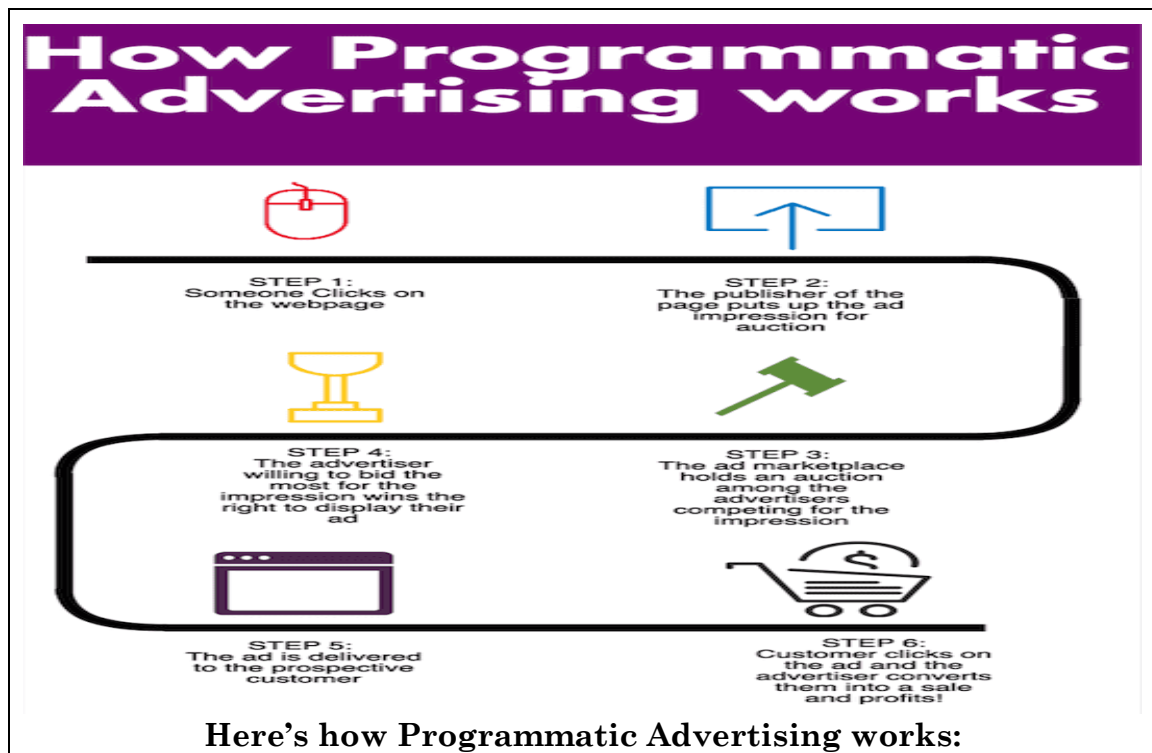
app that allows the users to take try on by themselves on their smartphones to test which specs, sunglasses, goggles suits them best. The users can move the face around to check out how the specs looks different from different angles.

Voice Search Optimization

According to research 60% of people use voice search at home, while 57.8% of people use voice search on their smartphones (Stone Temple, 2017). This massive adoption by the entire generation shows how popular voice search is going to be in future. This increasing adoption of voice search shows that the voice searches are increasing in accuracy, Google claims that their voice searches are 95% accurate. Global smart speaker sales reached an all-time high. In current scenario Amazon is the leading vendor in the global smart speaker market, with a market share of 26.4 percent in the third quarter of 2021, in the same quarter Google is Amazon's closest competitor, with a share of 20.5 percent. With so many growth factors indicating the rise of voice search, making your website ready for voice search will be very crucial for the future.

Programmatic Advertising

Programmatic Ad Buying is the use of automated software to buy digital/media advertising. While the traditional Ad Buying method includes requests for proposals, human negotiation, and quotes while programmatic buying makes use of technology, algorithms and machines to buy ads. Programmatic Advertising is designed to replace human negotiations with machine learning and AI- optimization which helps to automatically buy and optimize digital campaigns, rather than buying directly from publishers. The objective is to increase efficiency and transparency for both the advertiser and the publisher.



Personalization

If you want to outperform your competitors and want to stand out in the market, you must focus on personalizing content, products, emails, etc. Personalization is the next big trend that will soon become an industry standard. The best example to understand the power of personalization are Hotstar and Netflix, they have personalized recommended shows or movies for each user.

Digital Marketing: Challenges

Learning About Your Customers

Targeting your audience will be more important aspect to grow your business in future. As SEO and paid promotion get more competitive, businesses can't afford to waste time or money on content or keywords that are too comprehensive or poorly directed. One of the best tools for targeting the right audience is a buyer persona, which lets you visualize and helps to better understand your typical consumer.

Creating Engaging Content

Content marketing is very crucial aspect for digital marketers as it engaged and entertained consumers or viewers. Consumers and viewers are always starved for fresh content that educates them and points them in the right direction.

Komal Kamlesh Gaikwad

Content that will be especially popular in 2022 includes short- videos, live-streaming content, and Instagram and Facebook reels or short stories.

Conclusion:

Above article reveals that digital marketing is need of future. Through digital marketing companies and consumers can interact with each other by online mode which is time saving and cost efficient. In 21st century digital marketing evolves day by day which helps to scale business on grand level, which creates lots of opportunities in technological, digital media sector in future.

References:

1. Top 33 Digital Marketing Trends in 2022: Latest Trends You Must Knowby
Karan Shah | Blogs
2. Digital Marketing Trends You Can't Ignore in 2022 by NIDHI DAVE
3. <https://www.singlegrain.com/digital-marketing/digital-marketing-trends-2022/>
4. Statistical report: <https://www.statista.com/statistics/792604/worldwide-smart-speaker-market-share/>
5. The Boom of Digital Marketing in 21st Century- codecondo
6. Digital Marketing: Scope Opportunities and Challenges WRITTEN BY
Chandan KumarMishra



ADOPT OF NEW TECHNOLOGY IN AGRICULTURE

Dr. Tippanna B Kolkar

Assistant Professor of Economics Govt. First Grade College-Kittur

Dist- Belagavi- Karnataka-591115

Email: drtippannakolkar@gmail.com

Abstract

Technology plays a pivotal role as a vehicle for change in many discipline, especially in agriculture sector new technology enhance productivity and food grain production on a large extent. Agriculture has remained as a centerpiece of Indian economy, though it is a main source of livelihood for a majority of Indian population, it still stands as a technologically backward sector..Farmers are tech savvy and are open to adopting new technologies that can help them improve their income. For instance, a Face-book group for organic farmers in India with a member strength of 25,000 has become an engaging platform for farmers to seek help or advice from other farmers. Nowadays, technology is widely used in farming. Technology has enabled man to get rid of the manual efforts that he put into agriculture. Now there are machines to help him. We live in a world where technology is at the heart of our everyday lives. Similar to the transformations in other sectors, technology is sure to shape farming practices. Technology can transform Indian agriculture by addressing challenges related to quality, quantity, distribution and storage. Majority of Indian population still depends on agriculture as the main occupation. Not only is it the main source of livelihood for many but also the major contributor to national GDP. Many farmers are still deprived of minimum facilities and that is one of the major reasons for low agricultural productivity in India. The Economic Survey 2017-18, highlighted that the percentage of agricultural workers of the total workforce would drop to 25.7 per cent by 2050 from 58.2 per cent in 2001. Therefore, there is a need to enhance the level of farm mechanization in the country. As a result, few startups are developing innovative ways to help and empower the farmer community. Farmers no longer have to apply water, fertilizers, and pesticides uniformly across entire fields. Instead, they can use the minimum quantities required and target every specific areas, or even treat individual plants differently.

Benefits include Technology has played a big role in developing the agricultural industry.

Introduction

The increasing rate of technological advancement across various disciplines, and in particular the agricultural sector, has resulted in increased efficiency and productivity. Recent advances in biotechnology research and development offer new prospects for increased food production and security in various jurisdictions. However, adoption and commercialization of existing and emerging technologies both at the farm and industry levels have been of great concern to governments and the food industry. Nowadays, everything is modernized using technology. Technology has replaced even the most recent techniques for better and efficient outcomes. Earlier everything was manual; now everything is automatic and more advanced. Technology has been a great asset for human kind. Presently one of the biggest needs of humanity for its existence is agriculture and central stage is always occupied by the agricultural industry alone. This condition is irrespective of time and lifestyle changes. Few years back, the survival of agricultural industry was critical, but now the situation is contradictory where new developments in the industry have been made with the help of technology. The areas like productivity, cost and labour have been highly enhanced or supported with the help of technology. Categorizing them, first comes the information technology which has played a vital role in circulating information in the field of agriculture. Agriculture has found its path sparking only after information exchange within it. Information here definitely means the data relating to market prices, demand, cultivation ideas and seasonal changes. Information relating to weather is the most important one which saves the farmer from any kind of losses in cultivation. Today Whatsapp groups are now used extensively by farmers to exchange knowledge and collaborate with peers. From ordering seeds online to seeking inputs on social media, there is rapid adoption of information technology by Indian farmers. Despite its importance to the economy, little has been done to revive the sector. From production challenges to financing inefficiencies, Indian agriculture is plagued by several issues. Inadequate farm equipments, lack of

Dr. Tippanna B Kolkar

access to fairly priced credit, distribution challenges due to intermediaries between farm to fork are some of the challenges facing the Indian farmer. Farmers are the sole risk bearers of all these challenges that arise in the farming cycle. Be it lack of quality tools, erratic monsoons or pest outbreaks, farmers have to face it all without any risk mitigation among other stakeholders. We live in a world where technology is at the heart of our everyday lives. Today More and more agricultural practices have now been transformed using technology. Development of new innovations or technologies require huge amount of investment in research and development activities, But once innovation is accepted practically in agriculture it is possible to grow crops even in a desert with the help of technology.

Present Trend of Production in Agriculture

Technologies that enable contract farming arrangements can help solve financing inefficiencies in the system. This reduces the farmer's risk with guaranteed off-take arrangements and agri-inputs supplied by the contracting company. Apart from with this, technology can also help farmers avail crop insurance and credit that are rightly priced. This can be possible by analysing data from various sources including land records, weather analysis, historical and current satellite imagery and remote monitoring using drones. In spite of new technologies making their way into agriculture, some factors still hold back their adoption. Quite often, farmers can be hesitant to try out and invest in new technologies due to lack of clarity on ROI or lack of successful case studies of other farmers. Infrastructural issues like power supply and internet connectivity in remotely located farms can be a challenge while building connected farms or deploying solutions. Last mile logistics, to get agriculture products, into the hands of farmers, is still a big challenge, and very often needs to rely on cash-based traditional distribution channels, which are not nimble enough. Currently farmers choose crops on the basis of the trends of the last season. Technology can assist them in making right growing choices by carefully analyzing demand, pricing and fluctuations in weather conditions. This will create a better balance between supply and demand. Technology enabled farming tools can be a boon for

Dr. Tippanna B Kolkar

small farms. Large machinery used in developed countries have very little applicability in most of our small farms. The key is to build mechanized processes suitable for small farms, that reduces dependency on manual effort and results in better productivity. Technology based crop advisory around crop planning, pest control, disease mitigation can be very useful. Online marketplaces offering wide variety of authentic agriculture inputs that are backed by scientific agriculture -advisory can also help.

Uses of machines in farm holdings

Various types of modern agriculture machinery and technology are used in different agricultural operations nowadays. Different levels in crop production include – Primary and secondary level tillage of the soil, Seeding and planting, Cultivation, Fertilizer application and distribution, Pest control, Harvesting, Irrigation, Drainage , Transportation, Storage, Handling the residues of earlier crops etc. Since the olden times, animals were the primary source of energy when it was about tough jobs in farming. Later on, steam power started replacing the same. And then gas-powered tractors took over, followed by diesel engines. In the developed nations, it caused lowering the number of farm workers, however, farm production continuously increased with the use of agriculture machinery. Now a farmer can cultivate on more than 2 acres of land with less labor, and can cut costs even more when they are looking for a used tractor and other harvesting technology, versus new equipment. The use of planters and harvesters makes the process so easy. In agriculture, time and production are so important; you have to plant in time, harvest in time and deliver to stores in time. Modern agricultural technology allows a small number of people to grow vast quantities of food and fiber in a shortest period of time.

Technology in agriculture has transformed and increased production and quality of produces. In modern times, farmers who are doing heavy works on farms using traditional and old agriculture tools are wasting their health and time. A tractor that used to be known as a technological genius in the agricultural field is old news now. The modern farm machinery has upgraded the agricultural industry for the best. Some of the essential and most used

Dr. Tippanna B Kolkar

machinery are Combine or Combine Harvester, Rotary Tiller, Plough or Plow, Tractor Trailer, Power Harrow, Leveler, water browser, ripper machine, and disc harrow.

Cooling facilities

These are used by farmers to deliver tomatoes and other perishable crops to keep them fresh as they transport them to the market. These cooling facilities are installed in food transportation trucks, so crops like tomatoes will stay fresh upon delivery. This is a win-win situation for both the consumers of these agricultural products and the farmers. How? the consumers get these products while still fresh and the farmer will sell all their products because the demand will be high

Genetically produced plants

Like potatoes, can resist diseases and pests, which rewards the farmer with good yields and saves them time. These crops grow very fast they produce healthy yields. Since they are resistant to most diseases and pests, the farmer will spend less money on pesticides, which in return increases on their (RIO) return on investment.

Production and Productivity in Agriculture

Since the introduction of economic planning in India, agricultural development has been receiving a special emphasis. It was only after 1965, i.e., from the mid-period of the Third Plan, special emphasis was laid on the development of the agricultural sector. Since then, a huge amount of fund was allocated for the development and modernization of this agricultural sector every year. In India the growth in gross area under all crops has increased from 122 million hectares in 1949-50 to 151 million hectares in 1964-65 and then it increased to 188.4 million hectares in 2018-2019. Further, gross area under all food grains has increased from 99 million hectares in 1949-50 to 118 million hectares in 1964-65 and then to 138.2 million hectares in 2018-2019. Similarly, the gross area under all non-food-grains has also increased from 23 million hectares in 1949-50 to 33 million hectares in 1964-65 and then to 56.2 million hectares in 2018-2019. After the introduction of modern agricultural technique

Dr. Tippanna B Kolkar

along-with the adoption of hybrid seeds, extension of irrigation facilities and application of intensive method of cultivation in India, yield per hectare of all crops has recorded a steep rising trend. Agricultural production in India can be broadly classified into food crops and commercial crops. In India the major food crops include rice, wheat, pulses, coarse cereals etc. Similarly, the commercial crops or non-food crops include raw cotton, tea, coffee, raw jute, sugarcane, oil seeds etc.

Impact of Technology in Agriculture

Technology has had a great impact on agriculture. The productivity and yield of goods have increased, and at the same time, it has proved to be profitable for the farmers. Technology has not only made the farmers profitable but has brought us good products. It is a challenging task to meet the food demand of such a big population. In such a situation technology, has enabled the farmers to produce a much larger yield than ever before. With the advent of technology, we have got better and hybrid products. The nutritional value of crops has now increased, and plants are no more prone to diseases. Now our farmers no more depend on rainfall, they have pumps to irrigate their fields. Thus, the price of food items has gone down significantly. Scientists have prepared better DNAs of plants which are powerful enough to sustain any attack. Technology has primarily impacted this sector.

Impact of Technology

Higher crop productivity
Decreased use of water, fertilizer, and pesticides,
which in turn keeps food prices down
Reduced impact on natural
Less runoff of
chemicals into rivers and groundwater
Increased worker safety

Growth Trend of Food Grain

The government of India has set a target of record 285.2 million tonne of food grain production in the 2018-19 crop year despite deficit rains so far this monsoon. India harvested a record 284.83 million tonnes of food grain in the 2017-18 crop year (July-June). The food grain output in the 2017-18 crop year (July-June) is estimated at an all-time high 277.49 million tonnes, as per the second advance estimates released by the ministry in February. The record

Dr. Tippanna B Kolkar

production in last couple of years has led to fall in prices of agri-commodities and level of distress in farm sector.

Year	Production(Million Tonnes)
2012-2013	257.13
2013-2014	265.4
2014-2015	252.2
2015-2016	251.57
2016-2017	275.11
2017-2018	284.83

Source: Department Of Agriculture Govt Of India Report (Jan-2018)

Conclusion

Majority of the poor in developing countries heavily depend on agriculture for survival, as a result, agriculture is considered as a key fundamental for stimulating economic growth, overcoming poverty, and enhancing food security. Productivity increases in agriculture can reduce poverty by increasing farmers' income, reducing food prices. It is a good sign that technology has touched agriculture. The benefits that technology has provided in the agricultural sector are numerous. Technology has proved to be the perfect companion for farming. Global population has mostly been affected by the use of technology in agriculture. It is a real legacy and will be vastly useful in the future when we face scarcity in some of the most valuable natural resources the introduction of technology in agriculture has led to a massive increase in food productivity as well as removing any concerns relating to a scarcity of food in the future. Advancements in technology such as crop sensors, irrigation systems and fertilizers have all helped crop yields meet their maximum potential, and variable rate technologies have also ensured that fields obtain the required amount of input that will as a result lead to huge increases in production. History has shown that farmers have been relatively good down through the years at adopting new methods and technologies.

Referance:

1. Ligon, E. and Sadoulet, E. (2007) Estimating the Effects of Aggregate Agricultural Growth on the Distribution of Expenditures. Background Note for the World Development Report 2008, the World Bank, Washington DC.

Dr. Tippanna B Kolkar

2. World Bank (2005) Ethiopia—Well-Being and Poverty in Ethiopia: The Role of Agriculture and Agency. Report No. 29468-ET. World Bank, Washington DC.
3. Kennedy, E., and Bouis, H.E. (1993) Linkages between Agriculture and Nutrition: Implications for Policy and Research.



ROLE OF DIGITALIZATION IN PROMOTING SOCIAL MARKETING: SOME REFLECTIONS

Dr. Veda C.V¹ Mrs. Anitha.S²

¹Assistant Professor, Department of Social Work, Bangalore University, Bengaluru,
Karnataka.

E-mail: vedacv.msw@gmail.com

²Faculty, Dept. of Social Work, PG Centre Ramanagara, Bangalore University

E-mail: anitha.anithas@gmail.com

Abstract:

Social marketing utilizes commercial marketing strategies to improve the wellness of people by changing human behaviour for better living. The objective of the paper is to explore the role of digitalization for promoting social marketing. The paper is based on descriptive study, adopted historic research design and the researcher collected data through secondary method. The results shows that selling social marketing products by using digitalization as a tool helps to reach individuals of all ages across remote communities.

Introduction

Social Marketing has the essential objective of accomplishing "social wellness". Social marketing is an approach used to develop activities aimed at changing or maintaining people's behaviour for the benefit of individuals and society as a whole. Commercial business advertising points are principally monetary; however, they can have positive social impacts too. Promoting the social marketing products such as contraceptives, anti-smoking like nicotex, anti-drug, promoting exercise and healthy eating, safe driving and so on through digital social media helps to grab the attention of the general public especially youths.

Background:

The WHO defines health promotion as: "the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions (NSMC, 2016)." With regards to general well-being, social

marketing would advance general well-being, bring awareness and induce changes in human behaviour. Social marketing is marketing designed to create social change, not to directly benefit a brand. Using traditional marketing techniques raises awareness of a given problem or cause and aims to convince an audience to change their behaviours (Huhn, 2019). Social marketing is a methodology used to develop strategies aimed at bringing expected changes in public behaviour for the advantage of combining individuals, groups, communities and society's wellness. Merging the strategies from digital commercial marketing to promote social marketing became a demonstrated device for impacting the behaviour of targeted consumers in a cost-effective and manageable way. In this background, the present study has been taken.

Statement of the Problem:

A descriptive study is to understand the digitalization as a tool for promoting social marketing.

Objectives of the Study:

Explore the role of digitalization for promoting social marketing.

Review of literature

Digital Marketing is growing at a rate of 25-30% in India annually. And, as per statistics, India has reached 500 million users of the internet at the end of 2018. The high-speed digitization, digital portals, social media channels, etc lead to a growth of digital marketing in a trend par imagination (Kamble, 2019). "Instead of selling a product, social marketing "sells" a behaviour or lifestyle that benefits society, to create the desired change. This benefit to the public good is always the primary focus. And instead of showing how a product is better than competing products, social marketing "competes" against undesirable thoughts, behaviours, or actions" (Huhn, 2019). Social media allow you to communicate on a personal basis with individual customers and groups (Business Queensland , 2016). According to Marketing Sherpa, 95% of digital adults ages 18 to 34 are likely to follow a brand on social media. However, when users follow brands and engage with their social media profiles, it is because they find the content and information in these social media campaigns valuable (Smith, 2019).

Dr. Veda C.V Mrs. Anitha.S

Research Methodology:

The present is a descriptive study based on a historic research design. The researcher collected secondary data through various secondary sources such as journals, books, previous studies, and websites.

Operational definitions

Social Marketing: The definition applied in the study was by Philip Kotler, Nancy Lee, and Michael Rothschild (2006) “Social marketing is a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviours that benefit society (public health, safety, the environment, and communities) as well as the target audience.”

Digital Marketing: The definition applied in the study was given by Kotler and Armstrong (2009), Digital marketing is a form of direct marketing that links consumers with sellers electronically using interactive technologies like emails, websites, digital forums and newsgroups, interactive television, mobile communications and so on (KB Manage).

Social Products: In this paper, Social Products mean goods and services that are provided by the state or private for the benefit of the population and society. For *social marketing*, the "*product*" is a certain behavior you are trying to change.

Social media hub: A social media hub or a social hub is a digital tool that collects content from various social networks and displays it all together (Miles, 2017).

Social Marketing

Social marketing was "born" as a discipline in the 1970s when Philip Kotler and Gerald Zaltman realized that the same marketing principles that were being used to sell products to consumers could be used to "sell" ideas, attitudes and behaviours. Kotler and Andreasen define social marketing as "differing from other areas of marketing only concerning the objectives of the marketer and his or her organization. Social marketing seeks to influence social behaviours not to benefit the marketer, but to benefit the target audience and

Dr. Veda C.V Mrs. Anitha.S

the general society." This technique has been used extensively in international health programs, especially for contraceptives and oral rehydration therapy (Weinreich).

The 4 Ps of Social Marketing

The four essential elements for any marketing campaign, These “Ps” are product, price, place, and promotion, and they’re also known as the “marketing mix.” It need to define these factors before you design your social marketing campaign.

Product: “The social marketing "product" is not necessarily a physical offering. A continuum of products exists, ranging from tangible, physical products (e.g., condoms), to services (e.g., medical exams), practices (e.g., breastfeeding, ORT or eating a heart-healthy diet) and finally, more intangible ideas (e.g., environmental protection). To have a viable product, people must first perceive that they have a genuine problem and that the product offering is a good solution for that problem” (Weinreich).

Price: Minimize the “price” that your audience believes they have to “pay” for the desired social action to take place. This price isn’t all monetary. It’s also about minimizing the difficulty, time, and psychological/emotional costs that people will incur. So, when you’re designing a social marketing campaign, one needs to think about the obstacles that hinder your audience from performing the behaviour (Huhn, 2019)

Place: "Place" describes the way that the product reaches the consumer. The questions need to answer such as how can you reach the target audience; do you need to recruit peers of your audience as “ambassadors,” to make the campaign more accessible to your audience? (Huhn, 2019). Are you going to limit the availability of your products only to digital or both digital and offline? Another element of place is deciding how to ensure accessibility of the offering and quality of the service delivery (Weinreich).

The place is where and when the target market will perform the desired behaviour, acquire any related tangible objects, and receive any associated services. Options include: 1. Physical locations 2. Phone/Mobile devices 3. Mail

Dr. Veda C.V Mrs. Anitha.S

4. Fax 5. Internet 6. Mobile Unit 7. Where people shop 8. Where people hang out 9. Home Delivery. (Kotler, 2011)

Promotion: Finally, the last "P" is promotion. This one ties all 4 "Ps" together. Because of its visibility, this element is often mistakenly thought of as comprising the whole of social marketing. Promotion consists of the integrated use of advertising, public relations, promotions, media advocacy, personal selling and entertainment vehicles. The focus is on creating and sustaining demand for the product (Weinreich). Under promotion one need to finalize the channels and outlets will assist you with best to reach target audience and draw their attention to the social marketing campaign (Huhn, 2019).

Promotions are persuasive communications designed and delivered to inspire your target audience to action. Major social marketing communication channels include: 1. Digital selling 2. Advertising 3. Public Relations 4. Special Events 5. Printed Materials 6. Special Promotional Items 7. Displays 8. Personal Selling 9. Social Media 10. Popular/Entertainment Media. (Kotler, 2011)

At the same time, BUDGET Identifies price tags for strategies and activities with cost-related implications. 1. Product-related costs 2. Price-related costs 3. Place-related costs 4. Promotion-related costs 5. Evaluation-related costs. (Kotler, 2011)

Digital Marketing

Digital marketing is a set of tools and methodologies used for promoting products and services through the internet. Digital marketing includes a wider range of marketing elements than traditional business marketing due to the extra channels and marketing mechanisms available on the internet. Digital marketing is also known as internet marketing, web marketing, digital marketing and search engine marketing (SEM). (techopedia) Digital marketing can deliver benefits such as growth in potential, reduced expenses, elegant communications, better control, improved customer service, and competitive advantage. The broad digital marketing spectrum varies according to business requirements. Effective digital marketing programs leverage consumer data and customer relationship management systems. Digital marketing connects

Dr. Veda C.V Mrs. Anitha.S

organizations with qualified potential customers and takes business development to a much higher level than traditional marketing. Digital marketing combines the internet's creative and technical tools, including design, development, sales and advertising, while focusing on the following primary business models: E-commerce, Lead-based websites, Affiliate marketing and Local search. (techopedia) Digital marketing has several advantages, including: (techopedia) Low costs: Large audiences are reachable at a fraction of traditional advertising budgets, allowing businesses to create appealing consumer ads. Flexibility and convenience: Consumers may research and purchase products and services at their leisure. Analytics: Efficient statistical results are facilitated without extra costs. Multiple options: Advertising tools include pay-per-click advertising, email marketing and local search integration. Demographic targeting: Consumers can be demographically targeted much more effectively in a digital rather than an offline process.

Social Product Marketing

“The Awareness-to-Revenue Customer Lifecycle includes a set of psychological transitions where customers become aware of, evaluate, like, advocate, and purchase a specific product or brand. A wise marketing team can track the number of individuals who transition through each phase and know how to implement programs that help increase the number of people who transition from one phase to the next”. (Hinz, 2010) “Social media experts hope to leverage Facebook and other networks to increase awareness, but that only focus on awareness and disregard the other phases. By melding traditional marketing and social media into a single strategy called "Social Product Marketing," Social Marketing allows a company to use social collaboration to build communities of interest focused on their product or service and to build marketing programs to transition community members through the purchase lifecycle. The key is to build a social media hub focused on their product”. (Hinz, 2010)

Dr. Veda C.V Mrs. Anitha.S

Results

Social marketing aims at the social goodness of people and society. Selling social marketing products by using digitalization as a tool helps to reach individuals of all ages as well as remote communities in the countryside. Social marketing is commonly used for causes like (Huhn, 2019). Health and safety, including Contraceptives, Anti-smoking, Anti-drug, Promoting exercise and healthy eating, safe driving, Railroad station safety environmental causes, including Anti-deforestation, Anti-littering, Endangered species awareness. Social activism includes illuminating struggles that people of color, people with disabilities, etc. face, then inspiring people to fight against mechanisms that create inequality, and anti-bullying. Non-profit organizations and philanthropies run the majority of social marketing campaigns. Government organizations, and emergency services (police, fire, ambulance) run them as well. But social marketing isn't feasible in case you're profit-oriented. Commercial brands and huge companies will sometimes run social marketing campaigns for causes they are passionate about or through corporate social responsibility activities (Huhn, 2019). The well-executed social marketing captures attention, and spreads awareness about a social issue, through creativity and emotion. Most importantly, it presents a compelling, simple way to make the world better, and makes this beneficial behaviour more desirable than any “competing” behaviour. Through these elements, social marketing can successfully “sell” a beneficial behaviour through digital or offline (Huhn, 2019).

Conclusion

Social marketing is predominately planned to promote social change more than selling just a product; it sells a behaviour change or lifestyle that benefits society. Well-executed social marketing uses creativity and evokes emotions to motivate action, through visuals and catchy slogans (Huhn, 2019). For those who are interested in promoting social products through digital, one must keep in mind the “4 Ps” product, price, place, and promotion of social marketing campaign. The promotion of social products through digital helps to reach the remote area of the country. The discoveries exhibited in this study presume that

Dr. Veda C.V Mrs. Anitha.S

even though digital-based marketing is more powerful than a traditional promotional channel, but it can't be executed without involving different types of traditional promoting channels.

References

1. Business Queensland . (2016, Nov 21st). Queensland government. Retrieved from <https://www.business.qld.gov.au/running-business/marketing-sales/marketing-promotion/digital-marketing/social-media>
2. Hinz, P. (2010, oct 22). Commerce times. Retrieved from E-Business: <https://www.ecommercetimes.com/story/71085.html>
3. Huhn, J. (2019, sept 5th). Retrieved from <https://www.business2community.com/digital-marketing/what-is-social-marketing-with-7-stellar-examples-02236451>
4. Kamble, O. (2019, june 18). The Growth of Digital Marketing in India. Retrieved from <https://yourstory.com/mystory/the-growth-of-digital-marketing-in-india>
5. KB Manage. (n.d.). Retrieved 2020, from <https://www.kbmanage.com/concept/digital-marketing>
6. Kotler, N. L. (2011). Social Marketing: Influencing Behaviors for Good , Fourth Edition. SAGE. Retrieved from https://www.socialmarketingservice.com/site/assets/files/1010/socmkt_primer.pdf
7. Miles, K. (2017, sept 30). Taggbox. Retrieved from Event marketing: <https://taggbox.com/blog/social-media-hub-for-website-event/>
8. NSMC. (2016). Retrieved from <https://www.thensmc.com/content/what-social-marketing-1>
9. Smith, K. (2019, Aug 12th). lyfemarketing. Retrieved from <https://www.lyfemarketing.com/blog/marketing-through-social-media/>
10. techopedia. (n.d.). Retrieved January 2020, from <https://www.techopedia.com/definition/26363/digital-marketing>

11. Weinreich, N. K. (n.d.). Weinreich communications. Retrieved January 2020, from <http://www.social-marketing.com/Whatis.html> and <http://dx.doi.org/10.4135/9781452224879.n4>



ROLE OF SOCIAL MEDIA IN EFFECTIVENESS OF ADVERTISEMENT AND MARKETING

Charushila Bhupal Tasgave

Research Student, Shivaji University Kolhapur

Email-tasgavecharushila@yahoo.in

Abstract

Today, we are in 21st century and people do not find time to come & interact with each other. Social media plays essential role in connecting themselves with social networking sites through which now people can stay far and yet remain connected. Social media allows people to freely interact with others and offers multiple ways for marketers to reach and engage with consumers. Information Technology's advancements are revolutionizing every firms and business. Social media marketing is the process of creating awareness, driving traffic and engaging your customers and prospects using social media channels. Despite the current boom of Social networking sites for marketing, this study reveals that effectiveness of advertising through social networking sites. However, a Social networking site provides the ideal platform for direct communication between organizations and customers. In recent days, internet advertising has taken new forms which have more advantages over the traditional mediums like print media, television and radio. Different strategies of communication are followed in various social networking sites like Facebook, Twitter, LinkedIn Orkut, what's app, you-tube and other sites. Social media has recently gained tremendous fame as a highly impactful channel of communication in these modern times of digitized living.

Keywords: social media, marketing and advertisement.

Introduction

Over recent years, social media has grown to gain recognition as a pronounced and paramount marketing factor guiding the success of a product/service/business. claims that people in the early 1990s had begun forming opinions that the internet would become the next futuristic tool of relationship marketing. Most people regard social media as a mere platform available for sharing their daily updates and pictures on social networking sites

as Facebook and Twitter. In a more informed light, social media has proved itself to be a low cost information exchange platform available for one and all, be it consumers, businesses, organizations, governments, or any other entity, to learn, educate, share, build, market, advertise, and improvise on the central idea being circulated. No doubt social network is a significant new way of reaching people, but the market is far from being mature.

Objectives of the study

1. To study about Social Medias role in advertisement and marketing.
2. To study factors influencing on social media advertisement and marketing.
3. To study Advantages of Social media for advertisement and marketing.

Research Methodology

In order to study Role of Social Media on Effectiveness of Advertisement and Marketing Secondary data from different research papers, reports & articles data has been studied and analysed.

What is social media?

social media can be thought of in a few different ways. In a practical sense, it is a collection of software based digital technologies—usually presented as websites apps —that provide users with digital platforms in which they can send and receive digital information or content over some type of online social network. In this sense, we can think of social media as the major platforms and their features, such as Facebook, Instagram, and Twitter, what's app and you tube. We can also in practical terms of social media as another type of digital marketing channel that marketers can use to communicate with consumers through advertising

Social Media Outlets/Platforms

Social networking websites allow individuals to interact with one another and build relationships. When products or companies join those sites, people can interact with the product or company. That interaction feels personal to users because of their previous experiences with social networking site interactions. Social networking sites like Twitter, Facebook, Google Plus, YouTube, Pinterest

Charushila Bhupal Tasgave

and blogs allow individual followers to “retweet” or “repost” comments made by the product being promoted.

Cell Phones

Cell phone usage has also become useful for social media marketing. Today, many cell phones have social networking facilities: individuals are notified of any happenings on social networking sites through their cell phones, in real-time. This constant connection to social networking sites means products and companies can constantly remind and update followers about their services, uses, importance, etc. Because cell phones are connected to social networking sites, advertisements are always in sight. Also many companies are now putting QR codes along with products for individuals to access the company’s website or online services with their smartphones.

Engagement

In the context of the social web, engagement means that customers and stakeholders are participants rather than viewers. Social media in business allows anyone and everyone to express and share an opinion or idea somewhere along the business’s path to market. Each participating customer becomes part of the marketing department, as other customers read their comments or reviews. The engagement process is then fundamental to successful social media marketing.

Campaigns

Adidas

In 2007, Adidas, and their agency Carat, created a social media experience for soccer players. Adidas pitted two different cleat types against one another and asked people to “choose your side.” The content focused on fostering an environment of friendly discussion and debate of Adidas’ two models of elite soccer cleats/boots, Predator and F50 TUNIT. Visitors to the community had the opportunity to align themselves with one product “team” and offer comments in support of their preferred model. The community included content about professional Adidas soccer players on each “team,” rotational product views,

Charushila Bhupal Tasgave

downloadable graphics, forum discussions, a link to additional product information, and a link to the adidas Mexico Fútbol profile page.

Local Businesses

Small businesses also use social networking sites as a promotional technique. Businesses can follow individuals social networking site uses in the local area and advertise specials and deals. These can be exclusive and in the form of “get a free drink with a copy of this tweet”. This type of message encourages other locals to follow the business on the sites in order to obtain the promotional deal. In the process, the business is getting seen and promoting itself.

2008 Presidential Election

The 2008 presidential campaign had a huge presence on social networking sites. Barack Obama, a Democratic candidate for US President, used Twitter and Facebook to differentiate his campaign. His social networking site profile pages were constantly being updated and interacting with followers. The use of social networking sites gave Barack Obama’s campaign access to email addresses, as posted on social networking site profile pages. This allowed the Democratic Party to launch e-mail campaigns asking for votes and campaign donations

tactics

twitter

Twitter allows companies to promote products on an individual level. The use of a product can be explained in short messages that followers are more likely to read. These messages appear on followers’ home pages. Messages can link to the product’s website, Facebook profile, photos, videos, etc. This link provides followers the opportunity to spend more time interacting with the product online. This interaction can create a loyal connection between product and individual and can also lead to larger advertising opportunities. Twitter promotes a product in real-time and brings customers in.

Facebook

Facebook profiles are more detailed than Twitter. They allow a product to provide videos, photos, and longer descriptions. Videos can show when a product can be used as well as how to use it. These also can include testimonials as other

Charushila Bhupal Tasgave

followers can comment on the product pages for others to see. Facebook can link back to the product's Twitter page as well as send out event reminders. Facebook promotes a product in real-time and brings customers in

Blogs

Blogs allow a product or company to provide longer descriptions of products or services. The longer description can include reasoning and uses. It can include testimonials and can link to and from Facebook, Twitter and many social network and blog pages. Blogs can be updated frequently and are promotional techniques for keeping customers. Other promotional uses are acquiring followers and subscribers and direct them to your social network pages.

Instagram

Facebook owns Instagram. Facebook and Instagram operates in similar ways. Instagram gives the low budget service for many companies. Instagram also offers different varieties such as fashion, beauty and lifestyles in add. Instagram is best platform for brand-recognition .60% audience says that they find new product on Instagram and 70% people take action after inspiring Instagram posts. Instagram is great friendly platform for marketing and advertisement.

What's app

WhatsApp is the most popular messaging platform in the world. In 2020, its audience has grown up to 2 billion active users monthly. WhatsApp marketing is useful for stay in touch with your customers – a lots of WhatsApp users check the app every day. people feel more connected to a brand if they use messaging what's apps. It makes WhatsApp marketing a bulletproof strategy for building long relationships with customers. Maintaining such a connection, in turn, helps brands cut expenditures as customer retention is 5-25 times cheaper than acquisition. Higher conversion rate, Better sales and Lower cost of marketing these are benefits of this app.

Highly Influential Factors on Social Media Marketing and Advertisement

1. Content quality, not quantity
2. Building trust and long-term relationship

Charushila Bhupal Tasgave

3. Offline community to extend their relationship and customers' loyalty
4. Integration with other marketing platforms.

Advantages of Social Media for marketing and Advertisement

1. Increased Brand Awareness. ...
2. More Inbound Traffic. ...
3. Improved Search Engine Rankings. ...
4. Higher Conversion Rates. ...
5. Better Customer Satisfaction. ...
6. Improved Brand Loyalty. ...
7. More Brand Authority. ...
8. Cost-Effective.

Conclusion

The social media provides new opportunities and it is enhancing brand image 's of firms that need to put it in their top priority. Taking advantage of these types of social media platforms can help you build your community, make your marketing and advertising more effective. . Through the use of social media can easily reach the user-friendly interactive system, understanding customers' unique needs. many firms believe that using social media extensively would cheapen the way of enhancing brand image businesses because evidences as available by checking out social media pages, blogs, forums and such we can understand that customer satisfaction has been increased.

Reference

1. Vivek Bajpai , Sanjay Pandey And Shweta Shriwas On Social Media Marketing: Strategies & Its Impact : International Journal Of Social Science & Interdisciplinary Research Vol.1 Issue 7, July 2012, Issn 2277 3630.
2. Gil Appel , Lauren Grewal , Rhonda Hadi & Andrew T. Stephen On The Future Of Social Media In Marketing: Journal Of The Academy Of Marketing Science (2020) 48:79–95.
3. D. Lakshmanan And S. Rabiyyathul Basariya On The Role Of Social Media On Enhancing Advertising Effectiveness: International Journal Of Civil

Charushila Bhupal Tasgave

Engineering And Technology (Ijciet) Volume 8, Issue 9, September 2017, Pp. 1042–1047, Article E Id: Ijciet_08_09_116.

4. Yogesh K. Dwived, Kawaljeet Kaur Kapoor And Hsin Chen On Social Media Marketing And
5. Advertising
6. 5.Www.Google.Com/Advantages Of Social Media Advertising
7. 6.Www.Bluefountainmedia.Com/10 Advantages Of Social Media Marketing For Your Business.
8. 7.web.utm.Io/11 Of The Biggest Benefits Of Social Media Advertising Business Owner Need To Know.
9. 8.Sendpulse.Com/What Is Whatsapp Marketing:Ideas ,Tips,Examples-Definitions.
- 10.9.www.google.com/Whatsapp For Advertising Article.
- 11.10.related.forbes.Com/Social Media Management Tools.
- 12.related.forbes.Com/Digital Media Advertising.
- 13.12.www.forbes.com/ Is Instagram Advertising The Right Social Media Platform For Your
- 14.Brand?
- 15.13.www.google.Com./Instagram For Advertisement Article.
- 16.14.business.instagram.com/Instagram For Business :Marketing On Instagram
- 17.15. .business.instagram.com/Advertising On Instagram |Instagram For Business



MODES OF DIGITAL MARKETING

Dr. Ganesh J. Dubale¹ Dr. Choudhari R.L²

^{1, 2}Assit. Profe, Department of Commerce, Vaishnavi Mahavidyalaya Wadwani,
Dist. Beed

Abstract

Now a days Digital marketing is a rapidly growing sector and evolving several career paths. Customers have become smarter day by day. Due to digital marketing. They always prefer to search and compare the prices of product before they decide to buy. Digital Marketing is a modern way adapted by company to reach out to customers and convince them to buy their goods. This includes email marketing, blogging, online banner advertising, social media marketing, video marketing, Instagram etc.

Key Words: Digital Marketing, Marketing Trend, Mobile, Internet, Search Engine.

Introduction

The traditional way of marketing involved businesses to advertise their products or services on print media, radio and television commercials, business cards and in many other similar ways where Internet or social media websites were not employed for advertising. Traditional marketing policies had limited customer reachability and scope of driving customers' buying behaviour.

In recent time of Internet has opened a door of vast variety of opportunities for businesses. Using social networks, one cannot only share a private picture of one's birthday but also earn customers for one's business and reach them conveniently. The speed and ease with which the digital media transmits information and help boost a business is amazing. Digital marketing encompasses a wide variety of marketing tactics and technologies used to reach consumers online. As a form of online marketing, it allows organizations to establish a brand identity and has revolutionized the marketing industry.in general Digital marketing is the marketing and advertising of a business, person, product, or service using online channels,

electronic devices, and digital technologies. A few examples of digital marketing include social media, email, pay-per-click, and more.

Objective of the study

1. To study the concept of digital marketing.
2. To study the modes of digital marketing.
3. To study the future of digital marketing in India.

Research methodology

To conduct the research study descriptive research method has been used. For the purpose of the study secondary data is used. It is collected from the published books, research papers in journals, annual reports and website.

Methods of digital marketing

1. Mobile Marketing
2. Social Media Marketing
3. Content Marketing
4. Email Marketing
5. Pay-per-Click (PPC)
6. Marketing Analytics
7. Affiliate Marketing
8. Search Engine Optimization (SEO)

Mobile marketing

When it comes to mobile marketing, this means using mobile apps and SMS. In recent time, no one can sit without mobile that's why help of digital marketing supplier try to reach to the targeted audience.

Social Media Marketing

It is the way of generating website or attracting viewers and customers through social networking websites such as Facebook, LinkedIn, Pinterest, Twitter, and so on. Social media marketing is a subset of digital marketing. All social networking websites support sharing of content, but all are not necessarily employed for digital marketing. While Facebook emphasizes on personal sharing and LinkedIn goes for professional networking, Twitter emphasizes on tweeting short messages about ones' opinions or reactions, Pinterest motivates to market one's ideas and online businesses.

Content Marketing

It is a marketing strategy used to attract, engage, and retain an audience by creating and sharing relevant articles, videos, podcasts, and other media. This approach establishes expertise, promotes brand awareness, and keeps your business top of mind when it's time to buy what you sell.

Email Marketing

Email marketing is a form of marketing that can make the customers on your email list aware of new products, discounts, and other services. It can also be a softer sell to educate your audience on the value of your brand or keep them engaged between purchases.

Pay-per-Click (PPC)

It is an online advertising model in which an advertiser pays a publisher every time an advertisement link is “clicked” on. Alternatively, PPC is known as the cost-per-click (CPC) model. It is offered primarily by search engines and social networks e.g., Facebook Ads, Google Ads, Twitter Ads.

Marketing Analytics

Marketing analytics provides insights into customer behaviour and preferences. Businesses can then tailor their marketing initiatives to meet the needs of individual consumers. Marketing analytics enables real-time decision support as well as proactive management. There are three types of analytics that businesses use to drive their decision making; descriptive analytics, which tell us what has already happened; predictive analytics, which show us what could happen, and finally, prescriptive analytics, which inform us what should happen in the future. Analytics is more than just a nice extra. It's one of the best ways to understand your customer journey and [find out what's working in your campaigns](#) and what isn't. And having that information is crucial for your future online marketing efforts.

Affiliate Marketing

Affiliate marketing involves referring a product or service by sharing it on a blog, social media platforms, or website. It is an advertising model in which a company pays others to advertise their products and services and generate sales. (e.g.,

bloggers) Affiliates place ads or market the products or services on their website, app, or blog. Commissions are paid on leads that convert to sales.

Search Engine Optimization (SEO)

In simple words, it is the process of improving your site to increase its visibility when people search for products or services related to your business in Google, Bing, yahoo, and other search engines.

Conclusion

Now this virtual age any one can sit one place and purchase a product throughout the world, so we are living in the concept of Vasudev kutumbakam . Our market is borderless that's why every business can sell their product anywhere with the help of digital marketing.

References

1. https://www.tutorialspoint.com/pinterest_marketing/digital_marketing_introduction.htm
2. <https://corporatefinanceinstitute.com/resources/knowledge/ecommerce-saas/pay-per-click-ppc/>
3. <https://www.shopify.in/blog/affiliate-marketing>.
4. <https://mailchimp.com/marketing-glossary/marketing-analytics/>
5. Yusuf Kamal, Assistant Professor Techno Institute of Management Sciences, Lucknow, UP, India Study of Trend in Digital Marketing and Evolution of Digital Marketing Strategies, DOI 10.4010/2016.1298, ISSN 2321 3361 © 2016 IJESC.



A STUDY ON SHIFT OF DIGITAL MARKETING DUE TO LOCK DOWN

Nidhi Amit Medhekar¹ Dr. Geeta Kohade²

¹ *Chhatrapati Shivaji Maharaj University, Panvel*

² *Research Guide, Chhatrapati Shivaji Maharaj University, Panvel*

Abstract:

Nobody could have predicted how 2020 would change the face of marketing. The marketing change which will going to happen during and after covid 19 no one has imagined. There is a great scope for digital marketing but there are major challenges due to Covid 19 pandemic as well. The terminology of “marketing” what we are knowing is constantly changing and becoming broader. People are becoming Tech-savy and ready to buy products and services through Digital modes Digital Marketer have to consider the change in digital marketing after Pandemic covid 19, opportunities and challenges the marketers face, and the strategies which digital Marketer have to adopt for various consumer post covid 19. Movements of customers can be understood by Customer Experience sharing, Putting reviews, Website Traffic, Employee Engagement, and Content Visualization etc. The change has turned into the solution for necessities and recreation for people locked in homes.

Keywords

Digital Marketing, Pandemic Covid 19, Challenges and opportunities,

Introduction:

Every coming era is the era of the customer. We’re observing a great shift in beliefs about what marketing actually *is*. It is not only convincing people to work for you, and your organisations Instead, the priority has moved towards providing fantastic customer experiences that will keep people coming back for more.

It is not just bringing customer now but converting them as loyal customer and giving them customer delight. When you focus on building a positive business culture and providing great service, the marketing almost takes care of itself. Marketing has gone beyond promotion and advertising; marketers must work together with other departments to focus on building great customer experiences and engaging them for long-term relationships.

Never before in our generation have, we been forced to rethink our daily routines, spending habits, and social interactions, which have up until now required little thought. COVID-19 has made society re-evaluate the importance of most things in life. It's encouraged us to become more aware of the things we feel are necessary to survive in order to get through this challenging time. Consumer discretionary spending has slowed down or has abruptly halted and, as a result, caused a significant downturn in the economy.

Social distancing laws have meant that businesses have either been forced to shut down or operate remotely. In doing so, most companies have seen sharp declines in sales and business inquiries. These swift reductions in sales and inquiries have seen businesses take drastic steps to save whatever they have left to keep their businesses afloat.

For most, when the panic set in, advertising and marketing budgets were impacted. It's clear that digital marketing is evolving to keep pace with new technological innovations and changing consumer preferences, such as the expectation for ads and content to be increasingly personalized and relevant to the individual.

Background of the study

Understanding The change after CVID 19

We will concentrate on its potential effect on key marketing principles, business circumstances and marketing strategies. Marketers have also promoted the benefits of identifying and generating positive consumer interest, satisfaction and loyalty assessments.

Nidhi Amit Medhekar Dr. Geeta Kohade

When a digital media agency is advised to pause all advertising and marketing, it stops a business's ability to secure new sales inquiries and cuts off the possible maximization of customer growth.

What is most damaging with this approach is that the longer the cost-cutting methods are implemented, the longer businesses will take to recover. The COVID-19 pandemic has shown that more and more people are searching for products and services online due to social distancing laws. Digital agencies across The consumer appetite for purchasing products and services continues to be very much alive, with a 300% increase in online sales.

This type of online growth has seen many businesses alter their supply chains, by switching from selling products in brick-and-mortar stores to selling products online. For service-based companies, business has been performed via video meeting platforms like Zoom, and as a consequence quote can be secured through new business ventures.

Review of Literature

In February 2019 a study by eMarketer found that online spend had officially exceeded that of offline for the first time and now accounted for half of all global ad spend. The same study predicted that by 2023 digital ad spend will account for around two-thirds of total global media spend, a market estimated to be worth \$333.25 Unlike other major global incidents, Covid-19 profoundly altered how we see the environment, how we perceive and how we live. In the human drama of lost lives, fractured families and scarred cultures, propound fact for us and future generations will be the economic and social pandemic lockdown.

Physical, social psychological, and economic pain. Covid-19 is seen in many ways as similar to what Taleb calls a "black swan occurrence" (as many writers and academics have experienced in the same way), Mazzolini et al , 2020. "COVID has been the catalyst for digital transformation at scale," Publicis chief operating officer, Jo Coombes.

In a global survey of over 35,000 consumers by Kantar during lockdown, results showed that only 8% felt brands should stop advertising during the pandemic and 74% felt brands should avoid exploitation of the situation. On the

Nidhi Amit Medhekar Dr. Geeta Kohade

flip side, 78% felt that brands had a responsibility to help them in their daily lives while 75% wanted brands to communicate what they were doing. Perhaps surprisingly, just 30% thought brands should be offering discounts and 19% thought more should be done to manage customer queries.

Impact of Covid -19 on Digital Marketing

Mar-tech has evolved in response to COVID-19

There has been a pleasing synchronicity in the requirement for the technology to manage this shift and the evolution of the tech to meet the need. While highly integrated CRM platforms, chatbots to support conversational marketing and intuitive email nurture functionality to help maintain buy-in and engagement are not new to the marketing toolbox, they have all come into their own in recent months.

Tech is helping marketers establish and maintain their customer relationships even during this unprecedented time. The challenge to the marketer is to choose the tools they need, to integrate them effectively and to make the most of functionality and opportunity they offer.

One of the more interesting tools to come into its own recently is Google Trends is feature that shows how frequently a term is searched for in Google. Helping marketers understand changes in lifestyle, behaviour and attitudes since lockdown. Search terms and how they have changed are offering marketers invaluable insight into the evolution of customer focus.

For example, earlier in the lockdown period Google trends recorded spikes in search terms for recipes, comfort foods and cocktail ideas as people found they had time on their hands at home. Later on though, as the lockdown progressed, it seems perhaps people had overdone the home cooking when terms such as 'how to lose belly fat' were seen to be on the rise! We have used spikes in specific searches to help clients stay relevant in lockdown and get a greater share of voice to their consumers.

Using this data to create content around the right subjects and what people search for is vital to engage with your audience especially now and

Nidhi Amit Medhekar Dr. Geeta Kohade

moving into the future. Now, more than ever, content is king and organic search is the kingdom.

Present Scenario

Digital shopping is here to stay

Physical distancing and stay-at-home customs have forced whole consumer segments to shop differently. The dramatic rise in the adoption of e-commerce and omnichannel services sees no sign of abating. The latest data suggests that there will be a huge increase of 169% in e-commerce purchases, from new or low-frequency users post-outbreak.

Brand loyalty is eroding:

This general change of behaviour in response to COVID-19 has also been reflected in a shattering of brand loyalties. Almost half of consumers are trying new brands, and a third are incorporating new private-label brands into their shopping repertoire. For marketers, this highlights the need to quickly become aware of when shoppers are migrating between brands.

Marketing localization:

With more consumers moving out of urban areas and to the suburbs and rural regions, localized marketing will become more prominent. Two-thirds of consumers, according to Accenture, are shopping primarily in neighbourhood's stores, or buying more locally-sourced products. Localized content and personalization will be more important than ever in order to strengthen a connection with the audience

Every business either small or big has moved towards digital presence:

The pandemic has compelled businesses also to shift online to showcase their products and services which have prompted brands to create content that is contextual and relevant to garner larger mindshare from their customer base.

The rise of the crib economy

People are spending their at-home time on work and domestic activities. Usage of popular online entertainment platforms has skyrocketed. As economies reopen, almost three-in-four consumers say that they're hesitant to resume regular activities outside the home. They are concerned about going to a hair

Nidhi Amit Medhekar Dr. Geeta Kohade

salon, gym, or restaurant, but are especially worried about shared environments, such as the office, public transportation, ride sharing, air travel, and, generally, being in crowded spaces. Still, they have fear of wave of COVID-19 There are the future opportunities for companies seeking services.

from digital marketing agencies during the pandemic: Digital agencies now have virtual inquiry forms to capture potential inquiries for customers who are not able to meet on-site; SEO services are now the most recommended digital service offered by digital marketing agencies

Results and Discussion

'Pandemic compelled businesses to shift online, brands to create content that's relevant' The pandemic has compelled businesses also to shift online to showcase their products and services which have prompted brands to create content that is contextual and relevant to garner larger mindshare from their customer base.

Both consumers and providers have changed behaviors'

It is essential to understand that both consumers and providers have changed their behaviors and interacting accordingly as per the new norms. There may be a greater demand for digital marketing going forward, but this will be balanced out by greater competition and to stand out.

The trends that will stay with us and change marketing after COVID-19

Digital marketing has become a solution as well as a means to satisfy needs as basic as food, but also contact with friends and family, entertainment and acquisition of information, goods, and services normally accessed physically and in person.

However, the arrival of lockdown has dramatically increased the size, availability, and profile of the digital audience and has changed their behaviors, expectations, consumption of content, and the way they expect to be interacted with as customers.

Conclusion

Digital Marketing Services after Pandemic means in following ways

1. Our messaging-- needs to be more targeted now than ever before.

Nidhi Amit Medhekar Dr. Geeta Kohade

2. We need to understand the persona of the new consumer post-COVID-19.
3. The content we deliver needs to have substance and provide true value.
4. We still need to focus our efforts on long-term growth strategies.
5. Building trust and recognition between brands and consumers is critical.
6. Brands have now realized there are new ways to operate their businesses.
7. Innovation should now be front and center in any business operation.
8. SEO services are absolutely vital post-COVID-19 for long-term growth.
9. Digital marketing services like Google Advertising should complement SEO, not dominate advertising budgets.
10. Websites are more important now than ever before, as this is the first touchpoint. No arena of the marketing world has changed faster than digital marketing and credit goes to the COVID-19 pandemic. As Technology is changing our world at an astonishing pace, it becomes difficult to keep up with different new trends in the industry. With the arrival of the pandemic, people started spending more time online than ever before and enhanced their online presence widening the online business opportunity promising a bright future for digital marketing agencies. Undoubtedly, the future is bright for digital marketing agencies, but as ever, only for those that are able to convert pandemic to an opportunity and adapt accordingly.

Webliography

1. Xi'an Dianzi Keji Daxue Xuebao (2020) "A Study on Impact of COVID-19 a Global Pandemic on Indian Economy: With special Context to Goods and Service Tax". Journal of Xidian University, Vol.14, Issue-3, pp-1809-1818.
2. <https://marketinginsidergroup.com/marketing-strategy/marketing-trends/>
3. <https://www.innovationvisual.com/insights/how-covid-19-has-changed-the-digital-marketing-andadvertising-landscape>
4. <https://hbr.org/2021/03/10-truths-about-marketing-after-the-pandemic>
5. <https://www2.deloitte.com/si/en/pages/strategy-operations/articles/changing-consumer-digital-marketing-impact-Covid-19.html>
6. <https://www.adtaxi.com/blog-roll/2021/3/31/one-year-later-how-covid-19-changed-digital-marketing>

Nidhi Amit Medhekar Dr. Geeta Kohade

7. <https://elearningindustry.com/advertise/elearning-marketing-resources/blog/how-digital-marketing-will-change-post-covid-19>
8. The Author, Shreesh Pandey, is founder & CEO of MSP India Corporation, a marketing and advertising solutions network.
9. <https://www.liebertpub.com/doi/full/10.1089/omi.2020.0047>



FORMS OF DIRECT MARKETING (ONLINE / DIGITAL MARKETING)

Mr.Pradeep V. Gaikwad

Arts and Commerce College, Pusegaon.

Email-pradeep12j@gmail.com

Abstract

Marketing is the act of facilitating the exchange of a given commodity for goods, services, and/or money to deliver maximum value to the consumer. From a societal point of view, marketing is the link between a society's material requirements and its economic patterns of response. Marketing satisfies these needs and wants through both the exchange processes and building long-term relationships. This paper concentrated direct and online marketing and how change conventional marketing in direct marketing. This study also identified forms of direct marketing, Online/ Digital Marketing Industry in India. The present research work would provide a road map for researcher. secondary data relating to direct and online marketing collected from website, research paper, journals, books, newsletter

Keywords: Direct Marketing, Online Marketing, Telemarketing, Viral Marketing, Database Marketing.

Introduction:

Direct marketing is a type of advertising that seeks to achieve a specific action among a selected group of consumers (such as placing an order, visiting a website, or requesting information). The method of communication by the advertiser or marketer can take many different formats, like direct mail, telemarketing, or through social ads. One of the most interesting methods is direct email marketing. An essential aspect of direct marketing is that **the** consumer response is measurable. For example, if you offer a discount for an online store, you should include some kind of cookie or pixel to let you know if the user has used the code. Direct marketing is a promotional method that involves presenting information about your company, product, or service to your target customer without the use of an advertising middleman. It is a targeted form of marketing that presents information of potential interest to a consumer that has been determined to be a likely buyer. Now every business promotion of our product and services through the social media, like Facebook, Facebook and YouTube reels, Tik-Tok etc. For example, subscribers to teen magazines might be presented with Facebook ads for acne medication which, based on their age, they are likely to need.

Objectives of the Study:

1. To study difference between conventional marketing and direct marketing
2. To study importance and advantages direct Marketing
3. To study the forms of direct Marketing
4. To study Online/ Digital Marketing Industry in India

Methodology:

1. The present paper is based on secondary source of data

- The secondary data has been collected from various website, research paper, journals, books, newsletter

Difference Between Conventional Marketing and Direct Marketing.

Sr.No	Conventional Marketing	Direct Marketing
1.	Conventional marketing is mass marketing	DM is demassified marketing; it deals with customer one- to one
2.	CM deals with customer indirectly	DM deals with directly
3.	CM is a one-way activity	DM is interactive marketing, with two-way communication
4.	CM relies heavily on marketing channels/ stores	DM is channel less
5.	CM relies heavily on advertising/mass promotion	DM does not involve them

Defining of Direct Marketing

Direct Marketing: The marketing without intermediaries is called direct marketing. In this type of marketing, the producer himself encourages or motivates the customers to buy goods or services. Direct marketing helps to establish relationship, strengthen, deepen and maintain it. Different writers have defined direct marketing. The important ones have been given as follows: According to William J. Stanton, Michaela J. Etzel and Bruce J. Walker, "Direct marketing as using advertising to contact consumers who, in turn, purchase products without visiting a retail store."

According to Philip Kotler and Gray Armstrong, "Direct marketing is marketing through various advertising media that interact directly with consumers, generally calling for the consumers to make a direct response." Immediate reaction is expected from customers in direct marketing. Direct mail, catalogue, telephone, television and Internet etc. are widely used in direct marketing. Recently, direct marketing has become wide and popular. Producers, sellers, service companies, non-profit organizations, catalogue merchants etc. use direct marketing.

Why is direct marketing important?

- It helps marketers reach customers fast
- It is an efficient promotion strategy
- Direct marketing can be customized
- Direct marketing allows measuring its efficiency

Advantages of Direct Marketing.

- Targeted advertising
- Budget marketing
- Boosts sales to existing and lapsed customers
- Improves customer loyalty
- Helps in pushing new business
- Allows to measure product performance

Forms of Direct Marketing.

Direct marketing has several forms as it incorporates a variety of media and tools. Specific forms of direct marketing have emerged. For example, direct mail marketing is one form of direct marketing. Customised mailing through database and mail- merge' facility of word processing is the medium/tool used here. It constitutes one way of reaching a mass of customers individually. Telemarketing is another form of direct marketing. While in the earlier days, direct marketing tools were confined to the mail and the telephone, today direct marketing use new age tools such as computer, mobile phone, and the internet for reaching

Mr.Pradeep V. Gaikwad

prospects/ customer individually. These tools actually permit more effective and more sophisticated direct marketing. Their availability at a low-cost and high-reach has substantially enlarged the direct market opportunities.

Following are the forms of Direct Marketing

1. Mail Order Marketing/Catalogue Marketing
2. Direct Mail Marketing
3. Direct Response Marketing
4. Database Marketing
5. Telemarketing
6. Teleshopping (Home-Shopping)

The new age direct marketing methods

1. Marketing through social media
2. Marketing through ATMs
3. Viral Marketing
4. Online Marketing/Marketing on the web

Mail Order marketing/Catalogue Marketing-

Mail Order Marketing also known as Mail Order Business and Catalogue Marketing is one of the established methods of direct marketing. Since mail order marketers normally use catalogue for communication with the consumer, this form marketing came to be referred to as catalogue marketing. In this method, the consumer become aware of a product through information furnished to them, the marketer through catalogue dispatched by mail. The entire marketing takes place by mail. Interested consumers respond by placing a mail order on the marketer, the product is supply to the consumer by mail; payment by the consumer in also maid by mail, either by VPP or by cheques.

Direct Mail Marketing:

In direct mail marketing, not only letters/ brochures are mailed to the prospects, but free product sample, gifts and compliments are also mailed, depending on the context.

Direct Response Marketing:

Direct response marketing uses different media (Including Letters/ Mailers), like telephone, radio, TV and internet. Some direct response marketing campaigns, for examples, rely totally on television 'infomercials' (Commercials which given information about products, benefits and usages aspects and obtain response)

Database marketing

Database marketing is a form of direct marketing. It involves collecting customer data like names, addresses, emails, phone numbers, transaction histories, customer support tickets, and so on. This information is then analysed and used to create a personalized experience for each customer, or to attract potential customers.

Telemarketing

Telemarketing involves contacting clients over the phone to sell them a product or service. With this form of direct marketing, companies can have employees or automated machines reach out to many individuals at one time. This is beneficial because it makes it easy to reach a broad audience within a short amount of time, which can boost productivity.

Some examples of telemarketing include:

Inbound calls: These are calls initiated by the customer, whether they call into the company directly or if they set up a time for the company to call them.

Outbound calls: Also called cold calling, this is when a company calls a consumer directly.

Teleshopping (Home-Shopping):

Teleshopping, alternatively no known as home shopping, is yet another form of direct marketing, Here the marketer hawks the product on air and the consumer watches it's on TV screen at home, phone up the marketer and buys his requirement. Teleshopping networks sell their wares on the slogan; 'The product you see on your screen are just a phone call away; you get some discount as well.

The new age direct marketing methods**Social Media Marketing:**

Social media marketing is the use of social media platforms to connect with your audience to build your brand, increase sales, and drive website traffic. This involves publishing great content on your social media profiles, listening to and engaging your followers, analysing your results, and running social media advertisements. The major social media platforms (at the moment) are Facebook, Instagram, Twitter, LinkedIn, Pinterest, YouTube, and Snapchat. There are also a range of social media management tools that help businesses to get the most out of the social media platforms listed above. For example, Buffer is a platform of social media management tools, which can help you achieve success with your social media marketing. Whether you want to build a brand or grow your business, we want to help you succeed.

Marketing through ATMs/ Mobile Phone (using credit card)

Electronics and tele-topping of pre-paid cell phone cards is an example. More customers now prefer to either call up on the phone or use the net or their ATM cards, to recharge their pre-paid mobile accounts, instead of walking into a retail store and buying recharge coupons, Airtel is planning to generate nearly half its pre-paid business through this route. It already accounts for 22 per cent of its recharge business. For Hutch Vodafone and Spice too, e-topping contributes a significant share

Viral Marketing:

Viral marketing generates interest in a brand or product (and therefore potential sales) through messages that spread quickly from person to person. The idea is that the users themselves choose to share the content. Due to their speed and the fact that they make sharing easy, social networks are the natural habitat of this kind of marketing. The most widespread example in recent times is the creation of emotional, surprising, funny, or unique videos on YouTube, which are then shared on Facebook, Twitter, and other channels. However, virality can be a double-edged sword. It's important to remember that in this type of campaign, a large part of the control falls into the hands of the users and there is a risk that the message can be misinterpreted or parodied. On the other hand, a successful viral campaign can work miracles for your brand's results.

Online Marketing/Marketing on the web:

Online marketing is a set of tools and methodologies used for promoting products and services through the internet. Online marketing includes a wider range of marketing elements than traditional business marketing due to the extra channels and marketing mechanisms available on the internet.

Online marketing can deliver benefits such as:

1. Growth in potential
2. Reduced expenses
3. Elegant communications
4. Better control
5. Improved customer service
6. Competitive advantage

Mr.Pradeep V. Gaikwad

Online marketing is also known as internet marketing, web marketing, or digital marketing. It includes several branches such as social media marketing (SMM), search engine optimization (SEO), pay-per-click advertising (PPC), and search engine marketing (SEM).

Online/ Digital Marketing Industry in India

The earliest examples of online connectivity were demonstrated with the introduction of Michael Aldrich online shopping system. In the following years, the Thomson Holidays UK was launched, then came the India MART B2B in 1996. It was ultimately in 2007 that the launch of Flipkart, an e-commerce marketing website changed the structure of marketing in India. What followed was a rise in the number of people picking up mobile phones, online shopping, at-home delivery, and internet marketing as a means to popularize the brands. And over the years the Digital Marketing Industry has prospered into bringing a large percent of business online with its promising ability to create a global network and flourish even the small businesses internationally.

According to the International Journal of Advanced Research Foundation, India is undergoing a golden period of digital marketing growth ever since 2013 and the trend continues till 2020 at least.

Conclusion:

The return on investment for businesses through digital platforms has exceeded than that from real life platforms. Companies are today shifting towards a more digitally empowered set-up to make the most of the golden period of digital marketing that India is witnessing. About 70-80% of the population is dedicated to making purchases online, and e-commerce websites like Flipkart, Amazon, Myntra, etc are making waves with their influence over the market. And all of it in a country that still has about 2/3rd of the population with no access to the internet or smartphones. As the access to the internet over a larger population rises, India is to witness a revolution in terms of digitalization that will soon make India as one of the top markets in the world with the highest numbers of internet users.

References:

1. International Journal of Business, Management and Social Sciences. Vol. IV, 2015
2. Journal of Commerce and Accounting Research Vol. 11 Issue 1 Jan.2022
3. Marketing Management- MacMillan Publisher India Ltd.
4. <https://www.digitalvidya.com>.
5. <https://www.yourstory.com>.



CONCEPTUAL STUDY OF CURRENT AND NEW TRENDS IN BUSINESS DEVELOPMENT

Dr. Hindurao V. Sankpal

*Assit. Prof, Department of Economics, Rajarshi Shahu Arts and Commerce College
, Rukadi-Dist Kolhapur*

Email- hinduraosankpal@yahoo.in

Abstract

The current and new developments in business development is required for any business organization to earn the profit and brand name. This paper highlights on the various new technology used and advances in business process. The field has evolved due to the convergence of multiple technologies, including ubiquitous computing, commodity sensors, increasingly powerful embedded systems, and machine learning. Traditional fields of embedded systems, wireless sensor networks, control systems, automation (including home and building automation), independently and collectively enable the Internet of things. In the consumer market, IoT technology is most synonymous with products pertaining to the concept of the "smart home", including devices and appliances (such as lighting fixtures, thermostats, home security systems and cameras, and other home appliances) that support one or more common ecosystems, and can be controlled via devices associated with that ecosystem, such as smartphones and smart speakers. The IoT can also be used in healthcare systems. There are a number of concerns about the risks in the growth of IoT technologies and products, especially in the areas of privacy and security, and consequently, industry and governmental moves to address these concerns have begun, including the development of international and local standards, guidelines, and regulatory frameworks.

Keywords- Current trend , Buisness , Internet , Network , Security , IOT, Farmework , Technolgy

Introduction

The Internet of Things is an emerging topic of technical, social, and economic significance. Consumer products, durable goods, cars and trucks, industrial and utility components, sensors, and other everyday objects are being combined with

Internet connectivity and powerful data analytic capabilities that promise to transform the way we work, live, and play. Projections for the impact of IoT on the Internet and economy are impressive, with some anticipating as many as 100 billion connected IoT devices and a global economic impact of more than \$11 trillion by 2025. At the same time, however, the Internet of Things raises significant challenges that could stand in the way of realizing its potential benefits. Attention-grabbing headlines about the hacking of Internet-connected devices, surveillance concerns, and privacy fears already have captured public attention. Technical challenges remain and new policy, legal and development challenges are emerging.

IoT Definitions

The term Internet of Things generally refers to scenarios where network connectivity and computing capability extends to objects, sensors and everyday items not normally considered computers, allowing these devices to generate, exchange and consume data with minimal human intervention. There is, however, no single, universal definition.

Enabling Technologies

The concept of combining computers, sensors, and networks to monitor and control devices has existed for decades. The recent confluence of several technology market trends, however, is bringing the Internet of Things closer to widespread reality.

Connectivity Models

IoT implementations use different technical communications models, each with its own characteristics. Four common communications models described by the Internet Architecture Board include: Device-to-Device, Device-to-Cloud, Device-to-Gateway, and Back-End Data-Sharing. These models highlight the flexibility in the ways that IoT devices can connect and provide value to the user.

Transformational Potential

If the projections and trends towards IoT become reality, it may force a shift in thinking about the implications and issues in a world where the most common interaction with the Internet comes from passive engagement with

Dr. Hindurao V. Sankpal

connected objects rather than active engagement with content. The potential realization of this outcome – a “hyperconnected world” — is testament to the general-purpose nature of the Internet architecture itself, which does not place inherent limitations on the applications or services that can make use of the technology.

IoT Explained in Brief :-

A complete IoT system integrates four distinct components: sensors/devices, connectivity, data processing, and a user interface. Below I will briefly explain each component and what it does.

Sensors/Devices

First, sensors or devices collect data from their environment. This could be as simple as a temperature reading or as complex as a full video feed. I use “sensors/devices,” because multiple sensors can be bundled together or sensors can be part of a device that does more than just sense things. For example, your phone is a device that has multiple sensors (camera, accelerometer, GPS, etc), but your phone is not *just* a sensor. However, whether it’s a standalone sensor or a full device, in this first step data is being collected from the environment *by* something.

Connectivity

The sensors/devices can be connected to the cloud through a variety of methods including: cellular, satellite, WiFi, Bluetooth, low-power wide-area networks (LPWAN), or connecting directly to the internet via ethernet. Each option has tradeoffs between power consumption, range and bandwidth (here’s a simple explanation). Choosing which connectivity option is best comes down to the specific IoT application, but they all accomplish the same task: getting data to the cloud.

Data Processing

This could be very simple, such as checking that the temperature reading is within an acceptable range. Or it could also be very complex, such as using computer vision on video to identify objects (such as intruders in your house).

Dr. Hindurao V. Sankpal

But what happens when the temperature is too high or if there *is* an intruder in your house? That's where the user comes in.

User Interface

Next, the information is made useful to the end-user in some way. This could be via an alert to the user (email, text, notification, etc). For example, a text alert when the temperature is too high in the company's cold storage. Also, a user might have an interface that allows them to proactively check in on the system. For example, a user might want to check the video feeds in their house via a phone app or a web browser.

However, it's not always a one-way street. Depending on the IoT application, the user may also be able to perform an action and affect the system. For example, the user might remotely adjust the temperature in the cold storage via an app on their phone. And some actions are performed automatically.

IoT Applications – Industrial Automation

1. Factory Digitalization.
2. Product flow Monitoring.
3. Inventory Management.
4. Safety and Security.
5. Quality Control.
6. Packaging optimization.
7. Logistics and Supply Chain Optimization.

Smart home

Smart Home clearly stands out, ranking as highest Internet of Things application on all measured channels. More than 60,000 people currently search for the term "Smart Home" each month. This is not a surprise. The IoT Analytics company database for Smart Home includes 256 companies and startups. More companies are active in smart home than any other application in the field of IoT.

Wearables

Wearables remains a hot topic too. As consumers await the release of Apple's new smart watch in April 2015, there are plenty of other wearable

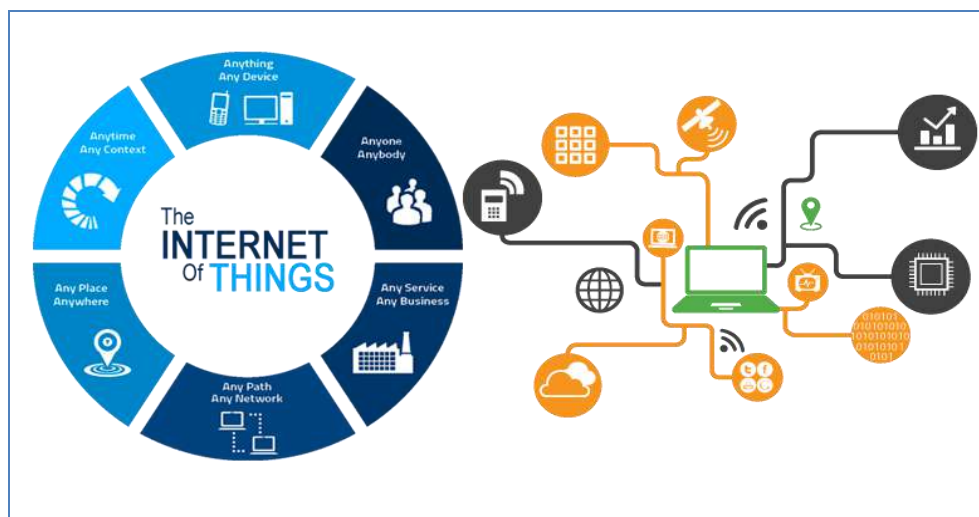
Dr. Hindurao V. Sankpal

innovations to be excited about: like the Sony Smart B Trainer, the Myo gesture control, or LookSee bracelet. Of all the IoT startups, wearables maker Jawbone is probably the one with the biggest funding to date. It stands at more than half a billion dollars!

Smart City

Smart city spans a wide variety of use cases, from traffic management to water distribution, to waste management, urban security and environmental monitoring. Its popularity is fueled by the fact that many Smart City solutions promise to alleviate real pains of people living in cities these days.

IoT solutions in the area of Smart City solve traffic congestion problems, reduce noise and pollution and help make cities safer. Major cities are nowadays very keen to implement the applications of IOT at various level.



Source: <https://www.google.com/search?q=Internet+of+Things+for+Business+Dev>

Smart grids

Smart grids is a special one. A future smart grid promises to use information about the behaviors of electricity suppliers and consumers in an automated fashion to improve the efficiency, reliability, and economics of electricity. 41,000 monthly Google searches highlights the concept's popularity.

However, the lack of tweets (Just 100 per month) shows that people don't have much to say about it.

Dr. Hindurao V. Sankpal

Industrial internet

The industrial internet is also one of the special Internet of Things applications. While many market researches such as Gartner or Cisco see the industrial internet as the IoT concept with the highest overall potential, its popularity currently doesn't reach the masses like smart home or wearables do. The industrial internet however has a lot going for it. The industrial internet gets the biggest push of people on Twitter (~1,700 tweets per month) compared to other non-consumer-oriented IoT concepts.

Connected car

The connected car is coming up slowly. Owing to the fact that the development cycles in the automotive industry typically take 2-4 years, we haven't seen much buzz around the connected car yet. But it seems we are getting there. Most large auto makers as well as some brave startups are working on connected car solutions.

And if the BMWs and Fords of this world don't present the next generation internet connected car soon, other well-known giants will: Google, Microsoft, and Apple have all announced connected car platforms.

Connected Health (Digital health/Telehealth/Telemedicine)

Connected health remains the sleeping giant of the Internet of Things applications. The concept of a connected health care system and smart medical devices bears enormous potential (see our analysis of market segments), not just for companies also for the well-being of people in general. Yet, Connected Health has not reached the masses yet.

Prominent use cases and large-scale startup successes are still to be seen. Might 2015 bring the breakthrough?

Smart retail

Proximity-based advertising as a subset of smart retail is starting to take off. But the popularity ranking shows that it is still a niche segment. One LinkedIn post per month is nothing compared to 430 for smart home.

Dr. Hindurao V. Sankpal

Smart supply chain

Supply chains have been getting smarter for some years already. Solutions for tracking goods while they are on the road, or getting suppliers to exchange inventory information have been on the market for years. So while it is perfectly logic that the topic will get a new push with the Internet of Things, it seems that so far its popularity remains limited.

Smart farming

Smart farming is an often overlooked business-case for the internet of Things because it does not really fit into the well-known categories such as health, mobility, or industrial.

However, due to the remoteness of farming operations and the large number of livestock that could be monitored the Internet of Things could revolutionize the way farmers work. But this idea has not yet reached large-scale attention.

Internet of Things for Business Development

The Business in present days has become very dynamic in nature at all the levels of activities of the business. The Use of IOT at maximum levels of activites is increasing day by day.

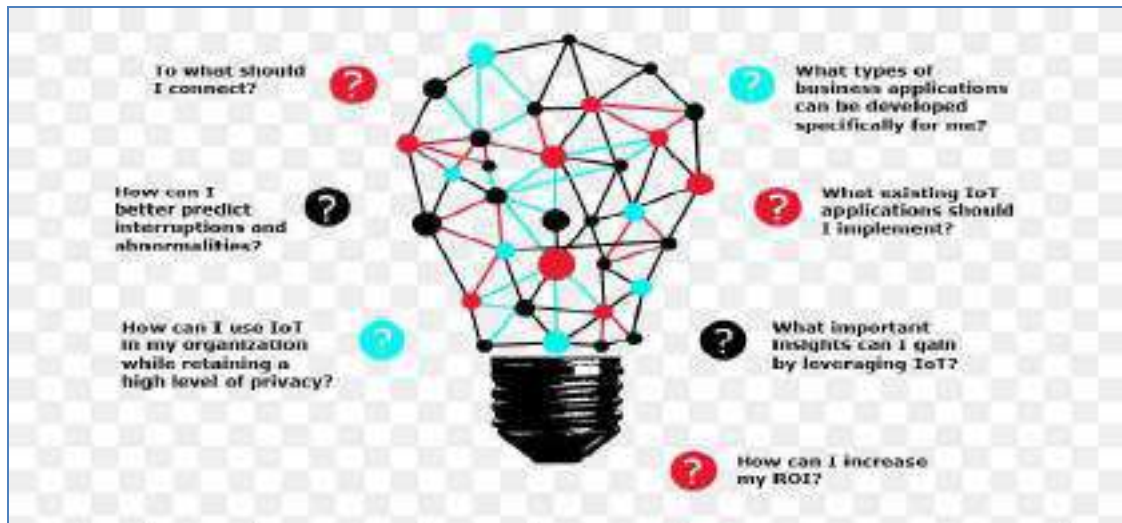
Following are the major areas and disciplines in which IOT is used for the development of the business as a whole.

- 1.Consistant Growth
2. Increase in Profitability
3. Increase in Comptition
- 4.Wide Applications
5. Customer Reach
6. Good administration
7. Maximization of use of Resources

All the activities are now having IOT applications various hardware , tools , software and various levels of management . The various experts are required to manage and maintain the systems of IOT to make it more functional.

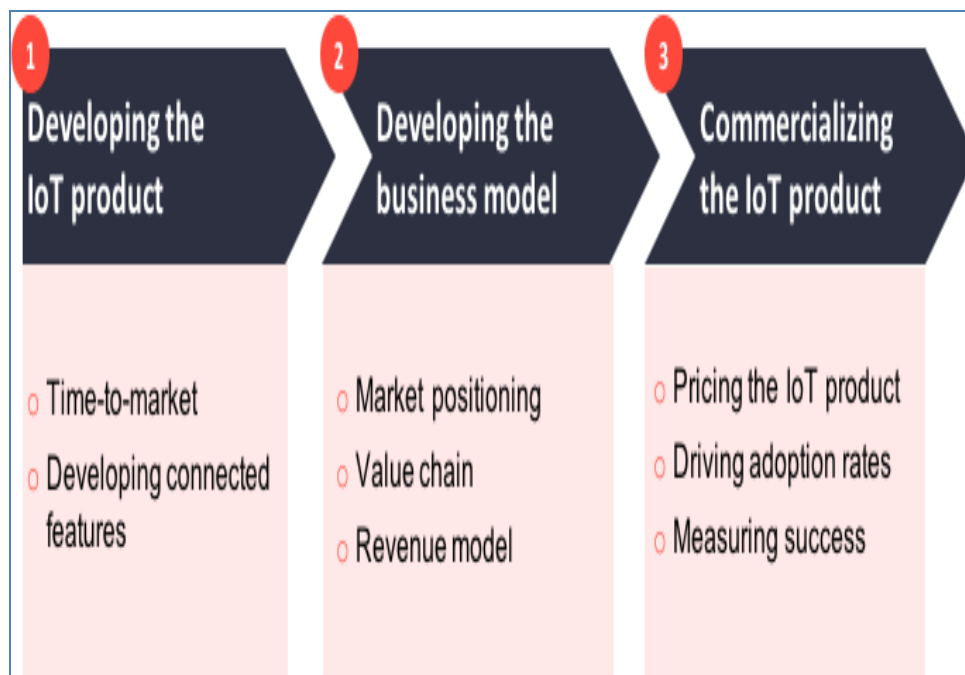
Dr. Hindurao V. Sankpal

IOT Marketing Strategy.



Source :- <https://www.google.com/search?q=Interne>

IOT Successful Business Model :-



Source :- <https://www.google.com/search?q=Int>

All steps are required for successful business the step onw is developing the IOT product , time to market , developing connected features . Second stage is developing the business model which involves market positioning , value chain and revenue model, Third stage involves pricing the IOT product , driving adoption rates and last to measure the success.

Dr. Hindurao V. Sankpal

Business Development Services:-

Source :- <https://www.google.com/search>

The Business development services are having following major steps namely Invest in the right business developer , know your competition , build trust , find the difference between business development and sales , keeping pace with innovation and also know your capabilities .

Limitations of IOT in Business Development:-

1. Security and privacy. Keeping the data gathered and transmitted by IoT devices safe is
2. challenging, as they evolve and expand in use.
3. Technical complexity in IOT Implementation.
4. Reliable Connectivity and power dependence.
5. Integration of devices at all the levels.
6. Time-consuming and expensive to implement.

Conclusion :-

The main part in any business organisation is its technology and advancement in use of current technology for its operations . The IOT is new technology for various applications the above paper is decent contribution in creating the awareness amongst the stakeholders of the IOT and also to the business organisations to go for implementation of IOT systems in the business organisations. Considering the explosion of IoT-connected devices, perhaps you're wondering, "How does IoT affect business?" The short answer is, "In every

Dr. Hindurao V. Sankpal

way.”Accessibility to big data sets, along with the autonomous collection and exchange of data, means that it is becoming easier to gain insights into things like customer behaviors and product performance. IoT also facilitates the continuous optimization of business processes and even impacts employee engagement and performance. In certain industries, IoT in business can instruct systems to autonomously execute transactions in supply chains when certain conditions have been met. The overall performance of the business activities .

Acknowledgement :-

Author thanks all the friends and staff members for motivating me to study this topic . All the references used and endorsed herewith in the paper .

References :-

1. Acharjya, D.P.; Geetha, M.K., eds. (2017). Internet of Things: Novel Advances and Envisioned Applications. Springer. p. 311-312.
2. Phillips, Julien R. (1983). "Enhancing the effectiveness of organizational change management". Human Resource Management. Pp 22 -25.:
3. Rowland, C.; Goodman, E.; Charlier, M.; et al., eds. (2015). Designing Connected Products: UX for the Consumer Internet of Things. O'Reilly Media. p. 720.
4. Thomas, Jayant; Traukina, Alena (2018). Industrial Internet Application Development: Simplify IIoT development using the elasticity of Public Cloud and Native Cloud Services. Packt Publishing. Pp 87-89.
5. Website References :-www.wikipedia.com
<https://searchcio.techtarget.com/definition/tqm-management> ,
<https://en.wikipedia.org/wiki/total>



ग्राहक वर्तन: अर्थ, वैशिष्ट्ये आणि प्रभावित घटक

प्रा. एन. डी. सोनटक्के

जी. एम. डी. कला आणि बी. डब्ल्यू. वाणिज्य आणि विज्ञान महाविद्यालय, सिन्नर, जि. नाशिक

email: nareshsontakke11@gmail.com

सारांश:

सदर संशोधनपर लेखाचे शिर्षक "ग्राहक वर्तन: अर्थ, वैशिष्ट्ये आणि प्रभावित घटक" असे आहे. ग्राहक हा एक मानव त्याचप्रमाणे एक सामाजिक प्राणी सुद्धा आहे. त्याचे विचार, भावना, गरजा, आवड निवड, आर्थिक कुवत, आचार, धर्म, रूढी परंपरा या सुद्धा प्रत्येकाच्या वेगवेगळ्या आहेत. त्यामुळे सध्याच्या काळात कोणता ग्राहक कसा वागेल हे सांगणे कठीण आहे. फक्त आपण एक अंदाज बांधू शकतो की विशिष्ट ग्राहक हा कशा पद्धतीने वर्तन करू शकतो. सध्याच्या गळेकापू स्पर्धेच्या युगात हे जरी खरे असले तरी ग्राहक वर्तन समजणे अत्यंत आवश्यक आहे. असे म्हटले जाते की ग्राहक हा बाजारपेठेचा राजा आहे आणि या राजाच्या गरजा समजून आपण त्याला त्याच्या गरजेच्या वस्तू विकल्या पाहिजे. पण जर हे सत्य असेल तर मग मात्र विक्रेत्याने अधिक जागृत असणे तेवढेच गरजेचे आहे. कारण ग्राहक राजा जर दुखावला गेला तर तो दुसऱ्या दुकानात जाईल आणि तुमचे त्याच्याशी कायमचे संबंध तुटून जातील. असे होऊ नये यासाठी विक्रेत्याने ग्राहक वर्तनाचा अभ्यास करणे आवश्यक आहे. त्यासाठी विक्रेत्याला ग्राहक मानसशास्त्राचा सुद्धा थोडाफार अभ्यास असला पाहिजे. ग्राहक कोणत्या परिस्थितीत कसा वागू शकतो याचा अभ्यास करणे म्हणजे ग्राहक वर्तनाचा अभ्यास करणे होय. "व्यक्ती तितक्या प्रकृती" अशी एक म्हण आहे ती लक्षात ठेऊन विक्रेत्याने ग्राहकांशी संबंध निर्माण केले पाहिजे. ग्राहकांचे समाधान हेच प्रत्येक विक्रेत्यांचे अंतिम लक्ष असणे आवश्यक आहे. कारण ग्राहक समाधानी असेल तर तो तुमच्या वस्तू खरेदी करेल आणि तुमची विक्री त्यामुळे वाढेल. त्याचाच परिणाम तुमचा नफा वाढून तुम्ही स्पर्धेच्या या काळात टिकून राहाल. थोडक्यात असे म्हणता येईल की जो विक्रेता आपल्या ग्राहकांच्या आवडी निवडी, गरजा, त्यांच्या अपेक्षा आणि प्रेरणा समजतो म्हणजेच जो विक्रेता ग्राहकांचे वर्तन समजतो तोच आपला व्यवसाय शेवटपर्यन्त टिकवून ठेवू शकतो. प्रस्तुत पेपरमध्ये ग्राहकांचे वर्तन, त्यांची वैशिष्ट्ये आणि ग्राहक वर्तनाला प्रभावित करणारे घटक यांचा अभ्यास व वर्णन केले जाणार आहे. सदर लेख हा दुय्यम सामग्री आणि माहितीवर आधारित आहे. सदर लेखाचा

उद्देश हा ग्राहक वर्तनाचा अर्थ अभ्यासने, त्याचे स्वरूप अभ्यासने तसेच ग्राहक वागणुकीवर कोणकोणत्या बाबींचा परिणाम कसा होतो याचीही चर्चा सदर संशोधन लेखात केला जाणार आहे.

प्रमुख किंवा प्रधान शब्द:

ग्राहक, वर्तन, ग्राहक वर्तन, वर्तणूक, प्रभावित घटक, प्रेरणा, स्पर्धा ई.

प्रस्तावना:

वर्तमान काळ हा स्पर्धेचा आणि तंत्रज्ञानाचा काळ आहे. प्रगत असे तंत्रज्ञान विकसित झाल्यामुळे आणि गळेकापू स्पर्धा असल्याने प्रत्येक व्यावसायिकाला आपला ग्राहक टिकवून ठेवणे गरजेचे झालेले आहे. कारण ग्राहक हा एकमेव असा घटक आहे की ज्याच्यामुळे व्यावसायिक मोठा होतो आणि त्याच्याचमुळे तो नष्ट सुद्धा होऊ शकतो. कारण विक्रेता ग्राहकाला आपला माल विकतो आणि त्यापासून नफा मिळवतो. मग अशावेळी ग्राहकाला टिकवून ठेवणे ही तारेवरची कसरत कायम विक्रेत्याला करावी लागते. हे करतांना ग्राहक, त्याच्या आवडीनिवडी, आर्थिक कुवत, स्पर्धा, आचार, धर्म, रूढी परंपरा आणि स्वभाव ई. विचार विक्रेत्याला करावा लागतो आणि ग्राहकांशी संभाषण करावे लागते. हे सर्व करतांना ग्राहक आणि त्याची वर्तणूक याचाही सखोल विचार आणि अभ्यास विक्रेत्याने करणे आवश्यक आहे. प्रत्येक व्यक्ती किंवा ग्राहक हा पहिल्या पेक्षा वेगळा आहे असे समजून व्यावसायिकाने ग्राहकाशी संभाषण करावे. मग ते करतांना तो ग्राहक कश्या स्वभावाचा आहे हे समजून मगच विक्रेत्याने त्याच्याशी वार्तालाप करावे. पण ही प्रक्रिया काही शकंदात होणे गरजेचे आहे. तुमचं म्हणणं ग्राहकाला पटलं पाहिजे तरच तो तुमच्या दुकानात थांबेल किंवा वस्तू खरेदी करेल. त्यासाठी तुम्हाला त्या ग्राहकाला ओळखता आले पाहिजे आणि त्याच्या मनात वस्तू खरेदी करण्यासाठी ईच्छा निर्माण करता आली पाहिजे. ग्राहकाला अनेकदा उपभोक्ता सुद्धा म्हटले जाते. ग्राहक हा बाजारपेठेचा राजा आहे असे म्हटले जाते. त्यामुळे या राजाच्या गरजा ओळखणे हे प्रमुख कार्य विक्रेत्यांचे आहे. फक्त गरजा ओळखून चालणार नाही तर त्या गरजेला खरेदीत परिवर्तित करता आले पाहिजे. ग्राहकांना त्यांच्या आवडी नुसार वस्तू पुरविणे व समाधानी ठेवणे हे आधुनिक विपणनाचे महत्वाचे उद्दिष्ट्य आहे. त्यासाठी विक्रेत्याला ग्राहक वर्तन समजून घेणे सुद्धा गरजेचे आहे.

प्रस्तुत संशोधन लेखाचे उद्देश:

1. ग्राहक वर्तनाचा अर्थ अभ्यासणे.
2. ग्राहक वर्तनाचे स्वरूप आणि वैशिष्ट्ये अभ्यासणे.
3. ग्राहक वर्तनाला प्रभावित करणारे विविध घटक अभ्यासणे.

संशोधन पेपर - गृहितके:

1. ग्राहक वर्तन ही संकल्पना समजण्यास सोपी आहे.
2. ग्राहक वर्तन हे वय आणि लिंग नुसार बदलते.
3. ग्राहक वर्तनाला प्रभावित करणारे विविध घटक आहेत.
4. जो विक्रेता किंवा व्यावसायिक ग्राहकांची वर्तणूक आणि मानसिकता ओळखू शकतो तोच व्यवसायात टिकून राहू शकतो.

प्रस्तुत संशोधन पेपरची व्याप्ती व मर्यादा:

सदर संशोधन लेख हा दुय्यम सामग्री व माहितीवर आधारित आहे. या पेपरमध्ये ग्राहक वर्तन, त्याचे वैशिष्ट्ये आणि ग्राहकांच्या वागणुकीवर प्रभाव पाडणाऱ्या घटकांचाच अभ्यास केला जाणार आहे. इतर कोणत्याही बाबींचा समावेश सदर संशोधन पेपर मध्ये होणार नाही.

संशोधन व माहिती गोळा करण्याची पद्धती:

संशोधनपर लेख किंवा पेपर सादर करतांना काही माहिती किंवा आकडेवारी गोळा केली जाते. ती माहिती दोन पद्धतीने तयार केली जाते. १) प्राथमिक पद्धती २) दुय्यम पद्धती

सदर पेपर हा ईतरांनी गोळा केलेल्या माहितीच्या आधारे म्हणजेच दुय्यम पद्धतीने तयार केलेला आहे. ही माहिती काही संदर्भ पुस्तके, पाठ्य पुस्तके, वेबसाइट्स, वर्तमानपत्रे आणि नियतकालिकांमधून मिळविलेली आहे.

ग्राहक: अर्थ व व्याख्या - ग्राहक वर्तनाचा अभ्यास किंवा अर्थ समजून घेण्यापूर्वी ग्राहक म्हणजे काय हे आपण समजून घेऊ. ग्राहकालाच आपण अनेकदा उपभोक्ता असेही म्हणत असतो. दोन्ही शब्दात थोडा फरक

असला तरी या ठिकाणी आपण एकाच अर्थाने वापर करणार आहोत. जो व्यक्ती दुकानात जातो, वस्तूची खरेदी करून उपभोग घेतो त्याला आपण ग्राहक किंवा उपभोक्ता असे म्हणतो. किंवा वस्तूची खरेदी करणारी व्यक्ती म्हणजे ग्राहक होय असेही आपण सोप्या भाषेत म्हणू शकतो. खालील व्याख्येवरून आपल्याला ग्राहकाचा अर्थ अधिक स्पष्ट होईल.

"जो व्यक्ती दुकानात जाऊन वस्तू किंवा सेवेची खरेदी करतो त्याला ग्राहक असे म्हणतात."

ग्राहक वर्तन: अर्थ व व्याख्या –

अर्थ: प्रत्येक वेळी म्हणजेच जेव्हा जेव्हा ग्राहक बजारपेठेत वस्तू किंवा सेवा खरेदी करण्यासाठी जातो तेव्हा तेव्हा त्याची वर्तणूक बदलत असते. असे कधीच होत नाही की तो प्रत्येक वेळेस सारखाच वागेल. तो कोणत्या आणि कशासाठी दुकानात किंवा बाजारात गेलेला आहे त्यावर त्याचे वर्तन अवलंबून असते. अनेकदा त्याचे हे वर्तन त्याचा स्वभाव, त्याचा मूड, लिंग, गरज, व्यक्तिमत्व, कुटुंब, राहणीमान, धर्म आणि परंपरा ई. अनेक बाबींवर अवलंबून असते. त्यामुळे ग्राहकाच्या वर्तनाचा अभ्यास करणे आणि त्याला समजून घेणे व्यावसायिकाला गरजेचे आहे. कारण त्यामुळेच विक्रेता ग्राहकाची अपेक्षा समजू शकतो आणि त्याप्रमाणे वस्तू दाखवू शकतो आणि ग्राहकाचे समाधान करू शकतो. ग्राहक वस्तू खरेदी करतांना कसा वागतो किंवा खरेदीबाबत निर्णय कसा घेतो, त्यासाठी तो ज्या प्रक्रियेतून जातो तिलाच ग्राहक वर्तन असे म्हटले जाते. ग्राहक वर्तन हे एक मानसिक आणि भावनिक बाब आहे. कारण तो वस्तू खरेदी करतांना या दोघांचाही वापर करतो. ग्राहक वस्तू किंवा सेवा खरेदी करतांना विशिष्ट परिस्थितीत जसा वागतो ते वागणे म्हणजेच ग्राहक वर्तन होय असेही म्हणता येईल.

व्याख्या: काही तज्ञ व्यक्तींनी ग्राहक वर्तनाच्या व्याख्या खालील प्रमाणे केलेल्या आहेत ते ही लक्षात घ्यावे लागेल.

वॉल्टर आणि पाँल: "ग्राहक वर्तन ही एक प्रक्रिया आहे, ज्यामध्ये व्यक्तिगत ग्राहक काय, केव्हा, कुठून, कशी आणि कोणापासून वस्तू किंवा सेवा खरेदी करावयाची याचा निर्णय घेतो."

वेबस्टर: " ग्राहक वर्तन ही एक मानसशास्त्रीय, सामाजिक आणि शारीरिक घटना आहे, ज्यामध्ये ग्राहक वस्तुचे मूल्यांकन, खरेदी, उपभोग आणि त्याबाबत ईतरांना सांगणे हे अभिप्रेत आहे."

प्रा. नरेश सोनटक्के: "विशिष्ट परिस्थितीत वस्तू किंवा सेवा खरेदी करतांना ग्राहक जसा वागतो ते वागणे म्हणजेच ग्राहक वर्तन होय."

वरील व्याख्यांवरून असे लक्षात येते की, विशिष्ट परिस्थितीत ग्राहक वस्तू किंवा सेवा खरेदी करतांना ज्या पद्धतीने तो ती वस्तू खरेदी करतो तिच पद्धती म्हणजे त्याचे वर्तन होय असे आपल्याला म्हणता येईल.

ग्राहक वर्तनाचे स्वरूप आणि वैशिष्ट्ये:

ग्राहक वर्तनाचा अर्थ अधिक स्पष्ट होण्यासाठी आणि त्याचे स्वरूप समजून घेण्यासाठी आपल्याला ग्राहक वर्तनाचे वैशिष्ट्ये समजून घेणे आवश्यक आहे ते पुढीलप्रमाणे.

अस्थिरता: ग्राहक वर्तन हे कधीच स्थिर नसते. ते परिस्थितीनुसार बदलत असते. गरज, भावना, प्रसंग, आर्थिक शक्ती आणि इतरही अनेक बाबींवर त्याचे वर्तन अवलंबून असते. एवढेच काय तर एकच वस्तू खरेदी करतांना सुद्धा वेगवेगळ्या क्षणी त्याचे वर्तन बदलत असते. याचाच अर्थ ग्राहक वर्तन हे कधीच स्थिर नसून ते नेहमी बदलत राहते.

लिंगानुसार वेगळे: ग्राहक वर्तन हे लिंगानुसार सुद्धा वेगवेगळे असते. स्वभावानुसार स्त्री ग्राहक आणि पुरुष ग्राहक हे वेगळे असतात. त्यामुळे साहजिकच त्यांचे वर्तन हे वेगवेगळे असणे स्वाभाविकच आहे.

गरजेनुसार वेगवेगळे: ग्राहकाचे वर्तन हे गरजेनुसार सुद्धा बदलणारे आहे. जर आपल्याला टिकाऊ किंवा दीर्घकाळ चालणारी वस्तू हवी असल्यास आपण दहा ठिकाणी त्या वस्तूची चौकशी करू आणि नंतर तुलना करून खरेदीचा निर्णय घेऊ पण जीवनावश्यक वस्तूसाठी जवळच्या दुकानात जाऊन आपण कोणतीही घासगिस न करता खरेदी करू.

विस्तृत व जागतिक अशी संकल्पना: ग्राहक संकल्पना ही एक विस्तृत आणि जागतिक स्तरावरील आहे. ती कोणत्याही एका व्यक्ती पुरती किंवा ठिकाणा पुरती मर्यादित नाही. ती सतत चालणारी आणि पुढे जाणारी एक प्रक्रिया आहे.

ग्राहक वर्तन एक गुंतागुंत: ग्राहक वर्तन ही संकल्पना एक गुंतागुंतीची बाब आहे. ग्राहक हा विशिष्ट परिस्थीतित विशिष्ट पद्धतीनेच वर्तन करेल हे सांगणे कठीण आहे. ग्राहक वर्तनाचा नेमका अंदाज बांधणे अशक्य आहे. कारण त्यांचे वर्तन अनेक घटकांमुळे प्रभावित होत असते. म्हणून असे म्हटले जाते की ग्राहक वर्तन ही संकल्पना अधिक गुंतागुंतीची आहे.

एकटे आणि समूहात वेगवेगळे: हे एक वैशिष्ट्य ग्राहक वर्तनाचे आहे. ग्राहक एकटा असताना वस्तू खरेदी करतांना तो वेगळा वागतो. पण जर समूहाने वस्तू खरेदी करण्यास गेला तर त्याचे वर्तन आपल्याला वेगळे दिसून येते.

ग्राहक वर्तनाला प्रभावित करणारे घटक:

यापूर्वी सांगितल्याप्रमाणे ग्राहकाचे वर्तन हे वेगवेगळ्या क्षणी वेगवेगळे असते. म्हणजेच त्याचे वर्तन हे एकसारखे नसते. याला कारणे काय आहेत याचाही विचार करणे आवश्यक आहे. ज्या कारणामुळे ग्राहकाच्या वर्तनात बदल होतात ती कारणे म्हणजेच ग्राहक वर्तनाला प्रभावित करणारे घटक होत. ते घटक पुढीलप्रमाणे सांगता येतील.

सांस्कृतिक घटक: संस्कृती ही सर्वात महत्वाची एक बाब आहे ज्याच्या प्रभावाने व्यक्तींची गरज आणि वर्तन बदलते. संस्कृतीमुळे अनेक मूल्ये, श्रद्धा, सवयी निर्माण होतात. त्यामुळे त्या मूल्यांची जोपासना करण्यासाठी अनेकदा व्यक्ती कुठल्याही प्रकारचा विचार न करता वस्तूंची खरेदी करतो. ही संस्कृती प्रत्येक प्रदेशाची, राज्याची तसेच देशांची वेगवेगळी असते आणि ती एका पिढीकडून दुसऱ्या पिढीकडे संक्रमित होत असते. त्यामुळेच हे वर्तन व्यक्तिपरत्वे आणि देशानुसार वेगवेगळी असल्याने आपोआपच ग्राहक वर्तन वेगवेगळे असते.

धार्मिक घटक: प्रत्येक धर्माच्या, जातीच्या काही मान्यता आणि रूढी परंपरा असतात. तेव्हा त्या मान्यता आणि रूढी परंपरांचे पालन करतांना ग्राहक वर्तनात बदल होतो. वस्तू खरेदी करतांना या धार्मिक बाबी ग्राहकांवर प्रभाव पाडत असतात.

सामाजिक घटक: सामान्यतः प्रत्येक संस्थेच्या किंवा समाजाच्या अंतर्गत रचना किंवा वर्गरचना ठरलेली असते. यामध्ये उत्पन्न, शिक्षण, पेशा, सामाजिक प्रत ई.चा समावेश होतो. या सर्वांचा परिणाम ग्राहक वर्तनावर झाल्याशिवाय राहत नाही. जास्त उत्पन्न असल्यास ग्राहक वस्तू खरेदी करतांना पैशाचा विचार करीत नाही पण उत्पन्न कमी असल्यास माणूस वस्तूच्या किंमतीबाबत अधिक विचार करतो. म्हणजेच उत्पन्नाचा प्रभाव ग्राहक वर्तनावर होतो असे दिसून येते. शिवाय तुमचा पेशा काय आहे, समाजात तुमची प्रतिष्ठा काय आहे हे सुद्धा ग्राहक वर्तनावर प्रभाव पाडतात.

संदर्भ गट/गट प्रभाव: ही संकल्पना सर्वप्रथम १९४२ मध्ये हायमन यांनी मांडली. अनेकदा व्यक्ती एखादा निर्णय घेतांना दुसऱ्या व्यक्तीने किंवा गटाने संदर्भ दिल्यास त्याच्यावर विश्वास ठेऊन वस्तू खरेदी करण्याचा निर्णय घेत असतो. अनेकदा व्यक्ती इतरही गटाचा सभासद असतो. शिवाय वर्गमित्र, जवळचे नातेवाईक, शेजारी आणि ओळखीचे लोक यांचा देखील ग्राहकांच्या खरेदी वर्तणुकीवर परिणाम झाल्याचे दिसून येते. त्यामुळे जर ईतर गटाने संदर्भ दिल्यास त्याचा ग्राहकांच्या खरेदी निर्णयावर प्रभाव पडतो.

कुटुंब आणि सदस्य: अनेकदा व्यक्ती आपल्या कुटुंबाच्या फायद्यासाठी किंवा सदस्यासाठी काही निर्णय घेत असतो. कुटुंबातील व्यक्तींच्या आवडी निवडी, जीवन जगण्याची पद्धती याचाही प्रभाव ग्राहक वर्तनावर झाल्याशिवाय राहणार नाही.

व्यक्तिगत घटक: अनेक व्यक्तिगत घटक आहेत जे ग्राहकांच्या वर्तनावर प्रभाव पडत असतात. ते व्यक्तिगत घटक पुढीलप्रमाणे.

वय आणि जीवनचक्र: आपल्या जीवनभरात आपण अनेकदा वस्तू आणि सेवा खरेदी करतांना वेगवेगळ्या खरेदी करतो. अन्न, कपडे, फर्निचर ई. वस्तू खरेदी करतांना वयोमानानुसार बदल होत असतो. वय बदलले की आवडी निवडी बदलतात. जीवनाकडे बघण्याचा दृष्टीकोन बदलतो आणि आपोआपच ग्राहक वर्तन बदलते.

पेशा: माणूस आपले जीवन जगताना कुठला पेशा स्वीकारतो त्यावर सुद्धा त्याचे वर्तन अवलंबून आहे. एखादा व्यावसायिक असल्यास तो मोठमोठ्या महागडी वस्तू खरेदी करतो. ते करतांना तो पैशाचा विचार

करीत नाही. तेच एखाद्या सामान्य ग्राहकाचा विचार केल्यास. तो कमी किमतीच्या वस्तू खरेदी करण्याचा निर्णय घेईल.

आर्थिक घटक/खरेदी शक्ती: हा घटक फार महत्वाचा आहे. खरेदी निर्णय बहुदा तुमच्याकडे असलेल्या पैशावर अवलंबून आहे. विक्रेत्याच्या दृष्टीकोनातून हा घटक अतिशय महत्वाचा आहे. पैसा उपलब्ध असल्यास अधिक वस्तू खरेदी करणार पण जर तुमच्याकडे पैसा कमी असल्यास वस्तू करतांना किमतीबाबत घासागिस करणार आणि कमी वस्तू खरेदी करणार आणि पैसे नसल्यास ग्राहकांची खरेदी करण्याची ईच्छा असून देखील त्यांना वस्तूची खरेदी करता येत नाही. त्यामुळे पैसा हा ग्राहक वर्तनावर प्रभाव पाडतो असे म्हणता येईल.

स्वभाव: वस्तू खरेदी निर्णय प्रक्रियेत ग्राहकाचा स्वभाव फार महत्वाची भूमिका पार पाडत असतो. अनेक अभ्यासातून हे सिद्ध झालेले आहे की स्वभाव आणि ग्राहक वर्तन यात सहसंबंध आहे. स्वभाव खर्चिक असेल तर ग्राहक पैसे साठवून ठेवण्यापेक्षा तो खर्ची घालण्याचा प्रयत्न करेल आणि स्वभाव खर्चिक नसेल तर या उलट तो निर्णय घेईल.

ग्राहक प्रेरणा: अनेक विचारवंत आणि माणसशास्त्रज्ञांनी मानवी प्रेरणा सिद्धांत मांडले. अब्राहम मास्लो यांनी सुद्धा गरजांचा सिद्धांत मांडला आणि सांगितले की माणसाला गरजा कशा पद्धतीने प्रेरणा देतात आणि ग्राहक वर्तन बदलते.

माहिती: ग्राहकाच्या वर्तनात बदल करणारा एक घटक म्हणजे त्याला प्राप्त माहिती. ग्राहक एखादी वस्तू खरेदी करण्यापूर्वी त्या वस्तू बाबत सर्व माहिती प्राप्त करतो. त्या वस्तूची उपयोगिता, किंमत, तिचा वापर, विक्रेता इ माहिती तो इंटरनेट मार्फत, वर्तमान पत्रातून, जाहिरातीद्वारे, वेगवेगळ्या माध्यमाद्वारे तशेच मित्राद्वारे प्राप्त करीत असतो आणि नंतर तो वस्तू किंवा सेवा खरेदीचा निर्णय घेतो.

परिस्थितीजन्य घटक: अनेकदा ग्राहक परिस्थिती समोर नतमस्तक होऊन वस्तू खरेदी करतो. किंवा असे म्हणावे लागेल की ग्राहकासमोर अचानक एखादी घटना घडते ज्यामुळे त्याला एखाद्या वस्तूची खरेदी करणे आवश्यक होते. शारीरिक आणि सामाजिक घटक एखादी असे वातावरण निर्माण करतात ज्यामुळे व्यक्तीला वस्तू खरेदीचा निर्णय घ्यावा लागतो. अश्या पद्धतीने अनेक घटक ग्राहकाला प्रभावित करीत असतात ज्यामुळे तो वस्तू आणि सेवांची खरेदी करतो.

निष्कर्ष:

वरील सर्व बाबींचा अभ्यास केल्यानंतर मी खालील निष्कर्षाप्रत आलेलो आहे.

1. विशिष्ट परिस्थितीत ग्राहक कसा वागतो याचा अभ्यास म्हणजे ग्राहक वर्तनाचा अभ्यास होय.
2. ग्राहक वस्तू खरेदी करतांना ज्या पद्धतीने वागतो ती पद्धती म्हणजेच ग्राहक वर्तन होय.
3. ग्राहक वर्तन हे कधीही स्थिर नसते तर ते बदलते असते.
4. ग्राहक वर्तन हे लिंगानुसार, वयोमानानुसार, आणि गरजेनुसार बदलत असते.
5. ग्राहक वर्तन ही संकल्पना फार गुंतागुंतीची आहे. कारण ग्राहक कोणत्या वेळेस कसा वागेल हे कोणीही खात्रीशीर सांगू शकत नाही.
6. ग्राहक वर्तनाला प्रभावित करणारे अनेक घटक आहेत. त्या घटकांचा परिणाम ग्राहकांच्या वागणुकीवर होत असतो.

संदर्भ:

1. "Marketing Management", Success Publication, Pune- Prin. Dr. Babasaheb Sangale, Prin. Dr. C. N. Rawal, Prof. Dr. S. M. Misal, Prof. Smt. Shubhangi V. Gaikwad (2014)
2. "ग्राहक वर्तन आणि सेवा विपणन", Vikas Publishing House Pvt. Ltd., Noida - डॉ. रुपाली शेठ, डॉ. नितवे ज्ञानदेव लक्ष्मण
3. "Consumer Behaviour", Sonali Publication, New Delhi - Dr. Lalata Keshari Pani, Prof. Kishor C. Raut (2010)
4. व्यापारी मित्र.
5. Wikipedia.



डिजिटल मार्केटिंगची आवश्यकता आणि भवितव्य

डॉ. शिंदे संग्राम रामचंद्र

अर्थशास्त्र विभाग, कला व वाणिज्य महाविद्यालय, पुसेगाव

ईमेल: sangramshinde730@gmail.com

प्रस्तावना:

अलिकडच्या काळात डिजिटल मार्केटींगला अधिक महत्व आले आहे. डिजिटल मार्केटींगमुळे आर्थिक विकासाचा वेग झपाट्याने वाढत आहे तसेच बाजारपेठेची व्याप्तीही वाढत आहे. आर्थिक विकासासाठी आवश्यक असणारी साधने मोठ्या प्रमाणात व सहज उपलब्ध होत आहेत. आर्थिक विकासाबरोबरच उपभोक्त्यांच्या उत्पनात वाढ होत आहे. त्यामुळे त्यांच्याकडून समग्र मागणी वाढत आहे. मागणीची पुर्तताही एक क्षणात होत आहे. विक्री खर्च कमी येत असल्यामुळे वस्तूंच्या किंमतीही कमी ठेवणे वित्यांना शक्य होत आहे शिवाय उत्पादनाच्या निर्मितीसाठी अत्याधुनिक यंत्र व तंत्रज्ञानाचा वापर केल्यामुळे वस्तूची व सेवांची गुणवत्ता वाढली आहे. त्यामुळे समाजाच्या सर्वच स्तरातून एकूण मागणी वाढून उत्पादकांच्या निव्वळ नफ्यात वाढ होत आहे. आजच्या संगणक युगात उत्पादनाच्या तसेच विक्री व्यवस्थेच्या सर्वच क्षेत्रात डिजिटल मार्केटींगचा अवलंब केला जात आहे. भारतासह जगातल्या सर्व देशांना डिजिटल मार्केटींगची गरज भासू लागली आहे. कारण डिजिटल मार्केटींगमुळे वस्तू व सेवांची विपणनव्यवस्था गतिमान व कार्यक्षम झालेली आहे. डिजिटल मार्केटींगमध्ये इंटरनेटचा वापर मोठ्या प्रमाणात होत असल्यामुळे वस्तू व सेवांची गुणवत्ता, त्याचे स्वरूप आणि इतर बाबींची माहिती लोकांना एका क्षणात होत आहे. त्यामुळे लोक कोणत्या वस्तूची खरेदी करावी आणि कोणत्या वस्तूकडे दुर्लक्ष करायचे याचा निर्णय कमीत कमी वेळात घेतला जात आहे. आज ग्राहक कोणत्याही वस्तूची खरेदी ऑनलाईनद्वारे करित असेल तर त्याआगोदर त्या वस्तूची पूर्ण माहिती घेऊनच खरेदी करतो आहे. त्यामुळे ग्राहकांचा वेळ व पैशाची बचत होत आहे. त्याचबरोबर कंपन्याही आपल्या मालाची इंटरनेटच्या माध्यमातून विक्री करण्यासाठी डिजिटल साधनांचा फार मोठ्या प्रमाणात आधार घेत आहेत. मोबाईल, लॅपटॉप, संगणक, इंटरनेट इ. साधनांचा वापर करून लोक घरी बसल्या बसल्या वस्तूची मागणी ऑनलाईन पद्धतीने करित आहेत व व्यवसायिक त्या उत्पादनाची विक्री करित आहेत म्हणून अलिकडच्या काळात डिजिटल मार्केटींगला सर्वाधिक महत्व प्राप्त झाले आहे.

उद्दिष्टे :

१. डिजिटल मार्केटिंग या आधुनिक विपणन पद्धतीच्या संकल्पनेचा अभ्यास करणे.
२. डिजिटल मार्केटिंगची आवश्यकता व भवितव्य या संदर्भात चर्चा करणे.

संशोधन पध्दती: प्रस्तूत संशोधन पेपर लिहण्यासाठी दुय्यम साधनांचाच वापर केलेला आहे. ज्यामध्ये इंटरनेट, संदर्भ ग्रंथ इ.

आवश्यकता

प्रस्तूत संशोधन पेपर हा प्रामुख्याने व्यावसायिक, उद्योजक आणि संशोधक यांच्या दृष्टीने फायदेशिर आहे. कारण या लेखामध्ये डिजिटल मार्केटिंगची प्राथमिक व मुलभूत माहिती दिलेली आहे. या माहितीच्या आधारे उत्पादकाला आपल्या व्यावसायाची व्याप्ती वाढवण्यासाठी, ग्राहकांची संख्या वाढविण्यासाठी डिजिटल मार्केटिंगचा वापर करण्यास भाग पाडेल आणि त्यामुळे पारंपारीक विपणनव्यवस्थेची जागा डिजिटल मार्केट घेईल यामध्ये या पेपरचे थोड्या प्रमाणात का होईना हातभार असेल. ग्राहकांनाही डिजिटल मार्केटिंग काय असते याची कल्पना या लेखामुळे येवू शकते.

संशोधन पध्दती

प्रस्तूत संशोधन पेपर लिहण्यासाठी दुय्यम साधनांचाच वापर केलेला आहे. ज्यामध्ये इंटरनेट, संदर्भ ग्रंथ इ.

डिजिटल मार्केटिंगचा पूर्वइतिहास

डिजिटल मार्केटिंगची सुरुवात तेंव्हाच झाली जेव्हा सन १९७१ मध्ये रे टॉमलिनसनने पहिला ईमेल पाठवला तेंव्हापासून लोक आपल्या वेगवेगळ्या फाईल्स मशीनद्वारे ऑनलाईन पध्दतीने एका ठिकाणापासून दुस-या ठिकाणी पाठवू लागले व प्राप्त करू लागले. पुढे चालून सन १९९० साली आर्ची शोध इंजिन FTP साइट्ससाठी अणुक्रमणिका म्हणून तयार केले गेले. १९८० च्या दशकातच संगणकांची साठवणूक क्षमता वाढली. त्यामुळे कंपन्यांनी मर्यादित लिस्ट बोकरोएवजी डाटाबेस मार्केटिंगसारखी ऑनलाईन तंजनिवडण्यास सुरुवात केली. या प्रकारच्या डाटाबेसने कंपन्यांना ग्राहकांच्या माहितीचा अधिक प्रभावीपणे परवानगी दिली त्यामुळे खरेदीदार व विक्रेता यांच्यातील संबंध बदलले. १९९० च्या दशकातच डिजिटल मार्केटिंग हा शब्दप्रयोग केला गेला आणि अल्पावधितच हा शब्द लोकप्रिय झाला. सन २००० मध्ये इंटरनेट वापरणा-यांचीसंख्या वाढली. याच दरम्यान आयफोनचा जन्म झाला. आयफोनद्वारे ग्राहक उत्पादनासंबंधी माहिती घेऊ लागले आणि आपल्या गरजांची माहिती ऑनलाईन पध्दतीने घेऊ लागले. सन २००७ MarketingAutomation चा विकास झाला ज्यामुळे डिजिटल मार्केटिंगचा विकास व्हायला प्रेरणा मिळाली. डिजिटल मार्केटिंगला ऑनलाईन मार्केटिंग इंटरनेट मार्केटिंग किंवा वेब मार्केटिंग असेही म्हटले जाते. डिजिटल मार्केटिंग हा शब्द कालांतराने लोकप्रिय झाला आहे. यूएसए मध्ये ऑनलाईन विपणन अजूनही एक लोकप्रिय शब्द आहे. इटलीमध्ये डिजिटल मार्केटिंगला वेब मार्केटिंग असे संबोधले जाते.

जगभरात डिजिटल मार्केटिंग ही सर्वात सामान्य संज्ञा बनली आहे विशेषतः वर्ष 2013 नंतर 2010 मध्ये 48% वाढीसह डिजिटल मीडिया खर्चासह वार्षिक 4.5 ट्रिलियन ऑनलाइन जाहिराती दिल्या गेल्याचा अंदाज व्यक्त करण्यात आला.

मार्केटिंगचे प्रकार

मार्केटिंगचे प्रामुख्याने दोन प्रकार पडतात १ ट्रेडिशनल मार्केटिंग आणि २. डिजिटल मार्केटिंग. ट्रेडिशनल मार्केटिंग ही जुनी पध्दत आहे. तसेच ती खर्चिक, वेळखाऊ, कमी प्रभावी आणि सक्सेस रेट कमी असणारी अशी ही पध्दत आहे. या पध्दतीत विक्रेता आपल्या वस्तू व सेवांची जाहिरात ही प्रामुख्याने न्यूजपेपर, टेलिव्हिजन, रेडिओ, बॅनर किंवा होर्डिंग यांच्या मदतीने करतो तेव्हा या पध्दतीला ट्रेडिशनल मार्केटिंग म्हणतात. ट्रेडिशनल मार्केटिंगमुळे व्यवसायाचा विस्तार करण्यावर मर्यादा पडतात. त्यामुळे या पध्दतीऐवजी डिजिटल मार्केटिंग विपणन व्यवस्थेत मोठ्या प्रमाणात लोकप्रिय होत आहे.

डिजिटल मार्केटिंग म्हणजे काय?

डिजिटल मार्केटिंग ही नवीन आणि कमी खर्चीक पध्दती आहे. या पध्दतीत विक्रेता आपल्या वस्तूची माहिती ग्राहकांना सहज व कमी वेळात तसेच कमी खर्चात देऊ शकतो. तसेच या पध्दतीत स्वतःच्या व्यवसायाचा विस्तार जलद गतीने करता येतो. जेव्हा उत्पादक आपल्यावस्तूची जाहिरात इंटरनेटचा वापर करून Website Facebook, Instagram, WhatsApp, Tweeter, YouTube या सारख्या साधनांचा वापर करून करतो आणि आपली भागिदारी विपणन व्यवस्थेत वाढवतो, तेव्हा या पध्दतीला डिजिटल मार्केटिंग असे म्हणतात. अलिकडच्या काळात Facebook, Instagram, Whatsapp, Tweeter, YouTube या सारख्या Social Media चा वापर लोक मोठ्या प्रमाणात करत असल्याचे दिसते. साधारणतः लोकदिवसाचे तीन ते चार तास सोशल मीडियावर वेळ घालतात. त्यामुळे उत्पादकाने आपल्या उत्पादनाची जाहिरात सोशल मीडियावर टाकली तर त्यांच्या उत्पादनाची माहिती देशातच नाही तर जगातील इतर देशांतील लोकांनाही होवू शकते. त्यामुळे त्यांच्या वस्तूंना मागणी प्रचंड वाढून त्यांच्या व्यवसायाचा विस्तार स्वतःच्या देशाबरोबर इतर देशातही होण्यास मदत होते.

डिजिटल मार्केटिंगची व्याख्या:

डिजिटल मार्केटिंग या शब्दामधील डिजिटल या शब्दाला इंग्रजीत पर्यायी शब्द इंटरनेट आणि मार्केटिंग ला मराठीत विपणन व्यवस्था म्हणतात. याचाच अर्थ इंटरनेट बाजार या दोन शब्दांनी मिळून

डिजिटल मार्केटिंग हा शब्द बनला आहे. इंटरनेटच्या साहाय्याने डिजिटल साधनांचा वापर करून वस्तूची व सेवांची खरेदी व विक्रीच्या बाजारात होते त्या बाजाराला डिजिटल मार्केटिंग असे म्हणतात.

"डिजिटल मार्केटिंग म्हणजे इंटरनेटच्या साहाय्याने मार्केटिंग करणे होय."

"इलेक्ट्रॉनिक मीडिया आणि इंटरनेटच्या माध्यमातून वस्तू व सेवांची केली जाणारी देवाण घेवाण म्हणजे डिजिटल मार्केटिंग होय",

"उत्पादकांकडून वस्तू व सेवांना इंटरनेटच्या मदतीने तसेच इलेक्ट्रॉनिक मीडियाचा वापर करून promote करणे म्हणजे डिजिटल मार्केटिंग होय".

डिजिटल मार्केटिंगमध्ये डिजिटल तंत्राचा वापर करून ग्राहकांशी संपर्क साधण्याबरोबरच इतरही व्यवहार केले जातात. जसे, आयफोन किंवा लॅपटॉपद्वारे ऑनलाईन शॉपिंग, तिकिट बुकिंग, रिचार्ज, बिल पेमेंट्स, ऑनलाईन ट्रान्जेक्शन इ. व्यवहार घरी बसून इंटरनेटच्या मदतीने सहज करू शकतो. जगातील मोठ्या कंपन्या त्यांच्या उत्पादनाचा प्रसार करण्यासाठी इंटरनेटच्या माध्यमातून स्मार्टफोन, कॉम्प्यूटर, टॅब्लेट आणि इंटरनेट या सारख्या डिजिटल साधनांचा वापर करून ग्राहकांशी सवाद साधतात आणि लाखो रुपये खर्च करतात आणि अल्पावधितच हा खर्च डिजिटल मार्केटिंगमध्ये भरून काढतात.

डिजिटल मार्केटिंगची साधने



डिजिटल मार्केटिंगचे प्रकार

डिजिटल मार्केटिंगमध्ये विक्रेत्यांना किंवा उत्पादकांना ग्राहकापर्यंत पोहचण्यासाठी अनेक डिजिटल साधने आहेत. त्याद्वारे विक्रेता आपल्या वस्तूची विक्री करू शकतो आणि ग्राहक घरी बसून Online वस्तू व सेवांची मागणी करू शकतो अशा काही महत्वाच्या प्रकारांचा अभ्यास खालीलप्रमाणे करणार आहोत.

सर्च इंजिन ऑप्टिमायझेशन (Search Engine Optimization)

SEO म्हणजे विशिष्ट कीवर्ड वापरून आपल्या Website ला गूगल सर्च इंजिनमध्ये सगळ्यात अव्वल स्थानावर नेणे होय. SEO म्हणजे उत्पादकाला त्यांच्या कंपनीच्या वेबसाईटला गुगलच्या पहिल्या पेजवरसर्वात वरच्या स्थानावर नेणे होय. त्यामुळे त्यांच्या Website वर जास्त ग्राहक येतील आणि त्यामुळे व्यवसाय जलद गतीने वाढायला मदत होईल.

SEO चे प्रामुख्याने दोन प्रकार पडतात

1. On Page SEO आणि
2. Off Page SEO

शोध इंजिन विपणन (SEM)

सर्च इंजिन मार्केटिंग म्हणजे Google Page वर आपल्या वेबसाईटसाठी गुगलच्या सर्च इंजिनमध्ये जागा खरेदी करणे होय. यालाच पेड जाहिरात असेही म्हणतात. यात पेड जाहिरात करून आपली वेबसाईट गुगलच्या सर्च इंजिनमध्ये पहिल्या पेजवर आणि अव्वल स्थानावर घेऊन जावू शकतो आणि ग्राहकांची गर्दी वाढवू शकतो.

सोशल मीडिया मार्केटिंग (SMM):

अलिकडच्या काळात सोशल मीडियाचा वापर करणाऱ्या लोकांची संख्या वाढत आहे. त्यामुळे उत्पादकाला आपल्या उत्पादनाची जाहिरात सोशल मीडियावर टाकून प्रचंड विक्री वाढवता येते. SMM म्हणजे WhatsApp, YouTube, Facebook, Instagram, Twitter, इत्यादींच्या मदतीने आपल्या प्रॉडक्टची जाहिरात करणे होय. तसेच ग्राहकांशीसंवाद साधणे, त्यांच्या आवडीनिवडी माहित करून घेणे होय.

कन्टेन्ट मार्केटिंग(Content Marketing)

कन्टेन्ट मार्केटिंगमध्ये ग्राहकांना आकर्षित करण्यासाठी व ग्राहकांची संख्या वाढवण्यासाठी उत्पादक त्यांच्या उत्पादनाबाबत ब्लॉग तसेच आवडतील असे व्हिडीओ बनवून सोशल मीडियावर share केले जातात. तसेच ग्राहकांना आवडेल अशा डिझाईनमध्ये उत्पादनासंबंधीची माहिती लिहून सोशल मीडियाच्या सर्व प्लॅटफॉर्मवर टाकली जाते. त्यामुळे सुध्दा मोठ्या प्रमाणात वस्तू व सेवांची मागणी वाढू शकते.

ईमेल विपणन(Email Marketing)

ईमेल मार्केटिंगच्या माध्यमातून आपल्या कंपनी आणि सेवांची माहिती ईमेलमधून ग्राहकांना देऊ शकता. ईमेलमुळे एकाच वेळी जास्त ग्राहकांशी संपर्क ठेवता येतो आणि आपल्या व्यवसायाचा विस्तार करता येतो



अफिलिएट मार्केटिंग किंवा संलग्न विपणन (Affiliate Marketing)

अफिलिएट मार्केटिंग एखाद्या कंपनीच्या वस्तू किंवा सेवा आपण लोकांना विकणे आणि त्यातून मिळालेले कमिशन घेणे याला अफिलिएट मार्केटिंग असे म्हणतात. अलिकडच्या काळात लोक किंवा कंपन्या अशा प्रकारचा व्यवसाय करून मोठ्या प्रमाणात पैसे कमवत आहेत. ज्यात Amazon, Flipkart, Bluehost आणि इतर एजेंट लोक.

व्हिडीओ मार्केटिंग (Video Marketing)

व्हिडीओ मार्केटिंग म्हणजे उत्पादनासंबंधीची माहिती, त्याचे गुणविशेष इ. संबंधीचे व्हिडीओ बनवून Youtube Instagram, Facebook वर टाकणे आणि जाहिरात करणे आणि त्यातून विक्रीवाढविणे होय. YouTube वर प्रत्येकजण आपल्या कंपनीच्या उत्पादनाची जाहिरात करत आहे subscriber वाढवत आहेत. तसेच Teaching, Learning व इतर माहितीपर व्हिडीओ व इतर विषयात व्हिडीओ तयार करून Youtube वर Share केल्यामुळे चांगली कमाई होत आहे.

PPC मार्केटिंग हा एक जाहिरातीचा चांगला मार्ग आहे, ज्यातून कंपनीला ग्राहकांची संख्यावाढवता येते.

मोबाईल मार्केटिंगद्वारेही वस्तूची खरेदी विक्रीवाढवता येत आहे. स्मार्टफोनचा वापर करणाऱ्या लोकांचे प्रमाण वाढल्यामुळे मोबाईलवरील टेक्स मॅसेज आणि व्हॉट्सअप मेसेजच्या सहाय्याने कंपन्या ग्राहकांशी

जोडल्या जात आहेत, ग्राहकांशी संपर्क करून आपल्या वस्तू व सेवांचे महत्व पटवून देऊन मार्केटिंग मोठ्या प्रमाणात केली जात आहे.

डिजिटल मार्केटिंगची आवश्यकता

योग्य ग्राहकांपर्यंत पोहचणे

डिजिटल मार्केटिंगच्या माध्यमातून तुम्ही ज्यांच्यासाठी वस्तूची निर्मिती केली असेल त्यांचा शोध घेऊन त्यांनाच त्या वस्तूची महत्व पटवून देऊन त्यांनाच त्या वस्तूची विक्री करता येते. वय, लिंग, आवड, इ. चा विचार करून त्या लोकांशीच सहज संपर्क साधता येतो. यासाठी आगोदर ग्राहकांचे विविध गट करून ग्राहकांची निवड करावी लागते. उदा. कोल्हापूर शहरातील वय वर्ष २५ ते ३० मधील फक्त महिलांसाठीच वस्तूची निर्मिती केली असेल तर त्यांचीच निवड करून त्याच महिलांना वस्तूची जाहिरात करून त्या वस्तूची विक्री त्यांनाच करता येते. यासाठी तुम्हाला मोठा डाटा गोळा करावयाची गरज नाही.

जास्तीत जास्त ग्राहकांपर्यंत पोहचणे शक्य होते.

आलिकडच्या काळात इंटरनेटचा सर्वाधिक वापर होत आहे. त्यामुळे इंटरनेटच्या मदतीने तुम्ही घरी बसून जगातील कोणत्याही देशात किंवा खेड्यात वस्तूची विक्री करू शकता. Youtube, Instagram, Facebook च्या मदतीने वस्तूची जाहिरात व्हिडीओ बनवून किंवा ब्लॉक बनवून ग्राहकांची संख्या मोठ्या प्रमाणात वाढवता येते. तसेच ईमेलद्वारे लाखो लोकांशी संपर्क करून व्यवसायाचा विस्तार करता येतो.

मार्केटिंगची स्ट्रॅटेजी ठरवता येते

डिजिटल मार्केटिंगमुळे ग्राहकांचे सर्वेक्षण करणे आणि त्याद्वारे अहवाल तयार करून निष्कर्ष काढणे शक्य झालेले आहे. डिजिटल मार्केटिंग ही संकल्पना सर्वस्वी इंटरनेटशी जोडली गेल्यामुळे ग्राहकांसंबंधीचा डाटा गोळा करणे सहज शक्य झाले आहे. म्हणून आपली जाहिरात कोणी आणि किती ग्राहकांनी पाहिली आहे, जाहिरातीवर कोणी कोणी क्लिक केले आहे, वेबसाईट किती जणांनी पाहिली आहे, किती वेळ वेबसाईटवर थांबले आहेत, कोणत्या शहरातून कोणत्या प्रकारचे ग्राहक आपल्या वस्तूला पसंती देतात इ. प्रकारची माहिती ट्रॅकिंग करता येते आणि या माहितीच्या आधारे पुढची रणनीती ठरवता येते.

कमी खर्चात जाहिरात करता येते

पारंपारिक मार्केटिंगमध्ये जाहिरातीवर प्रचंड खर्च करावा लागतो शिवाय वेळेचा अपव्यायही जास्त प्रमाणात होता. या मार्केटिंगमध्ये आपल्या वस्तूची जाहिरात ही फ्लेक्स बॅनर बनवून करावी लागते ती खर्चिक बाब आहे. शिवाय फ्लेक्स बनवताना जर तुम्ही तुम्हाचा मोबाईल क्रमांक चुकवला असेल किंवा

इतर बाबी लिहावयाच्या विसरल्या असतील तर तुम्हाला तोसंपूर्ण फ्लॅक्सच बदलावा लागतो. म्हणजे पुर्वीएवढाच खर्च करावा लागतो. याउलट डिजिटल मार्केटिंगमध्ये तसे होत नाही. कारण आपण एकदा बनवलेल्या फ्लेक्समधील काही मचकूर चुकिचा असेल किंवा काही नविन मचकूर फ्लॅक्समध्ये लिहायचा असेल तर त्यात तुम्ही कोणताही खर्च न करता लिहू शकता किंवा त्यात कितीही वेळा बदल करू शकता किंवा एडिट करू शकता त्यासाठी वेगळा खर्च करण्याची गरज नसते.

ग्राहकांशी संवाद साधता येतो

ग्राहकांच्या आवडीनिवडीचा विचार करून वस्तूची निर्मीती करणे आणि विकणे हे ज्यांना जमतं त्यांनाच विपणन व्यवस्थेत आपले वर्चेत्व प्रस्थापित करणे शक्य होते असे म्हटले जाते. पारंपारिक मार्केट व्यवस्थेत ग्राहकांच्या आवडीनिवडीचा अंदाज घेणे अशक्य होते. परंतु डिजिटल मार्केटिंगमुळे ग्राहकांशी जवळीकता साधणे, त्यांच्याशी संवाद साधून त्यांच्या आवडीनिवडीची माहित करून घेणे शक्य झाले आहे. त्यामुळे उत्पादकाला वस्तूच्या निर्मीतीबाबतचा निर्णय घेणे सहाज शक्य झाले आहे.

कमी खर्चिक

खर म्हणजे डिजिटल मार्केटिंगमुळे विक्रीखर्च कमी झाल्यामुळे उत्पादकाचा एकूणच उत्पादन खर्च कमी झालेला आहे. पारंपारिक बाजारात जाहिरातीवर पंचड खर्च करावा लागत होता. परंतु डिजिटल मार्केटिंगमध्ये एवढा खर्च येत नाही कमी खर्चात जास्त लोकांना आपल्या वस्तू व सेवांची माहिती देता येते. खर म्हणजे यामध्ये जे ग्राहक तुम्हच्या जाहिरातीवर क्लिक करून जाहिरात बघतात त्यासाठीच तुम्हाला पैसे द्यावे लागतात.

डिजिटल मार्केटिंगचे भवितव्य

डिजिटल मार्केटिंगला उज्वल भवितव्य आहे. जागतिकीकरणाच्या प्रवाहात स्पर्धेची तीव्रता वाढत आहे. जो कोणी या स्पर्धेत टिकेल तोच बाजारात वर्चेत्व प्रस्थापित करू शकणार आहे. त्यामुळे बहुतेक सर्व कंपन्या इंटरनेटचा वापर करून जाहिरातीवरपंचड खर्च करीत आहेत. आपले उत्पादन इतरांपेक्षा कसे दर्जेदार व कमी किंमतीचे आहे हे दाखवून देण्याचा प्रयत्न करीत आहेत. यासाठी डिजिटल साधनांचा वापर मोठ्या प्रमाणात होत आहे. येणाऱ्या काळात संपूर्ण विपणन व्यवस्थाच डिजिटल होण्याची शक्यता नाकारता येत नाही. असे झाले तर घरी बसल्या बसल्या लोक वस्तू व सेवांची मागणी करू शकतात आणि ही संख्या पंचड वाढू शकते. डिजिटल मार्केटिंग एक रोजगार मिळवून देणारे साधन होत आहे. त्यामुळे युवक रोजगार मिळवण्यासाठी एम.बी.ए सारखी पदवी मिळवण्यावर भर देत आहेत. इंटरनेटचा वापर करून व्यवसाय करण या लाखो कंपन्या आहेत. या कंपन्यांना डिजिटल मार्केटिंग मॅनेजरची आवश्यकता भासते अशा ठिकाणी मोठ्या पगाराची नोकरीमिळू शकते. तसेच पर्यटन,बँकिंग, रिटेल, मीडिया,

हॉस्पिटॅलिटी इ. कंपन्यांनाही डिजिटल मार्केटिंग मैनेजरची आवश्यक असते. अशाच प्रकारच्या job विदेशातही मिळू शकतात. त्यामुळे स्वतःच्या कार्यक्षमतेत वाढ केल्यास डिजिटल युगात नोकरी मिळणे सहज शक्य आहे. थोडक्यात डिजिटल मार्केटिंगची व्याप्ती वाढायला अजून भरपूर स्कोप आहे आणि म्हणून असे म्हणावे लागते की येणारा काळ हा डिजिटल मार्केटिंगचाच आहे.

समारोप:

वरील विश्लेषणावरून असे म्हणता येते की, डिजिटल मार्केटिंग ही आता काळाची गरज बनली आहे. ज्यांना आपल्या व्यवसायाची प्रगती आणि विस्तार करावयाचा आहे त्यांनी डिजिटल मार्केटिंग शिकल पाहिजे आणि त्याचे अनुकरण आपल्या दैनंदिन जिवनात वस्तूची खरेदी व विक्री करण्यासाठी केल पाहिजे. जागतिकीकरणानंतर विकसीत देशातील बलाढ्य उद्योग जगाच्या कानाकोपऱ्यात असणाऱ्या लहान मोठ्या देशात आपल्या वस्तूची विक्री करण्यासाठी तत्पर आहेत. Online च्या माध्यमातून या कंपन्या मोठ्या प्रमाणात वस्तु व सेवांची विक्री करीत आहेत तसेच ग्राहकांच्या दररोज बदलणाऱ्या आवडी निवडीचा विचार करून उत्पादनात बदल करत आहेत. भारतीय उद्योगांनीही डिजिटल मार्केटिंगमध्ये उतरून स्पर्धात्मक युगात आपली कार्यक्षमता वाढवली पाहिजे तरच त्यांचे अस्तित्व टिकून राहू शकेल अन्यथा पारंपारिक मार्केटिंग पध्दतीनुसार व्यावसाय केला तर तुम्ही बाजारपेठेच्या बाहेर फेकले जाऊ याची जाणिव असू द्या. म्हणून जास्तीचा फायदा मिळवायचा असेल तर काळानुसार आपल्यालाही बदल पाहिजे हे नक्की.

संदर्भग्रंथ सूची:

1. <https://marathhitrailer.com/digital-marketing-challenges-for-e-commerce/>
2. <https://www.digitalsakhi.com/2021/08/what-is-digital-marketing-in-marathi> आणि
3. <https://marathibusiness.in/digital-marketing-marathil>
4. डिजिटल मार्केटिंग सहज सोपे: प्रफुल्ल सुतार (मल्टीव्हर्सिटी प्रकाशन)
5. डिजिटल मार्केटिंग: प्रमोद खोत
6. बन्निएसोशल मीडिया मिलियनेयर: दीपक बजाज
7. डिजिटल मार्केटिंगमधून सीखो और कमाओ: पी. सिंग
8. मार्केटिंग: ब्रायन ट्रेसी

9. "Definition of digital marketing". *Financial Times*. Archived from the original on 29 November 2017. Retrieved 22 August 2015
10. World Economics (June 2015). "Digital and Mobile Continues to Dominate Share of Marketing Budgets". *Warc.com*. Retrieved 10 January 2018.
11. <https://360marathi.in/digital-marketing-information-in-marathi/>
12. <https://www.marathispirit.com/what-is-digital-marketing-in-marathi/>
13. <https://digitalvipulk.com/what-is-digital-marketing-in-marathi/>
14. <https://digitaltree.co.in/what-is-digital-marketing-in-marathi/>
15. <https://digitallion.in/what-is-digital-marketing-in-marathi/>
16. <https://hi.wikipedia.org/wiki/>



डिजिटल मार्केटींग मिन्स सोशल मिडीया मार्केटींग

प्रा. एल. के. पवार

कला व वाणिज्य महाविद्यालय, पुसेगावं ता.खटाव जि.सातारा

सारांश:

आजचे युग खूप वेगाने बदलत आहे, म्हणूनच डिजिटल मार्केटींग म्हणजे काय हे प्रत्येकाला माहित असणे आवश्यक आहे. जग डिजिटल होत आहे आणि प्रत्येकाला त्याची गरज वाटू लागली आहे. बऱ्याच कंपन्या आता डिजिटल मार्केटींग तज्ज्ञांना नियुक्त करतात जेणे करून ते त्यांचा व्यवसाय डिजिटल माध्यमातून देखील पसरवू शकतील. आपला व्यवसाय पसरविण्याचा आणि त्याचे ब्रांड वॅल्यू वाढवण्याचा डिजिटल मार्केटींग हा एक आधुनिक मार्ग आहे, म्हणून आज प्रत्येक कंपनी आपल्या व्यवसायाच्या नावाने वेबसाइट बनवते. पूर्वी प्रत्येक मोठी कंपनी आपली मार्केटींग मोहीम राबविण्यासाठी टीव्ही, वृत्तपत्र, मासिके, रेडिओ, कागद, पोस्टर आणि बॅनर यासारख्या साधनांचा वापर करित असे आणि बऱ्याच कंपन्या घरोघरी जाऊन देखील आपल्या उत्पादना बद्दल सांगत असत. परंतु आता काळानुसार मार्केटींगचा मार्ग हा बदलला आहे. आता इंटरनेट जगातील सर्वात मोठी मार्केटींगसाठी जागा बनली आहे.

प्रस्तावना:

मोठी कंपनी असो की छोटी कंपनी, आता प्रत्येकजण मार्केटींगसाठी इंटरनेट वापरतो. या मार्केटींग पर्यायाला डिजिटल मार्केटींग म्हणतात. जगातील निम्म्याहून अधिक लोक इंटरनेट वापरतात आणि ही संख्या दिवसेंदिवस वाढत आहे. हेच कारण आहे की डिजिटल मार्केटींग हे अतिशय वेगाने वाढत आहे. भारतातही डिजिटल मार्केटींग वेगाने वाढत आहे. याचा मुख्य कारण म्हणजे भारतात इंटरनेट सेवाही खूप स्वस्त झाली आहे. त्याचमुळे भारतात इंटरनेट वापरणाऱ्यांची संख्या प्रचंड वाढली आहे. भारत जगातील दुसऱ्या क्रमांकाचा देश आहे, जिथे जगातील सर्वाधिक इंटरनेट वापरणारी लोकसंख्या आहेत. तर मित्रांनो, आज आम्ही तुम्हाला डिजिटल मार्केटींग म्हणजे काय आणि डिजिटल किंवा ऑनलाइन मार्केटींग

कसे करावे याबद्दल संपूर्ण माहिती देणार आहोत. ज्या लोकांना ऑनलाइन आणि डिजिटल मार्केटींग बद्दल जाणून घ्यायचे आहे त्यांनी हा लेख संपूर्ण नीट वाचा.

डिजिटल मार्केटींग म्हणजे काय :

डिजिटल मार्केटींग मराठीमध्ये २ शब्द आहेत. पहिलं डिजिटल म्हणजे इंटरनेट, कम्प्युटर व इलेक्ट्रॉनिक मीडिया आणि दुसरा मार्केटींग म्हणजेच प्रचार. आता तुम्हाला याचा अर्थ थोडा स्पष्ट झाला असेल. हो, बरोबर डिजिटल मार्केटींग म्हणजे इंटरनेट, कम्प्युटर आणि इलेक्ट्रॉनिक मीडियावर प्रचार मोहीम राभवणे. विकिपीडियाच्या मते, जर आपण आपल्या सेवेचे किंवा कोणत्याही उत्पादनाची मार्केटींग इंटरनेट सारख्या डिजिटल तंत्रज्ञानाचा वापर करून विक्रीसाठी करत असू, तर त्याला डिजिटल मार्केटींग असे म्हणतात. ऑनलाईन मार्केटींग करण्याचे बरेच मार्ग आहेत जे काळानुसार वाढत आहेत. ऑफलाइन मार्केटींग आणि ऑनलाईन मार्केटींगमध्ये बरेच अंतर आहे. ऑनलाईन मार्केटींगचा उपयोग करून आपण आपल्याला हव्या असलेल्या लोकंपर्यंत आपली सेवा व उत्पादनचा प्रचार करू शकतो. आपले उत्पादन योग्य लोकांपर्यंत पोहोचण्याचा डिजिटल मार्केटींग हा एक वेगवान मार्ग आहे. मोठ्या कंपनी त्यांच्या उत्पादनांची ऑनलाईन जाहिरात करण्यासाठी लाखो रुपये खर्च करतात आणि या केलेल्या खर्चाच्या दुप्पट त्यांना त्यांच्या बिझनेसमध्ये फायदा देखील होतो. याचे सर्वात मोठे कारण म्हणजे हल्ली लोक इंटरनेटवर जास्त वेळ घालवतात. इंटरनेट वापरणारी व्यक्ती दररोज इंटरनेटवर ३ तास घालवते. म्हणूनच इंटरनेट ही सर्वात मोठी मार्केटींगसाठी जागा बनली आहे.

डिजिटल मार्केटींगचे महत्व काय :

कोणत्याही कंपनीसाठी मार्केटींग किती महत्वाचे आहे हे आपल्या सर्वांना माहित आहे. मार्केटींगसाठी कंपनी आपले स्वतंत्र बजेट तयार करतात. ऑफलाइन मार्केटींग करणे खूप महाग आहे. या उलट ऑनलाईन मार्केटींग हे स्वस्त आहे आणि त्याचा फायदा देखील हा जास्त आहे. तर चला जाणून घेऊ यात डिजिटल मार्केटींगचे महत्व .

डिजिटल मार्केटींग सुरु कसे करावे:

ब्लॉगिंग: डिजिटल मार्केटींगमध्ये जाण्याचा हा एक चांगला पर्याय म्हणजे ब्लॉगिंग . विशेष म्हणजे हे तुम्ही आगधी विनामूल्य सुरु करू शकता. बरीच लोक अशी आहेत ज्यानी आपल्या डिजिटल मार्केटींग करियरची सुरुवात ही ब्लॉगिंगने केली आहे. आणि ते आता या क्षेत्रातील डिजिटल एक्सपर्ट बनले आहेत.

सर्च इंजिन ऑप्टिमायझेशन : गूगल हे एक सर्च इंजिन आहे. जर आपल्याला आपल्या वेबसाइटवर किंवा ब्लॉगवर गूगलद्वारे जास्तीत जास्त ट्रॅफिक, विजिटर्स हवे असेल, तर आपल्याला सर्च इंजिन ऑप्टिमायझेशन याचा ज्ञान असणे अत्यंत आवश्यक आहे. हेच कारण आहे की बऱ्याच कंपन्या त्यांच्या वेबसाइटच्या सर्च इंजिन ऑप्टिमायझेशनवर हजारो, लाखो रुपये खर्च करतात. जर आपण सर्च इंजिन ऑप्टिमायझेशन तज्ञ असाल तर तुम्हाला खूप चांगल्या चांगली पगाराची नोकरी देखील मिळू शकते.

यूट्यूब चॅनेल : गूगलनंतर ज्यांचा नंबर लागतो ते म्हणजे यूट्यूब. हो यूट्यूब वर आजच्या काळात गूगल नंतर सर्वात जास्त ट्रॅफिक आहे. आज प्रत्येक व्यक्ति त्याला हवी असलेली कोणतीही माहिती तो गूगल किंवा यूट्यूबवर शोQa तो. म्हणूनच यूट्यूबचे पण महत्व आता वाढले आहे. यूट्यूब हा डिजिटल मार्केटींगचा एक असा पर्याय आहे जिथे तुम्ही तुमच्या सेवेचा किंवा उत्पादनचा प्रचार हा विडियोद्वारे करू शकता. तुम्ही पाहिलं असेलच , हल्ली बऱ्याच कंपन्या आपल्या प्रॉडक्टचा प्रचार करण्यासाठी मोठमोठ्या यूट्यूबरसला प्रॉड्युटरिव्यू करण्यासाठी देतात आणि त्यांना त्याचे पैसे सुद्धा दिले जातात. जर तुम्ही विडियो बनवू शकता, यूट्यूब चॅनेल सुरु करू शकता, तर तुम्ही देखील यूट्यूब वापरून डिजिटल मार्केटींग सुरु करू शकता. यूट्यूब चॅनेल सुरु करणे हे विनामूल्य आहे.

सोशल मीडिया : डिजिटल मार्केटींग करण्याचा हा सर्वात सोपा आणि लोक प्रियमार्ग आहे. बऱ्याच कंपन्या त्यांच्या जाहिरातीसाठी सोशल मीडियाचा वापर करतात. फेसबुक, ट्विटर, इंस्टाग्राम वगैरे सोशल मीडियावर बऱ्याच कंपन्यांच्या जाहिराती तुम्ही पाहिल्या असतीलच.

आपण गूगलद्वारे बऱ्याच प्रकारच्या जाहिराती चालवू शकता:

1. डिस्प्ले जाहिरात & टेक्स्ट जाहिरात & इमेज जाहिरात & जी आय एफ जाहिरात
2. टेक्स्ट अँड इमेज जाहिरात & मॅचकंटेंट जाहिरात & विडियो जाहिरात
3. पोप अप जाहिरात & स्पॉनसर्ड सर्च जाहिरात

अफिलिएट मार्केटिंग : हे कमिशन बेस्ड मार्केटिंग आहे. ऑनलाईन शॉपिंग आणि प्रॉडक्ट सेलिंग कंपनी असे अफिलिएट कार्यक्रम चालवतात. याच्या अंतर्गत आपण त्यावेबसाइटचे कोणतेही उत्पादन विकू शकतो. नंतर मग आपण विकलेल्या उत्पादनावर आपल्याला कमिशन दिले जातात. हा डिजिटल मार्केटिंगचा स्मार्टमार्ग आहे. याचा मध्ये वेबसाइटचा प्रचार होतो सोबत उत्पादन देखील विकले जातात. अफिलिएट मार्केटिंगमध्ये उत्पादन विकल्यानंतर चकमिशन मिळते.

मार्केटिंग : आपल्याला गूगल प्ले स्टोअरमध्ये सर्व मोठ्या वेबसाइट्सचे अॅप्स पहायला मिळतील. आजच्या डिजिटल जगात प्रत्येकाकडे स्मार्टफोन आहे आणि बऱ्याच लोकांना शॉपिंग, मनीट्रान्सफर, ऑनलाईन बुकिंग, न्यूज आणि सोशल मीडियासाठी अॅप्सचा वापर करायला आवडतो. हे लक्षात घेऊनच कंपनी अॅप्स बनवते व त्याद्वारे देखील डिजिटल मार्केटिंग मराठी व तर भाषेत करते.

ईमेल मार्केटिंग : कोणत्याही कंपनीला हे ईमेल मार्केटिंग करणे खूप महत्वाचे आहे. याचे मुख्य कारण म्हणजे कंपनी देत असलेली नवीन ऑफर आणि सवलत आपण आपल्या ग्राहकांना थेट ईमेलद्वारे त्यांच्या पर्यंत पोहोचू शकतो. आणि ग्राहकांकडून अभिप्राय देखील मिळवू शकतो. डिजिटल मार्केटिंगच्या इतर ही अनेक पद्धती आहेत. परंतु आपल्याला अशी पद्धत निवडायची आहे जिथून आपल्याला जास्तीत जास्त ट्रॅफिक, विजिटर्स मिळतील. जेणे करून ते आपले प्रोडक्ट्स पाहतील व त्यांची जास्त विक्री होईल. वरील सांगितल्या मार्गाने तुम्ही जास्तीत जास्त ट्रॅफिक मिळवू शकता.

डिजिटल मार्केटिंग विषयी संपूर्ण माहिती : आम्हाला आशा आहे की डिजिटल मार्केटिंग हा लेख तुम्हाला आवडला असेल. या लेखात बद्दल आपल्याला काही शंका असल्यास किंवा त्यामध्ये काही सुधारणा झाली पाहिजे असे आपल्याला वाटत असल्यास, यासाठी आपण लिहून आम्हाला सांगू शकता. आपल्याला हा

लेख डिजिटल मार्केटिंग म्हणजे काय आवडला असेल किंवा काही शिकायला मिळाले असेल तर कृपया ही माहिती जास्तीत जास्त इतरांकडे पोहचवा. फेसबुक , ट्विटर आणि इतर सोशल मीडिया साइट्सवर हे शेअर करा.

डिजिटल मार्केटिंगमध्ये करियर: आजच्या या डिजिटल युगात , डिजिटल मार्केटिंगमध्ये करियर करायला बऱ्याच सुवर्ण संधि आहेत. तसेच या क्षेत्रातील तज्ञ लोकांना पगार खूप चांगला व इच्छित मिळतो.

सोशल मीडिया मार्केटिंग

सोशल मीडिया मार्केटिंग मध्ये आपण सोशल मीडिया माध्यमांचा वापर करतो.

सोशल मीडिया माध्यमांमध्ये

1. फेसबुक
2. ट्विटर
3. यूट्युब
4. लिंकडइन
5. पिनटरेस्ट
6. स्नॅपचॅट
7. गुगलप्लस

सोशल मीडिया आपल्या प्रेक्षकांपर्यंत पोहचण्याचे, त्यांच्याशी सतत कनेक्टेड राहण्याचे आणि त्यांच्याशी सतत संवाद साधण्याचे एक प्रभावी माध्यम आहे.

पेपर क्लिक मार्केटिंग:

पेपर क्लिक मार्केटिंगलाच नेहमी पिपिसी अस हि म्हंटले जाते. पेपर क्लिक मार्केटिंग, हा ऑनलाईन मार्केटिंगचाच १ प्रकार असुन ज्यामध्ये, जितके ग्राहक तुमच्या जाहिरातींवर क्लिक करतील, तितकेच पैसे तुम्हाला द्यावे लागतात. यामध्ये जाहिरात किती वेळा दाखवली, याचा जाहिरातीच्या खर्चावर फरक पडत नाही, तर त्या जाहिरातीवर किती वेळा क्लिक केले गेले आहे . यानुसार जाहिरातीचा खर्च ठरवला जातो . खालील उदाहरणात सर्वच्या सर्व ४ जाहिराती याप्रकारच्या जाहिराती आहेत. तर कोणताही वापरकर्ता कोणत्याही जाहिरातीवर क्लिक केल्यास, संबंधित जाहिरातदार गुगलला प्रतिक्लिक पैसे देण्या सबांधील आहे.

डिस्प्ले मार्केटिंग: डिस्प्ले मार्केटिंग म्हणजे प्रॉडक्ट किंवा सेवा यांची इमेज ऍड / बॅनरऍड / डिस्प्ले ऍडयाद्वारे मार्केटिंग करणे. डिस्प्ले जाहिराती किंवा या प्रायसिंग तत्वावर चालवल्या जातात.

डिस्प्ले ऍड करण्याच्या पद्धती:

1. गुगल ऍड्स / गुगल ऍडवर्ड्स: गुगल ऍडच्या प्लॅटफॉर्म वरून केलेल्या ऍड्स
2. डायरेक्ट ऍड खरेदी : पब्लिशरशी संपर्क करून त्यांना पैसे देणेची वेबसाईट, पब्लिशर वेबसाईट आहे.
3. ऍडनेटवर्क : ऍड नेटवर्क या तिऱ्हाईत कंपन्यां असून त्या भिन्न प्रकाशकांवर कन्टेन्ट वेबसाइट्स जाहिराती चालविण्यात मदत करतात.
4. प्रोग्रामॅटिकऍड्स : प्रोग्रामॅटिक ऍड्स म्हणजे डिस्प्ले ऍड्स / विडिओ ऍड्स / रिच मीडिया ऍड्सयांची चालू परिस्थिती तरि अलटाइम खरेदी विक्री यांचे स्वयंचालन. तर मग गुगलच्या डिस्प्लेऍड आणि इतरांच्या डिस्प्ले ऍड यात फरक कसा ओळखायचा समजा एखाद्या फोटोला वरच्या बाजूला रोकून गुगल वर अपलोड करणे म्हणजे ती गुगलची डिस्प्ले ऍड आहे.

कन्टेन्ट मार्केटिंग : कन्टेन्ट मार्केटिंग तुमच्या सेवा किंवा प्रॉडक्ट्सच्या बदलचे महत्त्वाचे संदेश एका स्वरूपात आणि आपल्या लक्ष्यित प्रेक्षकां सोबत सुरवाती पासून संबंध तयार करण्यात मदत करते. आपल्या ग्राहकां सोबत संबंध प्रस्थापित करण्यासाठी, एक उत्कृष्ट कन्टेन्ट मार्केटिंगचा आरखडा बनविणे खूप गरजेचे आहे, ज्याने शेवटी बिसनेसला सेल्सच्या रूपात फायदा होऊ होतो.

कन्टेन्ट मार्केटिंगच्या वेगवेगळ्या पद्धती :

1. ब्लॉग
2. विडिओध्वनीचित्रफीत
3. इन्फोग्राफिक्स
4. वेबिनार्स
5. पॉडकास्ट्स
6. ईबुक
7. व्हाईटपेपर

अफिलिएट मार्केटिंग अफिलिएट मार्केटिंग हा एकमार्केटिंगचा प्रकार आहे, ज्या मध्ये आपण इतर कंपन्यांच्या उत्पादनांची ऑनलाइन विक्री करून त्यातून कमिशन मिळवू शकता. यात आपण ब्रँडच्या वस्तू किंवा सेवा लोकांना विकतो आणि त्याबदल्यात ब्रँड आपल्याला काही टक्के कमिशन देते. अनेक कंपन्यांनी ही धी उपलब्ध करून दिली असून याद्वारे सर्व सामान्य व्यक्ती ब्रँडचे प्रॉडक्ट विकून त्याद्वारे पैसे कमावू शकतो.

एँफिलेट मार्केटिंगची काही उदाहरणे :

1. त्रिवागो
2. कुपनदुनिया
3. कुपनराजा

एँफिलेट मार्केटिंगची परवानगी देणाऱ्या कंपन्या :

1. अमेझॉन
2. फ्लिपकार्ट
3. अलीएक्सप्रेस

ई-मेल मार्केटिंग : ई-मेल मार्केटिंग हा डायरेक्ट मार्केटिंगचा मोठा भाग असून इथे ई-मेलचा वापर संभावित ग्राहकाशी संपर्क करण्यासाठी होतो. हे ई-मेल प्रचाराचे, प्रॉडक्ट किंवा सेवेच्या माहितीचे, किंवा सेवेतील झालेल्या बदला बाबतीत माहिती देणारे असू शकतात. ई-मेल मार्केटिंग हे चांगले मार्केटिंगचे मेडीयम आहे कारण यात आपण संभावित ग्राहकाशी प्रत्यक्ष बोलू शकतो. ई-मेल मार्केटिंगद्वारे तुम्ही ग्राहकांना व्यस्त ठेवू शकता, आणि सोबतच ग्राहकाला तुमच्या ब्रँडशी नाते जोडायला भाग पाडता. ई-मेल मार्केटिंगला ड्रीप मार्केटिंग असे हि म्हणतात. कारण यात तुम्ही रोपाला हळू हळू हळू पाणी दिल्याप्रमाणे ग्राहकाच्या मनात ब्रँड बद्दल विश्वास निर्माण करू शकता.

ई-मेल मार्केटिंगसाठी वापरले जाणारे सॉफ्टवेअर

1. मेलचिंप
2. सेंडग्रीड
3. कॉन्स्टन्टकॉन्टॅक्ट
4. हबस्पॉट

प्रा. एल. के. पवार

विडिओ मार्केटिंग

विडिओ मार्केटिंग म्हणजे विडिओच्या ध्वनी चित्रफितीच्या सहाय्याने तुमच्या ब्रँडची / प्रॉडक्टची किंवा सेवेची मार्केटिंग करणे. युट्युब हे विडिओ मार्केटिंगचे मुख्य साधन आहे. विडिओ मार्केटिंग, सोशल मीडिया चॅनेलद्वारे देखील केले जाते, ज्यामध्ये फेसबुक, इन्स्टाग्राम, स्नॅपचॅट, प्रोग्रामॅटिक विडिओ इ. यांचा समावेश आहे.

संदर्भ - :

1. rinteractives.com
2. & marathispirt.co.in
3. & digitaltree.co.in
4. & youtube.com
- 4.5. & warren Buffett: The life Lessons & Rules for success



डिजिटल मार्केटिंग

Dr. Vibha Pandey

Assit. Prof, Commerce, Govt. P. G. College, Obra, Sonbhadra, Uttar Pradesh

Email- Vibhaobra@Gmail.Com

सारांश:

डिजिटल मार्केटिंग, मार्केटिंग का वह घटक है जो उत्पादों और सेवाओं को बढ़ावा देने के लिए इंटरनेट और ऑनलाइन आधारित डिजिटल तकनीकों जैसे डेस्कटॉप कंप्यूटर, मोबाइल फोन और अन्य डिजिटल मीडिया और प्लेटफॉर्म का उपयोग करता है। 1990 और 2000 के दशक के दौरान इसके विकास ने ब्रांड और व्यवसायों के विपणन के लिए प्रौद्योगिकी का उपयोग करने के तरीके को बदल दिया। जैसे-जैसे डिजिटल प्लेटफॉर्म तेजी से मार्केटिंग योजनाओं और रोजमर्रा की जिंदगी में शामिल होते गए, और जैसे-जैसे लोग भौतिक दुकानों पर जाने के बजाय डिजिटल उपकरणों का तेजी से उपयोग करते गए, डिजिटल मार्केटिंग अभियान प्रचलित हो गए हैं, जो सर्च इंजन ऑप्टिमाइजेशन (एसईओ) के संयोजन को नियोजित करते हैं। सर्च इंजन मार्केटिंग (SEM), कंटेंट मार्केटिंग, इन्फ्लुएंसर मार्केटिंग, कंटेंट ऑटोमेशन, कैंपेन मार्केटिंग, डेटा-ड्रिवन मार्केटिंग, ई-कॉमर्स मार्केटिंग, सोशल मीडिया मार्केटिंग, सोशल मीडिया ऑप्टिमाइजेशन, ई-मेल डायरेक्ट मार्केटिंग, डिस्प्ले एडवरटाइजिंग, ई-किताबें, और ऑप्टिकल डिस्क और गेम आम हो गए हैं। डिजिटल मार्केटिंग का विस्तार गैर-इंटरनेट चैनलों तक है जो डिजिटल मीडिया प्रदान करते हैं, जैसे टेलीविजन, मोबाइल फोन (एसएमएस और एमएमएस), कॉलबैक, और ऑन-होल्ड मोबाइल रिंग टोन। गैर-इंटरनेट चैनलों का विस्तार डिजिटल मार्केटिंग को ऑनलाइन विज्ञापन से अलग करता है।

इतिहास -

डिजिटल मार्केटिंग का विकास प्रौद्योगिकी विकास से अविभाज्य है। पहली महत्वपूर्ण घटनाओं में से एक 1971 में हुई, जब रे टॉमलिसन ने पहला ईमेल भेजा, और उनकी तकनीक ने लोगों को विभिन्न मशीनों के माध्यम से फाइल भेजने और प्राप्त करने की अनुमति देने के लिए मंच तैयार किया। हालाँकि, डिजिटल मार्केटिंग की शुरुआत के रूप में अधिक पहचानने योग्य अवधि 1990 है क्योंकि यह वह जगह थी जहां

एफ़टीपी साइटों के लिए एक इंडेक्स के रूप में आर्ची सर्च इंजन बनाया गया था। 1980 के दशक में, कंप्यूटर की भंडारण क्षमता पहले से ही इतनी बड़ी थी कि ग्राहकों की बड़ी मात्रा में जानकारी संग्रहीत की जा सकती थी। कंपनियों ने सीमित सूची दलाल के बजाय डेटाबेस मार्केटिंग जैसी ऑनलाइन तकनीकों को चुनना शुरू कर दिया। इस प्रकार के डेटाबेस ने कंपनियों को ग्राहकों की जानकारी को अधिक प्रभावी ढंग से ट्रैक करने की अनुमति दी, इस प्रकार खरीदार और विक्रेता के बीच संबंधों को बदल दिया। हालाँकि, मैनुअल प्रक्रिया उतनी कुशल नहीं थी।

1990 के दशक में, Digital Marketing शब्द पहली बार गढ़ा गया था। सर्वर/क्लाइंट आर्किटेक्चर की शुरुआत और व्यक्तिगत कंप्यूटरों की लोकप्रियता के साथ, ग्राहक संबंध प्रबंधन (सीआरएम) अनुप्रयोग विपणन प्रौद्योगिकी में एक महत्वपूर्ण कारक बन गए हैं। भयंकर प्रतिस्पर्धा ने विक्रेताओं को अपने सॉफ़्टवेयर में अधिक सेवा शामिल करने के लिए मजबूर किया, उदाहरण के लिए, विपणन, बिक्री और सेवा अनुप्रयोग। इंटरनेट के जन्म के बाद विपणक eCRM सॉफ़्टवेयर द्वारा विशाल ऑनलाइन ग्राहक डेटा का स्वामी होने में सक्षम थे। कंपनियां ग्राहकों की जरूरतों के डेटा को अपडेट कर सकती हैं और अपने अनुभव की प्राथमिकताएं प्राप्त कर सकती हैं। इसके कारण पहला क्लिक करने योग्य बैनर विज्ञापन 1994 में लाइव हुआ, जो एटी एंड टी द्वारा "यू विल" अभियान था और इसके लाइव होने के पहले चार महीनों में, इसे देखने वाले सभी लोगों में से 44% ने विज्ञापन पर क्लिक किया।

2000 और 2010 के दशक में डिजिटल मार्केटिंग और अधिक परिष्कृत हो गई, जब डिजिटल मीडिया तक पहुंचने में सक्षम उपकरणों के प्रसार ने अचानक विकास किया। 2012 और 2013 में तैयार किए गए आंकड़े बताते हैं कि डिजिटल मार्केटिंग अभी भी बढ़ रही थी। 2000 के दशक में लिंकडइन, फेसबुक, यूट्यूब और ट्विटर जैसे सोशल मीडिया के विकास के साथ, उपभोक्ता दैनिक जीवन में डिजिटल इलेक्ट्रॉनिक्स पर अत्यधिक निर्भर हो गए। इसलिए, उन्हें उत्पाद की जानकारी खोजने के लिए विभिन्न चैनलों में एक सहज उपयोगकर्ता अनुभव की उम्मीद थी। ग्राहक व्यवहार में परिवर्तन ने विपणन प्रौद्योगिकी के विविधीकरण में सुधार किया। डिजिटल मार्केटिंग को 'ऑनलाइन मार्केटिंग', 'इंटरनेट मार्केटिंग' या 'वेब मार्केटिंग' के रूप में

भी जाना जाता है। डिजिटल मार्केटिंग शब्द की लोकप्रियता समय के साथ बढ़ी है। संयुक्त राज्य अमेरिका में ऑनलाइन मार्केटिंग अभी भी एक लोकप्रिय शब्द है। इटली में डिजिटल मार्केटिंग को वेब मार्केटिंग कहा जाता है। दुनिया भर में डिजिटल मार्केटिंग सबसे आम शब्द बन गया है, खासकर वर्ष 2013 के बाद। डिजिटल मीडिया के विकास का अनुमान 4.5 ट्रिलियन ऑनलाइन विज्ञापनों पर लगाया गया था, जिसमें 2010 में डिजिटल मीडिया खर्च में 48% की वृद्धि हुई थी। विज्ञापन का एक बढ़ता हुआ हिस्सा इंटरनेट उपयोगकर्ताओं के लिए विज्ञापन दर्जी के लिए ऑनलाइन व्यवहार विज्ञापन (OBA) को नियोजित करने वाले व्यवसायों से उपजा है, लेकिन OBA चिंता का विषय है उपभोक्ता गोपनीयता और डेटा सुरक्षा।

सोशल मीडिया मार्केटिंग के लाभ -

सोशल मीडिया मार्केटिंग के संभावित लाभों में शामिल हैं:

1. कंपनियों को बड़े, विविध दर्शकों के लिए खुद को बढ़ावा देने की अनुमति देता है जो पारंपरिक विपणन जैसे फोन और ईमेल आधारित विज्ञापन के माध्यम से नहीं पहुंचा जा सकता है।
2. अधिकांश सोशल मीडिया प्लेटफॉर्म पर मार्केटिंग बहुत कम या बिना किसी लागत के आती है- जिससे यह लगभग किसी भी आकार के व्यवसाय के लिए सुलभ हो जाता है।
3. विशिष्ट जनसांख्यिकी और बाजारों को लक्षित करने वाले व्यक्तिगत और प्रत्यक्ष विपणन को समायोजित करता है।
4. कंपनियां ग्राहकों के साथ सीधे जुड़ सकती हैं, जिससे उन्हें प्रतिक्रिया प्राप्त करने और मुद्दों को लगभग तुरंत हल करने की अनुमति मिलती है।
5. एक कंपनी के लिए बाजार अनुसंधान करने के लिए आदर्श वातावरण। प्रतिस्पर्धियों के बारे में जानकारी प्राप्त करने और प्रतिस्पर्धात्मक लाभ को बढ़ावा देने के साधन के रूप में इस्तेमाल किया जा सकता है।
6. ब्रांड इवेंट, डील और समाचारों को बढ़ावा देने के लिए सोशल प्लेटफॉर्म का उपयोग किया जा सकता है।

7. वफादारी अंक और छूट के रूप में प्रोत्साहन प्रदान करने के लिए सामाजिक प्लेटफार्मों का भी उपयोग किया जा सकता है।

ब्रांड जागरूकता बढ़ाने के लिए उपयोग किए जाने वाले ऑनलाइन तरीके-

डिजिटल मार्केटिंग रणनीतियों में उपभोक्ताओं के बीच ब्रांड जागरूकता बढ़ाने के लिए एक या अधिक ऑनलाइन चैनलों और तकनीकों (ओमनीचैनल) का उपयोग शामिल हो सकता है।

ब्रांड जागरूकता के निर्माण में निम्नलिखित तरीके/उपकरण शामिल हो सकते हैं:

खोज इंजन अनुकूलन (एसईओ)

खोज इंजन अनुकूलन तकनीकों का उपयोग सामान्य उद्योग-संबंधित खोज प्रश्नों के लिए व्यावसायिक वेबसाइटों और ब्रांड-संबंधित सामग्री की दृश्यता में सुधार के लिए किया जा सकता है। ब्रांड जागरूकता बढ़ाने के लिए एसईओ के महत्व को खोज परिणामों के बढ़ते प्रभाव और ग्राहक व्यवहार पर विशेष रूप से प्रदर्शित स्निपेट, ज्ञान पैनल और स्थानीय एसईओ जैसी खोज सुविधाओं के साथ सहसंबंधित करने के लिए कहा जाता है।

सर्च इंजन मार्केटिंग (SEM)

SEM, जिसे पीपीसी विज्ञापन के रूप में भी जाना जाता है, में खोज परिणाम पृष्ठों और वेबसाइटों के ऊपर प्रमुख, दृश्यमान स्थितियों में विज्ञापन स्थान की खरीद शामिल है। यह दिखाया गया है कि खोज विज्ञापनों का ब्रांड पहचान, जागरूकता और रूपांतरण पर सकारात्मक प्रभाव पड़ता है। भुगतान किए गए विज्ञापनों पर क्लिक करने वाले 33% खोजकर्ता ऐसा इसलिए करते हैं क्योंकि वे सीधे अपनी विशेष खोज क्वेरी का जवाब देते हैं।

सामाजिक मीडिया विपणन 70% विपणक सोशल मीडिया प्लेटफॉर्म पर मार्केटिंग के लिए अपने नंबर एक लक्ष्य के रूप में बढ़ती ब्रांड जागरूकता को सूचीबद्ध करते हैं। फेसबुक, इंस्टाग्राम, ट्विटर और यूट्यूब वर्तमान में सोशल मीडिया मार्केटिंग टीमों द्वारा उपयोग किए जाने वाले शीर्ष प्लेटफॉर्म के रूप में सूचीबद्ध

हैं। 2021 तक, लिंकडइन को व्यावसायिक नेटवर्किंग क्षमताओं के लिए व्यापारिक नेताओं द्वारा सबसे अधिक उपयोग किए जाने वाले सोशल मीडिया प्लेटफॉर्म में से एक के रूप में जोड़ा गया है।

विकास और रणनीतियां

पारंपरिक मार्केटिंग में होने वाले बड़े बदलावों में से एक "डिजिटल मार्केटिंग का उदय" था, इससे पारंपरिक मार्केटिंग में इस बड़े बदलाव के अनुकूल होने के लिए मार्केटिंग रणनीतियों का पुनर्निर्माण हुआ। चूंकि डिजिटल मार्केटिंग तकनीक पर निर्भर है जो हमेशा विकसित और तेजी से बदल रही है, डिजिटल मार्केटिंग विकास और रणनीतियों से समान सुविधाओं की अपेक्षा की जानी चाहिए। यह हिस्सा मौजूदा और प्रेस समय के रूप में उपयोग किए जा रहे उल्लेखनीय हाइलाइट्स को अर्हता प्राप्त करने या अलग करने का एक प्रयास है। विभाजन: व्यवसाय-से-व्यवसाय और व्यवसाय-से-उपभोक्ता दोनों क्षेत्रों में विशिष्ट बाजारों को लक्षित करने के लिए, डिजिटल मार्केटिंग के भीतर विभाजन पर अधिक ध्यान दिया गया है। इन्फ्लुएंसर मार्केटिंग: संबंधित समुदायों के भीतर महत्वपूर्ण नोड्स की पहचान की जाती है, जिन्हें इन्फ्लुएंसर के रूप में जाना जाता है। यह डिजिटल लक्ष्यीकरण में एक महत्वपूर्ण अवधारणा बनता जा रहा है। इन्फ्लुएंसर ब्रांडों को सोशल मीडिया और इनमें से कई प्लेटफार्मों पर उपलब्ध बड़े दर्शकों का लाभ उठाने की अनुमति देते हैं। सशुल्क विज्ञापन, जैसे कि Facebook विज्ञापन या Google विज्ञापन अभियान, या परिष्कृत sCRM (सामाजिक ग्राहक संबंध प्रबंधन) सॉफ्टवेयर, जैसे SAP C4C, Microsoft Dynamics, Sage CRM और Salesforce CRM के माध्यम से प्रभावशाली लोगों तक पहुँचना संभव है। कई विश्वविद्यालय अब परास्नातक स्तर पर, प्रभावशाली लोगों के लिए सगाई की रणनीतियों पर ध्यान केंद्रित करते हैं। संक्षेप में, पुल डिजिटल मार्केटिंग को उपभोक्ताओं द्वारा सक्रिय रूप से मार्केटिंग सामग्री की तलाश करने की विशेषता है, जबकि पुश डिजिटल मार्केटिंग तब होती है जब विपणक उस सामग्री के बिना संदेश भेजते हैं जिसे प्राप्तकर्ताओं द्वारा सक्रिय रूप से मांगा जाता है। ऑनलाइन व्यवहार विज्ञापन समय के साथ उपयोगकर्ता की ऑनलाइन गतिविधि के बारे में जानकारी एकत्र करने का अभ्यास है, "किसी विशेष डिवाइस पर और विभिन्न, असंबंधित वेबसाइटों पर, उस उपयोगकर्ता की रुचियों और प्राथमिकताओं के अनुरूप विज्ञापन

वितरित करने के लिए।" इस तरह के विज्ञापन साइट पुनर्लक्ष्यीकरण पर आधारित होते हैं और प्रत्येक उपयोगकर्ता के व्यवहार और पैटर्न के आधार पर अनुकूलित किए जाते हैं। सहयोगात्मक वातावरण: प्रयास, संसाधन साझाकरण, पुनः प्रयोज्य और संचार को अनुकूलित करने के लिए संगठन, प्रौद्योगिकी सेवा प्रदाता और डिजिटल एजेंसियों के बीच एक सहयोगी वातावरण स्थापित किया जा सकता है। इसके अतिरिक्त, संगठन अपने ग्राहकों को यह बेहतर ढंग से समझने में मदद करने के लिए आमंत्रित कर रहे हैं कि उनकी सेवा कैसे की जाए। डेटा के इस स्रोत को उपयोगकर्ता-जनित सामग्री कहा जाता है। इसमें से अधिकांश कंपनी वेबसाइटों के माध्यम से प्राप्त किया जाता है जहां संगठन लोगों को उन विचारों को साझा करने के लिए आमंत्रित करता है जिनका मूल्यांकन साइट के अन्य उपयोगकर्ताओं द्वारा किया जाता है। सबसे लोकप्रिय विचारों का किसी न किसी रूप में मूल्यांकन और कार्यान्वयन किया जाता है। डेटा प्राप्त करने और नए उत्पादों को विकसित करने की इस पद्धति का उपयोग करने से संगठन के अपने ग्राहकों के साथ संबंधों को बढ़ावा मिल सकता है और साथ ही उन विचारों को जन्म दिया जा सकता है जिन्हें अन्यथा अनदेखा किया जाएगा। यूजीसी कम लागत वाला विज्ञापन है क्योंकि यह सीधे उपभोक्ताओं से होता है और संगठन के लिए विज्ञापन लागत बचा सकता है। डेटा-संचालित विज्ञापन: उपयोगकर्ता ग्राहक यात्रा के रास्ते में हर कदम पर बहुत अधिक डेटा उत्पन्न करते हैं और ब्रांड अब डेटा-संचालित प्रोग्रामेटिक मीडिया खरीदारी के साथ अपने ज्ञात दर्शकों को सक्रिय करने के लिए उस डेटा का उपयोग कर सकते हैं। ग्राहकों की गोपनीयता को उजागर किए बिना, उपयोगकर्ताओं का डेटा डिजिटल चैनलों से एकत्र किया जा सकता है (उदाहरण: जब ग्राहक किसी वेबसाइट पर जाता है, ई-मेल पढ़ता है, या किसी ब्रांड के मोबाइल ऐप को लॉन्च और इंटरैक्ट करता है), ब्रांड वास्तविक से भी डेटा एकत्र कर सकते हैं- विश्व ग्राहक संपर्क, जैसे कि ब्रिक और मोटार स्टोर विज़िट और सीआरएम और बिक्री इंजन डेटासेट से। लोगों पर आधारित मार्केटिंग या एड्रिसेबल मीडिया के रूप में भी जाना जाता है, डेटा-संचालित विज्ञापन ब्रांडों को अपने दर्शकों में अपने वफादार ग्राहकों को खोजने और वास्तविक समय में एक बहुत अधिक व्यक्तिगत संचार प्रदान करने के लिए सशक्त बनाता है, जो प्रत्येक ग्राहक के क्षण और कार्यों के लिए अत्यधिक प्रासंगिक है। एक रणनीति पर निर्णय लेते

समय आज एक महत्वपूर्ण विचार यह है कि डिजिटल उपकरणों ने प्रचार परिदृश्य को लोकतांत्रिक बना दिया है। रीमार्केटिंग: रीमार्केटिंग डिजिटल मार्केटिंग में एक प्रमुख भूमिका निभाता है। यह रणनीति विपणक को एक रुचि श्रेणी या परिभाषित दर्शकों के सामने लक्षित विज्ञापनों को प्रकाशित करने की अनुमति देती है, जिन्हें आमतौर पर वेब स्पीक में खोजकर्ता कहा जाता है, उन्होंने या तो विशेष उत्पादों या सेवाओं की खोज की है या किसी उद्देश्य के लिए एक वेबसाइट पर गए हैं। गेम विज्ञापन: गेम विज्ञापन ऐसे विज्ञापन होते हैं जो कंप्यूटर या वीडियो गेम में मौजूद होते हैं। इन-गेम विज्ञापन के सबसे आम उदाहरणों में से एक खेल के खेल में दिखने वाले होर्डिंग हैं। इन-गेम विज्ञापन ब्रांड-नाम के उत्पादों जैसे बंदूकें, कार या कपड़ों के रूप में भी प्रदर्शित हो सकते हैं जो गेमिंग स्थिति प्रतीकों के रूप में मौजूद हैं।

Reference-

1. <https://www.investopedia.com/terms/d/digital-marketing.asp>



राजर्षी शाहू पूर्वकाळातील कोल्हापूर राज्यातील उद्योगधंदे

डॉ. खंडेराव शिंदे

इतिहास विभाग, राजर्षी शाहू कला व वाणिज्य महाविद्यालय, रुकडी

प्रास्ताविक –

छत्रपती शिवाजी महाराजांनी स्थापन केलेल्या हिंदवी स्वराज्याचे आठराव्या शतकाच्या पहिल्या दशकात महाराणी ताराबाई व छत्रपती शाहू महाराज यांच्यातील संघर्षातून सातारा व कोल्हापूर अशी दोन राज्ये निर्माण झाली. महाराणी ताराबाईंनी सन १७१० मध्ये कोल्हापूर राज्याची स्थापना केली. कोल्हापूर राज्य हे दक्षिण संस्थानातील सर्वात मोठे राज्य होते. असे हे कोल्हापूर राज्य कृषिप्रधान असले तरी एकोणिसाव्या शतकामध्ये राज्यात उद्योगधंद्यांचा बराच विकास झाला होता. राज्यात उद्योगधंद्यांना शेतीइतकेच महत्व होते. उद्योगधंद्यांसाठी लागणारी परिस्थिती तसेच कच्चा माल, कुशल कामगार, वाहतुकीच्या सोयी, इ. गोष्टी अनुकूल होत्या. या राज्याच्या सन १८८३ ते १८९४ या आकरा वर्षांच्या कालखंडातील उद्योगधंद्यांवर फारसे कोणी संशोधन केले नाही. ढोबळ मानाने आजचा पुर्ण कोल्हापूर जिल्हा आणि कर्नाटकातील रायबाग तालुका यांचा समावेश कोल्हापूर राज्यात होत होता. अशा या कोल्हापूर राज्यात राजर्षी शाहूंच्या राज्यभिषेकागोदर अनेक उद्योगधंदे चालत. या उद्योगधंद्यांची तुलना आजच्या औद्योगिककरणाबरोबर होत नसली तरी हे उद्योग राज्याच्या अर्थव्यवस्थेचा कणा होता. या उद्योगधंद्यांचा कोल्हापूर राज्याचा आर्थिक विकासावर चांगला परिणाम झाला होता. राजर्षी शाहू महाराजांच्या काळात कोल्हापूर राज्याची औद्योगिक प्रगती फार मोठ्या प्रमाणावर झाली. कारण राजर्षी शाहूंनी या क्षेत्राकडे विशेष लक्ष दिले होते. यामुळे लोकांना रोजगार उपलब्ध झाला. कोल्हापूर राज्याची आर्थिक प्रगती करून घेण्यासाठी उद्योगधंद्यांची वाढ महत्वाची होती याची जाणिव शाहू महाराजांना झाली होती. पण त्यांच्या राज्याभिषेकापूर्वी कोल्हापूर राज्यात कोण-कोणते उद्योग चालत होते याचा शोध घेण्याच्या दृष्टीने येथे प्रयत्न केला आहे. कोल्हापूर राज्यात सन १८९४ च्या दरम्यान कुटीर उद्योग मोठ्या प्रमाणात चालत. काही शहरी व्यवसाय ग्रामीण व्यवसायावर आधारीत होते. स्वावलंबन हे ग्रामीण व्यवसायाचे ध्येय होते. शेती हा ग्रामीण भागात मुख्य व्यवसाय असल्याने त्यावर आधारित अनेक व्यवसाय चालत. गावातील कारागीर

लोकांच्या गरजा भागवित. कारागिरांचे स्थलांतर होऊ नये म्हणून गावकरी व वतनदार लोक काळजी घेत. कोल्हापूर राज्यात खालील उद्योगधंदे चालत होते.

सोन्या-रुप्याचे काम –

कोल्हापूर राज्यात सन १८८३ च्या सुमारस सोनाराची १२०० कुटुंबे होती . यापैकी ४०० कुटुंबे सोनार काम करून शेती करत होते. मोठ्या बाजाराच्या गावी किंवा मोठ्या खेड्यात सोनारकाम चाले. रुप्याच्या कामास दर तोळ्यास पाऊण आण्यापासून चार आण्यापर्यंत मजुरी मिळत होती.¹ सन १८९४ मध्ये कोल्हापूर शहरात सोनाराची ९ ६ दुकाने होती.

तांबट काम- (जुनी भांडी दुरुस्त करणारे)

कोल्हापूर राज्यात तांबटांची सन १८८३ च्या सुमाराला ७० कुटुंबे होती. यांच्या धंद्याला २० ते ५० रुपयांची हत्यारे लागत. तांबट दिवसाला ७-८ आणे मिळवत. सन १८ ९ ४ मध्ये राज्यात फक्त २८ तांबट लोक होते. त्यांची १८ दुकाने असून त्यांत ४४ कामगार काम करीत होते.

कुंभारकाम –

कोल्हापूर राज्यात सन १८९४ च्या सुमारास १,०५५ कुंभाराच्या भट्ट्या होत्या. या भट्ट्यांमध्ये ३,३१२ कामगार काम करीत. साधनसामग्री खरेदीसाठी एकूण ३,८०५ / - रुपये भांडवल गुंतवले होते. कच्चा माल व सरपण यावर २१,७७५ / - रु. खर्च केला होता. एका वर्षात १,१५,१७८ / - रुपये किंमतीचा पक्का माल तयार केला होता. राज्यात २६१ ठिकाणी कुंभारकाम चालत होते. पन्हाळा, भुदरगड व गडहिंग्लज तालुक्यातील माती कुंभारकामासाठी चांगली होती. गडहिंग्लज व शेणगाव येथिल माती विटांसाठी चांगली होती.²

बांगडी उद्योग –

बांगड्या तयार करण्याचा उद्योग पाडळी, फेजिवडे, गारगोटी, तासगाव, हत्तीगाव, वाकुर्डे व घोनसारी येथे चालत होता. गारगोटी येथिल बांगडी उत्तम प्रतीची होती. या बांगड्या मणेर किंवा कासार लोक

विकत घेत. पण मुंबई, पुणे, मिरज याठिकाणाहून कोल्हापूर राज्यात उच्च प्रतीच्या बांगड्या येऊ लागल्याने या धंद्यास फारसी तेजी नव्हती.

सुतार व लाख काम –

कोल्हापूर राज्यात ५६७ ठिकाणी सुतारकाम चालत होते. यामध्ये २,४५९ कामगार काम करत. पाटगाव येथे उत्तम लाकडी पाळणे तयार केले जात. भुदरगड तालुक्यातील पाटगाव व शिवडाव येथे लाखकाम मोठ्या प्रमाणावर चाले. कोल्हापूर, शिरोळ व चिंचली येथेही लाखकाम चाले.³

चर्मोद्योग –

कोल्हापूर राज्यात कातडी कमावण्याचा उद्योग २९ ठिकाणी चालत होता. कातडी कमावण्याची १३४ कुंडे होती. वर्षाला २९,७३१ रुपये किंमतीचे कातडे तयार केले जाई. हा व्यवसाय ढोर जातीचे लोक करत. कातडे कमाविल्यानंतरच ते चामडी वस्तू तयार करण्यासाठी योग्य होत असे. कोल्हापूर राज्यात १,२५९ ठिकाणी चांभारकाम चाले. या उद्योगात २,०५५ कामगार काम करीत. जोडे, चप्पल, मोटा, पखाली अशा कातडी वस्तू चांभार बनवित. अळते पेट्यातील चांभार घोड्याचे लगाम व घोड्याचा संरजाम तयार करीत.⁴

विणकाम उद्योग –

सुती विणकाम

कोल्हापूर राज्यात सन १८९४ च्या सुमारास ३,०३२ हातमाग होते. विणकर सुती तयार कापड शेजारच्या बाजारपेठेत विकत व तेथून कच्चा माल खरेदी करत. विणकाम केल्यावर विणकारास एक रुपयांमागे अर्धा किंवा एक आणा नफा मिळत होता. मोमीन लोक यंत्री सुताचा उपयोग कापड विणण्यासाठी करत. रंगित सुतापासून लुगडी तयार केली जात. कोष्टी लोक दरमहा १५ रुपयापासून ३५ रुपयांपर्यंत नफा मिळवत. कोल्हापूरच्या मध्यवर्ती तुरुंगात १७ हातमाग होते त्यात हात पुसण्याचे जाड टावेल, टेबलावरील जाड कापड तयार केले जाई. विलायती कापड येवू लागल्यापासून राज्यातील

हातमागाची संख्या कमी होत गेली. कोल्हापूर, कोडोली, हलकर्णी, उत्तूर, बहिरेवाडी, हमीदवाडा व कापशी येथे काठाची धोतरे तयार केली जात. हलकर्णी येथे कौशल्यपूर्ण साडी विणकाम केले जाई. इचलकरंजी येथे कुशल विणकर होते.

घोंगडी विणकाम

कोल्हापूर राज्यातील शिरोळ, हेरवाड, चिंचणी, नांदणी, रायबाग येथिल धनगर घोंगडी तयार करीत. रायबाग महालामध्ये कौशल्यपूर्ण घोंगडी धनगर विणत. मुलाळ, हारळी, वाघापूर, पट्टणकोडोली व वाशी येथे घोंगडी विणत. पट्टणकोडोली, चिंचली, वाशी येथिल यात्रा ही ठिकाणे घोंगडी बाजारासाठी राज्यात प्रसिद्ध होत्या.

तेल व्यवसाय –

कोल्हापूर राज्यात तेल काढण्यासाठी करडई, कोरटे, भुईमुग, अंबाडी, तीळ, जवस, मोहरी यांचा वापर केला जाई. राज्याच्या पश्चिम भागात करंज्याच्या बियांचे व अळते (सध्याचा हातकणंगले तालुका) पेठ्यात तंबाखूच्या बियांचे तेल काढत. शेतकरी स्त्रिया एरंडीचे, पिवळ्या धोत्र्याच्या बियांचे तेल काढत. एरंडीच्या तेलाचा जाळण्यास व रेचक म्हणून उपयोग केला जाई. अंगावर फोड आल्यास त्यावर धोत्र्याचे तेल लावत.⁵

कागद व्यवसाय –

कोल्हापूर शहरात कागद तयार करण्याचे चार कारखाने होते. या प्रत्येक कारखान्यावर सहा मजूर काम करत. हा कागद जाडा, खरबरीत पण बळकट व मोहोरदार असा होता. कागद तयार करण्यासाठी लागणारा कच्चा माल बेळगाव, कोगनोळी व इतर ठिकाणाहून आणला जाई. या कागदाशिवाय कोल्हापूरात तीन प्रकारचे सफाईदार कागद तयार केले जात. या चार कारखान्यात वर्षाला ३००० रु. चा कागद तयार केला जाई. कोल्हापूरातच २७०० रु. कागद विकला जात होता. तर ३०० रु . कागद मिरज- सगलीकडे विकला जाई. सन १८५३-५४ मध्ये कोल्हापूर राज्यात कागद तयार करण्याचे १८ कारखाने असून त्यात

६६६ कामगार काम करीत. या कागदास दक्षिणी संस्थानात कार्यालयीन कामासाठी चांगली मागणी होती. कोल्हापूर जेलमध्येही कागद तयार करण्याचा एक लहान कारखाना होता. मात्र युरोपियन चांगले व स्वस्त कागद आल्यानंतर कोल्हापुरी कागदाची मागणी कमी झाली होती.

सुगंधी पदार्थ

कोल्हापूर राज्यात सुगंधी पदार्थ तयार केले जात. बुक्का, अगरबत्ती, उदेल, दांतवण इ. पदार्थ तयार केले जात. बुक्का तयार करण्यासाठी घोणेसरीची वाळलेली फुले, उद, चंदनी अत्तर, कस्तुरी यांचा वापर केला जाई. अगरबत्त्या तयार करण्यासाठी बाभळीचे कोळसे, कचोरा, तगरीची फुले, नागरमोघा, चंदन व कस्तुरीचा वापर केला जाई. उदाचे व तिळाचे तेल मिसळून उदेल तयार केले जाई. दांतवण तयार करण्यासाठी कात, हिरडे, मोरचुद, बिबे, आवळकाठी, नागकेशर, हिरडा व लवंग या पदार्थांची पूड तयार केली असता दांतवण तयार होई. बुक्का, अगरबत्त्या व दांतवण विकण्याचा व्यवसाय आत्तार लोक करत.⁶

दोरखंड व्यवसाय – कोल्हापूर राज्यात दोरखंड तयार करण्याचा व्यवसाय करवीर, अळते, शिरोळ, पन्हाळा या पेठ्यात मोठ्या प्रमाणावर चालत होता. दोरखंड तयार करणाऱ्यांना नाडे मांग म्हटले जाई. दोरखंड तयार करण्यासाठी अंबाडी, ताग, केकतीच्या बाकाचा उपयोग केला जाई. हा व्यवसाय उन्हाळ्यात मोठ्या प्रमाणावर चालत होता. ज्या भागात शेतीला मोटेद्वारे पाणीपुरवठा केला जाई तेथे दोरखंडास चांगली मागणी होती.

चिरमुरे व्यवसाय – कोल्हापूर राज्यात नऊ ठिकाणी चिरमुरे तयार केले जात. करवीर पेठ्यात निगवे व शिरसे, भुदरगड पेठ्यात वाळवा, कुंभारवाडी, शेणगाव व निश्रप, कागल जहागिरीत यमगे, बावडा जहागिरीत राशिवडे व इचलकरंजी जहागिरीत आजरा येथे हा व्यवसाय चाले. पण निगवे, वाळवे व यमगे येथेच हा व्यवसाय मोठ्या प्रमाणावर चाले. हा व्यवसाय वर्षातून ९ -१० महिने चाले. सन १८९४ च्या सुमारास राज्यात चिरमुरे तयार करण्याच्या १३९ भट्ट्या असून ३५९ कामगार काम करत होते.⁷

गुळ व साखर व्यवसाय – कोल्हापूर राज्यात गुळ बनविण्याचा व्यवसाय अळते, पन्हाळा पेठ्यात व आजरा महालात चाले. या शिवाय यळगुड, शिरोली व सांगरुळ येथेही गुळ तयार केला जाई. गुळाबरोबरच काकवीही तयार केली जाई. राज्यातून वर्षाला अंदाजे १२९६ खंडी गुळ तयार होत असे. त्यांची अंदाजे किंमत १,२०,५३९ / - रुपये एवढी होती.^८ राज्यात सन १८९३ मध्ये १० ठिकाणी साखर तयार केली जात होती. सुळकूड व रेंदाळ ही दोन ठिकाणे साखरेसाठी प्रसिद्ध होती. शिरोली, सांगरुळ, लिंगनूर येथेही साखर तयार केली जाई. कोल्हापूरी गुळाची निर्यात गुजरात राज्यात होत असे. कोल्हापूरची हवा, पाणी व जमीन उसाच्या लागवडीस योग्य होती. राज्यात तयार झालेला गुळ चवदार व टिकाऊ होता.^९ "थोडक्यात कोल्हापूर राज्यात सन १८८३ ते १८९४ या कालखंडात वरील उद्योगधंदे चालत होते. यातील कांही उद्योगांवर त्यावेळीसुद्धा आयात मालामुळे परिणाम झाल्याचे दिसते. उदा.- बांगडी उद्योग, कापड उद्योग, कागद उद्योगांमध्ये मंदी निर्माण झाली होती. इतर व्यवसाय मात्र चांगले चालत होते. असे दिसते.

संदर्भ –

1. Campbell James Gazetteer of the Bombay presidency Vol. - XXIV Kolhapur, 1886
2. मोडक बा. प्र. (भाषांतरित) - कोल्हापूर गॅझेटिअर, सन १८८६ पृ ३०४.
3. Kolhapur State Report on the Industrial survey of the Kolhapur Territory year- 1895 PP - 53 54, 55
4. मोडक बा. प्र. (भाषांतरित) - कोल्हापूर गॅझेटिअर सन १८८६ पृ. ३०८- ३०९
5. Kolhapur State Report on the Industrial survey of the Kolhapur-Territory year -1895 PP- 57-61.
6. मोडक बा. प्र. - उपरोक्त पृ-३११-३१४
7. मोडक बा. प्र. - उपरोक्त पृ. - ३१४-३१८
8. Report on the Industrial survey of Kolhapur Territory P - 56
9. Graham D. C. - Statistical Report of the Kolhapur State, Bombay year – 1854 P - 270.
10. भिडे ग. र. , देशपांडे पु. ल. - कोल्हापूर दर्शन, सन १९७९ पृ.- ३६२-३६३



डिजिटल मार्केटिंग: २१ व्या शतकातील महिला नेतृत्वापुढील आव्हाने आणि संक्षी

श्री अनिल पोपट लोखंडे

सहा. प्राध्यापक, राजे रामराव महाविद्यालय, जत जि. सांगली.

Email- lokhandeanil143@gmail.com

सारांश:

डिजिटल मार्केटिंग मराठी मध्ये दोन शब्द आहेत. पहिला शब्द डिजिटल म्हणजे इंटरनेट, कम्प्युटर व इलेक्ट्रॉनिक मीडिया आणि दुसरा शब्द मार्केटिंग म्हणजेच प्रचार. जर आपण आपल्या सेवेची किंवा कोणत्याही उत्पादनाची मार्केटिंग इंटरनेट, कम्प्युटर आणि इलेक्ट्रॉनिक मीडिया सारख्या डिजिटल तंत्रज्ञानाचा वापर विक्रीसाठी करत असेल तर त्याला डिजिटल मार्केटिंग असे म्हणतात. ऑनलाइन मार्केटिंग करण्याचे बरेच मार्ग आहेत जे काळानुसार वाढत आहेत. ऑफलाइन मार्केटिंग आणि ऑनलाइन मार्केटिंग मध्ये बरेच अंतर आहे. ऑनलाइन मार्केटिंगचा उपयोग करून आपण आपल्या हव्या असलेल्या लोकांपर्यंत आपली सेवा व उत्पादनाचा प्रचार करू शकतो. आपले उत्पादन योग्य लोकांपर्यंत पोहोचण्याचा डिजिटल मार्केटिंग हा एक वेगवान मार्ग आहे. मोठ्या कंपन्या त्यांच्या उत्पादनाची जाहिरात करण्यासाठी लाखो रुपये खर्च करतात आणि केलेल्या खर्चाच्या दुप्पट त्यांना त्यांच्या बिजनेस मध्ये फायदा देखील होतो. याचे सर्वात मोठे कारण म्हणजे हल्ली लोक इंटरनेटवर जास्त वेळ घालवतात. इंटरनेट वापरणारी व्यक्ती दररोज इंटरनेटवर दोन ते तीन तास घालवते. म्हणूनच इंटरनेट ही सर्वात मोठी मार्केटिंगसाठी जागा बनली आहे. ऑफलाइन मार्केटिंग करणे खूप महाग आहे या उलट ऑनलाइन मार्केटिंग हे स्वस्त आहे आणि त्याचा फायदा देखील हा जास्त आहे.

इतिहास—

पहिला डिजिटल मार्केटर गुगिल्लमो मार्कोनी होता. याने २७ जुलै १८९६ रोजी दोन पोस्ट ऑफिस इमारती दरम्यान सिग्नल पाठवून मार्कोनीने आपली वायरलेस तार प्रणाली (Public Transmission of Wireless Signals) यशस्वीरित्या दर्शवली. वायरलेस सिग्नल्सचे सार्वजनिक ट्रान्समिशन प्रदर्शित करणारा तो पहिला मनुष्य होता. याने रेडिओचा शोध लावला आणि इथूनच डिजिटल मार्केटिंग स्ट्रॅटेजीचा जन्म झाला. पण इतरांच्या मते, १९७१ मध्ये डिजिटल मार्केटिंगचे युग सुरू झाले. जेव्हा रे टॉमलिन्सनने स्वतःला पहिला ईमेल पाठवला तेव्हा त्या वेळी इतर कोणतेही ईमेल परत आले नव्हते. १९९० मध्ये शोध इंजिनचा जन्म झाल्यामुळे डिजिटल मार्केटिंगच्या इतिहासात चांगली सुरुवात झाली. पहिला क्लिक करण्यायोग्य बॅनर १९९३ मध्ये थेट झाला. हॉटवायर्ड नावाच्या कंपनीने वेबसाईटवर जाहिरात करण्यासाठी बॅनर जाहिराती खरेदी केल्या. ऑनलाइन जाहिरात आली होती. याहूचा (yahoo) शोध १९९४ मध्ये लागला. जेव्हा लोक माहितीसाठी वेबसाईटवर शोधू लागले. २१ व्या शतकात मात्र खूप मोठ्या प्रमाणात बदल झालेले आपण पाहिले आहेत. आधुनिक काळात तंत्रज्ञानाच्या व साधनांच्या माध्यमातून विविध क्षेत्रात घडून आलेले बदल हे अतिशय महत्वाचे आहेत. त्याचाच एक भाग म्हणजे डिजिटल मार्केटिंग हा होय.

वैशिष्ट्ये/महत्व —

1. आपल्या सेवा व उत्पादनाचा प्रचार करण्यासाठी हा एक सरळ, सोपा आणि वेगवान मार्ग आहे.

2. ऑनलाइन मार्केटिंग हे ऑफलाईन मार्केटिंग पेक्षा स्वस्त आहे.
3. डिजिटल मार्केटिंग आपल्याला चांगला परतावा देते किंवा देतो.
4. डिजिटल मार्केटिंग हे आपले उत्पादन आणि सेवा योग्य लोकांपर्यंत पोहोचविण्याचा सर्वोत्तम मार्ग आहे.
5. डिजिटल मार्केटिंग मध्ये आपल्याला आपल्या सेवा आणि उत्पादनाचा प्रचार करण्यासाठी या
6. माध्यमातून विविध मार्ग मिळतात.
7. डिजिटल मार्केटिंग मुळे आपल्या कंपनीचे ब्रँड मूल्य निश्चितपणे वाढते.
8. डिजिटल मार्केटिंग च्या मदतीने आपण आपल्या सेवेचा आणि उत्पादनाचा प्रचार आणि प्रसार
9. जागतिक स्तरावर करू शकतो.
10. आपण आपल्या उत्पादनाचे डिजिटल मार्केटिंग करून आपण आपल्या उत्पादित मालाची/उत्पादनाची
11. अशनलाइन विक्री देखील करू शकतो.

डिजिटल मार्केटिंग आणि महिला त्यांच्या पुढील आव्हाने —

स्त्रियांना फॉलो (follow) करतात—

साधारणपणे सध्याच्या युगात डिजिटल मार्केटिंग क्षेत्रात काम करणा—या महिलांना पुरुष वर्गाकडून फॉलो केले जात असते. मात्र कालांतराने फॉलोवर्स यांच्याकडून अश्लील कमेंट जाणीवपूर्वक करून असा त्रास दिला जातो. यामुळे महिलांना होणारा नाहक त्रास दिला जातो. परंतु या महिला कधीही बदनाम होण्याच्या भीतीने व्यक्त करत नाहीत. त्यामुळे फॉलोवर्स कडून फॉलो करून होणारा त्रास महिला नेतृत्वापुढील एक आव्हान आहे.

स्त्रियांना ब्लॉकमेल केले जाते —

डिजिटल मार्केटिंग या क्षेत्रात खाजगी नोकरी करणाऱ्या महिला वर्गाचे प्रमाण अलीकडील काळात मोठ्या प्रमाणात वाढत आहे. मात्र कामाच्या ठिकाणच्या व कामाच्या व्याप्तीमुळे संपर्कात आलेल्या पुरुष वर्गाकडून महिलांना ब्लॉकमेल केले जात असल्याची अनेक उदाहरणे आपण पाहत असतो. मात्र नोकरी टिकवण्यासाठी नाइलाजाने त्या सहन करतात. हे देखील एक आव्हान आहे.

फोटो मॉर्फिंग (photo morphing) करतात—

आपल्या व्यवसायाचा प्रचार आणि प्रसार करण्यासाठी वेगवेगळ्या डिजिटल मार्केटिंग माध्यमांचा वापर केला जातो. त्यावेळी जाहिराती प्रभावी बनविण्यासाठी महिलांच्या फोटोंचा वापर केला जात आहे. या फोटोंच्या मुळ रूपात बदल करून त्या मध्ये विकृतीकरण होत असल्याने या क्षेत्रात काम करण्यासाठी महिला पुढे येण्याचे धाडस करत नाहीत. काम करणा—या महिलांची समाजात बदनामी होते व तिला मानसिक, कौटुंबिक, सामाजिक समस्यांना सामोरे जावे लागते.

महिलांच्या नावाने पैसे उकळतात —

डिजिटल मार्केटिंग क्षेत्रात उद्योग व व्यवसाय वाढवण्यासाठी आणि प्रभावी अंमलबजावणी करण्यासाठी महिलांच्या नावांचा वापर करून ग्राहकांची फसवणूक केली जाते. वेगवेगळी आमिषे दाखवून पैसे उकळून शोषण केले जात आहे. अशी अनेक उदाहरणे घडली आहेत. या क्षेत्रातील महिला वर्गाला नव्याने ग्राहकांचा विश्वास संपादन करणे हे देखील महिला नेतृत्वासमोरील आव्हान आहे.

महिलांचा अतिरेकी वापर —

डिजिटल मार्केटिंग क्षेत्रावर प्रामुख्याने पुरुषी वर्गाची मक्तेदारी असलेली आपणाला पाहायला मिळते. मात्र या क्षेत्रातील व्यवसाय वाढवण्यासाठी महिलांच्या नावांचा, छायाचित्रांचा अतिरेकी वापर होत असलेला दिसून येते. महिलांच्या भावनांचा, मतांचा विचार न करता या गोष्टी सक्तीने घडवून आणल्या जातात. असा महिलांचा अतिरेकी वापर हे ही एक आव्हान आहे.

महिलांना या क्षेत्रात काम करण्यास कुटुंबियांकडून असहमती/विरोध —

डिजिटल मार्केटिंग या क्षेत्रात काम करणा—या महिलांना फोलो व ब्लॉकमेल केले जाते, फोटो मॉर्फिंग केले जातात, महिलांच्या नावाने पैसे उकळले जाणे यासारख्या समस्यातून महिलांना विनाकारण बदनामी स्वीकारावी लागते. यामुळे कौटुंबिक स्तरावर महिलांना डिजिटल मार्केटिंग क्षेत्रात काम करण्यास सहमती दर्शविली जात नाही किंवा काम करण्यास विरोध होतो. यासारख्या समस्या देखील महिला नेतृत्वापुढील आव्हाने आहेत.

महिलांचे मानसिक संतुलन टिकवून कामातील योगदान —

आजच्या काळात महिलांनी प्रत्येक क्षेत्रात भरारी घेतली असली तरी डिजिटल मार्केटिंग सह अनेक क्षेत्रात काम करणा—या महिलांना त्याठिकाणी निर्माण होणा—या त्रासाला, बदनामीस सामोरे जात असताना सामाजिक, कौटुंबिक स्तरावर मानसिक संतुलन टिकवणे आणि कामात योगदान देणे ही दुहेरी तारेवरची कसरत हे देखील एक महत्वपूर्ण आव्हान आहे.

डिजिटल मार्केटिंग क्षेत्रात महिला नेतृत्वास संधी —**महिला असण्याचा फायदा —**

सध्याचे युग हे जाहिरातीचे जग आहे. जाहिराती या प्रभावी बनविण्यासाठी पुरुष वर्गापेक्षा महिलांचे प्रमाण एकंदरीत जास्त असल्याचे दिसून येत आहे. साधारणतः जाहिरातीत महिलांची भूमिका ही प्रभावी ठरत आहे. त्यामागचे प्रमुख कारण म्हणजे त्या महिला असणे हे फायद्याचे ठरत असलेले दिसून येत आहे.

महिलांचा चेहरा सकारात्मक (Positive) —

महिला या जाहिरात प्रचार आणि प्रसार करतात. जाहिरात यशस्वी आणि उत्कृष्ट ठरविण्याचे प्रभावी माध्यम हे या महिला आहेत. महिलांचा चेहरा हा नेहमी सकारात्मक आणि ग्राहकांना आकर्षित करत असतो. त्यामुळे या डिजिटल मार्केटिंग क्षेत्रात महिला वर्गाला खूप मोठी संधी उपलब्ध असल्याचे दिसून येते.

महिला आवाजातील जाहिरात प्रभावी —

महिलांचा आवाज हा साधारणतः कोमल, मधुर, आणि मंजुळ असतो. त्यामुळे या डिजिटल मार्केटिंग क्षेत्रात व्यावसायिकाला आपल्या व्यवसायाची, उत्पादनाची माहिती ग्राहक वर्गापर्यंत पोहोचविण्याचे माध्यम म्हणजे महिलांचा जाहिरातीतील आवाज हे देखील प्रभावी साधन ठरत आहे. आवाजामुळे महिला वर्गाला डिजिटल मार्केटिंग क्षेत्रात खूप मोठ्या प्रमाणात संधी मिळत आहे.

शारीरिक ठेवण, केशभूषा, वेशभूषा जाहिरातीवर प्रभाव —

महिलांचे सौंदर्य हे देखील डिजिटल मार्केटिंग या क्षेत्रात महिलांना व्यवसायाची व चांगल्या नोकरीची संधी निर्माण करून देत आहे. यामध्ये प्रामुख्याने महिलांच्या शरीराची ठेवण ही अतिशय व्यवस्थित, केशभूषा व त्यांची वेगवेगळी रचना, वेशभूषा हा देखील जाहिरात प्रभावी ठरविण्याचे प्रमुख साधन स्त्री सौंदर्य आहे.

तंत्रज्ञानाच्या क्षेत्रात महिलांना सुवर्णसंधी —

जगात आज महिला सर्वच क्षेत्रात पुरुषांच्या खांद्याला खांदा लावून काम करत आहेत. तंत्रज्ञानाच्या क्षेत्रात महिलांनी उच्च शिक्षण घेऊन कामाच्या बाबतीत आपला वेगळा ठसा उमटवला आहे. सध्याच्या काळात तंत्रज्ञानाच्या क्षेत्रात वेगवेगळ्या स्तरावर महिलांना संधी आहे.

महिलांचा कामातील प्रामाणिकपणा व चोख काम करण्याची पध्दत ही एक संधी —

महिला या आपल्या कामाच्या बाबतीत चोख आणि प्रामाणिक असतात. त्या वेळेला जास्त महत्त्व देऊन कामाचे योग्य नियोजन आणि काटेकोरपणा यानुसार काम पार पडतात. यामुळे त्यांना डिजिटल मार्केटिंग सह इतर क्षेत्रात ही प्रामुख्याने प्राधान्य दिले जात असल्याचे पाहायला मिळत आहे.

डिजिटल मार्केटिंग प्रचार आणि प्रसार —

कंपनी/व्यवसायीक/व्यापारी वर्गाकडून आपल्या उत्पादित मालाची/वस्तुंची जाहिरात करण्यासाठी डिजिटल मार्केटिंग या क्षेत्रात सोशल मिडीयाचा वापर प्रामुख्याने होताना दिसत आहे. उदा. फेसबुक,ट्विटर,इन्स्टाग्राम,व्हॉट्सअप, युट्युब चॅनल या बरोबर इमेल मार्केटिंग नेटिव्ह जाहिराती ब्लॉगिंग, सर्च इंजिन ऑप्टिमिझेशन, अफिलेट मार्केटिंग, सर्च इंजिन मार्केटिंग, गुगल अॅडवर्ड्स सारखे सॉफ्टवेअर किंवा इतर ही साधने वापरली जातात. यामुळे जाहिरातीचा प्रचार आणि प्रसार होण्यास गती प्राप्त होते याशिवाय ऑनलाईन वस्तुंची/मालांची खरेदी विक्री होते यामुळे ऑनलाईन व्यवहार हे सुखकर होवू लागले. त्यामुळे ग्राहकांचे प्रमाण वाढले आहे. ग्राहकांनासुध्दा घरपोच सेवा मिळत असल्याने त्यांचा वेळेची बचत होत आहे.

समारोप —

डिजिटल युग हे क्रांतीचे युग आहे. डिजिटल साधने यांच्या माध्यमातून जगाच्या वेगवेगळ्या क्षेत्रातील माहिती क्षणात आपणास उपलब्ध होत आहे. त्यामुळे आज प्रत्येक क्षेत्र प्रगती पथावर आहे. मार्केटिंग क्षेत्राने डिजिटल साधनांच्या माध्यमातून आपली प्रगती केली असून ते अत्युच्च यशाच्या शिखरावर जाऊन पोहोचले आहे. या डिजिटल साधनांमुळे मार्केटिंग क्षेत्राला चालना आणि प्रोत्साहन मिळाले आहे. व्यापारी— व्यावसायिकांना आपल्या व्यवसायाची व उत्पादित वस्तुंची माहिती ग्राहकांपर्यंत पोहोचविण्यासाठी

वेगवेगळ्या पारंपारिक माध्यमांचा वापर हा सध्याच्या युगात खर्चिक आणि वेळेचा अपव्यय ठरत आहे. यासाठी जास्त परिश्रम घ्यावे लागत आहे. सध्याच्या स्पर्धेच्या युगात आपला उद्योग – व्यवसाय वाढवण्यासाठी व त्याची प्रभावी अंमलबजावणी करण्यासाठी डिजिटल मार्केटिंग चा वापर करणे ही काळाची गरज आहे. कारण यामुळे वेळ, पैसा आणि श्रम यांची बचत होऊन व्यावसायिकाचा उत्पादित मालाची व वस्तूची जाहिरात डिजिटल साधनांमुळे होते. यामुळे उत्पादित मालाची व वस्तूची खरेदी आणि विक्री प्रक्रिया गतिमान होईल. डिजिटल मार्केटिंग क्षेत्रात काम करणाऱ्या पुरुष मंडळी बरोबर महिला वर्ग हा देखील महत्वाची भूमिका बजावत आहे. पुरुषांपेक्षा देखील एक पाऊल महिला पुढे आहेत. मात्र महिला वर्गाला सर्व स्तरावर आव्हानांचा/समस्यांचा सामना करावा लागत आहे. या आव्हानांशी सामना करून कर्तृत्ववान महिलांनी या डिजिटल मार्केटिंग या क्षेत्रात कामाच्या माध्यमातून आपले नावलौकिक मिळवलेले पाहायला मिळत आहे. म्हणून माणसाने संकटात, संघर्षात, आव्हानात देखील संधी शोधली पाहिजे आणि तिचे सोने केले पाहिजे.

संदर्भ ग्रंथ –

1. समाचार, लेखक—जयदेव डोळे. प्रकाशन : लोकवाड:मय गृह, मुंबई.
2. पांडेपुराण। जाहिरातआणि मी लेखक—पीयूष पांडे प्रकाशन —मनोविकास प्रकाशन ,पुणे. आवृत्ती — पहिली १० मे २०१७
3. जनसंपर्काचे अंतरंग. डॉ. रवींद्र चिंचोलिकर ग्रंथाली प्रकाशन, पुणे आवृत्ती पहिली ०२ फेब्रुवारी २०१४ डिजिटल जर्नालिझम : लेखक — डॉ. शिवाजी जाधव प्रकाशन— ब्लू रोझ, नवी दिल्ली. आवृत्ती— पहिली मार्च २०२२
4. डिजिटल मार्केटिंग सहज सोपे लेखक — प्रफुल्ल सुतार. प्रकाशन मल्टिव्हर्सिटी



पारंपारिक मार्केटिंग व डिजिटल मार्केटिंग

डॉ. दीपक वसंत चव्हाण

कला व वाणिज्य महाविद्यालय , पुसेगाव , ता . खटाव , जि . सातारा

सारांश:

डिजिटल मार्केटिंग म्हणजे काय या प्रश्नाचं उत्तर आपण या ब्लॉगमध्ये करणार आहोत. डिजिटल मार्केटिंगबद्दल सर्व माहिती जाणून घेण्यासाठी तुम्ही हा लेखपूर्ण वाचा. डिजिटल मार्केटिंग हा शब्द तुम्ही ऐकलाच असेल पण आता मागील काही वर्षांमध्ये डिजिटल मार्केटिंगची मागणी वाढल्यामुळे डिजिटल मार्केटिंगचा प्रसार खूप होत आहे. तर आपल्या मराठी लोकांना हे समजण्यासाठी हा लेख आपल्या मराठी भाषेतून मांडला आहे. डिजिटल मार्केटिंग हा एक मार्केटिंगचा प्रकार आहे. मार्केटिंग मुख्यतः दोन प्रकारात केली जाते, ट्रेडिशनल मार्केटिंग आणि आता डिजिटल मार्केटिंग. जेव्हा स्मार्टफोन, कॉम्प्युटर, टॅब्लेट आणि इंटरनेट सारख्या डिजिटल उपकरणांद्वारे जगभरातील लोकांना एखादे उत्पादन किंवा सेवेचा प्रचार केला जातो, तेव्हा या पद्धतीला डिजिटल मार्केटिंग म्हणतात. डिजिटल मार्केटिंग हे डिजिटल म्हणजे इंटरनेट आणि मार्केटिंग म्हणजे बाजार म्हणजे इंटरनेट मार्केट या दोन शब्दांनी बनलेले आहे. जी सेवा किंवा उत्पादन आम्ही डिजिटल तंत्रज्ञान जसे इंटरनेट आणि इतर माध्यमांना विकण्यासाठी वापरतो त्याला डिजिटल मार्केटिंग किंवा ऑनलाइन मार्केटिंग म्हणतात. भारतातील डिजिटल मार्केटिंगचे भविष्य: भारतामध्ये इंटरनेट वापर करण्याच्या संख्या वाढत चालली आहे. त्यामुळे भारतामध्ये डिजिटल मार्केटिंगचे भविष्य खूप मोठे असणार आहे. आता २०२१ मध्ये भारतात ६२४ मिलियन इंटरनेट वापरकर्ते आहेत आणि पुढच्या वर्षी ही संख्या ८२०.९९ मिलियन होण्याची शक्यता आहे, तर भविष्यात डिजिटल मार्केटिंगला खूप महत्व असेल. मित्रांनो तुम्ही या ब्लॉग मध्ये डिजिटल मार्केटिंग म्हणजे काय हे बघितलं आहे. तर तुम्हाला हा लेखक सावाटला ते नक्की सांगा. आणि तुमचे काही प्रश्न असतील तर ते पण विचार करावा भारतातही डिजिटल मार्केटिंग वेगाने वाढत आहे .याचा मुख्य कारण म्हणजे भारतात इंटरनेट सेवा ही खूप स्वस्त झाली आहे. भारत जगातील .च्या संख्या प्रचंड वाढली आहेत्याचमुळे भारतात इंटरनेट वापरणाऱ्या क्रमांकाचा देश आहेदुसऱ्या, जिथे जगातील सर्वाधिक इंटरनेट वापरणारी लोकसंख्या आहेत.

पारंपारिक मार्केटिंग वर डिजिटल मार्केटिंगचे फायदा :

लक्षीकृत जाहिरात मोहीम

डिजिटल मार्केटिंग जाहिरातदारांना, वय, लिंग, स्वारस्य, विषय, कीवर्ड, वेबसाइट्स, शहर, पिनकोड वगैरे इत्यादी सहजा हिरात टारगेट करण्याची परवानगी देते. पारंपारिक माध्यमाच्या तुलनेत हे अत्यंत सरळ सोपे आहे जिथे श्रोत्यांना विविध पद्धती नुसार एंड टारगेट करणे कठीण आहे.

रिअलटाइम ऑप्टिमायझेशन

डिजिटल मार्केटिंगद्वारे आपण आपल्या जाहिरात मोहिमांना रिअलटाइममध्ये बदलू शकतो म्हणजे जर रणनीती कार्य करत नसेल तर आपण लगेच दुसऱ्या धोरणाकडे वळू शकतो, तर पारंपारिक मार्केटिंग मध्ये, एकदा आपण जाहिरात दिल्यानंतर आपण तिच्यात मध्ये बदल करू शकत नाही .

परिणाम मोजणे शक्य

डिजिटल मार्केटिंगचा परिणाम मोजणे शक्य आहे, आपल्याला सहजपणे कळू शकते की आपली जाहिरात किती लोकांपर्यंत पोहचली आहे, किती लोकांनी आपल्या जाहिरातींवर क्लिक केले आहे, किती लोकांनी जाहिरातीतून आपली सेवा किंवा वस्तु विकत घेतली आहे, लोक आपल्या वेबसाइट वर किती वेळ घालवत आहेत, ते किती व कोणकोणती वेबसाइटची पाने पाहत आहेत , ग्राहक आपल्याकडे वेबसाइटवर आल्यापासून त्या नेत्या सेवेच्या किंवा वस्तुच्या खरेदीसाठी किती वेळ घेतला हे पाहू शकतो, जे पारंपारिक माध्यमामध्ये मोजणे अशक्य आहे.

ग्राहकांशी संवाद वाढवा

डिजिटल मार्केटिंग ब्रँड्सना त्यांच्या ग्राहकांबरोबर सोशल मीडियाच्या माध्यमातून संवाद वाढविण्यास मदत करते. ब्रँड सद्यपरिस्थितीत ग्राहकांशी कनेक्ट राहू शकतात आणि त्यांच्या खरेदीच्या एकूण प्रवासा दरम्यान त्यांना ब्रँडच्या संवादात व्यस्त ठेवून खरेदीस मदत करू शकतात.

वैयक्तिक संवाद: डिजिटल मार्केटिंगचा सर्वात मोठा फायदा हा कि तुम्ही प्रत्येक ग्राहकाशी वेगळ्या पद्धतीने संवाद साधू शकता. या प्रकारे प्रत्येक ग्राहकाची गरज लक्षात घेऊन त्याला पाहिजे त्या मार्केटिंग संवादाने

तुम्ही सेवा किंवा वस्तु घेण्यास प्रवृत्त करू शकता. यामध्ये त्यांची गरज लक्षात घेऊन, त्यांना लागू होईल असा संवाद करून तुमच्या ब्रँडचे उद्दिष्ट मिळवू शकता.

कमी खर्चिक

डिजिटल मार्केटिंग अत्यंत स्वस्त आहे. जितके ग्राहक तुमच्या जाहिरातींवर क्लिक करतील, तितकेच पैसे तुम्हाला द्यावे लागतात. तसेच कोणत्याही बजेट नुसार तुम्ही सुरवात करू शकता. ज्याने जाहिरातदारांना किंवा कंपन्यांना थोड्या थोड्या बजेटने जाहिराती देऊन त्यांचा काय परिणाम होतो याची सुविधा मिळते. तुम्ही कमीत कमी बजेटमध्ये जास्तीत जास्त ग्राहकांपर्यंत पोहचून तुमच्या एकूण मार्केटिंग खर्चात कपात करून आणू शकता.

गुंतवणुकी पेक्षा जास्त फायदा

पारंपरिक मार्केटिंगच्या तुलनेत डिजिटल मार्केटिंग कमी गुंतवणुकीमध्ये जास्त फायदा मिळवू देते कारण आपल्या उद्योगास आवश्यक असणाऱ्या ठराविक लोकांनाच आपण जाहिरात दाखवतो ज्यामुळे त्यासाठी खर्च हि कमी लागतो. सोबतच डिजिटल मार्केटिंग मधून तुम्ही भेट देणारे ग्राहकांचा मागोवा ठेवू शकता, आणि ते कोणत्या माध्यमातून तुमचे ग्राहक बनले यावर देखील लक्ष देऊ शकता. डिजिटल मार्केटिंगचे वर्गीकरण ऑनलाइन मार्केटिंग आणि ऑफलाइन मार्केटिंग अंतर्गत केले जाऊ शकते.

सर्च इंजिन ऑप्टिमायझेशन

सर्च इंजिन ऑप्टिमायझेशनही सर्च इंजिनांचे ऑर्गेनिक/नॉन-

पेड सर्च परिणामांमध्ये सर्चरिजल्टमध्ये आपल्या वेबसाइटचे रँकिंग करण्याची प्रक्रिया आहे. वेबसाइटचे

रँकिंग ऑर्गेनिक सर्चमध्ये खालील घटकांवर अवलंबून असते

1. कन्टेन्ट स्ट्रॅटेजी मजकूर योजना / आराखडा
2. ऑनपेजऑप्टिमायझेशन
3. ऑफपेज ऑप्टिमायझेशन

सर्च इंजिन मार्केटिंग: सर्च इंजिन मार्केटिंग म्हणजे तुमच्या वेबसाइटची दृश्यता नैसर्गिक पद्धतीने किंवा पेड जाहिरातींच्या माध्यमाने वाढवणे थोडक्यात एसइओ नैसर्गिक पेड जाहिराती पेड सर्च खालील स्क्रिन शॉटमध्ये एस इ ओ सर्च रिजल्ट आणि पेड सर्च रिजल्ट या मधला फरक अधिक स्पष्ट होईल.

डिजिटल मार्केटिंगची ऑफलाईन मार्केटिंग माध्यमे

टेलिव्हिजन मार्केटिंग

सेट टॉप बॉक्सच्या वाढलेल्या संख्येमुळे आता टीव्ही सुद्धा डिजिटल झाला असून तुम्ही वेगवेगळ्या भागात एकाच वेळी वेगवेगळी जाहिरात आता दाखवू शकता. अशा जाहिरातींची टारगेटिंगनीट नसते आणि जाहिरातदारांना माहितीवर अवलंबून राहून जाहिरातीच्या वेळा ठरवाव्या लागतात. येणाऱ्या काळात लवकरच टीव्हीवर देखील वैयक्तिक टारगेटिंग होऊ शकेल. खूप जाहिरातदार आता डिजिटल व्हिडिओ ऍडकडे वळत असून तिथं ऍडची टारगेटिंग जास्त स्पेसिफिक करता येऊ शकते. आणि टीव्हीच्या ऍडच्या तुलनेत त्या स्वस्त देखील असतात. येत्या काळात अनेक जाहिरातदार व्हिडिओ ऍड्स, युट्युब, इन्स्टाग्राम आणि फेसबुकवर व्हिडिओ जाहिरात करण्यास सुरवात करतील अशी अपेक्षा आहे.

एस एम एस मार्केटिंग

एस एम एस म्हणजे शॉर्ट मेसेजिंग सर्विस, ज्याचा मेसेजच्या आदान प्रदानासाठी वापर होतो. एस एम एस मार्केटिंग हाडायरेक्ट मार्केटिंगचा प्रकार असून तुम्ही ग्राहकांना वारंवार वेगवेगळे मेसेज पाठवू शकता जसे कि ऑफर, कुपन कोड आदी पण सध्या एस एम एस मार्केटिंगचं प्रमाण कमी होईल अशी अपेक्षा आहे, कारण आता व्हाट्स अॅपने, व्हाट्सअॅप फॉर बिजनेसनावाची सर्व्हिस सुरु केली आहे, ज्यातून ब्रँड्स आता ग्राहकांना डायरेक्ट मेसेज करू शकतात.

रेडिओ मार्केटिंग

रेडिओ हा पूर्वी फार महत्वाचा मार्केटिंगचा पर्याय होता, कारण बाकी साधनांची उपलब्धता फार कमी होती, पण रेडिओ मध्ये सुद्धा तुम्ही ठराविक लोकांना केंद्रस्थानी ठेवून ऍड करू शकत नाही आणि ऍड किती लोकांपर्यंत पोहचली ते हि समजतना ही. रेडिओ हे लोकांना आपल्या ब्रँड बद्दल आठवण करून देण्यासाठी चांगले माध्यम आहे कारण सध्या ७६% लोक मोबाईलमध्ये रेडिओ ऐकतात.

बिलबोर्ड मार्केटिंग

बिल बोर्ड मार्केटिंग हि इलेक्ट्रॉनिक फलकांच्या आधारे केली जाते जसे किटाइम्सचोक किंवा सुपर बाऊल जाहिराती. बिलबोर्ड मार्केटिंग हि पूर्वा पार चालत आलेली मार्केटिंगची पद्धत आहे, आपण इथे अचूक टारगेटिंग करू शकत नाही आणि आपली जाहिरात किती लोकांपर्यंत पोहचली हे हि आपल्याला समजत नाही. बिलबोर्ड मार्केटिंग अश्या ठिकाणी केली जाते जिथे खूप लोक येतात किंवा आपली जाहिरात पाहतात . डिजिटल मार्केटिंग हि बदल त्या काळाची गरज आहे. प्रत्येक व्यवसायात उच्च फायदा प्राप्त करण्यासाठी डिजिटल मार्केटिंगचा आराखडा असणे गरजेचे आहे. खूप बिसनेसेस डिजिटल मार्केटिंग एजन्सीला काम देतात, पण काम देण्या आधी तुमचा आरखडा तयार ठेवा म्हणजे कमीत कमी खर्चात ज्यास्तीत जास्त फायदा होईल.

डिजिटल मार्केटिंगमध्ये करियर किती चांगले आहे :

जिओ ने आपली ४जी मोबाईल सेवा सुरू केल्यानंतर ऑनलाईन व्हिडीओ पाहणाऱ्या लोकांची संख्या एका वर्षात दुपटीने वाढली. २० कोटींहून अधिक भारतीय व्हाट्सअॅप वर सक्रिय आहेत. दोन वर्षांपूर्वी १जीबी ३जी मोबाईल डेटा चे मासिक शुल्क २०० ते ३०० रुपयांच्या दरम्यान होते. तोच आता दिवसाला १.५जीबी चा ४जी मोबाईल डेटा अवघ्या साडेपाच रुपयांत मिळत आहे. आज भारतात ४ जी मोबाईल सेवेचा व्याप ९० % पर्यंत पसरला आहे.भारतीय इंटरनेट व मोबाईल असोसीएशन च्या अंदाजानुसार येत्या वर्षात कंपन्यांकडून डिजिटल मार्केटिंगवर होणारा खर्च एकूण जाहिरात खर्चाच्या ३०% पर्यंत जाईल. ही खूपच आश्वासक बाब आहे.म्हणजेच डिजिटल मार्केटिंग मध्ये करियर करणे अगदी उत्तम आहे.

डिजिटल मार्केटिंग का आवश्यक आहे :

ऑफलाईन मार्केटिंग पेक्षा ऑनलाईन मार्केटिंग स्वस्त आहे.डिजिटल मार्केटिंग तुम्हाला चांगले परिणाम देते. डिजिटल मार्केटिंग मध्ये, तुम्हाला तुमच्या सेवा आणि उत्पादनाचा प्रचार करण्याचे हजारो मार्ग मिळतात. डिजिटल मार्केटिंगमुळे तुमच्या कंपनीचे ब्रँडिंग मूल्य वाढते.हा एक मार्ग आहे ज्याद्वारे आपण डिजिटल मार्केटिंगमध्ये करियर किती चांगले आहे डिजिटल मार्केटिंग म्हणजे कायया प्रश्नाचं उत्तर आपण या ब्लॉग मध्येकरणार आहो, डिजिटल मार्केटिंग हा शब्द तुम्ही ऐकलाच असेल पण आता मागील काही वर्षांमध्ये डिजिटल मार्केटिंग ची मागणी वाढल्यामुळे डिजिटल मार्केटिंग चा प्रसार खूप हो हे

समजण्यासाठी हा लेख आपल्या मराठी भाषेतून मांडला आहे. डिजिटल मार्केटिंग हा एक मार्केटिंग चा प्रकार आहे., ट्रेडिशनल मार्केटिंग आणि आता डिजिटल मार्केटिंग.

ट्रेडिशनल मार्केटिंग: जेव्हा तुम्ही तुमच्या प्रॉडक्ट आणि सर्विसेस ची जाहिरात टेलिव्हिजन, न्यूजपेपर, रेडिओ, होर्डिंग किंवा बॅनर यांच्या माध्यमातून करता अशा मार्केटिंग ला ट्रेडिशनल मार्केटिंग म्हणतात. ट्रेडिशनल मार्केटिंग ही मार्केटिंगची जुनी पद्धत आहे, आणि ती खूप खर्चिक सुद्धा आहेआताच्या शतकात ट्रेडिशनल मार्केटिंग करून तुम्ही तुमच्या व्यवसायाचा जास्त विस्तार करू शकत नाही, आणि आपला भारत देश सुद्धा डिजिटली होत आहे. तर या २१व्या शतकात तुम्हाला तुमच्या कंपनी ची वाढ करण्यासाठी डिजिटल मार्केटिंग करणे खूप गरजेचे आहे .२०२१ च्या शतकात डिजिटल मार्केटिंग का महत्वाचे आहे हे तुम्हाला माहित असणे आवश्यक आहे. आतापर्यंत सर्व कंपन्या ट्रेडिशनल मार्केटिंग चा वापर करून अधिक विक्री किंवा अधिक ग्राहक मिळवत होते, परंतु २०२१ च्या शतकात हे शक्य नाही.कारण Covid 19 या विषाणू ने जगभरात बाहेर फिरायला भीतीचे वातावरण तयार केलेआहे

ऑनलाईन प्रेझेंटेशन : तुम्ही तुमचा व्यवसायघेऊन जाऊ शकता ते पण च्या माध्यमातू म्हणजे तुमच दुकान डिजिटल मार्केटिंग केला, तर तुमच्या व्यवसायाची ऑनलाईन प्रेझेंन्स वाढतो आणि तुमचा व्यवसाय अधिकाधिक लोकांना माहित होतो .तुमच्या व्यवसायाची ऑनलाईन उपस्थिती वाढते आणि लोकांना तुमचा व्यवसाय समजतो.

लुक प्रोफेशनल : इंग्लिश मध्ये एक म्हण आहे, म्हणजे पहिली छाप ती शेवटची छाप आहेत . असल्यास किंवा तुमच्या व्यवसायाची असल्यास, तुमचा व्यवसाय प्रोफेशनल दिसतो आणि तो ग्राहकांना तुमच्या व्यवसायाकडे आकर्षित करतो.

लवचिकता : डिजिटल मार्केटिंग मूळे तुम्ही तुमच्या व्यवसायाला लवचिकता प्रदान करू शकता.

ट्रॅकिंग : डिजिटल मार्केटिंग केल्यामुळे तुम्ही तुमचा व्यवसाय ट्रॅक करू शकता ट्रॅकवापर करून तुम्ही तुमचा व्यवसायाची किती आणि कशी वाढ होत आहे याची नोंद ठेवू शकता. तुम्ही तुमच्या ग्राहकांचे सर्व रेकॉर्ड करू शकता.

बिज्ञनेस रन :

तुमच्या कंपनी मध्ये शिफ्ट मध्ये काम असू शकते, परंतु तुमची ऑनलाईन उपस्थिती तुमच्या व्यवसाय ग्राहकाला आवश्यक असल्यास कोणीही तुमच्या वेबसाईटद्वारे तुमच्यापर्यंत कधीही संपर्क करू शकतो .आपला व्यवसाय पसरविण्याचा आणि त्याचे ब्रांड वॅल्यू वाढवण्याचा डिजिटल मार्केटींगहा एक आधुनिक मार्ग आहे, म्हणून आज प्रत्येक कंपनी आपल्या व्यवसायाच्या नावाने, वृत्तपत्र, मासिके, रेडिओ, कागद, पोस्टर आणि बॅनर या सारख्या साधनांचा वापर करीत असे आणि बऱ्याच कंपन्या घरोघरी जाऊन देखील आपल्या उत्पादनाबद्दल सांगत असत परंतु .आता प्रत्येकजण मार्केटींगसाठी इंटरनेट वापरतो., जिथे जगातील सर्वाधिक इंटरनेट वापरणारी लोकसंख्या आहेत

संदर्भ -

1. & marathispirit.com
2. & digitalvipuk.com
3. & en.wikipedia.org
4. & 360marathi.in
5. & warren Buffett : The life Lessons & Rules for success



डिजिटल अर्थव्यवस्था : अवसर एवं चुनौतियाँ

डा० सुरेखा पिपलानी

एसोसिएट प्रोफेसर (अर्थशास्त्र विभाग)

जी०यू० (पी०जी०) कालेज, बहेड़ी (बरेली) एम्बेड्ड: एम०जे०पी रूहेलखण्ड वि०वि०, बरेली

सार-संक्षेप

भारतीय अर्थव्यवस्था का डिजिटल रूप में परिवर्तन पारम्परिक अवधारणाओं को बदल रहा है। आर्थिक विकास के क्षेत्र में डिजिटल तकनीक के द्वारा विगत कुछ वर्षों में भारत की आर्थिक गतिविधियों में तीव्र विकास की प्रवृत्ति दृष्टिगोचर हो रही है। वर्तमान में डिजिटल तकनीक एक सामान्य उद्देश्य के रूप में उभर रही है। ऐसे कई क्षेत्र जो अभी तक तकनीकी रूप से अछूते थे, जहाँ मानवीय हस्तक्षेप के बिना कार्य होना असम्भव था लेकिन अब तकनीकी विकास की मदद से वहाँ भी घर बैठे ही ऑनलाइन तरीके से कार्य सम्पन्न किये जा रहे हैं। डिजिटल तकनीक के कारण विभिन्न प्रकार की व्यापारिक गतिविधियों के साथ-साथ वित्तीय लेन-देन में भी सरलता और भ्रष्टाचार रहित व्यवस्था की डगर आगे बढ़ रही है। वर्तमान समय में डिजिटल अर्थव्यवस्था प्रगति का पर्याय बन चुकी है।

मुख्य शब्द:- डिजिटल, अर्थव्यवस्था, प्रौद्योगिकी, कम्प्यूटर, विकास।

प्रस्तावना

प्रौद्योगिकी ने भारत को बदलने का अवसर प्रदान किया है। देश में डिजिटल अर्थव्यवस्था के विकास के लिये प्रौद्योगिकी अपनाने की दशा में आमूल-चूल परिवर्तन परिलक्षित हो रहे हैं। इन बड़े बदलावों में मोबाइल नेटवर्क का फैलाव प्रमुख भूमिका निभा रहा है, जिससे अर्थव्यवस्था के डिजिटलीकरण को बढ़ावा मिल रहा है। डिजिटल अर्थव्यवस्था के विकास के लिये सरकार ने एक मजबूत, सुरक्षित तथा अखिल भारतीय डिजिटल भुगतान पारिस्थितिकी तन्त्र स्थापित करने की दिशा में केन्द्रित पहल की है जिससे इसके लाभ देश के समस्त वर्गों तक पहुँचाये जा सकें। निरन्तर परिवर्तित हो रही जीवनशैली तथा प्रौद्योगिकीकरण के कारण वर्तमान समय में कम्प्यूटर समर्थित प्रौद्योगिकियों पर आधारित डिजिटल अर्थव्यवस्था का महत्व बहुत बढ़ गया है।

डिजिटल अर्थव्यवस्था एक ऐसी अर्थव्यवस्था है जो कम्प्यूटर आधारित प्रौद्योगिकियों पर आधारित होती है। यह इंटरनेट के माध्यम से भौतिक व्यवसायों को सहजता से संचालित करने के लिये नये उपकरण प्रदान करती है। इस वैब आधारित अर्थव्यवस्था में वित्तीय लेन-देन क्रेडिटकार्ड, डेबिटकार्ड, इंटरनेट बैंकिंग, मोबाइल पेमेन्ट तथा अन्य डिजिटल तरीकों से किया जाता है।

डिजिटल अर्थव्यवस्था के घटक

परिवर्तित होते परिदृश्य के आधार पर डिजिटल अर्थव्यवस्था के तीन मुख्य घटक हैं-

डिजिटल अर्थव्यवस्था का सबसे पहला घटक डिजिटल आधारभूत संरचना है। डिजिटल आधारभूत संरचना अर्थात् भारत के प्रत्येक क्षेत्र में डिजिटल सेवाएँ पहुँचाने के लिये एक मजबूत और बुनियादी ढाँचा तैयार करना। इसमें विशेष रूप से ग्रामीण क्षेत्रों पर अधिक ध्यान दिया गया है। इसके साथ ही साथ वित्तीय

समावेशन को भी बढ़ावा दिया गया है। हाई स्पीड वाई-फाई सहित डिजिटल बुनियादी ढाँचे तक देशव्यापी पहुँच प्रदान करने की योजना ने भारत में डिजिटल अर्थव्यवस्था को बढ़ावा दिया है।

डिजिटल अर्थव्यवस्था का दूसरा मुख्य घटक डिजिटल सेवा का वितरण करना है। तकनीकी रूप से समझदार युवा पीढ़ी वस्तुओं की खरीद का सबसे सरल माध्यम ऑनलाइन खरीद को ही मानती है। जिससे देश में ई. कॉमर्स तथा एम. कॉमर्स का विस्तार हुआ है। डिजिटल इण्डिया कार्यक्रम के अर्न्तगत हुए उल्लेखनीय सुधारों में से एक सरकारी ई. मार्केट प्लस है जो सरकारी खरीद के लिये एक पोर्टल है जहाँ M.S.M.E को क्रय गतिविधियों में भाग लेने की सुविधा प्रदान की जाती है।

डिजिटल अर्थव्यवस्था में प्रत्येक स्तर पर आंकड़ों की उपयोगिता बढ़ती जा रही है। हमारी अर्थव्यवस्था इस प्रकार के आंकड़ों को समझने और विश्लेषण करने के दौर से गुजर रही है। इसी के आधार पर भारत सरकार ने अपना स्वयं का डेटा पोर्टल लॉन्च किया है।

डिजिटल अर्थव्यवस्था - एक अवसर

तकनीकी प्रसार के साथ भारत आर्थिक विकास के आधार पर समृद्धि की राह पर अग्रसर है। एक लम्बे समय से देश जिन सामाजिक-आर्थिक समस्याओं का सामना कर रहा था, डिजिटल तकनीक के द्वारा उन अवरोधों को उत्तरोत्तर समाप्त करने का प्रयास किया जा रहा है। निःसन्देह कोविड-१९ के दौरान देश में डिजिटल अर्थव्यवस्था बहुत तेजी से आगे बढ़ी है, परिणामस्वरूप परम्परागत रूप से की जाने वाली आर्थिक गतिविधियों में लगने वाला समय, धन और श्रम में बचत होती हुई दिखायी दे रही है। इण्टरनेट तक पहुँच और आय स्तर में वृद्धि के कारण डिजिटल अर्थव्यवस्था वर्ष २०३० तक ८०० अरब डालर का स्तर पार कर सकती है। स्मार्ट फोन, इन्टरनेट, मशीन लर्निंग, आर्टिफिशियल इंटेलिजेंस, क्लाउड कम्प्यूटिंग, सेंसर आदि तकनीकों के तेजी से विकास से डिजिटलीकरण प्रगति की ओर अग्रसर है। देश अपनी महान सांस्कृतिक परम्पराओं को तकनीक के साथ जोड़कर एक आधुनिक भारत के निर्माण की दिशा में आगे बढ़ रहा है। हर क्षेत्र में आधुनिक डिजिटल तकनीक के उपयोग से अर्थव्यवस्था नई ऊँचाइयाँ छू रही है। वर्क फ्रॉम होम तथा आउटसोर्सिंग को बढ़ावा मिलने से भारत के डिजिटल कारोबार का महत्व बढ़ा है। विश्व की प्रसिद्ध कम्पनियों के साथ ही अमेरिका की टैक कम्पनियाँ भारत में स्वास्थ्य, शिक्षा, कृषि तथा खुदरा क्षेत्र के ई.कामर्स बाजार में निवेश के लिये आगे बढ़ी हैं। डिजिटल अर्थव्यवस्था के विकास का एक मुख्य कारण यह भी है कि मोबाइल और डेटा पैक सस्ता होने के कारण इन्टरनेट के उपयोगकर्ताओं की संख्या में वृद्धि हुई है। मोबाइल ब्राडबैंड इण्डिया ट्रैफिक (एमबीट) इण्डेक्स २०२१ के अनुसार डेटा उपयोग बढ़ने की रफ्तार सबसे अधिक भारत में है।

वैश्विक डिजिटल कम्पनियों पर लगाये गये करों के द्वारा देश की आय में वृद्धि हो रही है। ई. कॉमर्स और डिजिटल अर्थव्यवस्था के तेजी से बढ़ने का सबसे बड़ा लाभ डिजिटल सेवा कर (डी.एस. टी.) राष्ट्रीय आय का नया स्रोत बनता जा रहा है। डिजिटल अर्थव्यवस्था के विकास के साथ डिजिटल सेवा कर की मात्रा में भी वृद्धि हो रही है। बजट २०२२ में वर्चुअल डिजिटल करेन्सी पर बड़ा फ़ैसला किया गया है। डिजिटल परिसम्पत्ति का स्थानान्तरण करने पर ३० प्रतिशत कर देना होगा।

डिजिटल अर्थव्यवस्था के विकास के साथ-साथ देश में नवीन रोजगार के अवसरों में वृद्धि हो रही है। विश्व विख्यात मैकिंजी ग्लोबल इंस्टीट्यूट के द्वारा प्रकाशित की गयी रिपोर्ट, 'डिजिटल इण्डिया : टैक्नोलॉजी टू ट्रांसफार्म ए कनेक्टेड नेशन' में कहा गया है कि जहाँ भारत में डिजिटल अर्थव्यवस्था में वर्ष २०२५ तक लगभग ६ से ६.५ करोड़ रोजगार के नये अवसर उत्पन्न होंगे, वहीं डिजिटलीकरण के कारण लगभग ४ से ४.५ करोड़ परम्परागत रोजगार समाप्त हो सकते हैं। देश में ऑटोमेशन, रोबोटिक्स और आर्टिफिशियल इन्टेलिजेंस के कारण कई क्षेत्रों के रोजगार तेजी से समाप्त हो रहे हैं, जबकी दूसरी तरफ डिजिटल क्षेत्रों में रोजगार के अवसरों में वृद्धि हो रही है।

डिजिटल भुगतान प्रक्रिया को और अधिक बल प्रदान करने के लिये बजट २०२२ में कई प्रावधान गये हैं। डिजिटल भुगतान प्रक्रिया के प्रसार के लिये अनुसूचित वाणिज्यिक बैंक देश के ७५ जिलों में ७५ डिजिटल बैंको की स्थापना करेंगे। कोर बैंकिंग से १,५०,००० डाकघरों को जोड़ा जायेगा। बैंक से डाकघर के खाते में पैसा ऑनलाइन स्थानान्तरित किया जा सकेगा। ए.टी.एम. की सुविधा डाकघरों के लिये भी उपलब्ध होगी। डिजिटल भुगतान एक प्रकार से डिजिटल इण्डिया कार्यक्रम का ही विस्तार है, इसमें वित्तीय लेन-देन को औपचारिक रूप दे कर भारत की अर्थव्यवस्था को बदलने की क्षमता है। वर्तमान परिस्थितियों में भुगतान के पारम्परिक तरीके बाधित होने के कारण डिजिटल लेन-देन सेवाओं का उपयोग बहुत बढ़ गया है। डिजिथन मिशन का प्रारम्भ जून २०१७ में भारत सरकार द्वारा किया गया, जिससे सभी क्षेत्रों में डिजिटल भुगतान को प्रोत्साहित किया जा सके। उद्योग संगठन और पी.डब्ल्यू.सी. की एक रिपोर्ट के अनुसार वर्ष २०२३ तक देश में डिजिटल भुगतान में वार्षिक २० प्रतिशत से अधिक की वृद्धि हो सकती है। वर्ष २०१९ के अन्त तक भारत में डिजिटल लेन-देन लगभग ६४.८ अरब डॉलर रहा है और यह वर्ष २०२३ तक दोगुना से अधिक बढ़कर लगभग १३५.२ अरब डॉलर तक पहुँचने की सम्भावना है। बैंको में डिजिटल लेन-देन, करदाताओं द्वारा करों के ऑनलाइन डिजिटल भुगतान तथा ऑनलाइन क्रय-विक्रय ने अर्थव्यवस्था के विकास में महत्वपूर्ण भूमिका निभाई है। कृषि क्षेत्र भी अपनी आगतों व बाजार के लिये डिजिटल हो रहा है। फसल मूल्यांकन, भूमि अभिलेख और कीट नाशकों के प्रसार हेतु कृषि क्षेत्र में ड्रोन के प्रयोग को बढ़ावा दिया जा रहा है। भूअभिलेखों के डिजिटलीकरण से कृषि से जुड़ी अन्य गतिविधियों के कार्यकरण में तीव्रता एवं सरलता देखने को मिल रही है। भूअभिलेखों के डिजिटलीकरण से किसानों को कृषि सम्बन्धी विभिन्न सेवाएँ ऑनलाइन प्रदान की जायेंगी। सभी केन्द्रीय मन्त्रालयों के लिये उनके द्वारा क्रय की गई सामग्री हेतु पेपरलैस एण्ड टू एण्ड ऑनलाइन ई-बिल प्राणाली शुरू होगी।

इस प्रकार कृषि, उद्योग, व्यापार, सेवा, पर्यटन, बैंकिंग आदि क्षेत्रों में क्रेडिटकार्ड, डेबिटकार्ड, ई-पेमेन्ट, मोबाइल-बैंकिंग आदि का प्रयोग तीव्र गति से बढ़ रहा है। ई.कामर्स तथा एम.कॉमर्स व्यवसाय के क्षेत्र में एक समानान्तर क्षेत्र के रूप में उभर रहा है। नये स्टार्टअप प्रतिदिन खुल रहे हैं और उनकी संख्या में लगातार वृद्धि हो रही है। बढ़ती व्यापारिक सम्भावनाओं के बीच दुनियाभर की बड़ी-बड़ी

ऑनलाइन कम्पनियों के साथ-साथ भारत के व्यापारिक संगठनों द्वारा भी स्थानीय किराना दुकानों व कारोबारियों को ऑनलाइन जोड़ने के प्रयास की नई रणनीति बनाई जा रही है।

डिजिटल अर्थव्यवस्था की चुनौतियाँ

अर्थव्यवस्था के किसी भी क्षेत्र में जैसे-जैसे अवसरों में वृद्धि होती है, वैसे-वैसे ही चुनौतियाँ भी दस्तक देती हैं। यद्यपि विभिन्न प्रोत्साहनों के द्वारा डिजिटल अर्थव्यवस्था उत्तरोत्तर वृद्धि की तरफ बढ़ रही है लेकिन अभी भी इसके तीव्र विकास में आने वाली अनेक बाधाएँ एवं चुनौतियाँ हैं, जिनका सामना हम सभी को मिल कर करना है।

प्राथमिकता के आधार पर विशेष रूप से ग्रामीण क्षेत्रों को डिजिटल रूप से साक्षर बनाना होगा और साथ ही डिजिटलीकरण के लिये आधारभूत आवश्यक बुनियादी सुविधाओं का जाल बिछाना होगा। ग्रामीण क्षेत्रों में विद्युत आपूर्ति की कमी बनी रहती है परिणामस्वरूप मोबाइल ब्रॉडबैंड की उचित स्पीड नहीं मिलने के कारण डिजिटल अर्थव्यवस्था का विकास बाधित होता है। अतः इस बाधा को दूर करने के लिये सरकार को ग्रामीण क्षेत्रों में विद्युत आपूर्ति की पर्याप्त पहुँच बनानी होगी। इण्टरनेट के प्रयोग को सभी के लिये सुलभ कराने हेतु अबाध विद्युत आपूर्ति की अत्यन्त आवश्यकता है। पी.सी.ओ. की तरह ही पब्लिक इण्टरनेट एक्सेस प्वाइंट की व्यवस्था सुदृढ़ बनानी होगी। देश में अधिकांश ग्रामीण जनसंख्या अभी भी डिजिटल बैंकिंग व्यवस्था की दृष्टि से पीछे है अनेक बार स्मार्ट फोन, बैंक खाता तथा क्रेडिट/डेबिट कार्ड की सुविधा न होने के कारण ग्रामीण जनता के द्वारा ऑनलाइन भुगतान नहीं हो पाता, इसलिये डिजिटल अर्थव्यवस्था के विकास को उत्तरोत्तर गति देने के लिये इन सुविधाओं को बढ़ाने के अभियान में अधिक तेजी लाने की आवश्यकता है। साथ ही ग्रामीण जनता के अन्दर इस प्रकार की व्यवस्था हेतु विश्वास जाग्रत कर उन्हें पारम्परिक लेन-देन के स्थान पर डिजिटल भुगतान के तरीकों को अपनाने के लिये प्रेरित करने की भी आवश्यकता है। ऑनलाइन धोखाधड़ी से जुड़े अपराधों को रोकने के लिये सरकार द्वारा साईबर सुरक्षा मजबूत करने हेतु आवश्यक कदम उठाने होंगे क्योंकि डिजिटल भुगतान के समय होने वाली धोखाधड़ी की बढ़ती घटनाओं के कारण लोगों का ऑनलाइन लेन-देन में विश्वास कम बना रहता है।

डिजिटलीकरण को बढ़ावा देने के लिये मोबाइल ब्रॉडबैंड स्पीड को बढ़ाने के लिये युद्धस्तर पर प्रयास किये जाने की आवश्यकता है। भारत विश्व में सबसे अधिक युवा जनसंख्या वाला देश है इसलिये बदलते परिवेश के अनुसार इस युवा शक्ति को आधुनिक तकनीक से सम्बन्धित रोजगार योजनाओं में दक्ष करना होगा। उन्हें उनके उज्ज्वल भविष्य के लिये डिजिटल अर्थव्यवस्था से जुड़ी सभी विधाओं में पारंगत होने की आवश्यकता है। अंग्रेजी भाषा एवं कम्प्यूटर का अच्छा ज्ञान, तकनीकी कुशलता, विज्ञापन क्षेत्र, वैब डिजायनिंग, सोशल मीडिया, वैब सम्बन्धित सॉफ्टवेयर का ज्ञान, विश्लेषणात्मक तथा अनुसंधानात्मक कौशल के साथ देश दुनिया की जरूरतों के अनुसार स्वयं को तैयार करने की आवश्यकता है। ऐसी ही तैयारी के साथ युवा पीढ़ी डिजिटल अर्थव्यवस्था में छिपे अवसरों को खोजकर आर्थिक विकास में अपनी भागीदारी सुनिश्चित कर सकती है।

निष्कर्ष

निःसन्देह डिजिटल अर्थव्यवस्था मानव जीवन के हर पहलू को प्रभावित कर रही है। जब भी एक पारम्परिक अर्थव्यवस्था डिजिटल अर्थव्यवस्था में रूपान्तरित होती है तो वह अवसरों के साथ कई चुनौतियाँ भी ले कर आती है। बजट प्रावधानों के आधार पर यह आशा की जा सकती है कि निकट भविष्य में वैश्विक डिजिटल अर्थव्यवस्था में देश के योगदान को स्पष्ट मान्यता मिलेगी तथा आने वाले समय में डिजिटल अर्थव्यवस्था के कारण सृजित होने वाले नये रोजगार के अवसर और आर्थिक उपलब्धियाँ भारतीय युवाओं को प्राप्त होंगी।

सन्दर्भ सूची:

1. [https://: yojana.gov.in](https://yojana.gov.in)
2. [www. kurukshetramagazine.gov.in](http://www.kurukshetramagazine.gov.in)
3. [www. Aajtak.in](http://www.Aajtak.in)
4. [https://: hindigadgets360.com.india](https://hindigadgets360.com.india)
5. [https://:zeenews.india.com.national](https://zeenews.india.com.national)
6. [https://:amarujala.com](https://amarujala.com)
7. [https://:digitalindia.gov.in](https://digitalindia.gov.in)



लघु उद्योगातील साधन-सामग्रीचे व्यवस्थापन

प्रिया कृपाशंकर निमजे

सरदार पटेल महाविद्यालय, चंद्रपूर

ईमेल आय. डी. : priyanimje2012@gmail.com

प्रस्तावना :

लघु उद्योगातील साधन सामग्री-व्यवस्थापन हा उत्पादन व्यवस्थापनाचा महत्वाचा भाग किंवा घटक होय. उत्पादनाचे सातत्य, उत्पादनाचा दर्जा, उत्पादनाचा खर्च हे सर्व सामग्री-व्यवस्थापन विभागाच्या कार्यक्षमतेवर अवलंबून असते. सामग्री व्यवस्थापनात प्रामुख्याने सामग्रीची हाताळणी आणि सामग्रीचे संग्रहण व कार्यक्षम नियंत्रण यांचा समावेश झालेला दिसून येतो. उत्पादनकार्यासाठी विविध सामग्री आवश्यक असते व ही आवश्यकता खरेदी विभागाच्या सहाय्याने पूर्ण केली जाते. खरेदी विभागाने खरेदी केलेल्या विविध सामग्रीचा स्वीकार, संग्रहण, तपासणी, पुरवठा इ. जबाबदारी सामग्री-व्यवस्थापन विभागाद्वारा पार पाडली जाते. ही जबाबदारी किती कार्यक्षमपणे पार पाडली जाते. त्यावर संघटनेची एकूण प्रक्रिया-कार्यक्षमता, फायदा अवलंबून असतो. कारण एकूण उत्पादनाच्या खर्चात सामग्रीचा खर्च जवळ-जवळ 60 टक्क्यापर्यंत असतो. ह्या 60 टक्क्यावर नियंत्रण मिळविल्यास उत्पादनखर्च किमान ठेवता येतो. भारतात ही संकल्पना 1960 नंतरच्या कालखंडात प्रचलित झालेली दिसते. हे जरी खरे असले तरी पण कौटिल्याने वस्तु व्यवस्थापनाचे महत्व त्यांच्या अर्थव्यवस्था विचारांत प्रकर्षाने मान्य केलेले दिसते. वस्तु व्यवस्थापन प्रमुखाची वैशिष्ट्ये त्याने पुढील श्लोकात सांगितलेली दिसून येतात. "प्रविणो वागपटू धीमान स्वामियक्रेद्धा निष्चयः । प्रलुब्धा सत्यवति द्या भांडगदि सा इष्यते ॥ म्हणजेच गोदाम अधिकारी आणि खरेदी अधिकारी आपल्या कार्यात तज्ज्ञ, करार करण्यात वाकबगर, हुद्दार, संघटनेच्या ध्येयाच्ची एकनिष्ठ, स्वतःचा स्वार्थ बाजूला ठेवणारा व विश्वासाह असावा असे म्हटले आहे. या श्लोकात परिभाषेतून अप्रत्यक्षपणे वस्तु व्यवस्थापनाच्या कार्यात गुंतलेल्या व्यक्तीचे व पर्यायाने वस्तु व्यवस्थापनाचे महत्व स्पष्ट केलेले आहे. भारतासारख्या विकसनशील देशात तर सामग्री व्यवस्थापनास विशेष महत्व आहे. कारण सामग्रीची कमतरता व आवश्यकता यांत समन्वय साधण्याचे कार्य सामग्री व्यवस्थापनास करावे लागते. ही कमतरता उपलब्ध वस्तूंचा परिपूर्ण उपयोग केल्यास व

शास्त्रीय पध्दतीने वस्तूचे संग्रहण आणि व्यवस्थापन केल्यास पूर्ण होऊ शकते. म्हणूनच वस्तु व्यवस्थापन ही लघुउद्योगाच्या दृष्टीने एक अधिक चांगली व मोलाची बाब समजणे आवश्यक आहे. एवढेच नव्हे तर त्यामुळे उत्पादन-क्षमतेत वाढ होते. श्रमिकांच्या श्रमाची बचत होते. साठ्यात बचत, उत्पादन नियंत्रण सोयीस्करही होते व महत्वाचे म्हणजे कामगारांचा थकवा दूर करण्यासही मदत होते. आणि म्हणूनच वस्तू-व्यवस्थापन हे एक सर्व दृष्टिकोनातून फायदेव्हीर शास्त्र आहे. प्रस्तुत शोध निबंधात लघुउद्योगातील साधन-सामग्रीचे व्यवस्थापन यावर अध्ययन करण्यात आले आहे.

बिज शब्द : सामग्री, संग्रहण नियंत्रण, व्यवस्थापन

सामग्री व्यवस्थापनाचा अर्थ :

लघु उद्योगात उत्पादनकार्याकरिता आवश्यक असलेली सर्व प्रकारची सामग्री खरेदी करून ती कारखान्याच्या विभिन्न विभागांत काम करणाऱ्या कामगारांना त्यांच्या गरजेनुसार उपलब्ध करून देण्यापर्यंत सर्व क्रियांचा सामग्री प्रबंधामध्ये समावेश होतो. "उत्पादनाच्या कार्यात उपयोगात येणारी सर्व प्रकारची सामग्री आणि कारखान्यात उत्पादित होणाऱ्या वस्तूचा दर्जा, परिणाम, स्थान, हालचाल आणि वेळ यांवर नियंत्रण ठेवण्याच्या उद्देशाने करण्यात येणाऱ्या विभिन्न क्रियांचा सामग्री प्रबंधाशी संबंध येतो" उत्पादन कार्यासाठी विविध प्रकारच्या सामग्रीची आवश्यकता असते. विविध प्रकारच्या सामग्रीची खरेदी, सामग्रीची साठवणूक, सामग्रीची अंतर्गत वाहतूक, सामग्रीचे जतन, सामग्रीचे मूल्यांकन इत्यादी विविध बाबींचा 'सामग्री व्यवस्थापनात' समावेश होतो.

सामग्रीचे नियोजन :

कोणत्याही संघटनेत विविध कार्यांचे नियोजन करणे व नियोजित कार्ये पूर्ण करणे, अशा दोन महत्वाच्या क्रिया असलेल्या दिसून येतात. नियोजनात विचारपूर्वक कृती किंवा कार्याची आखणी करून मग कार्ये पूर्ण करण्याचा प्रयत्न अभिप्रेत असतो. सामग्री नियोजनातदेखील खरेदीची योजना, खरेदीचा कार्यक्रम पध्दतशीर आखलेला व विचारपूर्वक निश्चित केलेला असतो. उत्पादन विभागाला किंवा एकूण संघटनेलाच लागणारा कच्चा माल, सुटे भाग, प्रक्रिया साहित्य, इ. बाबत शासकीय पध्दतीने निश्चितीकरण करून

संघटनेची किमान गुंतवणूक करण्याची पध्दती म्हणजे सामग्री नियोजन होय. नियोजनामुळे अधिक चांगल्या पध्दतीने पैसे खर्च केले जातात. एवढेच नव्हे तर, पैच्चाचा पर्याप्त वापर शक्य होतो. वस्तु नियोजनामुळे वस्तूच्या आदेच्च देणायांचे रूपांतर खरेदी व्यवस्थापकात क्षालेले दिसते. सामग्री नियोजनानामुळे कार्यक्षमतेत वाढ व परिणामकारक नियंत्रण शक्य होते. सामग्री नियोजन किंवा वस्तु नियोजन ही प्रामुख्याने वस्तु व्यवस्थापकाची जबाबदारी आहे. वस्तु व्यवस्थापकाला सामग्री नियोजन करीत असतांना वेगवेगळ्या घटकांचा विचार करावा लागतो. हे घटक दृष्य-अदृष्य, बाह्य अंतर्गत नियंत्रण करता येणारे, न करता येणारे, असे कुठल्याही प्रकारचे असू शकतील. ह्याचा कळत नकळत परिणाम वस्तु-नियोजनाच्या प्रक्रियांवर क्षालेला दिसून येतो.

सामग्री प्रवाह :

उद्योगामध्ये सामग्री प्रवाह सुरू ठेवण्याचे कार्य सामग्री नियोजन विभागाच्ची निगडित असते. सामग्री नियोजनात योजनांची आखणी व त्यांची पध्दतच्चीर अंमलबजावणी ह्या परस्परांच्ची निगडित असलेल्या कार्यांचा विचार केलेला असतो. सामग्री नियोजनाचे उद्दिष्ट प्रामुख्याने उत्पादनाच्या प्रवाहाच्ची सामग्रीचा प्रवाह मिळता-जुळता ठेवणे हे आहे. हा प्रवाह सुरळीत ठेवत असतांना व्यवसायातील सर्व तत्वांचा दर्जा-किंमत-एकूण गुंतवणूक-खरेदीचा किमान खर्च-संग्रहण खर्च कमी-वस्तू हाताळण्याचा खर्च वाजवी ठेवणे ह्या अपेक्षाही पूर्ण होणे आवश्यक आहे. सामग्री प्रवाहात दोन गोष्टी प्रामुख्याने अपेक्षित असतात. सातत्य व विच्चिष्ट गती, सामग्री म्हणजे कच्चा माल व इतर अनुषांगिक साधन सामग्री होय, की ज्यांचा प्रत्यक्षपणे व अप्रत्यक्षपणे उत्पादनाच्ची संबंध असतो. यातील एकही वस्तू घटक, साधनसामग्री उपलब्ध न क्षाल्यास, ते सामग्रीचा प्रवाह विस्कळीत होण्यास कारणीभूत ठरू शकते व त्याचा अंतिमतः परिणाम उत्पादनाची प्रक्रिया खंडित होण्यात क्षालेला दिसतो. सामग्री प्रवाह विस्कळीत करणारे घटक कोणते असू शकतात, याची पूर्ण कल्पना व्यवस्थापकाला असल्यास, ती कारणे आपल्या संघटनेत उद्भवणार नाहीत याची काळजी व्यवस्थापक घेत असतो.

सामग्री हस्तांतरण पध्दती :

उद्योगातील खरेदी विभागाने खरेदी केलेल्या विविध प्रकारच्या वस्तू व सामग्री उत्पादन विभागाच्या किंवा इतर विभागाच्या गरजांची पूर्तता करण्यासाठी खरेदी केलेल्या असतात. ह्या सर्व वस्तू त्या त्या विभागाकडे सुपूर्द करणे म्हणजे 'वस्तूंचे हस्तांतरण' असे म्हटले जाते. हस्तांतरणात एक विशिष्ट प्रकारची शिस्त निर्माण होऊन गोंधळ-गडबड सहजगत्या टाळता येते. विविध विभागांसाठी असलेली खरेदी केंद्रित, एकत्रित असली, तरीदेखील ती एकदम होत नसते व त्यामुळे अंतर्गत वाहतुकीसाठी उपलब्ध असलेल्या साधनांचा, वाहनांचा कार्यक्षम वापर होण्यासाठी विविध विभागांत समन्वय साधण्याची जबाबदारी खरेदी विभागाला व सामग्री व्यवस्थापन विभागाला पार पाडावी लागते. वस्तूंचे हस्तांतरण ह्या विविध विभागांकडे करताना विद्विष्ट प्रकारची कार्यपध्दती कार्यान्वित करणे व त्या पध्दतीचा काटेकोरपणे वापर करणे, ही जबाबदारी सामग्री व्यवस्थापन विभागाला पूर्ण करावी लागते.

सामग्री अंदाजपत्रक :

सामग्री अंदाजपत्रकाच्या आधारे एकूण कोणकोणत्या वस्तू उत्पादनासाठी लागणार आहेत याची कल्पना तर येतेच त्याचबरोबर उत्पादनात वापरल्या जाणाऱ्या वस्तूंवर नियंत्रण ठेवण्यासही मदत होते. वस्तु मागणीपत्राच्या आधारावर उत्पादन विभागाला वस्तु अंदाजपत्रक तयार करावे लागते. उत्पादन विभागाने तयार केलेल्या मागणीपत्रकाच्या माध्यमातून प्रत्येक वस्तूच्या निर्मितीसाठी काय काय लागणार आहे. याची कल्पना येत असते. तर अंदाजपत्रकाच्या माध्यमातून किती वस्तू लागणार आहेत याची कल्पना खरेदी विभागाला येत असते. सामग्री अंदाजपत्रक हे केवळ वस्तूंची यादी देणारे पत्रक नव्हे तर त्यात वस्तूंची संख्या, वस्तूंचे गुणधर्म, आकार, दर्जा, प्रकार याबाबतचे संपूर्ण विच्छ्लेषण केलेले दिसून येते. हे विच्छ्लेषण जितके अचूक , काटेकोर व सविस्तर असेल तितकेच खरेदी अंदाजपत्रक व्यवस्थित क्षालेले दिसून येते. म्हणून खरेदी विभागाच्या दृष्टीने सामग्री अंदाजपत्रकाला विच्छ्लेष महत्व आहे.

सामग्रीची खरेदी : उद्योगामध्ये वस्तू उत्पादनाकरिता सामग्रीची आवश्यकता असते. तेव्हा बाजारात उपलब्ध असलेल्या आवश्यक वस्तूंची किंमत देऊन आवश्यक वस्तू मिळविण्याच्या क्रियेलाच खरेदी असे

म्हणतात. जेव्हा व्यापारी विविध वस्तूंची खरेदी करतो तेव्हा खरेदी केलेल्या वस्तू अधिक किंमतीवर पुन्हा विकणे व लाभ मिळविणे हाच त्याचा उद्देश असतो. उद्योगामध्ये उत्पादन कार्यात सातत्य टिकवून ठेवण्यासाठी आवश्यक असलेली सर्व प्रकारची सामग्री बाजारामधून मिळविण्याच्या क्रियेलाच खरेदी असे म्हणतात. वेस्टिंग आणि फाईन ह्या लेखकांच्या मते संघटनेच्या विविध प्रतिक्रियासाठी आवश्यक असलेला कच्चा माल, साहाय्य वस्तू व उपकरणे प्राप्त करण्यासाठी करण्यात येणाऱ्या व्यावसायिक क्रियेला खरेदी किंवा औद्योगिक खरेदी असे म्हणतात.

सामग्री हाताळण्याची साधने :

कारखान्यामधील सर्व यंत्रांचे कार्य परस्परपूरक असल्यामुळे एखाद्या यंत्राच्या साहाय्याने सामग्रीवर प्रक्रिया केल्यानंतर ही सामग्री तत्परतेने दुसऱ्या यंत्राकडे पोहोचते क्षाली पाहिजे. एका यंत्राकडून दुसऱ्या यंत्राकडे, एका विभागाकडून दुसऱ्या विभागाकडे सामग्री पोहोचविण्याच्या क्रियेला 'सामग्री हाताळण्याची क्रिया' असे म्हणतात. खरेदी विभागाने खरेदी केलेली सामग्री वाहतूक विभागाने गोदामात किंवा वखारीत आणून पोहोचविल्यानंतर सामग्री हाताळण्याच्या क्रियेला प्रारंभ होतो. उत्पादनाचे कार्य पूर्ण झाल्यानंतर उत्पादित वस्तू बाजारात रवाना केल्यानंतरच ह्या क्रियेचा शेवट होतो. सामग्री हाताळण्याचे महत्त्व स्पष्ट करतांना ह्या विषयाच्या संशोधक व तज्ज्ञांनी असे स्पष्ट सांगितले आहे की, उत्पादन प्रक्रियेतील 50 टक्के सामग्री हाताळण्यात खर्च होतो, तर एकूण उत्पादनखर्चाच्या 30 टक्के खर्च हाताळणीसाठी करावा लागतो. शास्त्रोक्त पध्दतीने या घटकाकडे लक्ष दिल्यास वेळ आणि खर्चाची बचत होण्यास मदत होते. त्यामुळे उत्पादनमूल्य-खर्च कमी होण्यातच क्षालेला दिसून येतो.

व्यवस्थापनाला साधनांचा वापर करतांना तो यांत्रिक साधनांचा वापर करावयाचा की मनुष्याच्या सहाय्याने वापरल्या जाणाऱ्या साधनांचा वापर करावयाचा? हा निर्णय घेत असतांना त्यापासून प्राप्त होणारे लाभ व मर्यादा यांचा एकत्रित विचार करणे क्रमप्राप्त ठरते.

यांत्रिक साधनांच्या उपयोगामुळे होणारे फायदे -

1. सामग्री हाताळण्याकरिता यंत्राचा उपयोग केल्यामुळे वेळेची बचत करता येते.

2. यंत्रांच्या साहाय्याने सामग्री हाताळण्यात आल्यामुळे यंत्रांना व यंत्रांवर काम करणाऱ्या श्रमिकांना सामग्रीच्या अभावामुळे निष्कारण वाट पाहावी लागण्याचा प्रसंग क्वचितच येतो.
3. सामग्री हाताळण्याकरिता श्रमिकांचा उपयोग न केल्यामुळे ते आपली संपूर्ण शक्ती व वेळ उत्पादनाच्या कार्याकरिताच खर्च करू शकतात.
4. यांत्रिक साधनांच्या साहाय्याने सामग्रीची वाहतूक केल्यास कारखान्यात होणाऱ्या अपघातांचे प्रमाण बरेच कमी होते.
5. सामग्री हाताळण्यासाठी यांत्रिक साधनांचा उपयोग केल्यामुळे मौल्यवान असा कच्चा माल, सहाय्यक वस्तू, उपकरणे इत्यादी सामग्रीचा अपव्यय होत नाही.
6. यांत्रिक साधनांच्या साहाय्याने सामग्रीचा प्रवाह निरंतर सुरू ठेवणे शक्य असल्यामुळे उत्पादनाच्या कार्यात कधीही खंड पडत नाही.
7. सामग्री हाताळण्यासाठी यांत्रिक साधनांचा उपयोग केल्यामुळे उत्पादनकार्यात गुंतलेल्या कामगारांच्या कार्यक्षमतेत बरीच वाढ होते. आणि यंत्रांच्या उत्पादन क्षमतेचाही महत्तम उपयोग करून घेता येतो.

सामग्री हाताळण्यासाठी उपयोगात येणारी साधने :

लघुउद्योगामध्ये या प्रकारच्या साधनांत मानवी श्रम हे प्रामुख्याने वापरले जातात. त्यामुळे साधेपणा, खर्च कमी, धोक्यांचे प्रमाणही कमी, इ. फायदे उपलब्ध होतात. मुख्य म्हणजे कोणत्याही संघटनेला आर्थिकदृष्ट्या परवडणारी असतात. कारण खर्च कमी असून विद्वेष प्रद्विक्षण देण्याची गरज भासत नाही. 1. हातगाडी 2. चक्र 3. कामगारांकडून ढकलण्यात येणारा ट्रक 4. ट्रक ट्रॅक्टर्स 5. लिफ्ट ट्रक्स 6. स्टॅकर्स 7. फोर्क ट्रक्स 8. क्रेन्स 9. कन्व्हेअर्स इ. साधने सामग्री हाताळण्यासाठी उपयोगात आणली जातात.

साठा-तपासणी : औद्योगिक उत्पादन करणाऱ्या संस्थेत अनेक प्रकारच्या वस्तूंची खरेदी केली जाते, त्यांची साठवणूक गोदामत केली जाते आणि उत्पादन विभाग, देखभाल विभाग किंवा इतर विभागांद्वारा मागणी

केल्याप्रमाणे त्या वस्तूंचा त्या त्या विभागांना पुरवठा करावा लागतो. अनेक प्रकारच्या वस्तूंची खरेदी, साठवणूक आणि पुरवठा करण्याचे कार्य सातत्याने चालत असल्यामुळे प्रत्येक वस्तूची साठवणूक-स्थिती काय आहे हे समजण्याकरिता प्रत्येक व्यवहारानंतर आवश्यक ती नोंद संबंधित कागदपत्रांत करण्यात येते. साठा तपासणीचे काम गोदाम विभागात काम करणारे कर्मचारी करतात, तसेच हिच्चेब तपासणी विभागामार्फत देखील हे काम केले जाते. गोदाम विभागात काम करणाऱ्या व्यक्तींनी हे काम केल्यास त्याला 'स्टॉक-टेकिंग' असे म्हणतात. तर साठा तपासणीचे काम हिच्चेब तपासणी विभागामार्फत करण्यात आल्यास त्याला 'स्टॉक व्हेरिफिकेशन' असे म्हणतात. काही वेळा या दोन्ही प्रकारांचा उल्लेख 'साठा तपासणी' म्हणूनच करतात.

सामग्रीतालिका प्रबंध :

उत्पादित वस्तूंची विक्री तातडीने होऊन आपले भांडवल मोकळे व्हावे असे प्रत्येक कारखानदाराला वाटत असले तरी प्रत्यक्षात असे घडत नाही. उत्पादित वस्तूंसाठी मागणी निर्माण होईपर्यंत ह्या वस्तूंची काळजीपूर्वक संग्रह करून ठेवणे आवश्यक आहे. उत्पादनकार्याकरिता आवश्यक असलेल्या सर्व प्रकारच्या सामग्रीची तसेच कारखान्यात उत्पादित करण्यात आलेल्या वस्तूंची संख्या, मात्रा व मूल्य दर्जविण्यासाठी तयार केलेल्या विस्तृत यादीला 'सामग्रीतालिका' असे म्हणतात श्री. अलफोर्ड व वेटी यांच्या मते "सामग्रीतालिका म्हणजे परिचल वस्तूंची संख्या, मात्रा व मूल्य दर्जविणारी विस्तृत वर्णनात्मक यादी होय." सामग्रीतालिकामध्ये कच्चा माल, अर्धनिर्मित वस्तू, वस्तूंचे घटक, निर्मित भाग व निर्मित वस्तूंचा अंतर्भाव होतो. ह्यापैकी काही वस्तू गोदामात संग्रहित असतात. त्यांचा पुढे उत्पादनकार्यासाठी उपयोग केला जातो. सामग्रीतालिकेमध्ये उत्पादनकार्यासाठी आवश्यक असलेला कच्चा माल, क्रियामान कर्म, बाहेरून खरेदी केलेले निर्मित भाग, सहाय्यक वस्तू ह्या सामग्रीप्रमाणेच बाजारपेठेत विक्रीकरिता पाठविण्यासाठी तयार असलेल्या उत्पादित वस्तूंचाही समावेश होतो. उत्पादनकार्याकरिता आवश्यक असलेल्या वस्तू तसेच उत्पादित वस्तूंचा संग्रह कोणत्या प्रमाणावर करावा ह्यासंबंधीचे धोरण व्यवस्थापकांनीच निश्चित करणे योग्य असते. सामग्रीतालिकेचा आकार किती असावा ह्यासंबंधीचे धोरण व्यवस्थापक सहज ठरवू शकतात.

अपेक्षित परिणाम साध्य करण्याच्या दृष्टीनी व्यवस्थापकांनी ठरविलेल्या धोरणाची अंमलबजावणी करण्याचे कार्य अत्यंत कठीण, गुतातगुंतीचे व कधीही न संपणारे असते. ह्या विशिष्ट धोरणांची अंमलबजावणी करण्याकरिता करण्यात येणाऱ्या सर्व क्रियांचा 'सामग्रीतालिका नियंत्रण' ह्या संज्ञेत समावेश होतो. उत्पादनाचे कार्य खंडित होऊ नये यासाठी आवश्यक सामग्रीचा साठा मोठ्या प्रमाणावर करून ठेवण्याचे धोरण सैध्दांतिक दृष्टीने ठीक असले तरी व्यावहारिक दृष्टीने असे करणे मुळीच योग्य नाही. सामग्रीचे प्रचंड साठे निर्माण करण्याचे धोरण अंमलात आणल्यास परिचल भांडवलाचा बराच भाग सामग्रीचा गुंतून पडेल, भांडवलाचा टर्नओव्हर कमी होईल, सामग्री साठविण्याकरिता बराच खर्च करावा लागेल आणि दरम्यानच्या काळात सामग्रीची किंमत घसरल्यास तोटा सहन करावा लागेल सामग्रीचे साठे करण्यासाठी कराव्या लागणाऱ्या या सर्व खर्चामुळे सामग्रीचा परिव्यय 20 टक्यांनी वाढतो. सामग्रीचे प्रचंड साठे निर्माण केल्यामुळे सामग्री परिव्ययात होणारी वाढ व्यापारी तसेच औद्योगिक उपक्रमांच्या अपयज्ञाचे एक प्रमुख कारण होय

सामग्रीचे वर्गीकरण आणि सांकेतीकरण :

उद्योगामध्ये वस्तु साठ्याचे नियंत्रण करणे शक्य व्हावे या उद्देशानेदेखील वस्तूंचे वर्गीकरण व सांकेतीकरण करणे आवश्यक ठरते. ज्या संस्थांमध्ये हजारो प्रकारच्या वस्तूंचा साठा केलेला असतो अच्चा संस्थांना वस्तूंचे वर्गीकरण व सांकेतीकरण केल्यामुळेच पाहिजे ती वस्तु गोदामातून विनाविलंब उपलब्ध करून देणे शक्य होते. वस्तूंचे वर्गीकरण व सांकेतीकरण करण्यामागे नेमक्या वस्तूंचा वापर उत्पादनासाठी करणे हासुध्दा उद्देश असतो. वस्तूंचे वर्गीकरण केल्यानंतर वस्तूंचे सांकेतीकरण करणे आवश्यक असते. प्रत्येक प्रकारच्या वस्तूसाठी एक स्वतंत्र क्रमांक किंवा नाव निश्चित करणे याला वस्तु व्यवस्थापनात सांकेतीकरण असे म्हणतात.

सामग्री व्यवस्थापनाचे महत्व :

लघुउद्योगातील साधन-सामग्री व्यवस्थापन संघटनेच्या फायद्यात सहजपणे हातभार लावू शकते. कच्चा माल, प्रक्रिया साहित्य अथवा इतर सामग्रीवर होणारा खर्च कराच असतो. आणि म्हणूनच हा खर्च

नियंत्रित केल्यास, फायद्याचे प्रमाण सहजगत्या वाढविता येईल. औद्योगिकदृष्ट्या पुढारलेल्या जपानसारख्या देखात सामग्रीवर होणारा खर्च शास्त्रीय पध्दतीने नियंत्रित करून 5 टक्केनी उत्पादन खर्च कमी केलेला दिसून येतो व पर्यायाने फायद्यात वाढ झालेली दिसते. जपानमधील कंपन्यांचे घोषवाक्य (आम्ही विक्रीवर जगतो. तर आम्ही सामग्रीमुळे फायदा मिळवितो.) कार्यक्षम वस्तु व्यवस्थापन खेळत्या भांडवलाची गरज कमी करते, बाहेर जाणाऱ्या पैजाचा प्रवाह नियंत्रित करते व फायद्यात वाढ करते. किंवा उत्पादनखर्चात बचत करते. म्हणजेच वस्तु व्यवस्थापनावर कार्यक्षमता व पर्यायाने फायदेशीरपणा अवलंबून असतो.

निष्कर्ष :

लघुउद्योगामध्ये सामग्री व्यवस्थापनाच्या माध्यमातून संघटनेची असलेली सर्वकश उद्दिष्टे साध्य केल्यास असे लक्षात येते की,

1. लघुउद्योगामध्ये साधन सामग्रीचे योग्य व्यवस्थापन केल्यास उत्पादन खर्च कमी होतो.
2. उत्पादक संघटनेचे उत्पादनकार्य सातत्याने सुरू ठेवण्यासाठी आवश्यक असणारा सामग्रीचा नियमित प्रवाह सुरू ठेवल्यामुळे उत्पादन कार्यात खंड पडत नाही.
3. योग्य व्यवस्थापनामुळे सामग्री खरेदीवर नियंत्रण ठेवल्या जाते.
4. शास्त्रीय तंत्राचा व पध्दतीचा वापर करून वस्तूंचा व कच्च्या मालाचा खर्च कमी करता येतो.
5. वस्तुसाठा कार्यक्षमपणे नियंत्रित करून खेळते भांडवल अधिक उत्पादनकार्यासाठी वापरता येते.
6. उत्पादनाकरिता योग्य साधनांचा वापर करण्यात आल्यास कामगारांच्या कार्यक्षमतेत वाढ होते.

संदर्भग्रंथ :

1. R. S. Chadda- Inventory Management in India p. 2
2. डॉ. चोळकर (लवेकर), देशमुख, मोराजकर - खरेदी आणि संग्रहण व्यवस्थापन - निराली प्रकाचन पूणे

3. डॉ. प्रभाकर देशमुख - व्यवसाय प्रबंध तिसरी आवृत्ती जून 1983 - पिंपळापुरे अँड कं. पब्लिचर्स, नागपूर-12
4. Purchasing and Material Management by Nair, Publisher: Vikas Publishing House, New Delhi.
5. Handbook of Materials Management by Gopal Krishnan, P, Publisher: Prentice Hall of India Pvt.Ltd., New Delhi.
6. Materials Management: An Integrated Approach by Gopalakrishnan, P. & Sundarshan, M, Publisher: Prentice Hall of India Pvt. Ltd., New Delhi. 4.



डिजिटल न्यूजपेपर : स्वरूप आणि आव्हाने

Dr Dhiraj Suresh Shinde

Head, Department of History, Smt.Akkatai Ramgonda Patil Kanya Mahavidyalaya,
Ichalkaranji Dist Kolhapur

गोषवारा :

वृत्तपत्रे हि आजच्या युगात एक प्रभावी प्रसारमाध्यम म्हणून ओळखली जातात. अलीकडील काळात वृत्तपत्रांमध्येही व्यावसायिकता येत जाऊन वृत्तपत्रांचे बाजारीकरण झाले. प्रचंड स्पर्धेत दर्जा वाढविताना तत्वांची तडजोड करण्यात आली.कॉम्प्युटरच्या शोधनंतर पत्रकारीतेतही कागद,पेनची जागा कॉम्प्युटरने घेतली.पत्रकारांच्या काम करण्याच्या पद्धतीमध्येही बदल झाला. आता पत्रकार, संपादक हा वार्तापत्रांचे संस्करण करण्याबरोबरीने कम्पोजीटर, प्रुफरीडर, प्रोसिसिंगचे कार्यही तोच करतो. नवीन तंत्रज्ञानामुळे त्याच्या काम करण्याच्या तंत्रात आणि गतीतही बदल झाला आहे. आता एकटाच पत्रकार वृत्तपत्रामध्ये संगणकाद्वारे सर्व प्रक्रिया करतो. वृत्त पाठवण्यासाठी त्याच्याकडे लॅपटॉप, मोबाईल असतो. त्याद्वारे जलद गतीने वृत्त आदानप्रदान करता येते.पुढचा टप्पा म्हणजे इंटरनेटवरती ऑनलाईन दैनिकांची उपलब्धता होय. आपली वृत्तपत्रे जगभरात पोहोचावीत व व्यवसायामध्ये जाहिरातींच्या माध्यमातून फायदा मिळावा या हेतूने वर्तमानपत्राच्या वेब आवृत्त्यांची निर्मिती झाली. त्यामध्ये वृत्ते क्षणाक्षणाला अपडेट केली जातात. वेब आवृत्तीमुळे देशातील,राज्यातील, जिल्ह्यातील,गावातील बातमी क्षणात समजणे शक्य झाले.इंटरनेट आवृत्त्यांच्या वाढत्या प्रभावामुळे भविष्यात 'कागदविरहित वर्तमानपत्र' (Paperless Newspaper) हि संकल्पना पर्यावरणपूरक आणि बदलत्या कालानुरूप येणे अल्पकाळातच शक्य आहे. ऑनलाईन पत्रकारितेचे क्षेत्र,स्वरूप, व्याप्ती, कामकाज पद्धत, रचना, मांडणी ही पारंपारिक पत्रकारीतेपेक्षा पूर्ण भिन्न ठरते. स्थानिक स्तरावरील एखादा प्रश्न वृत्तपत्रे आपल्या वेब आवृत्तीद्वारे जागतिक पातळीवरती काही क्षणात प्रकाशित करतात. त्यामुळे भाषिक वृत्तपत्रांच्या भौगोलिक मर्यादा ऑनलाईन दैनिकांनी केव्हाच पार केल्या आहेत. स्थानिक भाषिक वृत्तपत्रांना ऑनलाईन पत्रकारितेमुळे विदेशात मोठी मागणी असते. तसेच वाचकांना थेट सहभाग हे ऑनलाईन दैनिकांचे वेगळेपण असते. या ऑनलाईन आवृत्त्यांमधून सामाजिक, राजकीय, आर्थिक, धार्मिक, विषयांवरतीही मत व्यक्त करता येते किवा विविध प्रश्न विचारून त्याबाबतीत वाचकांच्या ऑनलाईन प्रतिक्रिया घेता येतात. 'विश्वसनियतेचा अभाव' हा सोशल मिडीयापुढील मोठा प्रश्न आहे आणि तेच वृत्तपत्राचे बलस्थान आहे. त्यामुळे जोपर्यंत सोशल मिडीया विश्वसनियतेच्या आघाडीवर प्रगल्भ होत नाही तोपर्यंत वृत्तपत्रांचे स्थान,महत्व अबाधित आहे. आधुनिक आव्हानांना आधुनिक पद्धतीने उत्तर देण्यातून मुद्रित माध्यमे भविष्यातही प्रदीर्घ काळ प्रभावी राहतील.

प्रास्ताविक-

वृत्तपत्रे हि आजच्या युगात एक प्रभावी प्रसारमाध्यम म्हणून ओळखली जातात. आजच्या 'इलेक्ट्रॉनिक मिडीयाच्या' युगात प्रिंट मिडीयाने आपले स्थान अबाधित राखले आहे. वृत्तपत्रांचा संबंध सर्वसामान्य जनतेच्या थेट प्रश्नांशी येतो. लोकांचा कल,आवडीनिवडीनुसार आजची वृत्तपत्रे आपला चेहरा जास्तीत जास्त लोकाभिमुख करण्याचा सातत्याने प्रयत्न करत असतात. त्यामुळे प्रसारमाध्यमे समाजाचा अविभाज्य भाग बनली आहेत. भारतामध्ये 'हिकीज गॅझेट' नंतर वृत्तपत्रांच्या विकासास प्रारंभ झाला.भारतात प्रादेशिक वृत्तपत्रांची उत्तरोत्तर निर्मिती,विकास,विस्तार घडून आला. स्वातंत्र्य लढ्यावेळी ही वाढ मोठ्या प्रमाणावर घडून आली. एका बाजूस लोकमत जागृत करणे आणि दुसऱ्या बाजूने लोकमताचे संघटीत दडपण शासनावर आणण्याची अवघड कामगिरी भारतीय पत्रकारितेने केली आहे.स्वातंत्र्य चळवळीत राष्ट्रीय नेत्यांनी एक प्रभावी साधन म्हणून वृत्तपत्रांचा वापर सुरु केला आहे. महाराष्ट्रात लोकमान्य टिळकांनी केसरी,मराठा,महात्मा गांधीजीनी हरिजन,यंग इंडिया,नवयुग,पंडित नेहरूंनी नॅशनल हेरॉल्ड,मौलाना आझाद यांनी 'अल हिलाल' ही वृत्तपत्रे सुरु केली. वृत्तपत्रांबाबत म.गांधीजीनी मत व्यक्त केले कि,'लोकांना काय हवे,' या प्रश्नांचा संपादक जसा विचार करतात तसाच 'लोकांना काय दिले पाहिजे' याचा विचार संपादकांनी करणे आवश्यक आहे.

वृत्तपत्रांची ताकद ब्रिटिशांना ज्ञात असल्यामुळे त्यांनी इ.स १७९९ पासून वृत्तपत्रांवरती अनेक निर्बंध घातले. भारत स्वातंत्र्यानंतर भारतीय राज्यघटनेत कलम १९ (१)'अ' नुसार सर्व नागरिकांना भाषण व अविष्कार स्वातंत्र्यात (फ्रीडम ऑफ स्पीच अँड एक्सप्रेसन) वृत्तपत्र स्वातंत्र्याचा समावेश केला आहे.१ पुढे सातत्याने शासकीय पातळीवर अनेक आयोग,समित्या नेमून वृत्तपत्रांच्या नियमन विषयक धोरण आखण्यात आले. वृत्तपत्रांमध्येही व्यावसायिकता येत जाऊन वृत्तपत्रांचे बाजारीकरण झाले. प्रचंड स्पर्धेत दर्जा वाढविताना तत्वांची तडजोड करण्यात आली. छपाई तंत्रामध्ये गती,तंत्र या बाबतीत अचूकता आणण्याचा प्रयत्न झाला. शिळाप्रेस नंतर छपाई तंत्रात सातत्याने बदल होत गेले.ऑफसेट,लेजर,डिजिटल या पद्धती महत्वाच्या असून खर्चिक असल्याने सद्या या पद्धतींचा वापर केला जात नाही.२ भविष्यात या आधुनिक पद्धती स्वस्त झाल्यास त्यांचा वापर सुरु होईल.

संगणक, इंटरनेटचा वाढता प्रभावी वापर – संगणकाचा अविष्कार मानवी इतिहासामध्ये एक महत्वाचा टप्पा ठरला. त्यातच इंटरनेटच्या प्रभावी वापरामुळे संगणकालाही वेगळ्या स्वरूपाची ओळख मिळाली. इंटरनेटचा उगम हा रशिया आणि अमेरिकेतील शीतयुद्धाच्या परिणामातून झाला. अमेरिकेचे तात्कालिन राष्ट्राध्यक्ष जॉन एफ केनेडी यांना क्युबा संकटामुळे ही जाणीव झाली कि, अमेरिकेवर परमाणु बॉम्बच्या हल्ल्याची भीती आहे. अमेरिकेस अशी भीती होती कि, क्युबामध्ये रशिया मोठ्या प्रमाणावर अणुबॉम्ब

उत्तरवीत आहे.जर अमेरिकेवरती परमाणु हल्ल्याचा प्रयत्न झाल्यास त्याचा परिणाम म्हणून अमेरिकेतील संपर्क माध्यमे ही प्रभावित होऊ शकतात म्हणून अमेरिकेचे लष्करी मुख्यालय पँटागॉन येथील लष्करी तज्ञांनी परमाणु हल्ला झाला तरी प्रभावित न होणाऱ्या संचार माध्यमांची गरज निर्माण झाली. त्यासाठी पँटागॉनच्या 'एडव्हान्स रिसर्च प्रोजेक्ट एजन्सी' (ARPA) ने मोठी आर्थिक मदत केली. व त्यातून २ सप्टे १९६९ मध्ये लिओनार्ड रॉकच्या नेतृत्वाखाली एका वैज्ञानिकाच्या पथकाने आपले संगणक हे रेफ्रिजरेटरच्या आकाराच्या स्वीच, ज्याचे नाव 'इंटरफेस मेसेज प्रोसेसर' असे होते, त्याच्याशी जोडून संदेशाचे आदान-प्रदान सर्वप्रथम केले. त्यामुळे लिओनार्ड रॉकला इंटरनेटचा जनक मानतात. आरंभी ARPA NET नावाने ही कार्यपद्धती ओळखली जाते.

अशाप्रकारे लष्करी वापरासाठी झालेल्या इंटरनेटचा वापर पुढील २५-३० वर्षांमध्ये सर्वसामान्य वर्गात प्रचंड लोकप्रिय झाला यादरम्यान संगणक तज्ञांनी संदेशाचे आदान-प्रदान करण्यासाठी एका पद्धतीचा शोध लावला त्यालाच 'ई-मेल' म्हणतात. त्यामुळे जलद गतीने संदेशवहन शक्य होऊन माहिती वहनाची प्रक्रिया गतिमान झाली.^३ माध्यमाच्या प्रभावी वापरामुळे त्याचा विकासही वेगाने झाला.इ.स. १९७० च्या दशकामध्ये मार्शल मॅकलुहान यांनी भविष्य वर्तवले होते कि, "भविष्यात माहिती आदान-प्रदान, प्रसारणाचा वेग, स्वरूप इतके प्रचंड बदलेल कि, जग हे एक खेडे बनेल" त्यावेळी मॅकलुहानच्या वक्तव्यावरती लोकांना अविश्वास वाटला परंतु ही भविष्यवाणी इ.स. २००० नंतर खरी ठरल्याचे दिसते.^४

वृत्तपत्र, पत्रकारांचे डिजिटलायझेशन -

पत्रकारीतेतही कागद,पेनची जागा कॉम्प्युटरने घेतली आहे. पत्रकारांच्या काम करण्याच्या पद्धतीमध्येही बदल झाला आहे. आता पत्रकार, संपादक हा वार्तापत्रांचे संस्करण करण्याबरोबरीने कम्पोजीटर, प्रुफरीडर, प्रोसिसिंगचे कार्यही तोच करतो. नवीन तंत्रज्ञानामुळे त्याच्या काम करण्याच्या तंत्रात आणि गतीतही बदल झाला आहे. पूर्वी पूर्ण वर्तमानपत्रातील कर्मचाऱ्यांचा एक गट बातम्यांवरती संस्करण करण्याचे काम करत असे. यापूर्वी पत्रकार, उपसंपादक बातमी लिहून कम्पोजीटरकडे पाठवत असे. तेथून बातमी कंपोज करून प्रुफरीडरकडे जात असे. त्याच्याकडे तपासून पुन्हा कम्पोजीटरकडे सुधारणेसाठी पाठवून तो ती बातमी कंपोज करून मेकअपमॅन त्याच्याकडून मशीनमॅनकडे जात असे ही सर्व प्रक्रिया क्लिष्ट, वेळखाऊ होती. परंतु आता एकटाच पत्रकार संगणकाद्वारे ही सर्व प्रक्रिया करतो. वृत्त पाठवण्यासाठी त्याच्याकडे लॅपटॉप, मोबाईल असतो. त्याद्वारे जलद गतीने वृत्त आदानप्रदान करता येते. पत्रकार इंटरनेटद्वारे वृत्तावर आवश्यक संस्करण करून लगेच छपाईकरता पाठवू शकतो. या पुढचा टप्पा म्हणजे इंटरनेटवरती ऑनलाईन दैनिकांची उपलब्धता होय.

वृत्तपत्रांच्या वेब आवृत्त्या -

वर्तमानपत्रे हि सुरवातीला मुद्रित स्वरूपाची असलेने जगभरातील वाचकांपर्यंत वृत्तपत्र पोहोचवणे कठीण जात होते. त्यातूनच आपली वृत्तपत्रे जगभरात पोहोचावीत व व्यवसायामध्ये जाहिरातींच्या माध्यमातून फायदा मिळावा या हेतूने वर्तमानपत्रांच्या वेब आवृत्त्यांची निर्मिती झाली. अमेरिकेत सर्वप्रथम 'न्युयॉर्क टाइम्सने' आपल्या दैनिकाची वेब आवृत्ती सुरु केली. भारतात "The Hindu" या अग्रगण्य इंग्रजी वृत्तपत्राने इ.स. १९९५ ला चेन्नई येथून आपली पहिली ई-आवृत्ती सुरु केली. आणि भारतात 'इंटरनेट पत्रकारिता' सुरु झाली. मराठी वृत्तपत्रात सर्वप्रथम दै. केसरीने ई-आवृत्ती सुरु केली. आज जगभरात ४००० हून जादा दैनिके इंटरनेटवरती आहेत. भारतात ३०० हून अधिक, मराठीत १०० हून अधिक वृत्तपत्रे इंटरनेटवर इ.स. २०१४ पर्यंत उपलब्ध होती. भविष्यात यात वाढ होत जाणार आहे. वाचकांच्या सर्वेनुसार भारतीय वृत्तपत्रांच्या वेबावृत्त्या ६५ देशात पसरल्या असून अमेरिका, कॅनडा, युरोपात राहत असलेल्या अनिवासी भारतीयांना आपापल्या राज्यातील, जिल्ह्यातील, स्थानिक वृत्तांबाबत उत्सुकता असते. सुरवातीला दैनिकाच्या बातम्या रात्री उशिरा ई-आवृत्त्यांवरती प्रसिध्द केल्या जात असत. त्यातील बदल किंवा जादा वृत्त दुसऱ्या दिवशीच अपलोड केले जात असत. त्यामुळे अनिवासी भारतीयांना ताजे वृत्त उशिरा प्राप्त होत असत त्यामुळे ई-आवृत्त्यात 'वेब आवृत्ती' हा प्रकार निर्माण झाला. त्यामध्ये वृत्ते क्षणाक्षणाला अपडेट केली जातात. वेब आवृत्तीमुळे देशातील, राज्यातील, जिल्ह्यातील, गावातील बातमी क्षणात समजणे शक्य झाले. मराठीत दैनिक सकाळ वृत्तपत्रांच्या वाचक वर्ग २५ हून अधिक देशांमध्ये पसरला असून त्याच्या हिट्स दैनंदिन लाखावर असतात. इंटरनेट आवृत्त्यांच्या वाढत्या प्रभावामुळे भविष्यात 'कागदविरहित वर्तमानपत्र' (Paperless Newspaper) हि संकल्पना पर्यावरणपूरक आणि बदलत्या कालानुरूप येणे अल्पकाळातच शक्य आहे.

ऑनलाईन वृत्तपत्रांचा विकास-

ऑनलाईन पत्रकारितेचे क्षेत्र, स्वरूप, व्याप्ती, कामकाज पद्धत, रचना, मांडणी ही पारंपारिक पत्रकारीतेपेक्षा पूर्ण भिन्न ठरते. स्थानिक स्तरावरील एखादा प्रश्न वृत्तपत्रे आपल्या वेब आवृत्तीद्वारे जागतिक पातळीवरती काही क्षणात प्रकाशित करतात. त्यामुळे भाषिक वृत्तपत्रांच्या भौगोलिक मर्यादा ऑनलाईन दैनिकांनी केव्हाच पार केल्या आहेत. स्थानिक भाषिक वृत्तपत्रांना ऑनलाईन पत्रकारितेमुळे विदेशात मोठी मागणी असते. तसेच वाचकांना थेट सहभाग हे ऑनलाईन दैनिकाचे वेगळेपण असते. या ऑनलाईन आवृत्त्यांमधून सामाजिक, राजकीय, आर्थिक, धार्मिक, विषयांवरतीही मत व्यक्त करता येते किंवा विविध प्रश्न विचारून त्याबाबतीत वाचकांच्या ऑनलाईन प्रतिक्रिया घेता येतात.^५

मराठी वृत्तपत्रांच्या डिजिटल आवृत्या –

मराठीमध्ये सर्वप्रथम साखळी वृत्तपत्रांनी ई आवृत्यांना सुरुवात केली. २६ जानेवारी २००० मध्ये विश्वाक सोल्युशन, प्रा.लि. चेन्नई या कंपनीने दै. सकाळची वेबसाईट डिजाईन केली. इ.स. २००३ मध्ये अमेरिकेमधील गार्शिया मिडिया या कंपनीने आधुनिक पद्धतीने दै. सकाळची वेबसाईट डिजाईन केली. अमेरिकेतील माय विश्व डॉट कॉम कंपनीने टेक्स्ट सोबत बातम्यांचे व्हिडीओही अपलोड केले. इ.स. २००९ नंतर कोल्हापूर पासून नागपूरपर्यंतच्या सर्व आवृत्या ऑनलाईन स्वरूपात उपलब्ध केल्या. ई-सकाळ वृत्तपत्रास भेट देण्यात प्रथम क्रमांक भारत, दुसरा अमेरिका, तिसरा ब्रिटन, चौथा संयुक्त अरब अमिरात, पाचवा ऑस्ट्रेलिया सहावा क्रमांक सिंगापूरचा लागतो. दै. पुढारीने इ.स. २००८ पासून अद्यावत ऑनलाईन सेवा विकसित केली. दिल्लीच्या फोर सी प्लस या कंपनीकडून दै.पुढारीने वेब डिजाईन विकसित केली. सुरवातीला त्यात कोल्हापूर, गोवा, बेळगाव, सांगली, सातारा अशा आवृत्या नंतर मुंबई, नाशिक या आवृत्यांचीही भर पडली. इ.स. २०१२ पर्यंत रोज २८० पाने अपलोड, अकरा आवृत्यांद्वारे ऑनलाईन स्वरूपात दै. पुढारी उपलब्ध आहे. आज सर्वच लहान मोठ्या वृत्तपत्रांनी आपल्या इंटरनेट आवृत्या विकसित केल्या आहेत. त्यामुळे मुद्रित आवृत्तीपुर्वी इंटरनेट आवृत्ती प्रकाशित करणे शक्य होते.

वृत्तपत्रांसमोरील आव्हाने: प्रिंट ते डिजिटल –

अत्याधुनिकतेच्या जगात वृत्तपत्रीय सर्व संदर्भ बदलले आहेत.पत्रकारिता हे समाजसेवेचे माध्यम म्हणून मानले जात होते.परंतु कालानुरूप व्यापारीकरणामुळे माध्यमविश्वाचा प्रत्यक्ष,प्रचंड प्रभाव समाजजीवनावर,त्यांच्या मानसिकतेवर पडला आहे.अमेरिकी विचारवंत टॉफ्लर याने आपला ग्रंथ 'पॉवर शिफ्ट' मध्ये याचे विस्तृत विवेचन केले आहे.त्यानुसार,अमेरिकेमधील दैनदिन गरजा,राष्ट्रीय उत्पन्न माध्यमांवर अवलंबून आहे.कोएक्सल,केबल,फायबर ऑप्टीक्स,उपग्रह संचार,कॉम्प्यूटर,टेलिफोन,फॅक्स,इंटरनेट,मोडेम यामुळे प्रत्येक अमेरिकन घर माध्यम घर बनले.टेलीटेक्स,व्हिडीओटेक्स,डिजिटल साउंड.इंटरएक्टिव्ह टेलिव्हिजन उपग्रह यामुळे समाजजीवनात मोठे बदल झाले आहेत.सकाळी उठून अमेरिकन लोक टी.व्ही स्क्रीनवर वृत्तपत्र वाचतात,बँक व्यवहार,खरेदी विक्री,आरक्षण (रेल्वे,बस इतर) ही सर्व कामे घरी विद्यापीठाचे पत्रकारितेचे प्राध्यापक रॉबर्ट मेक यांनी या स्थितीविरोधी इशारा दिला आहे.त्यांचे पुस्तक'रिच मिडिया पुअरडेमोक्रेसी'मध्ये ते लिहितात'पत्रकारांची स्वायत्तता भविष्यात धोक्यात आली आहे.आता हा संपूर्ण व्यवसाय झाला आहे.कोणत्याही सिद्धांत,नैतिक

मूल्यांशी याचा काही संबंध नाही.नैतिक पत्रकारिता हा तोट्याचा व्यवसाय झाला आहे आणि दुर्दैवाने हलक्या पत्रकारितेचा व्यवसाय फायद्याचा मानला जातो.त्यामुळे सामाजिक जबाबदारीचे तत्व नष्ट होऊन जास्तीत जास्त बाजारीकरण आणि त्यातून वैचारिक,अभ्यासू मांडणीपेक्षा चटपटीत,भडक वृत्त प्रसारणाकडे लक्ष दिले जाते.इलेक्ट्रॉनिक माध्यमांचे मोठे आव्हान दैनिक वृत्तपत्रासमोर आहे.परंतु त्याबाबत समीरण वाळवेकर हे इलेक्ट्रॉनिक क्षेत्रामध्ये कार्यरत जेष्ठ पत्रकार मत व्यक्त करतात कि," इलेक्ट्रॉनिक माध्यमे वर्तमानपत्रांच्या आधी सारे काही दाखवतील कुरघोडी करतील,पण विचार करायला लावण्या इतपत प्रभाव टाकू शकणार नाहीत,ते कार्य वर्तमानपत्रांना करावे लागेल"^७ वृत्तपत्र व्यवसायामध्ये अनेक राजकारणी,उद्योगपतींनी प्रवेश केलेला आहे. परिणामी लोकशिक्षणाच्या मुळ हेतूपासून वृत्तपत्रे दूर जात आहेत. प्रचंड आर्थिक गुंतवणूक,वृत्तपत्रांतर्गत स्पर्धा यामुळे समाजाचा विकास,भाषेची जडणघडण अशा नैतिक मुल्यांऐवजी राजकीय फायदा,काहीजण उद्योगांना संरक्षण मिळावे या हेतूने या व्यवसायामध्ये आहेत. आता तर उपभोक्त्याच्या गरजेप्रमाणे निर्माण होणाऱ्या बाजारपेठेतील घटक/उत्पादित वस्तू म्हणून वृत्तपत्राकडे पाहतात. इंटरनेट,टी.व्ही,इतर प्रसारमाध्यमाद्वारे बातमी पाहिली,ऐकली जाते. परंतु चिकित्सक सर्वसामान्य वाचक त्यावर समाधान न मानता त्या घटनेचा अधिक तपशील जाणून घेण्यासाठी,वृत्ताची मांडणी,विश्लेषण जाणून घेण्यासाठी वृत्तपत्र वाचतो थोडक्यात वाचकांची उत्सुकता वृत्तपत्रे टिकवून आहेत.

दैनिकापुढे मोठी आव्हाने उभी असताना साप्ताहिके,पाक्षिके ही अस्तित्वाची लढाई लढत आहेत. बहुतांश साप्ताहिकांनी नियमितपणे साप्ताहिकांच्या छपाई शिवाय इतर छपाईची स्थानिक कामे घेण्यास सुरुवात केली. काही साप्ताहिके बाहेरून छापून घेतली जातात. कारण ठराविक नियमित वाचकांशिवाय साप्ताहिकांचा फारसा खप नसल्याने मूलतः उत्पन्न कमी मिळते. दैनिकामधील मोठे वृत्तपत्र समूह आणि काही प्रमाणात लहान वृत्तपत्रे नावीन्यातून कार्यरत राहत असतात. वाचकांसाठी विविध सवलती,योजना,आमिषे याद्वारे खप वाढविण्याचा सतत प्रयत्न सुरु असतो. इ.स.२००० नंतर वृत्तपत्र व्यवसायामध्ये 'किंमतयुद्ध' भडकले. तोटा सहन करून परवडत नसतानाही नाममात्र एक रुपये,दोन रुपये दराने वृत्तपत्रांची विक्री सुरु झाली. यात मोठे वृत्तपत्रसमूह टिकून राहिले. स्थानिक वृत्तपत्रांची मात्र या किंमतयुद्ध स्पर्धेत खूप पिछेहाट झाली वृत्तपत्रांसमोर प्रचंड मोठी आव्हाने असताना दुर्दैवाने आज अंतर्गत स्पर्धेतून एकमेकांना सहकार्य करण्याऐवजी शत्रुभावनेने वृत्तपत्र कार्यरत आहेत. इ.स. १९९१ नंतर भारताने स्विकारलेल्या नवीन आर्थिक धोरणानुसार जागतिकीकरण,उदारीकरण,खाजगीकरण हे सर्वच क्षेत्रात घडून आले. त्यामध्ये वृत्तपत्र व्यवसायही मागे राहिला नाही. मोठी वृत्तपत्रे प्रचंड भांडवलातून पूर्ण क्षमतेने या व्यवसायामध्ये उतरल्याने स्थानिक मोठ्या वृत्तपत्रांसमोर आव्हान तर लहान वृत्तपत्रांना अस्तित्त्व

टिकवण्यासाठी धडपड करण्याची वेळ आली आहे. आपापसात स्पर्धा करण्यापेक्षा नित्य नवीन आव्हानांना एकत्रितपणे हाताळणे गरजेचे आहे. मुद्रित माध्यमांच्या अस्तित्वावरती आव्हान येत असल्याने वाचकांच्या बदलत्या गरजा मागणीनुसार वृत्तपत्रांमध्ये प्रभावी बदल करताना आकर्षक मांडणी, उत्कृष्ट विश्लेषण, विश्वसनीय आकडेवारी, कमी शब्दात ज्यादा आशय मांडणीचे कौशल्य, दुर्गम-ग्रामीण भागापर्यंत प्रभावी वृत्तपत्र वितरणाचे जाळे निर्माण करून वाचक संख्या आणि एकूण वृत्तपत्राच्या खपामध्ये वाढ करणे आवश्यक आहे.

नमुना दाखल महाराष्ट्रामधील कोल्हापूरातील वृत्तपत्रांचा आढावा घेता, कोल्हापूर जिल्ह्यामध्ये १००० हून ज्यादा नियमित अनियमित वृत्तपत्रे आहेत. त्यामध्ये मोठ्या वृत्तपत्रसमूहाची, पक्षीय विचारसरणीची स्थानिक नेत्यांच्या प्रभावाने कार्य करणारी, स्थानिक प्रश्नांची मांडणी करणारी, गावातील जत्रा, यात्रा, निवडणुका, वाढदिवस अशावेळी प्रसिद्ध होणारी तत्कालीक वृत्तपत्रे आहेत. परंतु ती अनियमित असलेने व काही हेतू, आर्थिक उद्देशाने ठराविक दिवशी किंवा प्रासंगिक प्रसिद्ध होतात. २०१५ मधील शासनमान्य वृत्तपत्रांच्या यादीचा विचार करता कोल्हापूरमध्ये १७ दैनिके आणि १४ साप्ताहिके कार्य करतात. हि किमान निकष पूर्ण करणारी आहेत. त्या स्थानिक स्तरावर या दैनिकांना, साप्ताहिकांना अनेक समस्यांना सामोरे जावे लागते. कोल्हापूर जिल्हा शासनमान्य यादीवर बेळगाव जिल्ह्यामधील वृत्तपत्रे असलेने शासनाच्या येणाऱ्या जाहिराती रोटेशन पद्धतीने विभागल्या जाऊन त्याचा आपसूक तोटा कोल्हापूरमधील छोट्या स्थानिक वृत्तपत्रांना होतो. शासनमान्य यादी खपनिहाय अ, ब आणि क श्रेणीद्वारे अनुदान, जाहिराती वितरीत करत असते. त्यामुळे केवळ खप असा निष्कर्ष न लावता कोल्हापूरमधील शतकोत्तर परंपरा लाभलेल्या, समृद्ध इतिहासाचा वारसा असलेल्या आणि कोल्हापूरचे मुखपत्र म्हणून एक काळ गाजविलेल्या वृत्तपत्रास केवळ खपाच्या आधारे 'क' गटात समाविष्ट करणे चुकीचे आहे. अत्याधुनिक साधने, भांडवल छोट्या वृत्तपत्रांना परवडत नाही. त्यामुळे खपाच्या निष्कर्षाऐवजी समाजासाठी केलेल्या कामगिरीचा विचार करून नियमित, प्रामाणिकपणे नफा तोट्याचा विचार न करता प्रसिद्ध होणाऱ्या स्थानिक पत्राचा विचार करून शासकीय यादी प्रसिद्ध करावी. २०१८ नंतर शासकीय जाहिरातींचे प्रमाण कमी झालेने लहान वृत्तपत्रांवर त्याचा परिणाम झाला आहे. दुसरी महत्वाची समस्या भाषेची शुद्धता ही असून नवीन पत्रकारांची पिढी वृत्त जलद देण्याच्या गडबडीत भाषा शुद्धतेकडे दुर्लक्ष करतात. त्यामुळे वृत्ताच्या शिर्षकांमध्येही चुका होत आहेत. आतील मजकुराच्या चुका तर सर्रास होत आहेत. मराठी भाषेमध्ये अनेक बोलीभाषा असून त्यामध्ये वऱ्हाडी, अहिराणी, नागपुरी, कोकणी, मराठवाड्यामधील, कोल्हापुरी, सातारी, पुणेरी, मुंबईकडील हिंदी मिश्रित अशा आहेत. गरजेनुसार प्रमाण भाषेचा आग्रह न धरता बोलीभाषेमधून वर्तमानपत्राची छपाई होणे गरजेचे आहे. आज मराठी वृत्तपत्रांमध्ये भाषा मिश्रणाची गंभीर समस्या निर्माण झाली आहे. अनेक वृत्तपत्रांमधून मराठीस सक्षम पर्यायी शब्द असताना इंगजी

शब्दांचा वापर वाढला आहे.^१ इ.स २००० नंतर वृत्तपत्रे अडचणीमधून मार्गक्रमण करत आहेत दैनिकांमध्ये अंतर्गत स्पर्धा प्रचंड मोठ्या प्रमाणात असलेने प्रसंगी कमी किमतीत वृत्तपत्राची विक्री करावी लागते.वृत्तपत्राच्या विस्तार,वृद्धीसाठी मोठे भांडवल लागते जे मोठे वृत्तपत्रसमूह उभे करू शकतात परंतु लहान दैनिकांना मर्यादा असलेने अशी पत्रे या स्पर्धेमधून बाहेर फेकली जातात.तसेच इतर समस्यांना तोंड द्यावे लागते.त्यामध्ये उत्कृष्ट कार्यक्षम मराठी भाषेवर प्रभुत्व असलेल्या पत्रकारांची वानवा,वृत्तपत्रामध्ये प्रशिक्षित कामगार वर्गाची वानवा,छपाईसाठी लागणाऱ्या कागदांच्या सतत वाढणाऱ्या किमती,छपाई यंत्रे,शाईच्या दरात सतत होणारी वाढ,शासकीय बंधने,शहराबाहेर वृत्तपत्रवहन करणाऱ्या वाहनांची भाडेवाढ अशा अनंत अडचणीमधून वृत्तपत्रे जात आहेत.वाचकांसाठी विविध सवलती,योजना,आमिषे याद्वारे खप सातत्याने वाढविण्याचा प्रयत्न सुरु असतो.त्यातून इ.स २००५ दरम्यान वृत्तपत्रामध्ये 'किंमत युद्ध' भडकले.प्रचंड आर्थिक तोटा सहन करून नाममात्र एक रुपया दराने दै.पुढारी,दै.सकाळ या वृत्तपत्रांनी आपल्या दैनिकाची विक्री सुरु केली.या स्पर्धेमधून अग्रलेख,विशेष लेख,बातम्या लिहून परस्परांच्या अंतस्थ गोष्टी सांकेतिक भाषेत उघड करण्याची स्पर्धा या दोन मोठ्या दैनिकामध्ये सुरु झाली.त्यामुळे वाचकवर्गाचा आर्थिक फायदा,मनोरंजन झाले.परंतु वृत्तपत्रीय नैतिकता,संकेत पायदळी तुडवले गेले.त्यामुळे अशा मोठ्या वृत्तपत्रसमूहांनी अगोदरच नित्यनुतन संकटे असताना आपापसातील स्पर्धेमधून टीकेची निचतम पातळी गाठणे या व्यवसायास आत्मपरीक्षण करण्यास लावणारी गोष्ट आहे.इ.स १९४३ दरम्यान बंगाल दुष्काळावेळी दै.सकाळने मदतनिधी गोळा करण्यासाठी प्रयत्न सुरु केले.तेव्हा सकाळकारांच्या या सामाजिक कार्याचे जाहीर कौतुक 'सकाळकारांचा स्तुत्य उपक्रम' असा अग्रलेख लिहून कौतुक केले.आणि कोल्हापूरमधील सकाळ वृत्तपत्राची मदत पुढारीच्या कोल्हापूर कार्यालयात गोळा केली.कै.ना.भि परुळेकर आणि कै.ग.गो जाधव यांनी पत्रकारीतेची मुल्ये सांभाळताना राष्ट्रकार्यामध्ये एकमेकांना सहकार्याची भूमिका घेतली.दुर्दैवाने आजच्या एकविसाव्या शतकात अंतस्थ स्पर्धेमधून सहकार्याऐवजी शत्रुभावनेने ही वृत्तपत्रे कार्यरत आहेत.

४०० ते ४५० वर्षांच्या वैभवशाली परंपरेमुळे वृत्तपत्रसृष्टी प्रगल्भ झाली आहे. त्या तुलनेत ३० ते ४० वर्षापूर्वी अस्तित्वात आलेल्या सोशल मिडीयाच्या आव्हानापुढे गोंधळून न जाता मार्गक्रमण करणे गरजेचे आहे. 'विश्वसनियतेचा अभाव' हा सोशल मिडीयापुढील मोठा प्रश्न आहे आणि तेच वृत्तपत्राचे बलस्थान आहे. त्यामुळे जोपर्यंत सोशल मिडीया विश्वसनियतेच्या आघाडीवर प्रगल्भ होत नाही तोपर्यंत वृत्तपत्रांचे स्थान,महत्व अबाधित आहे. मुद्रित माध्यमांसोबत ऑनलाईन वृत्तपत्रांसारखे प्रयोग करून चित्रे, छायाचित्रे, व्हीडीओ आकर्षक आणि वाचनीय मजकूर,क्षणाक्षणाला बदलती वृत्ते,विश्वसनीय पद्धतीने वृत्तांची मांडणी अशा नवीन पद्धतीने मुद्रीतचे इंटरनेटद्वारे प्रसारणाकडे लक्ष देऊन आधुनिक आव्हानांना आधुनिक पद्धतीने उत्तर देण्यातून मुद्रित माध्यमे भविष्यातही प्रदीर्घ काळ प्रभावी राहतील.

संदर्भ :

1. Basu Durgadas, Introduction to the constitution of India, lexis Nexis Publication, Gurgaon, Haryana 1960, Page no 110,111
2. इंटरनेट साधन – <http://en.m.wikipedia.org/wiki/Eo/A4>
3. हर्षदेव, उत्तर आधुनिक मिडिया तकनीक, वाणी प्रकाशन, दिल्ली 2012, पृष्ठ क्र 32,33
4. रत्नू कृष्णकुमार, सूचना और प्रसारण माध्यम की एक्कीसवी शताब्दी में बदलती भूमिका, मंगलदीप पब्लिकेशन्स, जयपुर, २००१, पृष्ठ क्र ३१
5. साळुंखे पद्मिन, चौगुले सुरज, माध्यमविविधता, गवळी प्रकाशन सांगली, २०१५, पृष्ठ क्र. ३६
6. हर्षदेव, उपरोक्त पान क्र. ४८, ४९.
7. तुपे केशव, लेख-वृत्तपत्र एक प्रभावी प्रसारमाध्यम, प्रसारमाध्यमे आणि मराठी भाषा, संपा. भास्कर शेटके, स्नेहवर्धन प्रकाशन, पुणे, एप्रिल 2012, पृष्ठ क्र. १९८
8. शासनमान्य वृत्तपत्रांची यादी २००५, माहिती व प्रसारण मंत्रालय महाराष्ट्र सरकार.
9. डॉ. जाधव जयद्रथ, लेख- प्रसारमाध्यमे आणि मराठी भाषा, संपा. डॉ. भास्कर शेटके, स्नेहवर्धन प्रकाशन, पुणे, २०१२, पृष्ठ क्र. १९८



नवी मुंबईचे शिल्पकार-- वसंतराव नाईक

डॉ. शर्मिला अशोक साबळे

सहाय्यक प्राध्यापक, इतिहास विभाग राजर्षी शाहू कला व वाणिज्य महाविद्यालय, रूकडी.तालुका
हातकणंगले, जिल्हा- कोल्हापूर
ई-मेल-sabalesharmila@gmail.com

सारांश:

वसंतराव नाईक हे महाराष्ट्राचे प्रदीर्घ काळ मुख्यमंत्री होते.मुख्यमंत्रीपदी असताना त्यांनी अनेक धाडसी निर्णय घेतले. अनेक धाडसी योजना राबविल्या. त्यांनी महाराष्ट्राच्या जडणघडणीमध्ये फार मोठे योगदान दिले .सव्वाकरा वर्षातील त्यांचे कर्तृत्व तर अफाटच आहे. महाराष्ट्राच्या गेल्या पन्नास वर्षांत या बांधणीमध्ये यशवंतराव चव्हाण यांनी पाया घालून दिलेली आणि दिशा ठरवून दिलेली महाराष्ट्राची चौफेर बांधणी वसंतराव नाईक यांच्या काळत सर्वाधिक झालेली आहे. किंबहुना 1960 ते 1975 हा अवघ्या पंधरा वर्षांच्या काळात शेती, धरणे, वीज, रस्ते, शिक्षण, ग्रामीण विद्युतीकरण, कृषी विद्यापीठ, नवी मुंबई, नवीन औरंगाबादची निर्मिती हे सगळे मोठे प्रकल्प अवघ्या 90 हजार कोटी रुपयात महाराष्ट्रात उभे राहिले आणि त्याचे जवळपास सर्व श्रेय वसंतराव नाईक यांना आहे. महाराष्ट्राचा सर्वांगीण विकास व्हावा यासाठी त्यांच्या कार्यकाळात अनेक योजना कार्यान्वित करण्यात आल्या. प्रस्तुत शोध निबंधामध्ये 'नवी मुंबई योजना' यावर प्रकाश टाकला आहे. नवी मुंबई निर्मिती मध्ये वसंतराव नाईक यांचे योगदान मोलाचे आहे. खऱ्या अर्थाने ते नव्या मुंबईचे शिल्पकार आहेत.

नवी मुंबई योजना - 1971

महाराष्ट्रा पुढे वसंतराव नाईक सरकारने ज्या योजना मांडल्या त्यातील नवी मुंबई योजना प्रकल्प ही एक होय. परंतु बँकबे रिक्लेमेशन या योजनेप्रमाणे नवी मुंबई या योजनेबद्दल ही टीकेचे मोहोळ उठले. मुख्यमंत्रीपदावर आल्याबरोबर 1964 साली वसंतराव नाईक यांनी बँकबे रिक्लेमेशन योजना कार्यवाहीसाठी घेतली.ही योजना कितीही आवश्यक असली तरी या योजनेने टीकेचे मोहोळ उठवले. बँकबे रिक्लेमेशन ही योजना वादग्रस्त ठरली.वसंतराव नाईक यांनी फक्त श्रीमंत लोकांच्या हितासाठी योजना सुरु केली, हा विरोधकांचा आरोप होता.या योजनेस तज्ञांचा विरोध होता. या योजनेखाली 18लक्ष चौरस

जागा ही व्यापारी उद्योगा करता आणि 28 लक्ष चौरस जागा ही रेसिडेन्शियल परंपरेसाठी ठेवण्यात आली. परंतु येथे राहण्यासाठी ज्या इमारती बांधल्या जातील त्यातील फ्लॅटचे सरासरी भाडे 900 रुपये महिना राहणार असल्यामुळे तेथे होणाऱ्या कच्च्यातून नोकरी करणारा सामान्य माणूस बाहेर राहणार होता. परिणामतः त्याच्या जाण्या येण्यामुळे वाहतुकीचा ताण पडणार आणि त्यामुळे पूर्वीच्या वाहतुकीची कॅपॅसिटी दुप्पट करावी लागणार होती. एकूणच ही योजना फायद्याच्या दृष्टीने वसंतराव नाईक यांनी सुरू केली होती.¹ मुंबई बँकवे रिक्लेमेशन या योजनेला मुंबई महानगरपालिका, मुंबई वाचवा समिती, मुंबई प्रदेश काँग्रेस समिती व इतरांनी उपस्थित केलेल्या वाढती लोकसंख्या, सर्व हा भारतातून तिथे रोज येणाऱ्या लोकांचे वाढते प्रमाण आणि ते नजीकच्या काळात नव्हे तर कधीच कमी होणार नसल्याचे भाकीत ओळखून त्यांनी या योजनांच्या आराखड्याला शासनाची मान्यता दिली होती. आज की योजना ब्रह्मन् मुंबईच्या विकासाच्या दृष्टीने अतिशय उपयुक्त ठरलेली दिसून येत आहे. विरोधकांना व हरकतींना शासनाने जुमानले नाही. अशा प्रकारे बँकवे रिक्लेमेशन योजना स्थगित करण्यासाठी विरोधी पक्षाने मोठ्या प्रमाणात विरोध केला होता परंतु वसंतराव नाईक यांनी ही योजना राबवली. या योजनांमुळे विशेषतः ग्रामीण भागातील जनतेकडे शासनाला लक्ष पुरविता आले व खेडोपाड्यात वीज व दळणवळणाची साधने उपलब्ध करून देता आली. अशा प्रकारे मुंबईचा विकास होण्यासाठी दुसरी एक नवी योजना वसंतराव नाईक यांनी राबविली, ती म्हणजे नवी मुंबई ची योजना होय. महाराष्ट्रा पुढे ज्या महत्त्वाच्या आणि बिकट समस्या होत्या त्यापैकी मुंबईची अतोनात वाढणारी गर्दी ही महाराष्ट्र सरकारची मोठी डोकेदुखी होती. साऱ्या भारतातून नोकरयांच्या शोधात मुंबईकडे लोकांची रीघ लागली होती. रोज शंभर लोक मुंबईमध्ये वसाहत करण्या करता येत होते व वाढत्या गर्दीमुळे पाणीपुरवठा, आरोग्य, राहण्याची जागा, रहदारीची गर्दी, झोपडपट्ट्या असे अनेक प्रश्न निर्माण झाले. त्यांना तोंड देण्यासाठी आणि मुंबईची गर्दी कमी करण्यासाठी नव्या मुंबईची कल्पना पुढे आली. वसंतराव नाईक यांनी या योजनेचा नेटाने पुरस्कार केला. ती कार्यान्वित करण्यासाठी शासनातर्फे पावले उचलली. या योजनेत उद्योगधंद्यांचे विकेंद्रीकरण करून प्रत्येकी अडीच लाखाहून कमी वस्तीची स्वयंपूर्ण नागरी केंद्रे स्थापन करून मुंबई समुद्रा पलिकडील टापूंचा विकास करणे

व त्याद्वारे मुंबईच्या वाढत्या लोकसंख्येस आळा घालणे हे हेतू समोर ठेवून या उद्देशाने वसंतराव नाईक यांनी 18 मार्च, 1970 ला 'सिडको'(इंडस्ट्रियल डेव्हलपमेंट कॉर्पोरेशन) या नावाच्या कंपनीची स्थापना केली. प्रथम 86 गावांमधील व नंतर (प्रकल्प खालील क्षेत्र वाढल्यामुळे) 95 गावांमधील सर्व खाजगी मालकीची जमीन ताब्यात घेण्यासाठी अधिसूचित करण्यात आली. या योजनेच्या प्रत्यक्ष आराखड्याचे काम ऑक्टोबर 1971 ला हाती घेण्यात आले होते.² या योजनेला महाराष्ट्रात प्रखर विरोध झाला होता.

नवी मुंबई योजना पुढील प्रमाणे-

मुंबईचा अनेक समस्यांचा विचार करून त्यावर मार्ग सुचविण्यासाठी मेट्रोपॉलिटन जून, 1968 मध्ये स्थापन करण्यात आले. मुख्य उद्देश प्रति मुंबई किंवा नवी मुंबई स्थापन करणे हा होता. दिनांक 17/ 6 /1970 रोजी मेट्रोपॉलिटन बोर्डाने सुचवलेल्या मुंबईची योजना कार्यान्वित करण्यासाठी सिडकोची स्थापना झाली. मेट्रोपॉलिटन बोर्डचे अध्यक्ष श्री राजवाडे होते. या बोर्डाने हा अहवाल तयार केला. या योजनेसंबंधी लहान पुस्तिका प्रसिद्ध करण्यात आल्या होत्या. त्यामध्ये "महाराष्ट्राचे नवे महासागर" "कहाणी आटपाट नगराची" या पुस्तकांचा समावेश होता. स्थानिक लोकांच्या जमिनी जातील. त्यांना उपजिविकेचे साधन राहणार नाही. शासनाची योजना चुकीची आहे. या योजनेमुळे जनतेचे हित होण्याऐवजी नुकसानच होणार आहे. नव्या मुंबईत होऊ घातलेले मुंबईच्या तोडीचे नावा-शेवा बंदर आहे. तळोजा व ठाणा- बेलापूर भागात चालू असलेल्या उद्योगधंद्यांच्या वाढीमुळे लोकवस्ती वाढत जाणार आहे. त्यांनी मुंबई जवळ हा भाग अधिकच सरखेल, त्याचे नागरिकांवर अतीवाईट परिणाम होतच राहतील. माणसे घरे, व्यापार उद्योग, वाहतूक, झोपड्या, शाळा-कॉलेजे इत्यादीचे जाळे झपाट्याने तयार होत जाईल. त्यावर योग्य नियंत्रण राहणार नाही बेबंद वाढेल आणि सध्याच्या गोंधळात भर पडेल मुंबईच्या समस्याही अधिक वाढतील आणि सध्याच्या मुंबईच्या समस्याही अधिक वाढतील. अशा प्रकारचे अनेक आक्षेप नव्या मुंबईवरून घेण्यात आले. महाराष्ट्रात व विधानसभेतही विरोधी पक्षाने या योजनेला जोराचा विरोध केला.³ विरोधी पक्षाच्या विरोधाला उत्तर देताना वसंतराव नाईक 11 जुलै, 1972 ला विधानसभेत म्हणाले होते की, "नवी मुंबई योजना कोणा मंत्र्याच्या डोक्यातून निघालेली नाहीतर तज्ञांनी बोलावलेली योजना आहे. नव्या मुंबई मुळे

मागास विभागाचा विकास थांबवून नुकसान होईल अशी कल्पना करणे योग्य ठरणार नाही. नवीन शहरासाठी त्यांची जमीन घेतली जाईल. त्यांना योग्य तो मोबदला दिला जाईल. मुंबई शेजारीच नवीन बंदर निर्माण होत असल्यामुळे त्या ठिकाणच्या विभागाचा नियोजित विकास करण्यात येईल. त्यामुळे मुंबईवरील गर्दीचा ताणही कमी होईल."४ अशा परिस्थितीत नव्या मुंबईची, मुंबईच्या हिताच्या दृष्टीने महाराष्ट्राला अत्यंत आवश्यकता असल्याचे वसंतराव नाईक यांनी सांगितले होते. लोकांनी विरोधासाठी विरोध करू नये यासाठी वसंतराव नाईक यांनी विरोधकांना आपली भूमिका पटवून देण्याचा आटोकाट प्रयत्न केला व या योजनेचा पाठपुरावा केला.

नव्या मुंबईची विकास योजना-

सिडकोने नवी मुंबईच्या विकासाच्या योजनेचा मसुदा तयार करून तो दिनांक 11, ऑक्टोबर 1974 रोजी जनतेच्या सूचना व आक्षेप मिळवण्याकरता वसंतराव नाईक यांनी प्रयत्न केला होता सूचना व आक्षेप आठवण्याची मदत सुरुवातीला 60 दिवसांची ठेवण्यात आली होती. नंतर त्यामध्ये आणखी 60 दिवसांची मुदत वाढवण्यात आली. या अवधीत आलेल्या सूचना व आक्षेपांचा विचार करून सिडको आपला अंतिम अहवाल शासनाकडे मंजूरीसाठी सादर करणार होती. या योजने प्रमाणे नव्या मुंबईची लोकसंख्या इसवी सन 1991 पर्यंत 20 लाखांपर्यंत जाईल असा अंदाज होता. प्रारूप विकास योजनेप्रमाणे नव्या मुंबईची रचना प्रत्येकी सुमारे 50 हजार ते एक लाख लोकवस्ती असलेला नगर केंद्रांमध्ये असेल, प्रत्येक नगर केंद्र, शाळा, दुकाने, रुग्णालय वगैरे बाबतीत स्वयंपूर्ण असेल. ही नगर केंद्रीय सार्वजनिक वाहतूक द्वारे गुंफली जातील. त्यात सुरुवातीला आरक्षित मार्गावर बस वाहतूक असेल. कालांतराने वाहतुकी या गरजेप्रमाणे आवश्यकता भासल्यास रेल्वेचे योजना केली जाईल. वाघवली बेटाच्या सभोवती वर्तुळाकार वलयात प्रामुख्याने व्यापारी केंद्रे असतील^५ अशी ही योजना होती. अशा प्रकारे "नवी मुंबई" योजनेला प्रचंड विरोध असूनही वसंतराव नाईक यांनी ही योजना अमलात आणली त्यामुळे मुंबईचा विकास घडून आला.

समारोप- मुंबईची भरमसाठ झालेली वाढ, प्रचंड गर्दी, अपुरे आणि अरुंद रस्ते, घरांची समस्या या सर्व बाबींचा विचार करून वसंतराव नाईक यांनी मुंबईला पर्याय म्हणून नवी मुंबई बसवण्याचा महत्वाकांक्षी

निर्णय घेतला. त्यासाठी सिडको या नव्या आस्थापनेची निर्मिती केली. आज नवी मुंबईत अत्याधुनिक सुविधांनी परिपूर्ण असे नियोजन बद्ध शहर ओळखले जाते. 50 वर्षांपूर्वी वसंतराव नाईक यांच्या दूरदृष्टीतून या शहराची निर्मिती आकारास आली. स्वप्न पहाणं सोप असतं पण ते प्रत्यक्षात उतरवणं महाकठीण! मात्र वसंतराव नाईकांनी हे नवे शहर बसवण्याचे अवघड स्वप्न प्रत्यक्षात उतरवून दाखवले. त्या काळात अत्याधुनिक यंत्रसामग्री नव्हती. तरी देखील त्यांनी वाशी येथील खाडीवर चा महाकाय पूल बांधण्याचा चंग बांधला आणि तो पूर्णत्वास नेला. पुलामुळे मोठे परिवर्तन घडून आले. लोक हळू राहावयास जाऊ लागले. आज नवी मुंबई हे प्रतिष्ठित शहर आहे. रेल्वे वाहतूक, मूलभूत सुविधा, मुबलक पाणी, मोठमोठे मॉल्स यांची रेलचेल आहे. मागील 50 वर्षात या शहराचा विकास आणि विस्तार वेगाने होत आहे. वसंतराव नाईकांच्या दुष्टपणाचे ते प्रतीक आहे. खऱ्या अर्थाने नव्या मुंबईचे ते शिल्पकार आहेत. आज नवी मुंबई विमानतळाला वसंतराव नाईक यांचे नाव द्या अशी मागणी वाढत आहे आणि ती रास्तच आहे.

संदर्भ -

1. महाराष्ट्र विधान परिषद कार्यवाही, डिबेट्स, खंड 35, क्रमांक 28, 26 जुलै, 1972, पृष्ठ 17 62
2. लोकराज्य 1 मार्च 1974 पृष्ठ क्रमांक 75
3. लोकराज्य ऑगस्ट 1969
4. पाटील पंढरीनाथ सामान्यातील असामान्य वसंतराव नाईक पृष्ठ क्रमांक 112
5. लोकराज्य डिसेंबर 2012 पृष्ठ क्रमांक 58

इतर संदर्भ ग्रंथ-

1. कर्णिक मधु मंगेश दूत पर्जन्याचा
2. रुद्रवार उत्तम धुमाळे पुंडलिक संपादित महाराष्ट्राचे वसंत वैभव
3. राठोड राजाराम संपादित वर्षा
4. बस राम बिहारी सिंग वसंतराव नाईक यांचे जीवन चरित्र



DRIP IRRIGATED AREA AND ECONOMIC STATUS OF FARMERS: A CASE STUDY OF VILLAGE KAVHE VILLAGE OF MADHA TAHSIL

Dr. Patil N. J.

Professor, Department of Geography, D.S.G. College, Mohol, Solapur MH, India

Abstract:

Role of irrigation in agricultural productivity is very important in drought prone area. Irrigation is the watering of land by artificial means to foster plant growth Drip irrigation is designed to water the crop and not to the whole area on which the crop is planted. Drip irrigation is irrigation methods, which save water, fertilizer. In the present day drip irrigation is most essential technological factor due to shortage of water resources. Drip irrigation method is one of the important inputs, which is useful to increase area under irrigation and to save water resources as well as to increase agricultural production. Therefore an effort is made here to examine impact of drip irrigated area on income of farmers. The paper is mainly based on primary data sources. To examine the impact of drip irrigated area on income of farmers the Karl Pearson's coefficient of correlation techniques, Coefficient of determination and regression equation technique has been employed. The study reveals that increase of one hectare drip irrigated causes for increase of income of farmers 85500 rupees per year in village Kavhe.

Key words: Drip irrigation, Correlation, regression.

Introduction:

The Agricultural productivity is a combine effect of physical and manmade factors. Among the role of irrigation in agricultural productivity is very important in drought prone area. If agricultural is only rain fed, it resulted into crop failure. The crop failure resulted into poor economic condition of farmers as well as lower economic status in turn resulted into suicide of farmers. The economic status of farmer is improved only after if farmers cultivate crops with irrigation and doing animal husbandry as well as poultry as a sideline for farming. Irrigation is identified as a decisive factor in Indian agriculture due to high variability and inadequacy of rainfall. Irrigation is imperative for successful agriculture particularly in the arid, semi arid and sub humid areas, which are

prone to drought and famine conditions due to partial failure and delayed arrival or early withdrawal of Monsoon (Reddy & Reddy, 1992). Irrigation is the watering of land by artificial means to foster plant growth (Merriam Webster's Collegiate Dictionary, 2004, p.663). Irrigation means the supply of water to the land by means of channels, streams, and sprinklers in order to permit the growth of crops (Susan Mayhew, 2004, P. 280). In drought prone area drip irrigation is better than flood irrigation. Drip irrigation is designed to water the crop and not to the whole area on which the crop is planted. Drip irrigation is irrigation methods, which save water, fertilizer by allowing water to drip slowly to the roots of plants, either into the soil surface or directly on the root zone, through the network of valves, pipes, tubing and emitter.

In the present day drip irrigation is most essential technological factor due to shortage of water resources. Drip irrigation method is one of the important inputs, which is useful to increase area under irrigation and to save water resources as well as to increase agricultural production. Irrigation particularly drip irrigation method gives assure agriculture production. The labour requirements for drip irrigation are low; the system is easily automated or could be operated manually with little effort with proper design. It promotes improved plant growth and productivity, larger yield, better crops are important benefits to the grower, whose livelihood depend on the irrigation system. Drip irrigation positively affects on income of farmers so it can be hypothesised that higher the drip irrigated area more is the income of farmers, therefore attempt is made here to study impact of drip irrigated area on income of farmers.

Study Region:

The study area is located in North East part of Madha tahsil. The absolute location is $17^{\circ} 15' 35''$ North latitude and $75^{\circ} 45' 42''$ East Longitude. The study area is 11 Kilometer from Kurduwadi city and just 22 Kilometer from Madha tahsil head quarter. The geographical area of the study area is 2392 hectares, Out of them 90.47 per cent is under Cultivation. The population of the village is 6536. The percentage of cultivators and agricultural labours are 65.2 and 28.2

respectively, as per 2021 census, indicates that farming is the main occupation of the Village.

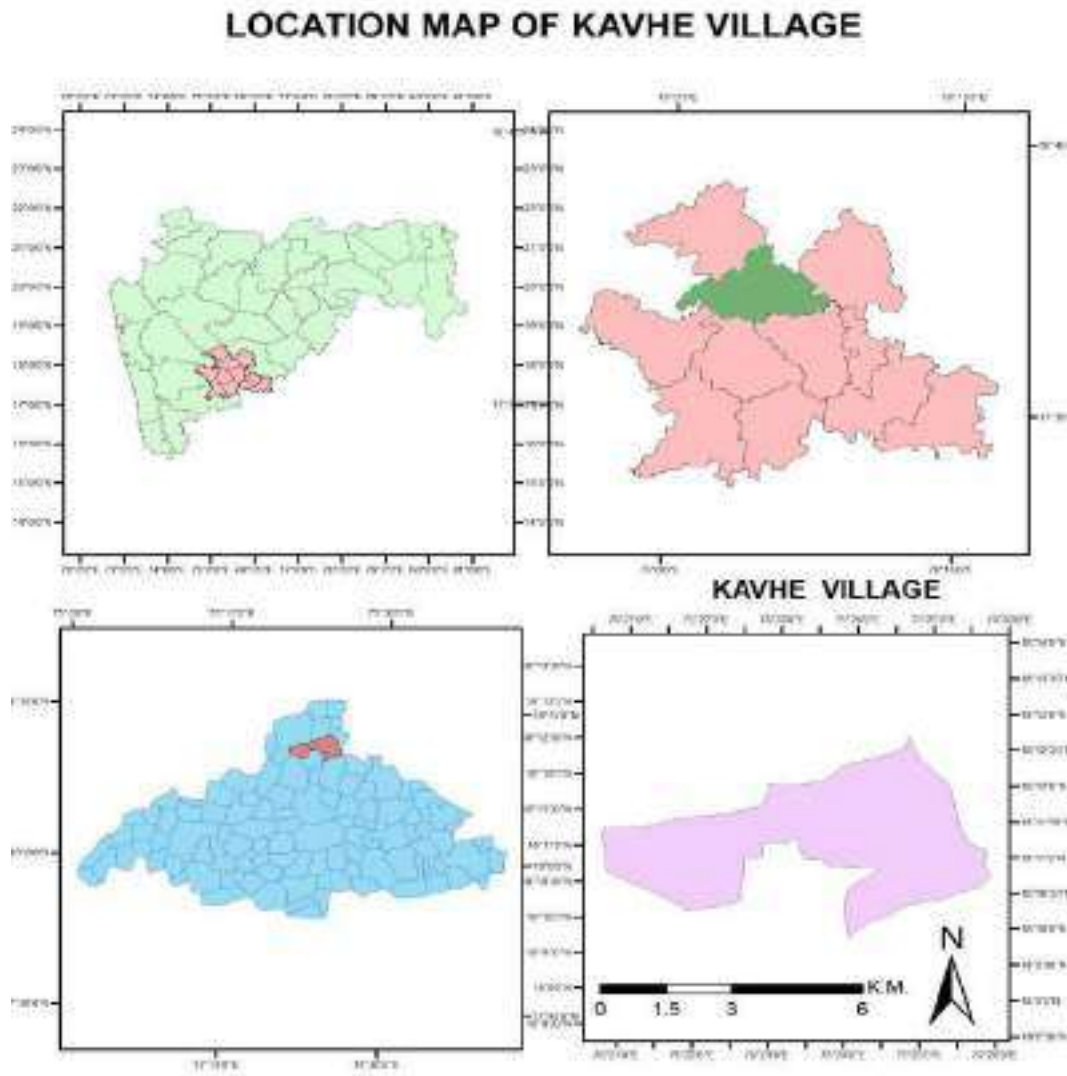


Fig. No. 1

Objectives:

Following are the main objective of this paper.

1. To examine the influence of drip irrigated area on the income of farmers
2. To estimate the rate of change in income in relation to drip irrigated area.

Data Collection And Methodology:

In order to meet these objectives the relevant information and data regarding drip irrigated area and income from sugarcane cultivation are

collected and used for the year of 2018 are mainly based on primary sources. The primary data is the first hand data collected through different sources for which special questionnaires (schedule) were designed. During field survey 65 farmers out of 130 farmers are assessed, which constitute 50 percent of total farmers those have drip irrigation facility. Systematic sampling method is applied for the collection of primary data, every second farmer is considered for village Kavhe. It has helped to understand the drip irrigated area and income of farmers from sugarcane cultivation. Information also collected from Talathi office. The information regarding physiography and drainage system also been obtained from Toposheet. After the collection of data different statistical techniques have been employed. To examine the impact of drip irrigated area on income of farmers the Karl Pearson coefficient of correlation technique of has been employed. The functional form of linear relationship has been measured by using regression equation 'Y' on 'X' i.e. $Y = a + bx$. The rate of change in dependant variable has been estimated with the help of 'b' coefficient, which is the line of best fit. The 'T' test is used with the view to understand the confidence level. The analysis of the study has been made with the help of the statistical techniques and on the basis of this techniques result and conclusions are drawn.

Drip irrigated area and income of Farmers:

The table-1 indicates that the drip irrigated area of farmers in village Kavhe is ranging from 0.2 to 15 percent to total area under sugarcane in 2017-18. There are 13.43 percent farmers those having less than 1 hectare drip irrigated area under sugarcane, 25.37 per cent farmers those having 1 to 2 hectare drip irrigated area. In Village Kavhe, there are 37.31 per cent farmers those have above 2 to below 4 hectare drip irrigated area, 17.91 percent farmers those have 4 to 8 hectare drip irrigated area, while only 5.97 percent farmer those have more than 8 hectare drip irrigated area under Sugarcane.

Table no. 1: Drip irrigate area and income of farmers 2018

Sr. No.	Drip irrigated	Income in Rupees	Sr. No.	Drip irrigated	Income in Rupees
1	2.8	300000	35	8	1200000
2	6	1000000	36	1	300000
3	2.8	400000	37	2	144000

4	4.8	800000	38	2	320000
5	1.2	200000	39	2	400000
6	2.4	400000	40	8.8	2000000
7	0.6	100000	41	1	250000
8	2.2	500000	42	4	700000
9	0.8	120000	43	6	600000
10	1.2	400000	44	1	100000
11	2.4	800000	45	1	100000
12	2.5	160000	46	1	80000
13	0.8	160000	47	3.6	400000
14	2.4	520000	48	3.2	180000
15	1.6	260000	49	3.6	180000
16	3	500000	50	1.6	70000
17	1.2	200000	51	3.2	140000
18	4	1100000	52	2	300000
19	4	800000	53	1	100000
20	1.77	400000	54	0.8	100000
21	0.77	100000	55	0.8	80000
22	2	400000	56	4.8	60000
23	1	160000	57	1.4	80000
24	1.6	500000	58	2.8	40000
25	3	400000	59	4	60000
26	0.8	240000	60	10	600000
27	2	420000	61	5	150000
28	2	500000	62	14	1000000
29	2.8	470000	63	3	90000
30	0.4	100000	64	5	200000
31	1.2	420000	65	15	800000
32	4.6	1200000			
33	2.8	800000		Ave, Income	85500
34	0.2	360000		r = +0.608056	
Coefficient of Determination= 0.369732					

Source: compiled by author.

The table no.1 indicates that there are 52.24 per cent farmers those have up to 3.225 lakh rupees income from sugarcane cultivation by using drip irrigation method in village Kavhe. The 28.36 per cent farmers have 3.225 to 6.15 lakh rupees income from sugarcane cultivation by using drip irrigation method. In Village Kavhe there are 10.45 percent farmers those have 6.15 to 9.075 lakh rupees income from sugarcane cultivation by using drip irrigation method, while 8.96 per cent farmers those have above 9.075 rupees income from sugarcane cultivation by using drip irrigation method.

The moderate positive correlation between drip irrigated area and income of farmers. The coefficient of correlation in this regard is +0.608056. The degree of linear association between these two variable obtained by using the coefficient of determination (r^2) is found to be at 0.369732, which reveals that the independent variable (X) i.e. drip irrigated area are explaining 36.97 per cent of the total variations in dependant variable (Y) i.e. income of farmers from sugarcane cultivation in the study area. It is a good explanation because 36.97 per cent of variation in 'Y' income of farmers from sugarcane cultivation to be influenced by the variable 'X' i.e. drip irrigated area and about 63.03 per cent of variation is left to be influenced by other variables. The functional form of linear relationship of 'Y' on 'X' found to be at $y = 1.58 + 776x$. The line of best fit is shown in figure 4.2. The regression coefficient indicates that increase of one hectare irrigated area causes for increase of income of farmers from sugarcane cultivation by 0.776 lakh rupees in study area. By testing the significance of regression coefficient (a test of significance), the validity of this causal relationship has been confirmed,

The equation used $t = (b-b) \sqrt{(n-2)\Sigma(X_i - \bar{X})^2 \div \Sigma (Y_i - y_i)^2}$

The calculated value of 't' in this exercise is found at 5.62 It is observed that this calculated value is higher than the tabulated value of 't' (2.70) at the 65 degree of freedom (df = n -2, where 'n' is 67) even at 1 per cent level of significance. In order to understand the degree of fit of regression equation and the accuracy level of predicted values (y) income of farmers of Kavhe the standard error (SE) of estimate is being done with the equation $SE (Y) = SY \sqrt{1-r^2}$, where SE (Y) is the standard deviation of residuals (Y-y); and 'SY' is the standard deviation of 'Y'. The confidence interval of the predicted values are worked out at $Y \pm SE (Y)$ (The SE (Y) for the present exercise is 2.86 and SY is the 3.61). Thus it is assumed that if the values of 'Y' (Y-y) lie within the range of Zero to $\pm SE$, the prediction could be expected to be accurate. In other words, the role of independent variables in explaining the change in dependent variable can be accepted as correct. In this context it has been observed that the predicted values (given in table- 2) of 50 out of 67 farmers in the present study lie within

the range of \pm SE, 14 within \pm SE to \pm 2 SE and 3 above \pm 2 SE. Now the obvious inference is that the 74.63 per cent of the total number of observation (n is 65) the regression is a good indicator meaning thereby that the variations in income of farmers in village Kavhe is the function of the variations in drip irrigated area. In the case of other farmers with residuals between $> \pm$ SE to \pm 3 SE the situation is different because here the regression is a poor indicator. It clearly indicates that these are the farmers whom the influence of variables other than the independent one. The variations in income of farmers in the latter case may be due to the variation in soil, variation in use of fertilizer and variation in consciousness of farmers.

Table No. 2 Residuals from regression of income.

Sr. No.	yi	Yi-yi	Sr. No.	yi	Yi-yi
1	3.75	-0.75	35	7.79	4.21
2	6.24	3.76	36	2.36	0.64
3	3.75	0.25	37	3.13	-1.69
4	5.30	2.70	38	3.13	0.07
5	2.51	-0.51	39	3.13	0.87
6	3.44	0.56	40	8.41	11.59
7	2.05	-1.05	41	2.36	0.14
8	3.29	1.71	42	4.68	2.32
9	2.20	-1.00	43	6.24	-0.24
10	2.51	1.49	44	2.36	-1.36
11	3.44	4.56	45	2.36	-1.36
12	3.52	-1.92	46	2.36	-1.56
13	2.20	-0.60	47	4.37	-0.37
14	3.44	1.76	48	4.06	-2.26
15	2.82	-0.22	49	4.37	-2.57
16	3.91	1.09	50	2.82	-2.12
17	2.51	-0.51	51	4.06	-2.66
18	4.68	6.32	52	3.13	-0.13
19	4.68	3.32	53	2.36	-1.36
20	2.95	1.05	54	2.20	-1.20
21	2.18	-1.18	55	2.20	-1.40
22	3.13	0.87	56	5.30	-4.70
23	2.36	-0.76	57	2.67	-1.87
24	2.82	2.18	58	3.75	-3.35
25	3.91	0.09	59	4.68	-4.08
26	2.20	0.20	60	9.34	-3.34
27	3.13	1.07	61	5.46	-3.96

28	3.13	1.87	62	12.44	-2.44
29	3.75	0.95	63	3.91	-3.01
30	1.89	-0.89	64	5.46	-3.46
31	2.51	1.69	65	13.22	-5.22
32	5.15	6.85			
33	3.75	4.25			
34	1.74	1.86			

Source: Compiled by Researcher on the basis of field survey

Conclusions:

The study reveals that there is moderate positive correlation between drip irrigated area and income of farmers from sugarcane cultivation in village Kavhe. The coefficient of determination reveals that the independent variable (X) i.e, drip irrigated area is explaining 36.9 per cent of the total variations in dependent variable (Y) i.e. income of farmers from cane cultivation in the village. It is a good explanation because 36.9 per cent of the variations in (Y) income of farmers from cane cultivation to be influenced by the variable (X) drip irrigated and about 63.1 percent of the variation is left to be influenced by other variables i.e variation in soil type, variation in use of fertilizer, variation in high yielding varieties and variation consciousness of farmers. The drip irrigated area is found to be more effective than the other variables considering income of farmers. It is found that increase of one hectare drip irrigated area causes for increase of 85500 rupees yearly income of farmers in village Kavhe. Therefore it is to be stated that the high drip irrigated area is helpful to improve economic status of farmers. Public awareness should make regarding use of drip irrigation, water saving to increase yearly income as well as standard of living.

References

1. Merriam Webster's Collegiate Dictionary (2003): Merriam – Webster, Incorporated Spring field, Massachuselts, U.S.A. pp 6632.
2. Reddy M. V. & Reddy B. K. (1992): Changing Pattern of Irrigation In Andhra Pradesh, New Dimensions In Agricultural Geography Vol.-3, Pp. 239
3. Susan Mayhew (2004): Oxford Dictionary of Geography, Indian Edition, Oxford University Press, Dehli P. 280
4. Mishra S. (1988): "Irrigation Development and Economic Growth" Reliance publication New Delhi.

5. Murthy Krishna (1959): “The influence of Mettur irrigation and hydro-electric project on agriculture and agro industries in Puttukotal in Tanjore district of Tamil Nadu state”
6. Pandey (1979): Evaluation of Impact irrigation on Rural Development- A Case study of Command Area, Concept Publishing Company, New Delhi.
7. Socio-economic review of Solapur district 2017-18.



ANALYZING THE IMPACT OF GREEN MARKETING ON PACKAGING INDUSTRY WITH SPECIAL REFERENCE TO NASIK DISTRICT

Dr. Smita N.Pakdhane¹ Dr. Pournima D. Chavan²

¹Assistant Professor, Dept. of Commerce, K.S.K.W. ASC College, CIDCO, Nasik
Email- smitapakdhane@cidcollegenashik.ac.in

²Assistant Professor, Dept. of Commerce, Arts & Commerce College, Ashta
Email- manishadchavan17@gmail.com

Abstract

Green Marketing & Green Packing has become essential due to increasing environmental problems and challenges. Green Marketing is broad and wide area of activities and actions over different objects and areas in a business operation while green packing is a very specific activity with specific results. Green Marketing involves general green and green marketing practices and varies in the impact depending upon the object involved and the time frame of the implemented green activity. The necessity of going green is un-doubtable, the increasing pollution increasing carbon emissions and greenhouse gases as well as industrial wastage and nuclear threats are imminent and would be leading towards the destruction environment. Green Marketing and Green Marketing Practices have vast untapped potential scope. For a developing Country like India, thus the article is tried to know the roll and impact of green marketing on packing industry.

Key words: Green Marketing, Packing industry, packaging material, pollution etc.

Introduction

Packaging has an annual global turnover of about \$800 billion, and India's share is about \$18.5 billion per annum. According to a recent McKinney report, there will be a ten-fold increase in India's middle-class population by 2025, which will further trigger the increased consumption of packaging materials. This will bring another growth in requirement of packaging; the report also notes that the

country needs more packaging professionals. According to the Packaging Industry Association of India (PIAI), packaging is one of the fastest growing sectors, partly because it spans almost every industry segment, right from packaging of food and beverages, fruits and vegetables, drugs and medicines, to highly dangerous products and other industries. According to a report of New Delhi based Centre for Market Research & Social Development, packaging in India is highly fragmented and has 22,000 firms, including raw material manufacturers, machinery suppliers, and providers of ancillary materials and services. Moreover, 85% of these firms are Micro, Small & Medium Enterprises (MSMEs). The Indian packaging industry's total worth is about USD 24.6 billion. The average annual growth rate is about 13 - 15%. However, there is great growth potential since India's per capita consumption of packaging is only 4.3 kgs whereas neighboring Asian countries like China and Taiwan show about 6 kgs and 19 kgs, respectively. This clearly indicates that there are many more commodities which need to be marketed in packaged condition and thus, a great business opportunity stands for the Indian packaging industry. Moreover, the Indian retail market is the 5th largest retail destination.

Current State of Packaging Industry in India shows that -

India is the eleventh-largest packaging market in the world, with sales of US\$24.6 billion in 2011. The packaging industry is expected to grow at a CAGR of 12.3% during the forecast period, to become the fourth-largest global market, with sales of US\$43.7 billion in 2016. The Indian food processing market is one of the largest in the world in terms of production, consumption, and growth prospects. However, the Indian fascination for rigid packaging remains intact. It is estimated that more than 80% of the total packaging in India constitutes rigid packaging, which is the oldest and the most conventional form of packaging. The remaining 20% comprises flexible packaging. Rigid packaging constitutes glass bottles, metal cans, aerosol cans, battery cell cans, aluminum collapsible tubes, injection molded plastic containers made of PVC, PET, HOPE, and barrels made from HOPE, paperboards, and corrugated boxes. Although substrates like plastic

have gained vast acceptability, attractiveness of paper and paperboard consumption remains.

Packaging industry serves the following purposes in India:

Containment: To function successfully, the package must contain the product. Faulty packaging led to spillages, major losses and serious damage.

Protection and Preservation: Packaging plays a vital role in protecting products. The product is protected during transport from climatic effects, from hazardous substances and contaminants.

Supplementary Product Protection: This may be achieved by forms of cushioning such as papers, sheets of corrugated paperboard, foamed plastic, or wrappings. Thus, Packaging contributes to food safety, quality, and nutrition.

Communication: Modern methods of consumer marketing would fail were it not for the messages communicated on the package. The information provided on packaging allows the consumer to make informed decisions on the product's purchase and use.

Convenience: Packaging plays an important role in allowing products to respond to the demands and needs of modern consumers.

Environmental Aspects: When the food is packaged, the unwanted portions such as skins, outer leaves and trimmings, remain at the processing point where they can be economically recovered and used in the manufacture of valuable byproducts.

Marketing Trends: Marketing trends are placing increasing emphasis on the look, sales appeal, and quality of retail packaging. Packaging helps sell products by providing product differentiation and presentation, greater brand awareness and convenience.

Green Marketing Concept & Definitions:

Walker, R.H. & Hanson, D.J.(1998)Green Marketing and Green Places: A Taxonomy for the Destination Marketer. *Journal of Marketing Management*, July, pp. The article cites those green precautions or so-called green imperatives, or compulsory elements are different from marketing terminologies and that when used in destination marketing they acquire a larger meaning and

place in the marketing context. A complete list of such terms and references has been developed by the author for the destination marketers with Tasmania as the marketing destination. The article thus provides a completely new context to the green marketing bundle and its utility.

J.Ottoman(2004), clarifies that Green Marketing also possesses certain challenges because first of all Green Marketing Concept itself is very broad and diversified and consumers as well as manufacturers do not understand exactly to what extent they have to “go green”, there is a lot of confusion and chaos in the market and consumers are not even aware of the Eco-labels and what do they mean , also consumers do not trust the labeling and certifying authorities . Due to lack of knowledge on the part of customers, some marketers take undue advantage and make false or exaggerated green claims, this is called as Green washing phenomenon.

Green Marketing Process - The different stages of green marketing process have been explained as below-

Targeting: A Company needs to focus on the market comprising of the green consumers. The company can run advertisement for its products in green focused media. It can also innovate of a new green product along with its existing products. Further, it can altogether launch a new strategic business unit aimed at green.

Green design or New Product development: Developing a New Generation of Green Product Insufficient production processes and poor designing of products can be very harmful for the environment thus the companies should consider possible negative effects on the environment and minimize them at the beginning of New Product Development.

Green Positioning: Companies interested in positioning themselves as green should make sure that all the activities should supports its projected image and not to cheat the consumers.

Green Packaging:A business that manufactures and packages products can convert to eco-friendly packaging. Converting to biodegradable packaging provides customers with a visible symbol of the company's commitment to "going

green". The business can also leverage the eco-friendly packaging as part of its advertising program to help draw in new environmentally conscious customers.

Deciding about Green Prices: Consumers today are willing to pay only a small premium or no premium at all for the green products. Pricing may become a cause of concern when it comes to selling the product in the market, as its manufacturing may be expensive due to new technology involved. It therefore becomes the responsibility of the manufacturer to decide upon the pricing of the product.

Applying "Green" Logistics Distribution of goods can also be designed such that they leave minimum impact on the environment. Mere reduction in packaging and wrapping can contribute to a large extent in reducing the waste and saving paper. Efficient inventory management can also contribute in minimizing wastage in a big way.

Green Consumption: Changing the Attitude towards Waste, Waste generated always does not necessarily have to be an unhelpful result of production processes. A newer understanding of the idea of waste has given birth to a new market of recycled products.

Green Education: Electronic Press Kit include a company history, product brochures etc. A business could convert all of the documents and images into electronic files and offer the kit as a downloadable folder on its website. The electronic press kit requires no paper and no postage. The website could even indicate that the electronic press kit is part of an ongoing effort to reduce the business' environmental impact.

Authenticity If a small business owner tries to rebrand the business as green, but drives a fuel inefficient truck or SUV, the green marketing effort seems deceptive. Switching over to an electric or hybrid vehicle serves as another visible reminder that the business pursues a green policy. Green Marketing and Green Marketing Practices have vast untapped potential scope. for a developing Country like India, as the pace of Industrialization and economic development is expected to be much faster in India in next few decades which will lead to increased Green environmental deterioration. Green Marketing thus enables

not only environmental conservation and protection but also promotes greener ways of doing business. Green Products manufactured and consumed are helpful to Green Marketing. Green Marketing also promotes recycling of waste, scraps and leftovers of production processes which again serves two objectives firstly, it resolves major problem of Scrap disposal and Solid Waste Management and secondly, it enables production of additional utility products from waste thereby generating additional revenue from scrap and left over.

Research Objectives –The following research objectives have been considered for the present research study:

1. To identify different impact of green marketing on packaging industry of Nashik.
2. To ascertain whether green marketing provides benefits to the packaging industry.
3. To study recent green marketing trends in the packaging industry
4. To understand disadvantages of green marketing implementation.

Research Methodology – This paper is a research study based on a particular geographical area study conducted in around Nashik Districts, where a limited number of small and medium packaging units were visited, and their information was collected regarding implementation of green marketing practices in any form. The data collection instrument comprised of a questionnaire and the information was collected from the employees of the packaging units visited. Simple random sampling was used. Sample size of 30 packaging units was selected for the study. The samples were selected on the basis of geographical nearness and willingness to participate in the research study on random basis. For analyzing the impact of green marketing on the packaging industry and to study the recent trends regarding green marketing trends Five-point Likert Scale have been used for rating and ranking.

Scope of the study

1. All types of packaging organizations are considered for the present study.
2. Packaging Organizations from Nashik districts have been chosen as samples for the study.

3. Organizations implementing green marketing practices are considered as valid samples for the study.

Limitations

The study has following limitations:

1. Study and the data gathered is restricted only to Nashik districts.
2. Study is pertaining to packaging industries who have adopted green marketing practices.
3. The green marketing practices use in sample units has been studied in the research so the applications have been studied.
4. Research is focused on impact of green marketing on the performance of the organisation.
5. The findings and conclusions of the present research study are applicable only to the packing units of the selected geographical area sampled under this study.

Data Analysis Table 1: Impacts of Green Marketing on Packing Business (1= Critical Impact , 2= Significant Impact, 3 = Neutral, 4= Negligible Impact, Least Impact)

Sr. No.	Impacts of Green Marketing on Packing Business	Rating					Total Units
		1	2	3	4	5	
1.	The cost of procurement, manufacturing and distribution increases	9	6	3	5	7	30
2	Eco-friendly packing is unattractive hence it affects sales	3	2	3	9	13	30
3	Durability of packing increases	13	5	2	6	4	30
4	Scrap disposal/ Solid Waste Management can be done easily & ecologically	14	6	4	3	3	30
5	Enables unique product positioning & enhanced brand identity	21	4	0	3	2	30

6	Enables easy product differentiation	27	2	0	1	0	30
7	Ecological packing increases off take of green packed products	25	2	0	2	1	30

The above table clearly shows that the impact of green marketing is very critical on all related aspects of the packaging industry. Green marketing helps in product differentiation and product positioning in market along with reduce environmental pollution

Table 2: Benefits due to the implementation of green marketing

Sr.No.	Benefits of Green Marketing	Yes	%	No	%
1	Enhanced Product identity & positioning	17	56.6	13	43.3
2	Enhanced Product image	18	60	12	40
3	Enhanced customer perception & belief	11	36.6	19	63.3
4	Increase in Sales	13	43.3	17	56.6
5	Enhanced perception of business associates	14	46.6	16	53.3
6	Increased Investor belief	08	26.6	22	73.3
7	Positive message to customers by standing for a social & environmental cause	15	50	15	50
8	Enhanced Company Image (Green Company)	19	63.3	11	36.6
9	Recognition & Support by Govt. , Environment Protection Agencies & NGO's etc	14	46.6	16	53.3

The benefits of practical applications of green marketing are clearly shown from the above chart. The green marketing support in product positioning, improve product image, increase customer faith in product, generate positive message for society along with improve company or business image in market.

Table 3: Recent Green Marketing Trends

S. N	Green Marketing Trends	1st	2nd	3rd	4th	5th	Total
1	Predominant Shift towards Green Packing from traditional packing	18	5	0	4	3	30

2	Increase in efforts of Packing Organizations to project eco-friendly image	15	3	0	6	6	30
3	Increase in export Oriented green packaging	10	6	2	7	5	30
4	Green Packing is preferred by the customers	16	5	0	5	4	30
5	Increasing Market Pressure for light, convenient & eco-friendly packaging	14	4	2	6	4	30
6	Movement towards sustainable packaging	21	3	0	5	1	30
7	Increase in International demand for green packing coupled with green products	18	5	0	5	2	30

The above table express the recent trends in green marketing like sustainable packaging, increase demand for green products, shift from traditional system to green system etc.

Significance of Green Marketing for the Packaging Industry:

1. The damage is so vast that human beings have to devise and design a new way of life and green marketing is the first step towards that sustainable way of life.
2. Reduce, reuse, and recycle have become mantra for the modern businesses but at a cost; green marketing is that effective method which enables reduction in the above cost. Green marketing points out the fact that why only the product needs to be green.
3. Green marketing thus ensures the overall interest of the organization as the voluntary exchanges will not occur unless and until both buyer and seller get equal benefits and thereby it ensures safeguarding and protection of nature during such exchanges.
4. Green marketing is a holistic process that predicts, identifies, and satisfies in an environmental and ecologically sustainable pattern the needs and wants of the consumers as well as the organizations..

Essence of green marketing lies in its 20 rules:

Green is mainstream: Today consumers become more aware of sustainability and planetary survival more and more people are shifting towards going green.

Green is cool: Today's consumers feel a sense of pride and feel they are contributing towards a major cause in showing off their green purchasing and living habits.

Greener products work better and worth a premium price: ages of technological evolution have played a main role in allowing performance improvements in green products today. Today's green products show immense ability to perform on level with non – green or conventional products. Green inspires innovative products and services that can result in better consumer value, enhanced brand value, and stronger company, product development are considered to be paying handsome returns in the business as well as creating shared benefits for both business men and the consumers.

Values guide consumer purchasing: Today's smart consumer wants to be aware of the complete product or services life cycle aspects when buying a product or service. Buying today is just not buying a brand; it has additional sides such as environment and social causes.

Life Cycle approach: Green tag involves many shades to a complete green product. Just one aspect of a product being green can still create the environmental damages that a complete green product may be able to avoid and hence the focus should be on a complete life cycle green process rather than one aspect or partly green.

Manufacturer and retailer reputation count: As customers become more knowledgeable, they would seek to know more about raw material used, how were the labour treated at a facility, were high standards used in the process etc and provide update with the changing attitudes as green products go mainstream.

Save me: It's about health, safe environment, sustainability, best performance in less money, LOHAS, control over quality, demanding for a win-win product

and much more. The need is for energy efficient, organic, re-cycling, economic prosperity with active consumer involvement.

Businesses are philosophies: Today the firms and business doers are known by “WHAT THEY STAND FOR” along with the service and products in the markets. There is a big shift in the way as look at service providers and how we recognize them.

Sustainability is a business philosophy, now: It is an integral part of the complete business process starting from energy use, raw material procurement, manufacturing, testing, quality controls, packaging, and marketing. Every step needs to be socially responsible for the product to qualify as a complete green product.

5 R and 1 D Purpose of Green Packaging



Reduce, that is packaging reduction. For the premise packaging products to meet the protection, facilitate the logistics, sales and other functions, it tries to use as little material as possible. To implement the measure of appropriate amount of packaging, the company should design to try and make the package of thin, lightweight, and never use packaging without the need for it.

Reuse means repeated use of packaging. After simple treatment, the containers can be reused. Reuse of containers can significantly reduce waste volume.

Recover, Refers to the use of packaging waste combustion to obtain new energy sources, and does not produce secondary pollution. Through the recycling of packaging waste, production of renewable products, such as the use of thermal incineration, composting and other measures to improve the land condition, to achieve reuse purposes.

Recycle, As far as possible to use low power, low-cost, low-pollution raw materials as packaging material, in particular, the selection of recycled materials should be expanded, which can not only reduce environmental pollution but also saves raw materials, and be propitious to recycling resources, such as production of recycled paper board and plastic.

Research includes information of product ingredients, price, usage data and other, which is relevant for consumers. Besides it serves marketing strategies as an instrument to increase appeal of items to consumer. Packaging does also control the size and quantity of a product. This is beneficial for companies to control inventory and manage logistics of their product assortment.

Degradable, is the ultimate packaging waste that cannot be reused, should be able to degrade, corrupt and do not form a permanent waste. For example, select biodegradable packaging materials of paper as more as possible.

Benefits & Advantages provided by the Green Marketing to the Packaging Industry:

1. Health friendly for human beings and animals.
2. People using green products are more confident because they are reducing the chances to harm themselves.
3. People are not spending money on green products rather they are investing on health
4. These expensive products will pay them in long-run.
5. Using green products in household also educates the society, family members and other about the issues related to health.
6. People can keep them away from the hazards of chemicals and toxins.
7. Green products are basically based on the concept “reuse, reduce and recycle”.
8. Helps in reducing pollution, decreasing the destruction of forest and helps in nurturing the Eco –system in a desired way.
9. It saves money in long run, though initially the cost may seem more

Disadvantages / Challenges of GreenMarketing for the Packaging Industry in Maharashtra:

1. New Concept: It's still a new concept for the masses, more needs to be done to spread awareness on green initiatives and its benefits.
2. Cost Factor: large capital investment is required in moving towards greening.
3. Educating customers: Huge efforts are required in educating the largely un-informed customer base.
4. Reluctance: more research needs to be done before stakeholders can be convinced about return on the investment numbers.
5. Price sensitive consumers: explanation must be given to customers why they are paying more green products.
6. Lack of clear standardizations: In India much needs to be done to setup green standards for different businesses to prove authenticity claims.
7. Green Sheen: cases of deceptive marketing do not help the image of green products in winning over customers.
8. Vague credibility: False or misleading green marketing claims made by businesses that do not undergo proper certification but still want to appeal to environmentally conscious consumers can damage the credibility of the whole sector. Consumers have a hard time distinguishing between simple green advertisements and valid, certified claims.
9. Deluding information: Green marketing can lead to consumer awareness, but it also runs the risk of deluding consumers with erroneous information. There is always a danger that the marketing of these products or services may send a message that might lead to behavioral change with substantial adverse effect on the environment and society in the future.
10. Gap between sustainable intention and behavior: Although most consumers might claim they are intending to follow a sustainable lifestyle and they want to buy green products, when it comes down to actually transforming these intentions into actions, only a fraction of people actually do it.
11. Price premium: Only a very small fraction of the population is willing to compromise performance, quality or price in exchange for environmental

performance in their purchasing decisions, diminishing the motivation for businesses to venture into green production and marketing.¹⁵

12. Information gap: The number of people who are truly familiar with a wide range of green products or their benefits for the environment is still quite low. The US American environmental labeling program, ENERGY STAR, for example, was only known to 56 per cent of American citizens some 12 years after its creation in 1992.

Conclusions :

Easy product differentiation, Easy offtake of eco-friendly packed products , unique product positioning with enhanced brand identity are some of the major impacts of green marketing implementation on the packaging industry of Nashik, Dhule and Jalgaon districts. Packaging Industry is shifting towards sustainable packaging, hence shift towards sustainable packaging, increase in demand for green packing (both national and international), customer preference to eco-friendly packaging and increased efforts by the packaging companies to project green image are major recent trends as observed in the current research study. Enhanced Company image (i.e green image), enhanced product image, enhanced product identity as well as enhanced product positioning are major benefits for the packaging industry due to implementation of green marketing. Increase in overall cost of operations, confusion regarding exact standards of becoming green, increase in selling price, green marketing being a new concept is difficult, customer education and communication regarding green marketing are the loop hole areas for the packaging companies which are nothing but disadvantages of green marketing implementation.

References :

1. Green Marketing Thesis by Dr. Apoorva Pakdhane (K.B.C.N.M.U, March 2018)
2. Ottoman, J., Stafford, Edwin and Hartman, Cynthia L (2006, June) , Avoiding Green Marketing Myopia. Environment Journal , Vol.48

3. Unruh, G. and Ettenson, R. (2010, June), Growing Green: Three Smart paths to developing sustainable products, Harvard Business Review, Vol.5(6).Boston
4. Sharma, A., and Joshi, G. (2006, March), Environmental Issues of India. Indian Journal of Environment Protection, Vol.26(3), Pg 263-267
5. .Chaudhary , R . and Bhattachary, V.(2006, November), Clean Development Mechanism: Strategy for Sustainability and Economic Growth, Indian Journal for Environmental Protection.Vol.27.
6. Rana, Z.(2010, February), Challenge to Business: Changes in India's Marketing Environment.
7. Indian Journal of Marketing, Vol.40(2), New Delhi.
8. Kevin Lane Keller (2007, June), Strategic Brand Management: Building, Measuring and Managing Brand Equity, Pearson Education Ltd, New York
9. Ottoman, Jacquelyn , (2011, Feb.), The New Rules of Green Marketing:Strategies , Tools and Inspirations for Sustainable Branding, Greenleaf Publishing and Berett – Koehler Publishers, New York
- 10.Ottoman, Jacquelyn, (1997, Sep.), Green Marketing : Opportunity for Innovation , 2nd Edition , NTC Business Books ,New York
- 11.Sanders , James R.,(2001), Emotional Marketing Techniques, Sanders Consultation Group, New York
- 12.Uberio, K.N., (2007), Environmental Management , New Delhi , Excel Books
- 13.Pandey, N.G. , (2007), Environmental Management , New Delhi, Vikas Publishing House Pvt. Ltd.



INFLUENCE OF DIGITALIZATION ON LANGUAGE

Dr. Uttam Ramchandra Patil

*Professor & Head, Department of English, Rajarshi Shahu Arts & Commerce
College, Rukadi, Tal. Hatkanangale, Dist. Kolhapur (MS) INDIA*

Email- uttamnayana@gmail.com

Abstract

Language is a purely human phenomenon. It is a means of communication whereby humans exchange their ideas, emotions, and information verbally. Every human community has its own language which keeps evolving along with the evolution of the community. In the course of time societies advance. This advancement brings the emergence of new fields of knowledge. Things which were beyond our conception before a century or two have become our routine today. The advancement in science and technology has opened new horizons which can be realized only with the help of language. Our world is the collage of languages and the language which acculturates with the new fields of knowledge is bound to dominate the other language. This may lead to linguistic imperialism. Each and every change in human society influences language. Digitalization has become an indispensable part of all the fields of modern society. Undoubtedly it has its influence on language. The present paper attempts to discuss the influence of digitalization on language.

Key words: Language, evolution, knowledge, digitalization, linguistic imperialism

Every species in this world requires knowledge for its survival in a better manner. Knowledge refers to facts, information, skills acquired through experience. It means awareness acquired by experience of a fact or situation. Actually, it is the understanding of a subject which can be either practical or theoretical. For example, a baby understands what to eat and how to eat through observation and by experience. If it happens to eat the green leaves of a neem

tree, by experience it would acquire the knowledge that the leaves of neem are not for regular consumption. Moreover, knowledge is shared with the help of communication systems. The communication system differs from species to species. The communication system can include physical actions such as dancing in birds, beating chests in gorillas and other monkeys and giving calls. When it comes to human beings, language is used as a communication system. It is species specific and species uniform. Species specific means only human beings use language and species uniform means all human beings use language. Language is a means of human social communication. Human brain has miraculous reasoning power with which humans can conceive a variety of ideas which can be realized socially only through language. Subsequently, the scientific and technological innovations are the consequence of human reasoning but the realizations of these innovations are done with the help of language. Naturally with advancement of the society its language advances. Language bears the influence of each and every change in the society. It is a naming system in which every tangible and intangible thing, quality and action are named. According to Guy Cook, Language is at the heart of human life. Without it, many of our most important activities are inconceivable. Try to imagine relating to your family, making friends, learning, falling in love, forming a relationship, being a parent, holding—or rejecting—a religious faith, having political ideals, or taking political action, without using words. There are other important activities, of course, which do seem to exist without language. Sexual relations, preparing and eating food, manual labour and crafts, the visual arts, playing and listening to music, wondering at the natural world, or grieving at its destruction. Yet even these are often developed or enhanced through language. We would perceive them quite differently had we never read about them or discussed them. (2003, p. 3)

In this way, the language of a progressive society progresses in the course of time. English is a very good example of this. Some centuries ago English was the language of a small island but presently it has emerged as a global language. On the other hand, the languages like Greek, Latin and Sanskrit which once used to be very significant languages having prestige, but now no more bear the

same status. Today's is the world of information technology. There has been the experience of the explosion of information. The world today has almost shrunk into a global village. The advancement in science and technology has enabled us to have better and quick access to and contact with the world around. English has played a key role in this process. It can be called the language of digitalization. So it has the influence of digitalization. At the same time, English has influenced the other languages which find it difficult to operate without digital technology. In this way it is possible that all the modern languages in the world have some influence of digitalization. This paper attempts to present the nature of the influence of digitalization upon languages. Digitalization means integration of digital technologies in day-to-day life. It includes processes like computerization, electronization and digitization. Computerization refers to the process of taking the new activities on computer and fixing them into that space. Electronization is a process of publishing a paper-based item electronically and digitization is conversion of analogue information in print or voice form to digital form with suitable electronic devices for the processing, storing and transmission of information through digital circuits, equipment and networks. Digitalization of language can be a never ending process. Language is creative. It has the ability to produce infinite messages with the help of limited number of symbols. Moreover, language is culture. It evolves with evolution of culture. Language is culturally transmitted. It is transmitted from generation to generation. Every new generation modifies language as per the need of the time. With every advancement, there is a chance of language modification which is attained through neologism which means the coining or use of new words. For instance, the word, 'aeroplane' was first used in late 19th century. Before that, there was no need to have such a word. On the other hand, the word, 'computer' was first used in a 1613 book called *The Yong Mans Gleanings* by the English writer Richard Brathwait. But then it meant 'a person who carried out calculation and computations'. The word came to be meant as 'programmable digital electronic computer' from 1945. This clearly shows how a language evolves with the need of the society. There are instances of neologisms under the influence of digitalization. Information Technology is a buzz word of 21st Century. It refers to the use of computers and technology to manage information. This is what we mean by digitalization of information which has influenced major language of the world. For the

sake of convenience, let us consider the influence of digitalization on the English language. There is no doubt that the process of digitalization has caused the English neologisms like applet, attachment, authentication, bandwidth, blog, Bluetooth, browser, buffer, cache, captcha, CD-ROM, courseware, cursor, cyberspace, database, dialogue box, download, DVD, email, emoticon, Ethernet, homepage, hyperlink, internet, JAVA, knowledge base, LAN, LINUX, log in, log out, modem, mouse, multimedia, nameserver, network hub, online, PDF, Quick Time, RAM, router, search engine, software, telnet, Twitter, upload, URL, VDI, virtual classroom, Wi-Fi, WWW, XHTML, XML, zip, zoom and many more. This list goes endless as language is open-ended. The other languages may not have equivalent words for the English ones mentioned above. They have to adopt these terms as they are. In this way digitalization may result into universalization of new terms. The field of IT is advancing so rapidly that we have no alternative but to keep up with new advances.

Furthermore, digitalization has enabled the languages to get the linguistic data updated easily. Digitalization has made the ordeal of the production of lexicon much easier. For instance, the first edition of the Oxford Advanced Learner's Dictionary was published in 1948. It took almost fifteen years to bring out the second edition of the dictionary in 1963. The third edition of OALD came out in 1974. Again it took fifteen years to publish the fourth edition of the dictionary and it was published in 1989. But the most important thing to be noted here is that in 1988 the first electronic version of the OALD was made available. The fifth edition of the dictionary was published in 1995 and in 1997 the first of its CD-ROM edition was published. After that, after every five years, the new edition of the OALD (Sixth edition -2000, Seventh edition-2005, Eighth edition-2010, Ninth edition, 2015 and Tenth edition-2020) has got published. No need to wonder. The whole credit goes to digitalization. Apart from that Oxford University Press has published myriads dictionaries such as Oxford Advanced Learner's Dictionary of Academic English, Oxford Learner's Dictionary of Academic English, Oxford Learner's Wordfinder Dictionary, Oxford Learner's Thesaurus: A Dictionary of Synonyms, Oxford Learner's Pocket Dictionary, Oxford Learner's Pocket Dictionary of Business English, Oxford Learner's Pocket Phrasal Verbs and Idioms, Oxford Learner's Pocket Thesaurus, Oxford Learner's Pocket Word Skills, New Oxford Intermediate Learner's Dictionary, Oxford

Advanced American Dictionary for learners of English, Oxford Basic American Dictionary for learners of English, Oxford American Dictionary for learners of English, Oxford ESL Dictionary, Oxford ESL Dictionary for learners of English and multitude of bilingual dictionaries English and regional national or local languages. Would it have been possible without digitalization? (Wikipedia, Oxford Dictionaries)

Another area which is the direct result of the influence of digitalization is the corpus linguistics which is a recent discipline of applied linguistics. ‘Corpus’ means a databank of language which has been actually used. The linguistic data can be in written mode or spoken mode or it can be mixture of both written and spoken modes. Guy Cook (2003, p.73) rightly points out: Before computers some headway was made in this kind of study by collecting printed corpora, laboriously reading through them, and manually recording facts. In recent years, however, corpus linguistics has been transformed by electronic storage and automatic searching. Millions of words can be searched within seconds to yield extensive information about word frequencies and word combinations. This is why corpus linguistics has made such extraordinary advances in the last few decades. There are around ninety to hundred English corpora. They include British Academic Spoken English Corpus (BASE), British Academic Written English Corpus (BAWE), British National Corpus, Michigan Corpus of Academic Spoken English (MICASE), Indian Corpus of English (ICE), Brown = A Standard Corpus of Present-Day Edited American English, COCA = The Corpus of Contemporary American English, DCPSE = Diachronic Corpus of Present-Day Spoken English (Oxford Handbooks Online,2012) and many others.

Digitalization has been significantly contributing in the preservation of languages which are on the verge of extinction. The endangered languages having only oral tradition or spoken form have been preserved with the help digitalization. However, the lack of proper software or programming it would difficult to preserve these languages digitally. Consequently some of these endangered languages could become extinct in the present digital world. It means that the languages which have been digitalized have chances to survive and grow in this era of digitalization. Language changes from community to

community. Each community is proud of its native language as it is a key to cultural identity and expression. Language is a cultural heritage of the community. If not digitalized most of the languages may be extinguished and the world may be ruled by the digitally powerful languages. This may result into linguistic imperialism.

To conclude, digitalization has influenced language in both positive and negative ways. It is useful in the preservation of language. It preserves the evolution of language by recording every minute change that language undergoes. Digitalization of language has made research activities pursuable with a few hardships but the languages which lack the digital support are endangered and they may extinguish in the course of time. In fact, nothing is eternal in this world. The languages which are utilized will surely keep progressing and those which will not be used will perish. Digitalization is the key aspect of today's life. We have to either digitalize our language or use the language which is digitalized, as this would enable us to have better life.

References:

1. Cook, Guy. (2003). Applied Linguistics: Oxford University Press, Oxford
2. Harwood Nigel and Bojana Petrić . (2011) 'English for Academic Purposes' in James Simpson (ed.) The Routledge Handbook of Applied Linguistics: Routedledge, New York.
3. <https://en.wikipedia.org/wiki/Computer>
4. https://en.wikipedia.org/wiki/Oxford_Advanced_Learner%27s_Dictionary
5. <https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199922765.001.0001/oxfordhb-9780199922765-miscMatter-10>



CASHLESS ECONOMY IN INDIA

Dr.Megha Vijay Patil

H.O.D. In Accountancy, M.V.P.Kanya Mahavidyalaya , Islampur

Introduction

aceless, paperless, cashless is one of the professed role of Digital India. Digital India is a programme to prepare India for a knowledge future. It should be the endeavor of the govt. to catalyze smartphone adoption that will ultimately achieve the real digitalization goal. Making the country digitally empowered in the field of technology means Digitalization. It was launched on 1st July 2015 by Prime Minister Narendra Modi..

Key words- cashless, digital, smartphone.

Objectives of the study

1. To understand the concept of Cashless economy.
2. To study the current situation of digital payments in India.

Research Methodology

This paper is based on secondary sources of information.The facts and figures are collected from the journal, books, website, and reports.

History of Transactions-

Prehistoric age -Barter system-

About 8000 years ago- In prehistoric age peoples were used to swipe valuable against an item they wanted from another person. shells, beans, grains, salt, livestock land were exchange for required object.

Bronze age- About 3500 years ago valuable metals bronze, silver and gold value used as a form of money.

Paper money- Chinese merchant invented the first form of paper money about 1,000 years ago.

Mediaeval age- 18h century 14th century the rise of cheques. In 17th century cheques became very popular . Concept of daily clearing started during the 1770s in London

19th century- money transfer- In 19th century

Bank transfers/ wire transfer started. In 1872 first wire transfer was launched by Western Union. Telegraph network was used for this transfer . Sender have to pay the money to telegraph office then the operator would have to message to another office and the funds were given to recipient.

20th Century- During the 20th century Bank started issuing plastic cards along with cheques known as cheque guarantee card. The first ATM card was issued in London in 1967. bythe 80s introduction of electronic point of sale terminals came in(POS). The cards were swept through a swiper for transactions.

The 21st century- Late 20th and early 21st century innovative technologies were invented for cashless payment. Cashless Economy. A cashless economy is one in which all the transactions are done using cards .Greater usage of digital /electronic payments means cashless economy. Indians traditionally prefers to save and spend in cash. They were not ready to go for cashless transactions. The reasons behind it were lack of awareness, security reason, limited availability of mobile phones and internet facility.

Benefits of Cashless Economy

Ease, transparency and faster transactions

Cashless economy will reduce tension of keeping full of notes along with us.

One step solution for all kinds of cash transactions such as –

1. Bill payment
2. Fees payment
3. Funds transfer
4. Recharge

It will ensure Black Money Free India.

Increase in span of the income tax.

It will enhance the revenue received by the govt.

Digital payment is made by-

1. Aadhar Enabled Payment system
2. Unified Payments Interface
3. Mobile Wallets
4. Banks Prepaid Cards

5. Point of sale
6. Internet Banking
7. Mobile Banking
8. Micro ATMS

A smart phone has all the capability to become the central & important point in Cashless Digital Economy. A sharp increase in the use of mobile phones with internet connectivity is very helpful for digital transactions. Personal internet banking has become more popular in India. Digital India has continued to make new progress. UPI payments is playing a big role in this moment. UPI means Unified payments interface developed by National payments Corporation of India. Works for transferring funds between two bank on mobile or web platform.

There are best 5 UPI apps in India

- 1 phone pay
- 2 Google pay
3. Paytm
4. Amazon pay
5. Bhim app

Number of Digital Payments In India

Sr. No.	Year	No. Of Digital Payments in Billions
1	2018	14.59
2	2019	23.26
3	2020	34.12
4	2021	43.71
5	2022	74.22

The above table shows the no. of digital transactions recorded. In 2018 no of digital payments recorded were 14.59 billions. This no increased in March 2022 upto 74.22 billions. Due to covid-19 in India there is a massive increase in the number of people opting for online financial payments.

Problems In Cash Less Economy

1. Cyber crimes will increase.
2. Hike in the hacking of the personal information

3. Poor section of India who is covered under conventional banking system will suffer allot
4. Low literacy rates in rural area.
5. Lack of internet facility.

Conclusion

Under the program of digital India the Government of India aims to transform India into a digitally empowered society. Government is taking several measures to promote digital payments in the country. Finance minister Nirmala sitharaman made an announcement during the budget 2022 speech to setup 75 digital banking units in 75 districts and inclusion of all 1.5 Lakh post offices under the core banking system, financial support, digital currency. It will be Helpful for faceless ,paperless ,cashless economy.

References

1. www.cmai.asia
2. deity.govt.in
3. my.govt.in
4. www.statistic.com
5. indianexpress.com



A COMPARATIVE STUDY OF THE OPPORTUNITIES AND CHALLENGES OF DIGITAL MARKETING

Kalyani Navnath Shinde

*Shardabai Pawar Mahila Mahavidyalaya, Shardanagar, Tal-Baramati, Dist-Pune
Email- 413102, Maharashtra, India*

Abstract

With the onset of internet reform and economic growth of country. Consumer expectation and need have formed a shape where comfort and delight service has become vital criteria for product selection. Several brands in market keep working to evaluate the changing need of consumers developing suitable product and finding market place to reach the right customers. This digital reform has paved a new marketplace on internet where everything and anything is available to explore and review and have a virtual feel. India is a growing economy country and has been considered in the article to brief insights into the scope of different digital trends and future scope. In 2019 summit of united nations, leaders spoke about borderless economy reforms connecting new business players to invest in growing economy country. Here, to bring borderless and seamless economy, digital platform will play a major role for entry player as well as big MNSs evaluated in the need section of digital marketing.

Keywords: Digital marketing, internet, online advertising, online marketing opportunities and challenges.

Introduction

It is hard to imagine a world without the internet now. Billions of people are connected worldwide via the internet from searching for information to shopping for groceries or banking the internet has become an essential part of our day-to-day lives. In the age of COVID-19 when thousands of people are going online for entertainment and more, it has caused total internet hits to surge at least 60% during this out break period.

As of April 2020, almost 4.57% of the people were active internet users. That is 59% of the global population with more than half the world's consumer going online, any business owner should also consider going digital. After all marketing is about finding the right audience at the right place and at the right time. To do so, you'll need digital marketing. Digital marketing is all about using data to realize marketing objectives. It is the art of using consumer insights to formulate marketing strategies targeted at particular groups of customers online. Digital marketers leverage digital channels such as search engines, social media, email and web-sights to help their clients connect with existing and potential customers. They then proceed to collect data gathered from these digital channels [such as impression or likes on instagram] and google analytics to plan their marketing strategy.

Objectives

1. Compare the opportunities and challenges of digital marketing
2. To study the negative and positive aspects of digital marketing
3. Importance of digital marketing

Research Methodology

For the purpose of the present study, mainly secondary data have been used. The required secondary data were collected from the journals, research papers, websites, various reports and newspapers articles published online.

The Biggest Challenges and Opportunities in Digital Business Today

Challenges:

Meeting anticipation of customers in the digital age

The mobile always on generation presumes very different proficiencies from companies and organizations including public administration according to a recent Harries poll, 82% of US corporate executives said that customers expectations of their company were "somewhat"[47%] or "much"[35%] higher than they were three years ago. Nobody wants to wait in line for service any longer. Instead they want to be able to arrange their whole lives online.

Managing the omni-channel reality

You cannot fight fragmentation consumer side, the fragmentation is nothing you can change on the country it will only get worse. New devices ,IoT ,

in car entertainment the apple watch, wi-fi on airplanes..... all complement together to make a fragmentation of channels. That means that companies need to homogenize of the inside with a digital business platform so they can keep track of what is happening across all these channels. But today the realism is that many companies have fragmented systems in house, instead of a single policy to rule them all.

Big data

Big data is offering companies with new opportunities to learn more about their customers, enabling them not only to personalize products and service, but also to change their product development procedure to replicate what people really want. However, companies are still aggressive with accomplishing consumer confidence on this issue, as many consumers are turned off by hyper- personalized offers that seem to computer their personal space.

How to promote a small business on a limited budget

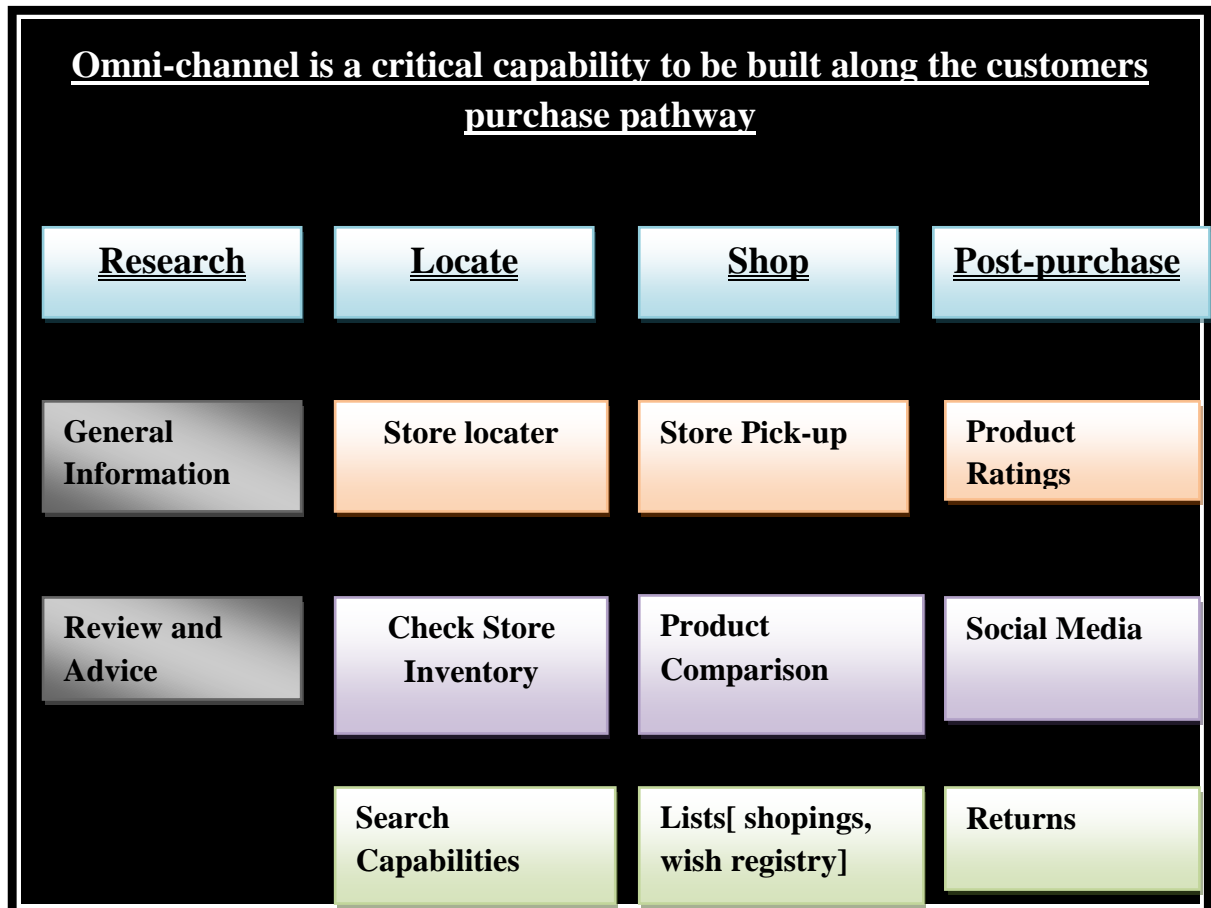
Promoting a small business that has a narrow budget is always a challenge google's search algorithm is a little predisposed towards brands, although the search engine giant denies these claims. How to use influencer marketing as the unlimited strategy for branding? Influencer marketing has gained impetus. The ideal formula for finding the value of particular influencer is derived by the below formula: Influence = Audience reach *Brand Affinity* Strength of relationship with followers.

How to keep the web-sight safe from google panelties

Google has taken some strict measure to combat web spam and this has eventually helped SEOs and digital marketers to see real value by adapting to organic marketing strategi instead of web spam keeping web-sight safe form google panelties is really easy if you don't it on any newbie's hands who promise to get you rankings and traffic in a few weeks.

How to measure online success

As per Julion saunders CEO, high impact SEO, "Measuring online success has always been a challenging task one of the requisites still remains segmenting your audience and demographics and determining the key channels motivating conversation."



Source : BCG Analysis

Opportunities:

Digital disraption from within :-

Disruption is the term of game, with reputable players being persistently displaced by new comers that are digital group. If you can't beat them join them at their own game. Existing companies need to disrupt themselves like steve jobs did when the stopped making their best selling ipod to introduce a newer version of it the IoT and becomes provides .

Show-rooming is a big challenge for retailers, as consumers continue to increase their online shopping:-

But lately, there's also been a drift towards web rooming ,with people checking out items online before buying them in the store. And once people essentially come to shop, retailers have the opportunity to keep them there and upsell or make them long term customers, using opportunities here.

Digital workforces and new ways of working :- Startup these days can work with very small in house teams. Yet still take on the big boys by using the

web and technology to generate terms per project. This way to working can be very rewarding because employees are not trapped in company, but work only one projects they care about, and where their passion makes a huge difference to the outcome.

The internet of things[IoT]:-

Using becomes and oculus solutions to expend customer experience the IoT is linking people and devices with each other in an unparallated way, creating rich potentials for customers engagement. Timing is the crucial element here if you're too early you could fail and if you're too late. You may lose your place in your industry, and ultimately fail.

Negative and Positive Aspects of Digital Marketing Positive point of digital marketing:

Higher quality web-sight traffic:-

Different showing works neighborhood SEO, web based life- performing and paid publicizing include what's called focusing on. Focusing on alludes to narrowing the focal point of your end avours to draw in just the individuals who'll be generally inspired by what your organization does or offers. On the off chance that you have a site. Such focused on end avours will attract excellent traffic on that site.

Better conversation:-

Web based advertising prepares for better transformation rates. Getting leads for your online business is simpler than customary disconnected promoting. Feature the torment purpose of your intended interest group and you will end up being your clients top choice connecting with your focused on crowd is a lot simpler.

Building a network with industry leaders:-

Other than contacting focused on the crowd having an online nearness makes the entrepreneur manufacture a productive system with the master built up industry pioneers.

Digital marketing is cost effective and time effective:-

To channelize an effective computerized promoting effort. You need a serious less or no beginning up capital. You may start with blog advancement online long

range informal communication and email promoting. These incorporate lesser venture appeared differently in relation to conventional promoting strategies. A disconnected traditional advancement like the day by paper, radio, T.V and banner may cost an enormous number of bucks.

Disadvantages of digital marketing:

Trust :-

Inevitably some page guests consistently have questions about specific administrations and items yet fortunately this favourable position can likewise be dispensed with through setting tributes on your page, qualifications, authentications, having a portfolio and that's just the beginning.

Time online marketing can be very mind:-

Boggling and which is the reason it requires time and devotion. For the acknowledgement of substance, posts and the general organization of the page could be wiped out with proficient help like the one we offer at elite online media.

Rivalry:-

Perhaps the greatest drawback to web-based advertising is the hardened rivalry. It tends to be extremely hard to make your business and data stand apart with organizations around the globe contending.

Importance of Digital Marketing

1. Lower costs and higher flexibility for your marketing efforts.
2. Access to consumers who rely on their mobile phones or do all their shopping online.
3. The ability to speak with authority on topics related to your products or industry.
4. A chance to engage with influencers, earn their respects and get them to endorse your company.
5. Opportunities to incorporate multiple types of media into your marketing.
6. The ability to track customers purchase journeys.

Conclusion

This paper deliberated the challenges and opportunities in the ever expanding area of e-marketing. This field needs relentless learning. One cannot oversee the fact that it is a technology determined approach. There is a dreadful

need to keep abreast of the latest developments in the field of computer science and information technology. Poorly created and executed programs create mistrust amongst clients and marketers spam. Identity theft, meddling advertising, technical snags, not keeping terms with contract, agreements, gap between ordered products and actual deliveries have created profound mistrust in e-marketing. Hence the growth of e-marketing depends also on the growth of business ethics on the one hand and consumer protection laws on the other. In other words, the signifying in particular is enormous which can be addressed with skill development in the field of information technologies, while one has to adopt caution.

References

1. <https://www.google.com/url?sa=t&url=https://www.tutorialspoint.com/digital-marketing-introduction>
2. <https://www.google.com/url?sa=t&url=https://stallions.com/blog/introduction-digital-marketing/&ved=2ahukewifje>
3. <https://www.academia.edu/8512383/online-marketing-challenges-and-opportunities>
4. <https://www.quora.com/what-is-the-positive-and-negative-point-of-digital-marketing>
5. <https://www.ballantine.com/10-indeniable-reasons-need-digital-marketing>
6. <https://www.linkedin.com/pulse/internet-india-statistic-opportunities-challenges-arun-n-nair>
7. <https://en.wikipedia.org/wiki/digital-marketing>



A STUDY OF INDUSTRIAL UNITS AWARENESS ABOUT THE DIGITAL MARKETING TOOLS WITH REFERENCE TO KOLHAPUR DISTRICT

Dr. A. K. Patil¹, Santosh Ashok Hodge², Yogesh Jaysing Jadhao³

¹*Associate Professor, Department of Economics, Sadguru Gadage Maharaj College,
Karad, (MS) (An Autonomous)*

²*Research Scholar, Department of Commerce and Management, Shivaji University
Kolhapur (M.S)-416004.*

³*Technical Officer, ICAR-Central Citrus Research Institute, Amaravti Road,
Nagapur (M.S) 440 010*

Abstract

The current research work is on digital marketing awareness and tools. The use of electronic media by industrial units to promote products or services in the global market with good prospective clients. The main goal of digital marketing is to attract customers to a brand through digital media such as mailing, text messages, social media, and websites, among other things. However, industrial companies are facing new challenges and opportunities in this digital age as a result of increased awareness of digital marketing tools and budget allocations. In this article study on the importance as well as awareness about the digital marketing for industrial units and also benefited of additionally the differences between traditional marketing and digital marketing and also fund as well as human resource allocation. Therefore, the data were used to compile from both primary and secondary sources. Industrial units in the Gokul-Shirgaon MIDC provided the primary data. A total of 90 industrial units produce on various scales, including small, medium, and big. This is one of the oldest and most vertical industries in the manufacturing and service industries. Hence, the researcher has selected 90 industrial units and using a simple random sampling. Primary data was gathered in the field using well-structured questionnaires. With the use of numerous statistical

tools and techniques. The information is analysed and rated using percentages. This research has examined several types tools use and awareness of digital marketing, as well as their fund and human resources allocation on sales activities for digital marketing.

Keywords: Digital Marketing, Awareness, Social Media, Fund and Human Resources Allocation.

Introduction

Since the 1990s and 2000s, digital marketing has evolved, and it has revolutionized the way brands and businesses use current technology and digital marketing to grow their marketing around the globally. All marketing initiatives that leverage the internet benefit from digital marketing. To engage with present and potential customers, businesses use digital channels such as search engines, social media, email, and their websites. Traditional marketing is underinvested in comparison to digital marketing such as Online advertising, email marketing, social media, text messaging, affiliate marketing, search engine optimization (SEO), pay per click (PPC), and other forms of digital marketing are used to reach out to potential clients. Customers' buying habits have altered as a result of rapid technological advancements in digital marketing. It provides consumers with a number of benefits, including the following: More engagement, more clarity about the products or services, Easy to compare to others, Shopping available 24 hours a day, sharing product or service content, and transparent pricing. Digital marketing is an electronic communication channel used by marketers to promote their products and services to the appropriate market. Customers can also fill out a feedback form, ask questions, and offer ideas regarding the company's products and services. It is primarily communicated via social media, websites, chat, and email. Campaigning is easier with digital tools than it is with traditional marketing. Although the content is open to the general public, it will be targeted to a specific audience using search engine tactics.

Review of related literature: Studies on Digital Marketing awareness as well as tools have been reviewed in the literature. Based on the current literature review, it has been found that digital markein tools reach out the prospective

lead with minimum cost and also allocate the funds.(Yulihastri, 2011) Digital marketing enables internet services to make purchases for consumers 24 hours a day, according to their requirements, and to be paid. Prices are transparent in digital marketing. It entails less work-to-work transactions. (Soheila Bostanshirin- 2014) in this article has described the online marketing framework guided by insights from such a consideration, but it has not detailed the exact fund allocation or how the fund is used for digital marketing. (Afrina Yasmin, Sadia Tasneem, Kaniz Fatema -2015) has discussed about the companies should create innovative customer experiences and specific strategies for media to identify the best road map for driving up digital marketing best performance. (Sathya P.-2015) has examined the 100 respondent digital marketing results based on firm sales to obtain a clear picture of the current digital marketing study. (Sanmathi Anbumani-2017) examed current article summarizes the current state of digital marketing difficulties and solutions, but it does not go into detail about the challenges or the usage of digital media technologies. (Vaibhava Desai -2019) In this article focuses mostly on the conceptual foundation of digital marketing, as well as how digital marketing benefits today's businesses. (Chandan Kumar Mishra-2019) the majority of this article refers to a study on the present demand of people for digital marketing, which is confined to their optimum and safe use of the Internet for E-commerce websites. (Anna Makrides, Demetris Vrontis and Michael Christofi-2020) has been given the fast-paced nature of the digital environment, this essay will be especially useful in developing theoretical frameworks in areas where there is a lack of theoretical foundation. (Uma Sharma, Thakur,K. S. -2020) he has investigated the impact of digital media on client purchase behavior on a day-to-day basis. Consumers have been purchasing goods and services over the website via e-commerce. The majority of industrial businesses do not understand how digital marking may help them expand.

Profile of industries: Gokul-Shirgaon MIDC outstanding in metal casting Industrial units as well as services based production output throughout Kolhapur district and Maharashtra state. It is the manufacture of several types of units like textiles, engineering, and oil engines. However, Industrial units

production units are critical to the growth of the economy. As a result, workers are needed in Industrial units to produce products such as automobiles, agricultural pumps, spare parts of tractors, two and four wheelers, and so on. The Gokul-Shirgaon MIDC has been supplying parts as well as brought the raw materials all over India as well as exporting to international markets and also generates the direct as well as indirect employment and also trading on E commerce plat form. Gokul-Shirgaon MIDC has acquired around 219 hectares.

Methodology

The Gokul-Shirgaon MIDC in Kolhapur was chosen by the researcher. Most industrial facilities in the manufacturing and service industries, in small, medium, and large capacities, use the Gokul-Shirgaon MIDC. The manufacturing and service sectors of 90 industrial units have been chosen. For the researcher study, a simple random sample procedure was adopted. In the Gokul-Shirgaon MIDC area, a total of 90 respondents were chosen at random from industrial units.

Data Collection

The study's data were gathered from both primary and secondary sources using well-structured questionnaires, with secondary data coming from a variety of books, the internet, and respected journal papers, among other places.

Tools and Analysis

Interviews with 90 industrial units were used to gather primary data for the source. The information was analysed using digital marketing data structures, which included classifying, tabulating, and analysing the information as well as interpreting the results. The central tendency was subjected to a descriptive analysis. A Chi-Square test with one-sample test was used to evaluate the hypothesis.

Objective

To study the situation and raise awareness about the digital tools used by Industrial digital marketing.

Hypothesis

The Industrials units have awareness about the Digital marketing tools.

H0: The Industrials units are not aware about the Digital Marketing.

H1: (At least more than half of) the Industrials units are aware about the Digital Marketing.

Need of the Study

To investigate the situation and increase understanding of the digital instruments used in industrial digital marketing. The researcher did a study to determine the efficacy of Industrial units expanding the business in terms of digital marketing tools monitoring and awareness in the Kolhapur Industrial unit's industry in order to improve reach out to customers all over the world. As a result, they will be more aware of digital marketing and will find it easier to engage with clients through it. The researcher conducted a study on industrial units' usage of digital marketing, as well as suggesting and emphasising the importance of and proper legislation with fund utility.

Scope of the Study

Determine and analyse industrial units, social media awareness, medical awareness, and tools on the point of company site through digital marketing. This research has aided digital marketing in terms of offering training as well as raising finances, and it has necessitated the creation of a specific department for digital marketing in order to extend the business range as well as spread across India and generate potential sales. As a result, it will be employed for a variety of risks and information, allowing industrial units to be aware of digital physical dangers. Employees and an unknown vendor will benefit from planning and implementing digital marketing with maximum fund use in accordance with business requirements and connect with new prospects.

Limitation of Study

Only Industrial units were included in the study, which took place in the Gokul-Shirgaon MIDC area.

Data Analysis and Interpretation:

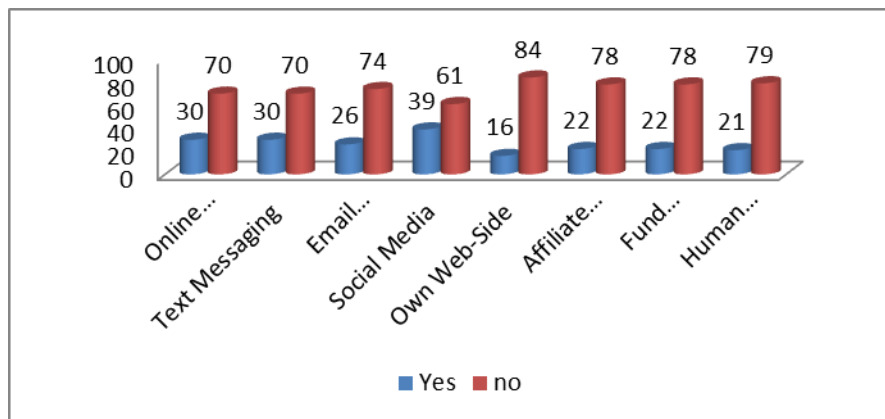
To observe the composition of the Industrial units under investigation, they were divided into groups based on whether or not they were using digital marketing tools as well as awareness.

Table 1: Percentage of distribution according to Digital Marketing tools and awareness

Sr. No.	Tools/ awareness of Digital marketing	Respondent Result			X-squared	d. f.	P-Value	Sample estimates	Actual Result	Accepted Hypotheses
		Yes	No	Total						
1	Online Advertising	27 (30)	63 (70)	90 (100)	13.61 1	1	0.00022 49	0.3	$p \leq 0.5$	H_1
2	Text Messaging	27 (30)	63 (70)	90 (100)	13.61 1	1	0.00022 49	0.3	$p \leq 0.5$	H_1
3	Email Marketing	24 (26)	66 (74)	90 (100)	18.67 8	1	1.548e 7	0.266666 7	$p \leq 0.5$	H_1
4	Social Media	35 (39)	55 (61)	90 (100)	4.011 1	1	0.0452	0.388888 9	$p \leq 0.5$	H_1
5	Own Web-Side	15 (16)	75 (84)	90 (100)	38.67 8	1	4.999e- 10	0.166666 7	$p \leq 0.5$	H_1
6	Affiliate Marketing	20 (22)	70 (78)	90 (100)	26.67 8	1	2.404e	0.222222 2	$p \leq 0.5$	H_1
7	Fund Allocation for Digital Marketing	20 (22)	70 (78)	90 (100)	26.67 8	1	2.404e- 07	0.222222 2	$p \leq 0.5$	H_1
8	Human Resource Allocation for Digital Marketing	19 (21)	71 (79)	90 (100)	28.9	1	7.621e- 08	0.211111 1	$p \leq 0.5$	H_1

Source: Field Survey (D.F.- Degree of Freedom)

Round figure in parentheses indicates in percentage to workers)

Figure-1 95 per cent confidence interval.

From the table 1, Out of the total, 30% of Industrial Units are aware of the digital marketing facility's online advertising capabilities, while the remaining 70% are not. Around 30% of industrial units had access to text messaging, while the remaining 70% had not. The email marketing mail was sent to prospective clients by 26% of industrial units, while the remaining 74% did not send the email marketing mail, such as product lists, pamphlet as well as industry profile, etc. When it comes to social media, only 39% of industrial units use it, with only Facebook and a few other apps, while 61% do not use Instagram, Twitter, or other similar platforms. Because the industrial units' details, such as series, contact, and about us, are shown on the website, it is an important instrument at the point of business. However, only 16% of industrial units have their own website; the remaining industrial units do not have a website. Only 20% of industrial units use affiliate marking tools, with the rest not using them at all. When the fund plays a critical role, it is necessary to use commercial services such as design, website, and promoter. However, just 22% of industrial units allocate funds only for digital marking, with the remaining industrial units failing to do so. The industrial unit's human resource components play a significant role in company. Only 21% of Industrial units required digital marketing, and only a one third of Industrial units were unaware of the importance of digital marketing in their operations. As a result, it's apparent that the vast majority of industrial units are unaware of the value of digital marketing in terms of generating new leads and expanding their businesses. As

a result, the industrial units used human resources to devote funds for expanding the firm to the digital marketing point sales.

Conclusion

Digital marketing has no commercial limits, and you may connect with clients all around the world. To advertise the firm and its products and services, the company can use various devices such as social media, SEO (search engine optimization), videos, content, e-mail, and so on. To determine the optimal path for increasing digital marketing success, companies should build creative consumer experiences and particular media tactics. As per the study's timetable, the data was collected by a questioner for the researcher. It is vital to promote knowledge among industrial units about digital marketing and the value of instruments such as mailing, text messaging, and social media, among other things. It will have an influence on the efficiency of lead generation programmes targeted at boosting industrial unit growth. All industrial units produce and allocate funds as well as human resources for digital marketing for a variety of products that will be valuable in the future. There is a very affordable and efficient approach for the majority of small business owners to market their products or services in order to generate growth and also reach out the global markets.

Acknowledgement

I'd like to express my gratitude to Dr. A.K. Patil, my research co-guide, Mr. Shrikar Shankar Joshi (Jr. Business Development Executive- Lekhapal Fintech Pvt. Ltd.Kolhapur), and my junior and senior colleagues for their help as well as advice in my research.

References

1. Afrina Yasmin, Sadia Tasneem, Kaniz Fatema (2015).Effectiveness of Digital Marketing in the Challenging Age: An Empirical Study. *International Journal of Management Science and Business Administration*. Volume 1, Issue 5, April 2015, Pages 69-80.
2. Anna Makrides, Demetris Vrontis and Michael Christofi(2020). The Gold Rush of Digital Marketing: Assessing Prospects of Building Brand Awareness Overseas. *Business Perspectives and Research* 8(1) 4–20, 2020 © 2019 K.J.

Somaiya Institute of Management Studies and Research. india DOI: 10.1177/2278533719860016. journals.sagepub.com/ home/bpr.

3. Chandan Kumar Mishra(2019). Digital Marketing: Scope Opportunities and Challenges
 - a. DOI: <http://dx.doi.org/10.5772/intechopen.92329>.
 - b. International Journal of Marketing Studies (2011), 3(1), 2011, 128-139.
 - c. Sanmathi Anbumani (2017). Digital Marketing And Its Challenges. *Airo International Research Journal*. Volume XII, ISSN: 2320-3714.
4. Sathya P. (2015).A Study on Digital Marketing and its Impact. *International Journal of Science and Research (IJSR)* ISSN (Online): 2319-7064 Index Copernicus Value (2015): 78.96 | Impact Factor (2015): 6.391.
5. Soheila Bostanshirin (2014). Online Marketing: Challenges And Opportunities. *Proceedings of SOCIOINT14- International Conference on Social Sciences and Humanities. 8-10 September 2014- Istanbul, Turkey*.
6. Uma Sharma, Thakur ,K. S. (2020).A Study on Digital Marketing and its Impact on Consumers Purchase. *International Journal of Advanced Science and Technology*. Vol. 29 No. 3 (2020)
7. Vaibhava Desai (2019). Digital Marketing: A Review. International Journal of Trend in Scientific Research and Development (IJTSRD) Conference Issue | March 2019 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470.
8. Vishal Midha (2012). Article- Impact of Consumer Empowerment on Online Trust: An Examination Across Genders, *Elsevier International Journal*, 12(3), 198-205.
9. Waghmare G.,T.(2012). E-Commerce, A Business Review and Future Prospects in Indian Business. Internet, Marketing in India. *Indian Streams Research Journal* 2(5), 2012, 1- 4.



IMPACT OF COVID-19 ON SOCIAL MEDIA MARKETING AND ITS EFFECTS ON BUYING PATTERN OF THE CONSUMERS IN MUMBAI

Mrs. Dipali V. Patil

Assistant Professor, G. J. Advani Law College, Bandra (West), Mumbai

Abstract

Social Media Marketing has gained immense benefit in the digital world. Consumers, all over the world are getting the services, through this type of platform, under one roof. The main aim of the paper is to test the impact of COVID-19 on the social media marketing. The author tries to highlight whether, due to this pandemic situation, there is any change in the marketers/ services/ ideas marketed and how the marketers can have upper edge in the digital competitive market, by adopting different online marketing strategies. For the present study 100 respondents across Mumbai suburbs were chosen as sample frame. The findings of the study reveal the fact that platforms such as Facebook and Instagram are more frequently used by the consumers. They generally see that the marketers are advertising the health care products and online courses were regularly, followed by the groceries, during the pandemic situation.

Keywords: Covid-19, Digital marketing, Social media platforms, buying pattern.

Introduction

The horrifying pandemic situation of outbreak of Coronavirus in the world, since the last quarter of 2019, has led to wide implications on several fields ranging from health care facilities, education, and employment scenario to personal life. Likewise, it could be noted that there is a severe change in the social media marketing due to the widespread pandemic situation of Covid-19. The entire landscape shows marked reformation in the social media marketing platforms. The change has been witnessed in aspects such as positive

involvement of the consumers due to increase in the digital advertisements and simultaneous rise in ad cost and profits for the marketers globally. During the 4 periods of lockdown, it was really impossible for the consumers to know of the scenario across the globe. However, social media platforms had in their own style, reduced the efforts of the people. The major phenomena for advertising through social media platform were in terms of Higher education. Difference courses were advertised and people started enrolling themselves for various online courses. The main aim of the present research study is to highlight the present situation with regards to digital marketing and its effects on the buying patterns of the consumers so that the marketers will implement the necessary strategies required to rule the global competitive market.

Literature review

Asma, et. al (2018), in their paper on “Impact of Social Media Marketing on Consumer Buying Behaviour – A Study”, highlights the fact that the companies require social media platform to reach to their customers. The companies are very much depending on such platforms to increase their profitability. According to the authors, social media marketing has even been beneficial to the consumers, who are having wide range of choices to make their purchase. The marketing done through social media helps them to compare the products across the companies. This enables them to make bet decision in terms of buying the products. [1] Deshpande, M. (2019), “The Impact of Advertisement on Consumer Buying Behaviour in Electronic Industry”, in their paper the authors explore the promotional channels used by the electronic industry to advertise their products. There is huge competition in the market. The authors highlight he increase in technology to influence the buying behaviour of the customers. The study aims at creating awareness and building the perceptions among the consumers. [2] Ceessay, et. al (2018), in their paper on “The Impact of Digital Media Advertising on Consumer Behaviour Intension towards Fashion and Luxury Brands: Case of the Gambia” are using the sample from Gambia. They try to explore the impact of digital marketing on consumer intention of purchase of fashion and luxury items. The study revolves around the usage of new methods implemented in marketing with the help of digital platform. The author carries on the research

by studying various factors such as familiarity of the brands, trust, the consumers have in advertisers, privacy, how entertaining is the digital advertisement and interactivity among the consumers and the producers.[3] Pallav (2016), in his paper on “Impact of Media Advertising on Consumer Buying Behaviour”, has highlighted how various factors of advertising like presentation of products to consumer affect the buying behaviour of consumers. In the paper author explains how through effective tools of advertising consumers can be influenced to buy the products. Researcher had collected the primary as well as secondary source through observations. The main objective of the research is that factor which affects buying behaviour of consumer due to media influence. There are various types of media advertising. [4] Haider, et. al (2018), in the paper on “A Study on the Influence of Advertisement on Consumer Buying Behaviour”, highlighted the implications of advertising on Consumer buying behaviour. The main objective of the paper is to study how effects of entertainment, familiarity, and advertisement and social media influence on consumer buying behaviour. Authors had pointed out some important factors such entertainment, familiarity, social imaging and advertisement spending affects the consumer behaviour. If all this factors considered before each advertisement will create effective approach. Through random sampling method data were collected from the people of Dhaka city. Through data analysis it is found that familiarity has the most powerful impact on Consumer behaviour, followed by entertainment and advertising spending. It is concluded that the advertising has the most crucial role in buying behaviour of the consumers and what products they wish to buy for that it is advisable to companies to consider all the factors which make the advertisements. [5] Harshini, (2015), “Influence of Social Media ADS on Consumer Purchase Intention”, have highlighted characteristics of online ads and its effects on consumer purchase. In today’s world use of internet is globally expanding and is increasing more and more. Internet use gives a handy way to channelize the advertisement through the social media. Medium of advertisement is shifting from traditional media such as print, magazine to digital media advertisement and this has the global out reach. [6] Bokde, et. al (2019), in their paper on “To Study the Impact of Digital

Marketing on Purchase Decision of Youth in Nagpur City”, mentions that internet along with mobile phones, display advertising and other digital medium forms the part of the digital technology influencing the consumer behaviour. E-marketing and interactive marketing are the most preferred channels by the marketers, because they enable the direct linkage with the consumer preferences and satisfaction instantly. Through such portals the marketers are able to track the on-going trend in the market and make necessary strategies to establish themselves in the market. [7]

Objectives of the Study

With the aim of understanding the impact of social media marketing on the consumer buying pattern, during the outbreak of Covid – 19 pandemic, the main objectives of the present study are –

1. To study the impact of Covid – 19 on Social media marketing and its effects on buying patterns of the consumers in Mumbai suburbs.
2. To assess the change in the marketed and buying products/ services due to lockdown for Covid-19 pandemic in Mumbai suburbs.

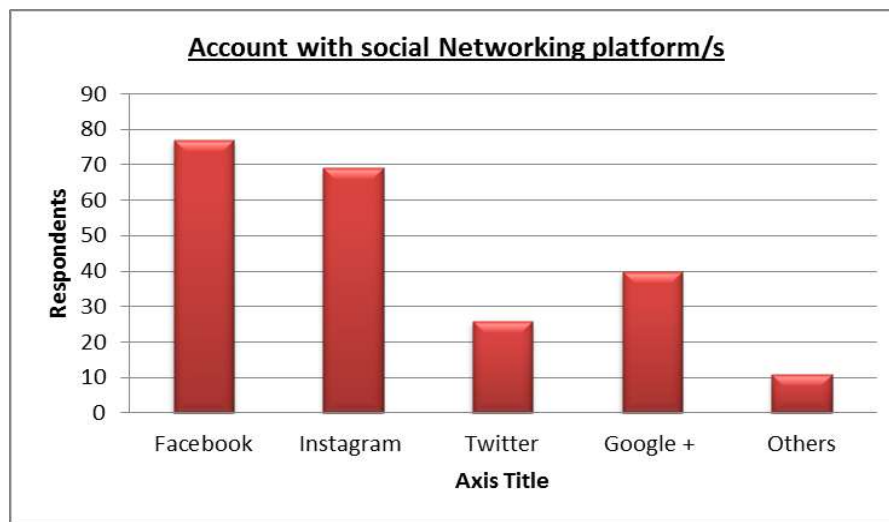
Data and Methodology for the study

For the present research paper, both primary and secondary data was used. Primary data was gathered from a structured close ended questionnaire, which was circulated among 100 respondents via Google forms in Mumbai suburbs. The responses were collected by using random sampling method in the second week of June 2020. These responses were analysed using graphical description analysis and the results were presented in a tabular form. Further the secondary data was used to compliment the findings analysed by processing the primary data. The researcher then concluded the paper by suggesting some marketing strategies to the online marketers to improve their sales.

Findings and Discussions

For the present research study total 100 respondents across the Mumbai suburbs were surveyed with the help of Google form, of which 50 males and 50 females have responded to the survey. The respondents belonged to various age groups. The main purpose of the study was to investigate the effect of COVID – 19 on social media marketing, thus, it was felt by the researcher to interrogate various

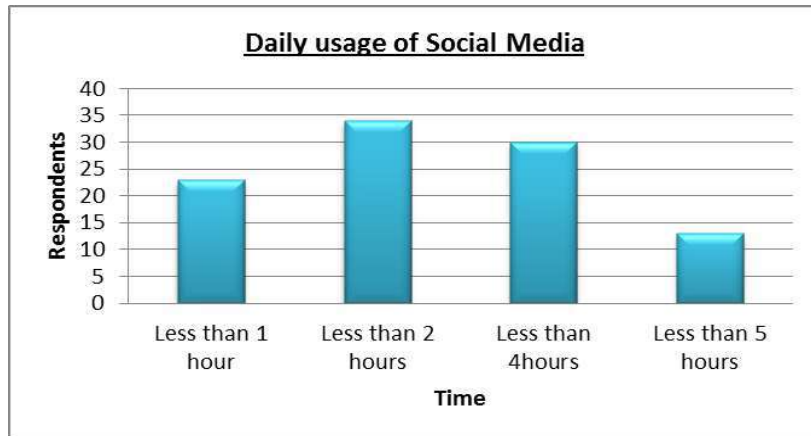
people in different age category, who can share their understanding on social media marketing. Out of the total respondents maximum of the people belonged to age group of less than 25 years (55 percent), Nearly 33 percent belonged to age group of 26 to 35, 11 percent belonged to age group of 36 to 45 and only 2 percent belonged to age category of above 55. Similarly, it was found that these respondents were having an average range of income. Nearly 71 percent of the respondents were having an average family income of less than Rs. 30000 per month, nearly 17 percent are having income range of Rs. 30,000 to Rs, 60,000 per month, 8 percent respondents are having income range of Rs. 60,000 to Rs. 90,000 per month and only 4 percent are having income of more than Rs. 90,000. While surveying it was also found out that though all the respondents were having a social networking account, but only 96 percent of them were using that in their day to day life. When interviewed it was found that they use such social media platform for various purposes like shopping, online training, online learning, to connect with friends, to increase their awareness of general understanding, etc. Only 4 percent respondents said that though they have social media account on some or the other platform, but they do not use it frequently.



Graph1

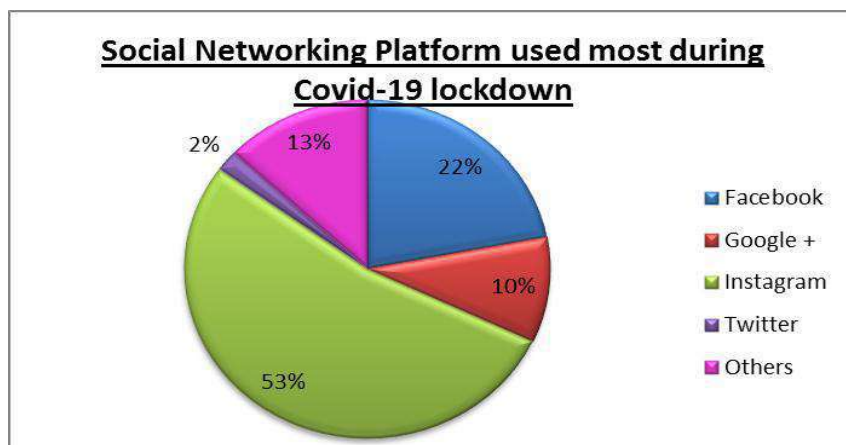
From the above graph 1, it can be observed that respondents were having their social networking account on more than one platform. However, it was also noted that Facebook users are larger as compared to any other platform. Nearly 77 percent respondents are having their account on Facebook. Apart from this

they are also having account on Instagram (69 percent), Google + (40 percent), Twitter (26 percent) and other platforms (11 percent).



Graph 2

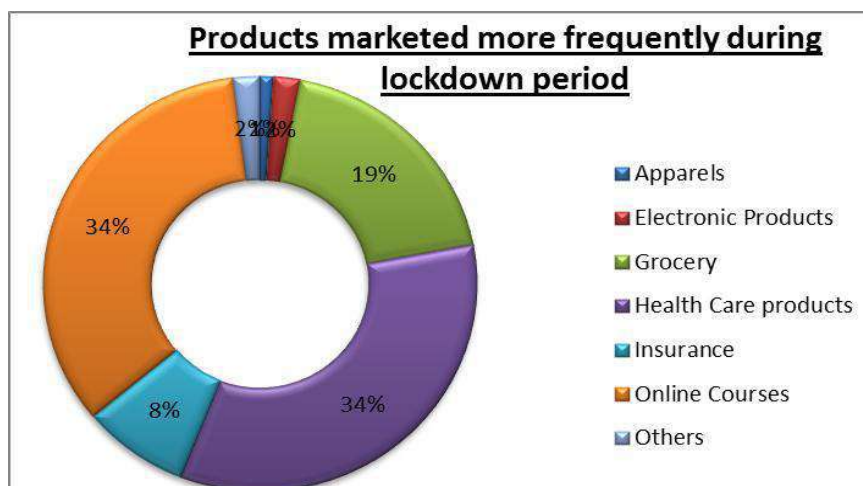
The above graph 2 reveals the fact that people like spending maximum time on such social networking platforms. Only 23 percent respondents relied that they use these platforms for less than 1 hour, 34 percent of the respondents believed that they use such platforms for less than 2 hours, 30 percent said that they use it for less than 4 hours and remaining 13 percent use it for more than 5 hours a day. By interviewing on telephone, it was noted that during the lockdown period, their social media usage have increased to double. They are using social media platforms for entertainment as well as a source of surfing new ventures.



Graph 3

The above graph 3 signifies the fact that Instagram remains favourite among the people from Mumbai suburbs among other social media platforms. Nearly 53 percent respondents use instagram more frequently than Facebook, which is used by 22 percent respondents, Google + used by 10 percent respondents and

Twitter used by 2 percent respondents. Instagram seems more appealing to the respondents particularly in the age category of less than 25 years who are the graduation and post-graduation students. Facebook is more often used by middle age people. At the same time the respondents were also asked on effectiveness of information of the products/ services and ideas which are marketed through the social media. Nearly 47 percent respondents felt that they are able to understand each aspect of the product/ service/ idea they are willing to purchase. Due to competition on online marketing, the marketers are trying to bring out the best possible of their efforts to retain their consumer base. In this attempt, they are furnishing all the information as far as possible, related to the products, so that the consumers do not switch over to other company in search of more information. By providing maximum information, the marketers are trying to stop the search of the consumers and purchase for their company itself. Apart from this, nearly 66 percent of the respondents see that there is a change in the products/ services and ideas advertised by the social media marketers during the lockdown period due to Covid – 19 situations.



Graph 4

During the lockdown period, the most frequently marketed products/ services/ ideas included Health care products, as mentioned by 34 percent respondents and even online courses (34 percent respondents marked the same). They feel that due to the need of the hour, the most common commodities marketed were hand sanitizers, soaps, hand wash, cleaning agents, etc. It was very strange to see that the online educational and vocational courses were also marketed at its

best during the lockdown period. Nearly 34 percent of the respondents are of the view that they having seen emerging aspects of online courses through webinars on social networking platform during the lockdown period. Apart from that as people were not able to step out of their house, the marketers thought that they could earn better on profit margin if they are able to market the grocery online and sell it to the doorsteps of the consumers. Nearly 19 percent of the respondents felt that grocery are marketed frequently as compared to the non-pandemic situation, because, it is the most important need of the consumers during the pandemic situation. The luxurious items including apparels and electronic products are not much marketed during this period. One significant point which was noticed was that the insurances (both life as well as health) were not much marketed. Finally it was inferred from the survey that social media marketing is considered safe from the point of view of the marketers. They are able to influence more than 50 percent of the respondents.

Recommendations

It can be recommended to the marketers to take maximum benefit of social media advertisements. Most importantly they need to place the ads which are more contextual and targeted. They need to see that the products/ services/ ideas are in real need and none of the other marketer is putting forward such products. Even if they come up with the very same product, their showcase of the features of the products needs to be more logical. The consumers do not at all like the advertisements which has meaningless base. Celebrity endorsements can be increased on a maximum scale, to attract the consumers. The advertisements need to be related to everyday life. Story ads can have more impact on consumers. The marketers can more frequently use the Facebook page for marketing their products/ services because that is the most frequently used platform. This will help the marketers to gain targeted conversations. With this they can even send personalised offers to their consumers. The display advertisements need to focus on the real aspects of daily life.

Conclusion

It can be concluded that social media marketing has its own role to play in the modern day world, not only during the pandemic situation, but in general

also. The most important aspect is that, in recent times, particularly in the city like Mumbai, people have limited time to go for retail shopping to the stores. They prefer to make their purchases online, using advertisements from the social media platforms. They get to know the products/ services/ ideas they are in need of, through such platforms. Thus, with full information they are able to step in their purchase decisions. At the same time, it was seen that they are able to get specialised offers whenever they are using the channels regularly. This adds up on their discounts. Gift coupons and vouchers are also available for them. It is possible for them to compare between the products, marketed by two different firms, thus enabling them to choose the best according to their requirement. All this simply denotes the fact that social media marketing is influencing the consumers to make the best purchasing decisions.

References

1. Asma, G., & Misbah, M. (2018), "Impact of Social Media Marketing on Consumer Buying Behaviour – A study", Research Review, International Journal of Multidisciplinary, Vol. 3, Issue 6, ISSN – 2455-3085.
2. Deshpande, M. (2019), "The Impact of Advertisement on Consumer Buying Behaviour in Electronic Industry", International Journal of Scientific Development and Research (IJS DR), Vol. 4, Issue 12, ISSN: 2455-2631
3. Ceessay, et. al (2018), in their paper on "The Impact of Digital Media Advertising on Consumer Behaviour Intension towards Fashion and Luxury Brands: Case of the Gambia, Arabian Journal of Business and Management Review, Vol. 8, Issue 5, ISSN 2223 – 5833
4. Pallav, R. (2016), "Impact of Media Advertising on Consumer Buying Behaviour", International Journal of Research in Finance Marketing, Vol. 6, Issue 9, pp 101-105, ISSN (O) 2231-5985
5. Haider, T., Shakib, S. (2018), "A Study on the Influences of Advertisement on Consumer Buying Behaviour", Business Studies Journal, Vol. 9, Issue 1.
6. Harshini, C.S. (2015), "Influence of Social Media ADS on Consumer Purchase Intention", Technical Research Organization, Vol. 2. Issue 10, ISSN: 2393-8374

7. Bokde, U., and Seshan, S. (2019), “To Study the Impact of Digital Marketing on Purchase Decision of Youth in Nagpur City”, International Journal on Advance Research, Ideas and Innovations in Technology, Vol. 5, Issue 3, ISSN 2454-132X, Impact Factor 4.295



ROLE OF VERNACULAR LANGUAGES IN DIGITAL MARKETING

Dr. Tejaswini Ram Tupe

Asst. Prof., Department of English D. R. K. College of Commerce, Kolhapur

Abstract

Digital marketing also known as online marketing is a marketing component that uses the internet and online based digital technologies such as computers, laptops, smart phones and other digital media and platforms to promote products, services, concepts and brands. Though, it is founded during 1990s and 2000 it has become glorious in the era of 2020 when the world is struck with the inevitable pandemic. We are forced to remain at our places and resume our work using online platforms. In the field of digital marketing this pandemic provides many opportunities as there is increase in the numbers of social media users who are the potential buyers for them. To connect with these buyers they employ many strategies and using vernacular language is one of them. In the present paper the researcher is trying to evaluate the role of vernacular language in digital marketing and how English is replaced by vernacular language.

Keywords: Digital marketing, vernacular language, advertisement, lingua franca, etc.

Introduction:

Digital marketing also known as online marketing is a marketing component that uses the internet and online based digital technologies such as computers, laptops, smart phones and other digital media and platforms to promote products, services, concepts and brands. It is nothing else but old wine in a new bottle. This is all about advertisement using latest means of communication. Though, it is founded during 1990s and 2000 it has been at the peak in the era of 2020 when the world is struck with the inevitable pandemic. We are forced to remain at our places and resume our work using online platforms. In the field of digital marketing this pandemic provides many opportunities as there is increase in the numbers of social media users who are the potential buyers for them. To connect with these buyers they employ many strategies and using vernacular language is one of them.

Digital Marketing:

Digital or online marketing is an umbrella term comprising various types of marketing of products, services and concepts using internet. It is often referred as 'web marketing' or 'online marketing'. Gheorghe Minculete and Polixenia Olar quoted Kotler's definition of digital marketing, in their paper '*Approaches to the Modern concept of Digital Marketing*' as, "Digital marketing as a concept highlights a set of profile processes that embrace all the digital channels available to promote a product or services, or to build a digital brand".(1) It includes various facets as search Engine Marketing, Social Media Marketing, Content Marketing, E-mail Marketing, Mobile Marketing etc. This type of marketing creates opportunities for companies to expand their business by recognizing and understanding customer requirements. The future of this sector is lavishing. According to the survey of statista.com the digital marketing Industry across India had a market size of around 199 Billion Indian Rupees in the financial year 2020, up from just 47 Billion Indian Rupees in Financial Year 2015. This was projected to go up to around 539 Billion Indian Rupees by financial year 2024.(2)

Importance of vernacular language:

English is a lingua franca as it is spoken by large population throughout the world and it has gained a status of office language in India. Nonetheless, there are non-English speakers who are the target audience of digital marketers for whom they create content in vernacular languages. Vernacular language refers to a language spoken by people inhabiting in a particular region or area. It is known as native, regional or local language. In India, where we find various regional languages and dialects that represent particular state, the task of digital marketers becomes complex. At initial stage English is the only language used for social media marketing. But it is spoken mostly in the metro cities like Delhi, Mumbai, Calcutta, Chennai, Bangalore etc. so they use vernacular languages to appeal to the masses for increase in their sale. The importance of vernacular languages in promoting brands is accentuated by Priyanka Singh in

her blog “Why Brands are Harnessing the Power of Vernacular Content Marketing?” where she put forth following facts:

1. According to statista.com, the 77% of the internet users in 2020 were from the lower tiers of India.
2. As per BBC, only 10% of the Indian population speaks English.
3. According to Financial Express, 90% of internet users in India prefer to consume content in their local language.
4. According a report prepared by Kantar, rural India had more active internet users -264 million by May 2020, more than urban India’s 210 million.
5. As per Google India, 9 out of 10 new internet users in the country are consuming online content in Indian languages.(3)

The above data exemplifies the need of using vernacular languages. As the numbers of internet users are increasing in rural area digital marketers should outreach regional languages rather than stick to English only. If we want to connect to the people we should use the language that appeals them emotionally and people feel more comfortable in their mother tongue. Sapna Chadha, Senior Director of Marketing for SEA & India, Google, explains in one of her interviews about how vernacular languages are taking lead on Youtube. With over 500 million Indians online now and with time spent online only going up, we are seeing a preference for choosing to consume in local language and there is no better place than Youtube to do this. We’re inspired by how advertisers are leaning into this and choosing a local language over English today.(4) She gives clear indications that people are demanding contents as well as advertisements in their language. If this continues for a long period English language will be definitely replaced by local languages. She also hints that India’s digital transformation will be incomplete if English proficiency becomes a hurdle.

Language is the powerful medium of communication which can attract the target customers when the message is disseminated effectively but if it fails to do so the customers will turn away from the product or services offered. When we use second language for promoting our products or services there is a possibility that the message is being misinterpreted or fails to convey desired meaning. This

risk can be reduced by using regional or vernacular language. In this regard Caroline Greyling, a research student, states:

Research has established that consumers' level of language identification and language understanding influences brand perception (Puntoni, et al, 2009). For many bilingual and multilingual speakers, it may seem obvious that, one's native language possesses emotional qualities that secondary or tertiary languages do not (Puntoni, et al, 2009).(5)

Keeping in the view this risk many companies are campaigning their advertisements in regional or vernacular languages. Social platforms like Facebook and Google have already started using regional languages to connect more people. Companies like Amazon, WhatsApp, and Lufthansa, to name few, offers digital advertisements in regional languages to take their sales graph upward. It is interesting to note that Lufthansa has witnessed 30% passenger growth in India by merely promoting their advertisement in Hindi language and creating a microsite in native languages. Amazon also launches the advertisement related to *silbatta* in Hindi language which is appealing and expressive because we do not have perfect substitute words in English language for the objects we need in our daily routine. This problem is evoked by the digital marketers to introduce their Hindi version of the App. WhatsApp is the next example who welcomes the change by allowing customers to change their language within the App, the respond of the customers to this move is overwhelming. Approximately 200 million monthly users change their language. These examples indicate the increasing demand of vernacular content in the field of digital marketing.

Conclusion:

Thus, we can say that to overcome the language barriers digital marketers use vernacular languages. They promote their products, services, concepts and brands in regional language to consume local market. Over a period of time the English language is replaced by vernacular language to meet the needs of customers. Marketers have realized that people prefer to purchase products and services which are introduced in their regional languages because they believe

such products are more trustworthy. In this way vernacular language is becoming influential in digital marketing.

References:

1. Gheorghe Minculete and Polixenia Olar, '*Approaches to the Modern concept of Digital Marketing*'
https://www.researchgate.net/publication/326651398_Approaches_to_the_Modern_Concept_of_Digital_Marketing
2. <https://www.statista.com/statistics/795262/india-market-size-of-digital-advertising-industry/>
3. Priyanka Singh, "Why Brands are Harnessing the Power of Vernacular Content Marketing?"
4. <https://writeers.com/digital-marketing/vernacular-content-marketing/>
5. Roy, Tasmayee. *There's a Clear market shift towards vernacular and digital advertising: Sapna Chadha.*
6. <https://www.exchange4media.com/digital-news/theres-a-clear-market-shift-towards-vernacular-digital-advertising-sapna-chadha-109719.html> Dec 18,2020.
7. Greyling, Caroline. Exploring the Impact of Language on Consumer-Brand relationships Across Digital Media"
8. https://open.uct.ac.za/bitstream/handle/11427/33702/thesis_com_2021_greyling%20caroline.pdf?sequence=1
9. <https://digeeta.com/is-vernacular-content-the-next-move-for-better-digital-engagement/>



भारत में महिला सशक्तिकरण की भूमिका

डॉ. रमेश प्रसाद कोल

सहायक प्राध्यापक, राजनीति विज्ञान विभाग,
शासकीय आर.व्ही.पी.एस. स्नातकोत्तर महाविद्यालय, जिला उमरिया म०प्र०. भारत,
४८४६६१

Email id- dr.rameshprasadkol@gmail.com

सारांश

महिला सशक्तिकरण से जुड़े सामाजिक, आर्थिक, राजनैतिक और कानूनी मुद्दों पर संवेदनशीलता और सरोकार व्यक्त किया जाता है। सशक्तिकरण की प्रक्रिया में समाज को पारंपरिक पितृसत्तात्मक दृष्टिकोण के प्रति जागरूक किया जाता है, जिसने महिलाओं की स्थिति को सदैव कमतर माना है। वैश्विक स्तर पर नारीवादी आंदोलनों और यूएनडीपी आदि अंतर्राष्ट्रीय संस्थाओं ने महिलाओं के सामाजिक समता, स्वतंत्रता और न्याय के राजनीतिक अधिकारों को प्राप्त करने में महत्वपूर्ण भूमिका निभायी है। महिला सशक्तिकरण, भौतिक या आध्यात्मिक, शारिरिक या मानसिक, सभी स्तर पर महिलाओं में आत्मविश्वास पैदा कर उन्हें सशक्त बनाने की प्रक्रिया है।

प्रस्तावना

आज के आधुनिक समय में महिला सशक्तिकरण एक विशेष चर्चा का विषय है। हमारे विभिन्न ग्रंथों में नारी के महत्त्व को मानते हुए यहाँ तक बताया गया है कि यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्र देवताः— अर्थात् जहाँ नारी की पूजा होती है, वहाँ देवता निवास करते हैं। लेकिन विडम्बना तो देखिए नारी में इतनी शक्ति होने के बावजूद भी उसके सशक्तिकरण की अत्यंत आवश्यकता महसूस हो रही है। महिलाओं के आर्थिक सशक्तिकरण का अर्थ उनके आर्थिक फैसलों, आय, संपत्ति और दूसरे वस्तुओं की उपलब्धता से है, इन सुविधाओं को पाकर ही वह अपने सामाजिक स्तर को ऊँचा कर सकती हैं। राष्ट्र के विकास में महिलाओं का महत्त्व और अधिकार के बारे में समाज में जागरूकता लाने के लिये मातृ दिवस, अंतर्राष्ट्रीय महिला दिवस आदि जैसे कई सारे कार्यक्रम सरकार द्वारा चलाए जा रहे हैं। महिलाओं को कई क्षेत्र में विकास की जरूरत है। भारत में, महिलाओं को सशक्त बनाने के लिए सबसे पहले समाज में उनके अधिकारों और मूल्यों को मारने वाली उन सभी

राक्षसी सोच को मारना जरूरी है, जैसे दृ दहेज प्रथा, अशिक्षा, यौन हिंसा, असमानता, भ्रूण हत्या, महिलाओं के प्रति घरेलू हिंसा, वैश्यावृत्ति, मानव तस्करी और ऐसे ही दूसरे विषय। अपने देश में उच्च स्तर की लैंगिक असमानता है। जहाँ महिलाएँ अपने परिवार के साथ ही बाहरी समाज के भी बुरे बर्ताव से पीड़ित हैं। भारत में अनपढ़ों की संख्या में महिलाएँ सबसे अक्वल हैं। नारी सशक्तिकरण का असली अर्थ तब समझ में आयेगा जब भारत में उन्हें अच्छी शिक्षा दी जाएगी और उन्हें इस काबिल बनाया जाएगा कि वो हर क्षेत्र में स्वतंत्र होकर फैसले कर सकें।

मूल शब्द—महिला, सशक्तिकरण

भारत में महिला सशक्तिकरण

सशक्तिकरण एक प्रक्रिया है जिसमें नारी अपने जीवन पर द्वारा नियंत्रण करती है, अर्थात् सशक्तिकरण बदलाव को सुगम बनाता है। सशक्तिकरण एक ऐसी अनुभूति है, जो किसी भी महिला को अपने लक्ष्य की प्राप्ति के लिये मानसिक रूप से सक्रिय बनाता है। संस्थागत परिपेक्ष्य में सशक्तिकरण वातावरण के साथ तालमेल करते हुये वैसी परिस्थितियों का निर्माण करता है। जहाँ महिलाएं अपने सामर्थ्य एवं योग्यता के आधार पर अपने सपने को साकार कर सकती हैं। नारी का मानव की दृष्टि में ही नहीं बल्कि समाज और राष्ट्र के निर्माण में महत्वपूर्ण योगदान है। देश का समग्र विकास महिलाओं की भागीदारी के बिना संभव नहीं है। महिलाओं द्वारा राष्ट्र विकास की धारा में सक्रिय भूमिका निभाई जाने से ही राष्ट्र का सर्वांगीण विकास समय है। इस संबंध में पण्डित, नेहरू का कथन है कि. यदि जनता में जागृति पैदा करना है तो पहले महिलाओं को जागृत करो दे आगे बढ़ती है तो परिवार आगे बढ़ता है. गाँव शहर आगे बढ़त है और सारा देश आगे बढ़ता है।

महिला सशक्तिकरण का तात्पर्य है महिलाओं को पुरुषों के बराबर वैधानिक, राजनीतिक, शारीरिक, मानसिक, सामाजिक एवं आर्थिक क्षेत्रों में उनके परिवार, समुदाय, समाज एवं राष्ट्र की सांस्कृतिक पृष्ठभूमि में निर्णय लेने की स्वयतता से होता है। भारत में महिला सशक्तिकरण का प्रारंभिक उद्देश्य महिलाओं की सामाजिक एवं आर्थिक दशा को में सुधार करना होता है। महिला का किसी भी क्षेत्र में प्रति पूरे घर परिवार समाज एवं राष्ट्र की प्रगति मानी जाती है। महात्मा गाँधी जी कथन है कि—“जब तक भारत की महिलाएँ सार्वजनिक जीवन में हिस्सा नहीं लेंगी, देश विकास नहीं कर सकता।” १ महिला सशक्तिकरण की अवधारणा मूलतः महिलाओं की कमजोर स्थिति में सुधार के परिणामस्वरूप उत्पन्न हुआ है। महिलाएँ जो विश्व की आधी आबादी का प्रतिनिधित्व करती हैं, लगभग

सम्पूर्ण विश्व में भेद—भाव, अन्याय एवं असमानता के चक्रव्यूह में सदियों से ग्रसित रही हैं। वर्तमान में महिलाएँ अपनी कमजोर, भेदभाव एवं असमानता के विरुद्ध आवाज उठाने लगी हैं। वर्तमान में यह स्वीकार किया जाने लगा है कि राष्ट्र एवं विश्व का वास्तविक विकास महिलाओं के सशक्तिकरण के माध्यम से ही संभव हो सकता है। अमर्त्य सेन ने इस बात पर जोर दिया है कि आज विश्व के विभिन्न देशों का विकास प्रक्रिया में महिला सशक्तिकरण निश्चित रूप से एक महत्वपूर्ण मुद्दा है। महिलाओं के आर्थिक सशक्तिकरण का तात्पर्य उनकी आर्थिक रूप से आत्मनिर्भरता एवं सशक्त क्षमता से है। यह तभी संभव है जब महिला अपना श्रम उत्पादक कार्य में प्रयोग करे, चाहे प्राथमिक क्षेत्र, द्वितीयक क्षेत्र या तृतीयक क्षेत्र हो, अपना उचित पारिश्रमिक हिस्सा समानता से प्राप्त करे। महिलाओं के आर्थिक सशक्तिकरण के लिए उन्हें जमीन—जायदाद, बैंक खाता, बचत, निवेश में निर्णय लेने सम्पत्ति पर समान अधिकार होना चाहिए। भारतीय समाज में लंबे समय से प्रचलित भेदभाव एवं पुरुषों के वर्चस्व की वजह से महिलाओं का उनके परिवारों एवं यहां तक कि पूरे समाज में दमन का सामना करना पड़ा है। समय—समय पर उन्हें हिंसा एवं परिवार के पुरुष सदस्यों द्वारा विभिन्न प्रकार के भेदभावों का भी सामना करना पड़ता रहा है। दुनिया के कई अन्य देशों में भी लगभग ऐसी ही स्थिति है। कुछ यूरोपीय देशों को छोड़कर दुनिया के ज्यादातर देशों में भारत के समान ही महिलाएँ गंभीर लैंगिक भेदभाव की शिकार हैं। बहुत दूर है मंजिल: ग्रामीण क्षेत्रों में तो महिलाओं की स्थिति और भी बुरी है और साथ ही अर्थव्यवस्था में उनका योगदान भी नगण्य है। हालांकि वे देश की आबादी का लगभग ५०: है लेकिन उन्हें उनके सपनों को साकार करने के लिए पर्याप्त अधिकार नहीं दिए गए हैं और इस वजह से उन्हें उनकी क्षमताओं का पूरा प्रदर्शन करने का मौका भी नहीं मिल पाता। इन हालातों में, हम यह निश्चित रूप से कह सकते हैं कि हमारा देश एक विकसित राष्ट्र तब तक नहीं बन सकता जबतक हम महिलाओं को सशक्त बनाने की दिशा में सही मायनों में प्रयास ना करें। महिलाओं को सभी क्षेत्रों में विकास के समान अवसर उपलब्ध कराए जाने की आवश्यकता है।

परिवर्तन की ओर: महिलाओं को हर धर्म में एक विशेष दर्जा दिया गया है उसके बावजूद सदियों से समाज में महिलाओं के खिलाफ कई बुरी प्रथाएं प्रचलन में रही हैं। लेकिन अब सकारात्मक परिवर्तन दृष्टिगोचर होना प्रारंभ हो चुका है और पितृसत्तात्मक प्रणाली धीरे—धीरे समाप्ति की ओर अग्रसर है। महिलाएं अब खुद के लिए सामाजिक एवं राजनीतिक अधिकारों, जैसे कि काम करने का अधिकार, शिक्षा का अधिकार, निर्णय करने

का अधिकार, आदि की मांग कर रही हैं। विभिन्न सरकारों ने महिलाओं की मदद के लिए कई संवैधानिक और कानूनी अधिकार भी लागू किए हैं, ताकि महिलाएं एक सार्थक एवं उद्देश्यपूर्ण जीवन जी सकें। अब महिलाओं की अपने अधिकारों के प्रति जागरूकता बढ़ रही है और इस दिशा में प्रयासरत विभिन्न गैर सरकारी संगठनों एवं स्वयंसेवी संस्थाओं का अभिभाव इसका प्रमाण है। व्यक्तिगत स्तर पर भी महिलाएं अब दमन के बंधनों को तोड़ते हुए अपने अधिकारों के लिए अपनी आवाज बुलंद कर रही हैं। स्वयं सहायता समूह एक ऐसा माध्यम है जिसकी सहायता से महिलाओं ने एक नई पहचान बनाई है। इसके साथ ही स्वयं सहायता समूह ने समूह की महिलाओं को अन्य महिलाओं के साथ अपने सम्बन्धों को मजबूत करने तथा एक दूसरे की मदद करते हुए अपने लक्ष्यों को प्राप्त करने में विशेष योगदान दिया है। अब तक हुए विभिन्न प्रकार के अध्ययन इस बात को इंगित करते हैं कि समूह बनने के बाद तथा इसकी सदस्य बनने के बाद महिलाओं की सामाजिक पूंजी (कल्चरल कैपिटल) में वृद्धि हुई है अतः प्रस्तुत पेपर स्वयं सहायता समूह बनने के बाद महिलाओं के जीवन में आये परिवर्तनों को समझने का प्रयास करेगा जोकि साक्षात्कार तथा अवलोकन पर आधारित होगा।

इस दिशा में स्वयं सहायता समूह महिला सशक्तिकरण की प्रक्रिया में महत्वपूर्ण भूमिका निभा रहे हैं जिसमें बांग्लादेश के प्रसिद्ध अर्थशास्त्री मुहम्मद युनुस का प्रयास उल्लेखनीय रहा है। इन्होंने १९७० से ही लघुवित्त आन्दोलन की शुरुआत की थी जिसके तहत गरीबों, विशेषकर औरतों को बिना किसी शर्त के ऋण देने की व्यवस्था की गयी और आज लघुवित्त आंदोलन विश्व के ७ हजार संस्थाओं द्वारा चलाया जा रहा है, जिससे लगभग १ करोड़ ६ लाख लोगों को रोजगार दिया जा चुका है। (श्रीवास्तव, २००८) वास्तव में स्वयं सहायता समूह गाँव के व्यक्तियों का एक ऐसा संगठन है जो अपनी इच्छा से संगठित होकर नियमित रूप से थोड़ी-थोड़ी बचत कर सामूहिक निधि में जमा करते हैं तथा जिसका उपयोग सदस्यों की आकस्मिक आवश्यकता की पूर्ति के लिए किया जाता है। इस प्रकार समूह के सदस्य हफ्ते अथवा महीने में एक बार बैठक कर विभिन्न विषयों पर चर्चा कर एक दूसरे की समस्याओं का समाधान करते हैं, जिससे ये महिलायें गरीबी, बेरोजगारी तथा निरक्षरता के चक्रव्यूह से निकलकर सशक्तिकरण की दिशा में कदम बढ़ा रही हैं और न केवल आर्थिक बल्कि सामाजिक एवं राजनैतिक आयामों पर भी सशक्तिकरण की ओर अग्रसर हैं।

४ वर्ष २००१ को महिला सशक्तिरण वर्ष घोषित कर देश की आधी आबादी को सम्मानित करने का यथोचित प्रयास किया था। महिला सशक्तिकरण समृद्ध महिला समाज में जनसंख्या नियंत्रण तथा देश की ५० प्रतिशत आबादी को साक्षर बनाकर शिक्षा के स्तर को ऊपर उठाने जैसी कई योजनाएं महिलाओं को सशक्त बनाने के लिये संभव प्रतीत होती है। अतः इसी के मद्देनजर महिलाओं की आवाज को लोकतंत्र के सर्वोच्च मंदिर में प्रतिष्ठित करने हेतु महिलाओं के लिये संसद एवं विधानमण्डल में ३३ प्रतिशत आरक्षण का प्रावधान किया गया। अनुच्छेद ३३० में प्रस्तावित ८४वें संविधान संशोधन के जरिये लोकसभा राजनीति के उच्च स्तरों पहुंचने के लिये एक तिहाई आरक्षण उपलब्ध कराने हेतु भी प्रयास किये गये थे। केवल इसलिए क्योंकि वर्तमान समय में संसद में सभी दलों की महिलाएं किसी भी मुद्दे पर एक जुट होकर सामने आ रही है, और उनका विरोध कर पाना मुश्किल है। दूसरी ओर सामाजिक स्तर पर सक्रिय महिलाओं ने राजनीतिक दलों को इस बात का आभास कराया है कि उनका भी अपना एक वोट बैंक है। जिसकी वजह से महिलाओं के हित में सोचना सभी राजनीतिक दलों के लिये ज्यादा जरूरी हो गया है। लेकिन इस संबंध में बार-बार अडचने डाली गई जिससे महिलाओं के पक्ष में सकारात्मक सोच का प्रावधान जरूरी हो गया है। महिला सशक्तिकरण की यह अवधारणा मनोवैज्ञानिक तौर पर जरूर आकर्षक लगती है लेकिन महिलाओं की सामाजिक, आर्थिक और राजनैतिक स्थिति सुधारने के लिये महिला आरक्षण विधेयक नितांत आवश्यक है, हालांकि विधेयक में महिला सशक्तिकरण से संबंधित तमाम मुद्दों को शामिल किया गया है लेकिन राजनेताओं द्वारा केवल महिलाओं के संसद एवं विधानसभाओं में सीटों अमब इ आरक्षण के अलावा कई प्राथमिक समस्याएं हैं जिसका निदान किया जाना अभी बाकी है, इस आरक्षण से नगरीय एवं शिक्षित महिलाओं को लाभ मिल रहा है वह ग्रामीण एवं अशिक्षित महिलाओं को ही नहीं सभी को मात्र मनोवैज्ञानिक सुख हैं तथा इससे महिला समुदाय की स्थिति में गुणात्मक परिवर्तन की वृद्धि हो रही है। महिला समुदाय को प्रजातांत्रिक संस्थानों के साथ-साथ शासकीय नौकरियों में तो ३३ प्रतिशत का आरक्षण प्राप्त है। यदि वास्तव में देखा जाये तो महिला को लेकर सिर्फ महिलाओं के नाम पर उसी प्रकार राजनीति हो रही है जैसा कि मुस्लिम वोटों के लिये होती थी। महिलाओं की सामाजिक, आर्थिक और राजनीतिक स्थिति सुधारने के लिये केवल आरक्षण यही समस्याओं का संपूर्ण समाधान नहीं है जिसके सहारे अपने व्यक्तित्व का स्वेच्छा से स्वतंत्रता का निर्माण कर सके। लेकिन राजनेताओं द्वारा केवल महिलाओं को संसद एवं विधानसभाओं में सीटों के अलावा कई प्राथमिक समस्याएं हैं

जिनकी और राजनेताओं का ध्यान आसानी से नहीं जाता है। जैसे दहेज उत्पीडन, कम आयु में विवाह तथा घर के मामलों में महिलाओं के फैसलों को तबज्जों न देना आम बात है। वास्तव में देखा जाये तो महिला आरक्षण विधेयक उन्हीं महिलाओं को सशक्त करने की पैरवी करता है जो महिला पहले से ही सशक्त है। क्योंकि राजनीतिक के गलियों में घूमती महिलाओं को संसद में विराजमान करना महिला सशक्तिकरण नहीं है। आम महिला आज भी वैसी ही समस्याओं से जूझती दिखाई दे रही है जैसे पहले की स्थिति में थी। वैसी भी संसद में पहुंची महिलाएं आम महिलाओं की समस्याओं को सुलझाने में किस हद तक सफल रही है इसका अंदाजा इस बात से लगाया जा सकता है कि न स्वयं प्रधानमंत्री स्वर्गीय इंदिरा गांधी एक लंबे समय तक सत्ता में रहने के बावजूद भी महिलाओं की संपूर्ण समस्याओं को सुलझाने में असमर्थ रही। महिला सशक्तिकरण के लिये विधेयक से ज्यादा जरूरी है समाज के नजरियों में परिवर्तन की। लेकिन जब तक कि पुरुषों के स्वार्थ या अहम सामने नहीं आते। इनके सामने आते ही पुरुष नारी को उत्पीड़ित करने या अभद्र व्यवहार करने से पीछे नहीं हट सकता। यह काम सिर्फ शिक्षित और ग्रामीण समाज में ही नहीं होता बल्कि शिक्षित सभ्य समाज में भी दिखाई देता है। क्योंकि पुरुष तो वही है न जो महिला को कभी अपने से ऊपर देखना नहीं चाहता बल्कि उसके ऊपर अपना अधिकार जमाना चाहता है। कई पुरुष महिला अधिकारी के अंतर्गत आने वाले पुरुष कर्मचारी महिला के आदेश के अनुरूप काम करना पसंद नहीं करते बल्कि उसे अपनी इच्छानुसार चलाना चाहते हैं।

महिला अस्मिता महिला घर परिवार की मान मर्यादा और जिम्मेदारियों से इतनी अधिक जकड़ी हुई होती है कि महिला चाहे कितने ही बड़े पद पर पहुंच जाये यह अपने चारों ओर लज्जा, मर्यादा की लक्ष्मण रेखा खींच लेती है। इसे वह आवश्यकतानुसार कार्य करने में असमर्थ हो जाती है। इंदिरा गांधी, किरण बेदी और मेधा पाटकर जैसी सशक्त महिलाएं कम ही होती हैं लेकिन ऐसा पदी है? सिर्फ अशिक्षित व ग्रामीण महिलाएं ही नहीं बल्कि नागरिक व उच्च शिक्षित महिलाएं भी अपना स्वतंत्र अस्तित्व बनाने के बजाए पुरुषों के संरक्षण में रहना पसंद करती हैं या यह कहा जाये कि उनका जिस माहौल व विचारों के बीच परवरिश होती है उसके तहत वे पुरुषों को ही अपना संरक्षक मान लेती हैं जो महिला इस मानसिकता से बाहर निकलकर सोचती है, यह कार्य करती है वह समाज में चर्चा का विषय बन जाती है जब समाज उसकी इस मानसिकता को तोड़ने में असफल होता है तो घर व परिवार के माध्यम से दबाव बनाया जाता है।

परिकल्पना:— समान वेतन का अधिकार— समान पारिश्रमिक अधिनियम के अनुसार अगर बात वेतन या मजदूरी की हो तो लिंग के आधार पर किसी के साथ भी भेदभाव नहीं किया जा सकता। कार्य—स्थल में उत्पीड़न के खिलाफ कानून— यौन उत्पीड़न अधिनियम के तहत आपको वर्किंग प्लेस पर हुए यौन उत्पीड़न के खिलाफ शिकायत दर्ज कराने का पूरा हक है। केंद्र सरकार ने भी महिला कर्मचारियों के लिए नए नियम लागू किए हैं, जिसके तहत वर्किंग प्लेस पर यौन शोषण के शिकायत दर्ज होने पर महिलाओं को जांच लंबित रहने तक ९० दिन का पैड लीव दी जाएगी।

कन्या भ्रूण हत्या के खिलाफ अधिकार— भारत के हर नागरिक का यह कर्तव्य है कि वह एक महिला को उसके मूल अधिकार 'जीने के अधिकार' का अनुभव करने दें। गर्भाधान और प्रसव से पूर्व पहचान करने की तकनीक लिंग चयन पर रोक अधिनियम (च्छक्कज) कन्या भ्रूण हत्या के खिलाफ अधिकार देता है।

संपत्ति पर अधिकार— हिंदू उत्तराधिकारी अधिनियम के तहत नए नियमों के आधार पर पुश्तैनी संपत्ति पर महिला और पुरुष दोनों का बराबर हक है।

गरिमा और शालीनता के लिए अधिकार— किसी मामले में अगर आरोपी एक महिला है तो उस पर की जाने वाली कोई भी चिकित्सा जांच प्रक्रिया किसी महिला द्वारा या किसी दूसरी महिला की उपस्थिति में ही की जानी चाहिए।

महिला सशक्तीकरण— महिलाओं का पारिवारिक बंधनों से मुक्त होकर अपने और अपने देश के बारे में सोचने की क्षमता का विकास होना ही महिला सशक्तीकरण कहलाता है

निष्कर्ष:—

निष्कर्षतः हम कह सकते हैं कि जिस तरह से भारत आज दुनिया के सबसे तेज आर्थिक तरक्की प्राप्त करने वाले देशों में शुमार हुआ है, उसे देखते हुए निकट भविष्य में भारत को महिला सशक्तीकरण के लक्ष्य को प्राप्त करने पर भी ध्यान केंद्रित करने की आवश्यकता है। भारतीय समाज में सच में महिला सशक्तीकरण लाने के लिए महिलाओं के विरुद्ध बुरी प्रथाओं के मुख्य कारणों को समझना और उन्हें हटाना होगा जो समाज की पितृसत्तात्मक और पुरुष युक्त व्यवस्था है। यह बहुत आवश्यक है कि हम महिलाओं के विरुद्ध अपनी पुरानी सोच को बदलें और संवैधानिक तथा कानूनी प्रावधानों में भी बदलाव लाएं। भले ही आज के समाज में कई भारतीय महिलाएँ राष्ट्रपति, प्रधानमंत्री, प्रशासनिक अधिकारी, डॉक्टर, वकील आदि बन चुकी हो, लेकिन फिर भी काफी सारी महिलाओं को आज भी सहयोग और सहायता की आवश्यकता है। उन्हें शिक्षा, और आजादीपूर्वक कार्य

करने, सुरक्षित यात्रा, सुरक्षित कार्य और सामाजिक आजादी में अभी भी और सहयोग की आवश्यकता है। महिला सशक्तिकरण का यह कार्य काफी महत्वपूर्ण है क्योंकि भारत की सामाजिक—आर्थिक प्रगति उसके महिलाओं के सामाजिक—आर्थिक प्रगति पर ही निर्भर करती है। आज की नारी अब जाग्रत और सक्रिय हो चुकी है। किसी ने बहुत अच्छी बात कही है “नारी जब अपने ऊपर थोपी हुई बेड़ियों एवं कड़ियों को तोड़ने लगेगी, तो विश्व की कोई शक्ति उसे नहीं रोक पाएगी।” वर्तमान में नारी ने रुढ़िवादी बेड़ियों को तोड़ना शुरू कर दिया है। यह एक सुखद संकेत है। लोगों की सोच बदल रही है, फिर भी इस दिशा में और भी प्रयास करने की आवश्यकता है।

संदर्भ—

1. अग्रवाल, आर.सी. २००६, उद्यमिता, साहित्य भवन पब्लिशर्स एण्ड डिस्ट्रीब्यूटर्स नई दिल्ली पृ.सं.२४९—२५९।
2. कुमार नीरज, कुरुक्षेत्र, मार्च २००७, अंक ५, महिलासशक्तिकरण की कुछ कोशिशें, पृ.सं.—१०।
3. मथुर, एस.पी., २०१०, भारत में उद्यमिता विकास, हिमाल्या पब्लिशिंग हाउस मुरादाबाद, पृ.सं.८९—१००।
4. प्रो. विशिष्ट सरिता, महिलासशक्तिकरण, कल्पना प्रकाशन नईदिल्ली, पृ.सं.—३०।



डिजिटल मार्केटिंग का मानव जीवन पर प्रभाव

डॉ. लक्ष्मी शंकर यादव

प्रवक्ता, डायट-लोहाघाट, चम्पावत, उत्तराखण्ड

ई-मेल: isyadav.dietlohaghat@gmail.com

शोध सारांश

आई.सी.टी. तथा इण्टरनेट का प्रयोग दुनिया के लिए वरदान साबित हुआ है। आज बटन दबाते ही मन चाही तथा अभीप्सित वस्तु मनुष्य के सामने होती है। डिजिटल मार्केटिंग ने ग्राहकों के लिए एक खुला बाजार प्रस्तुत किया है, जहाँ पर वह अपनी सुविधानुसार वस्तुओं की खरीद-फरोख्त कर सकता है। संक्षेप में अगर इसका आशय स्पष्ट किया जाय तो डिजिटल मार्केटिंग वह बाजार है जिसमें आदान-प्रदान के लिए कम्प्यूटर विज्ञान और अंकीय आँकड़ों का प्रयोग किया जाता है। आज के इस आधुनिक दौर में युवा अपना हर कार्य इंटरनेट के माध्यम से ही करना प्रसन्न करते हैं। ऑनलाइन स्कूलिंग से लेकर मोबाइल अथवा टी.वी. का रिचार्ज, विद्युत बिल का भुगतान, ऑनलाइन मनी ट्रांसफर, फोन पे, गूगल पे, यू.पी.आई.डी., विभिन्न उत्पादों की रैंकिंग आदि सभी कुछ इंटरनेट के माध्यम से कार्य संपादित किये जाते हैं। ऑनलाइन मार्केटिंग कई प्रकार से सम्पन्न होती है जिसमें ई-मेल, सोशल मीडिया, एस.ई.ओ. सर्च इंजन, पे पर क्लिक एफिलिएट मार्केटिंग व यू-ट्यूब चैनल्स आदि सम्मिलित है। ऑनलाइन मार्केटिंग जैसे तौ वर्ष 1990 से शुरू होती है लेकिन व्यापक स्तर पर इसका प्रयोग 21वीं शदी के वर्षों में देखने को मिलता है जब देश में मोबाइल क्रांति सी आ गयी। लोगों ने इंटरनेट के माध्यम से सोशल मीडिया (ट्विटर, इंस्टाग्राम, फेसबुक, व्हाट्सएप) पर विभिन्न तरह के उत्पादों का प्रचार-प्रसार व डिजिटल मोड वाले कार्य संपादित करने लगे। आज दैनन्दिन जीवन में समस्त कार्य, तथा सभी प्रकार के भुगतान चाहे वह वस्तुओं की खरीद-फरोख्त से सम्बन्धित हो या फिर वस्तुओं की गुणवत्ता से सम्बन्धित प्रचार-प्रसार, ऑनलाइन शिक्षण पैकेज, सभी डिजिटल मार्केटिंग के तहत आसानी से संपादित हो रहे हैं। डिजिटल मार्केटिंग ने लोगों को सरलता, सहजता तथा उपयुक्तता के साथ एक बड़ा बाजार उपलब्ध कराया है जो समय तथा पैसे की बचत के साथ विश्वसनीय भी है।

प्रस्तावना-

समय की गति कहे या वैज्ञानिक विकास का सिलसिला कि पहले जो चीज़े चमत्कार सी लगती थी, आज वो आम चलन में है। मनुष्य के जीवन में दो ऐसी महत्वपूर्ण चीज़ें थी जिसका उसे बहुत मन से इंतजार होता था- एक अपनों के द्वारा लिखा खत तथा दूसरा इसको बाँटने वाला डाकिया। डाकिया जब कभी किसी गाँव में आता था तो खबर दूसरे पड़ोसी में भी फैल जाती थी कि आज पोस्टमैन साहब

आये हैं, मनी आर्डर तो आ ही रहा होगा। उसका समाज में आदर भी बहुत था। चिट्ठी, खत और प्रेमपत्र इसका असली आनंद तीन दशक पहले के लोग ही सही तरीके से व्यक्त कर सकते हैं। आज मल्टीमीडिया, आई.सी.टी. और इण्टरनेट का दौर है कि बटन दबाते ही हर चीज उपलब्ध। समय के साथ विकास में मानव ने नित्य नये के सोपान तय किये जिसमें सूचना संचार प्रौद्योगिकी के क्षेत्र में पिछले कुछ वर्षों से अनेकों नवीन आविष्कार हुए। इन आविष्कारों के परिणामस्वरूप मानक जीवन पूरी तरह बदल सा गया। शिक्षा, स्वास्थ्य, कृषि, शासन प्रणाली, आर्थिक गतिविधियाँ, सभी क्षेत्रों में दुनिया के एक कोने में बैठा व्यक्ति दूसरे कोने में बैठे व्यक्ति से पल भर में सम्पर्क स्थापित कर सकता है। इस प्रकार मोबाइल, टेलीफोन, ई-मेल, इंटरनेट, वाई-फाई, कम्प्यूटर, वेबसाइट, केबल, टी.वी., डी.टी.एच. आदि दैनिक जीवन के आवश्यक अंग बन गये हैं। डिजिटल मार्केटिंग या ऑनलाइन मार्केटिंग का प्रयोग यद्यपि वर्ष 1990 से माना जाता है लेकिन इसका व्यापक रूप से प्रचार-प्रसार 21वीं शदी के प्रारम्भिक वर्षों से विशेषतयः देखा जा सकता है जब देश में मोबाइल क्रांति सी आ गयी। सरकारी कार्यालयों, सार्वजनिक उपक्रमों के अलावा जब आम आदमी डेटा और इण्टरनेट के प्रयोग से जीवन को सरल व सुगम बनाना शुरू कर दिया। डिजिटल मार्केटिंग या डिजिटल मोड की उपयोगिता इस कोविड-19 के दौर में सबसे प्राथमिक रूप से उभरकर सामने आयी जब इसने जीवन की गति को सुरक्षित सा कर दिया। लॉकडाउन के दौरान भारत की बची-खुची आबादी या मध्यम दर्जे के लोग भी सावधानी के तौर पर डिजिटल मार्केटिंग की तरफ उन्मुख हुए। डेटा या इण्टरनेट के माध्यम से आज हम अपनी जरूरत की सभी चीजें चाहे वह खाने-पीने, खरीददारी, लेन-देन या फिर ज्ञान-विज्ञान को बढ़ाने से हो, पल-भर में सभी कार्य सम्पन्न हो जाते हैं। इस आधुनिक युग में अधिकतर युवा अपने सारे कार्य इण्टरनेट के माध्यम से करना पसंद करते हैं चाहे वह ऑनलाइन स्कूलिंग, मोबाइल या टी.वी. रिचार्ज, विद्युत बिल भुगतान, टिकट बुकिंग, ऑनलाइन मनी ट्रांसफर, ऑनलाइन खरीददारी या वस्तुओं की गुणवत्ता के बारे में जानना, खाने-पीने की वस्तुओं का आर्डर आदि। इन्हीं सहजताओं व सरलताओं की वजह से लोगों का रुझान ऑनलाइन मार्केटिंग की तरफ बढ़ रहा है। सभी तरह के व्यापार या प्रतिष्ठान डिजिटल मोड को ही अपना रहे हैं। यद्यपि ऑनलाइन मार्केटिंग में शत-प्रतिशत सुरक्षा के इंतजाम अभी तक नहीं हो पाए हैं जिसके चलते कई बार लोग धोखाधड़ी के शिकार हो जाते हैं। इस पर भी प्रमुख रूप से ध्यान की आवश्यकता है।

शोध का शीर्षक- डिजिटल मार्केटिंग का मानव जीवन पर प्रभाव।

शोध का उद्देश्य- डिजिटल मार्केटिंग और मानव जीवन पर पड़ने वाले प्रभाव का अध्ययन अपेक्षित है।

शोध विधि- वर्णनात्मक।

शोध सीमा- सिर्फ डिजिटल मार्केटिंग का मानव जीवन पर प्रभाव का अध्ययन।

मुख्य शब्द- डिजिटल मार्केटिंग, इण्टरनेट, ई-भुगतान, सोशल मीडिया, ऑनलाइन तकनीकी।

कार्यान्वयन-

डिजिटल मार्केटिंग का अर्थ एवं आवश्यकता- डिजिटल का मतलब हिंदी में अंकों से सूचना देने वाला, अंकीय, अंकों में दर्शाने वाला या अंकदर्शी है। इसे कम्प्यूटर विज्ञान में ध्वनि रिकार्डिंग या सूचना संग्रहण के लिए 1 और 0 अंक का प्रयोग करने वाली इलेक्ट्रॉनिक पद्धति से है। मार्केट को हिंदी में बाजार कहते हैं। इस प्रकार डिजिटल मार्केटिंग वह मार्केटिंग है जिसमें आदान-प्रदान के लिए कम्प्यूटर विज्ञान और अंकीय आंकड़ों का प्रयोग किया जाता है। अर्थात् जब किसी उत्पाद की खरीदारी या बिक्री कम्प्यूटर, इण्टरनेट या फिर अन्य किसी इलेक्ट्रॉनिक मीडिया द्वारा की जाती है तो उसे डिजिटल मार्केटिंग कहते हैं। इसे ऑनलाइन मार्केटिंग के अर्थ में भी प्रयोग किया जाता है। आज के इस आधुनिक दौर में युवा अपना हर कार्य इण्टरनेट के माध्यम से करना पसंद करते हैं, चाहे वह ऑनलाइन स्कूलिंग हो, मोबाइल अथवा टी.वी. का रिचार्ज हो, विद्युत बिल का भुगतान, ऑनलाइन मनी ट्रांसफर, फोन पे, गूगल पे अथवा यू.पी.आई.डी. से, विभिन्न प्रकार की वस्तुओं की जानकारी, गुणवत्ता एवं खरीद-फरोख्त, वस्तुओं की गुणवत्ता के संदर्भ में उपभोक्ताओं के विचार, पाठ्य-पुस्तकें एवं किताबें तथा ऑनलाइन कोचिंग आदि सभी कुछ। इन सभी कार्यों को घर बैठे बिना किसी परेशानी के आवश्यकता एवं सुविधानुसार इण्टरनेट के माध्यम से किया जाता है। आज की इस भागती, दौड़ती जिंदगी में लोगों के पास वक्त नहीं है तथा कम समय में इतनी सारी सुविधाएं एक प्लेटफार्म पर उपलब्ध भी नहीं हो सकती। अतः सरलता, सहजता तथा सुगमता से आवश्यकता की वस्तुएँ घर बैठे प्राप्त हो जाती हैं वो ऑनलाइन मार्केटिंग अथवा डिजिटल मार्केटिंग का ही कमाल है। डिजिटल मार्केटिंग ने बाजार की धारणा एवं स्वरूप को पूरी तरह से बदल दिया है। अब लोग उत्पादों की खरीदारी के संदर्भ में छले नहीं जा सकते।

डिजिटल मार्केटिंग के प्रकार- डिजिटल मार्केटिंग के लिए इण्टरनेट का प्रयोग किया जाता है। इण्टरनेट के माध्यम से आप विभिन्न प्रकार की वेबसाइटों की मदद से मार्केटिंग कर सकते हैं, डिजिटल मार्केटिंग एक बहुत बड़ा टर्म है, जिसके विभिन्न रूप होते हैं।

ई-मेल मार्केटिंग- किसी भी उत्पाद की जानकारी जब हम ई-मेल के माध्यम से प्राप्त करते हैं तो वह ई-मेल मार्केटिंग कहलाता है। अक्सर सभी उत्पादों पर विस्तृत विवरण के लिए ई-मेल का पता दिया गया होता है।

सोशल मीडिया मार्केटिंग- आज के समय में बहुचर्चित मार्केटिंग का प्रकार सोशल मीडिया है। इसके अन्तर्गत ट्विटर, इंस्टाग्राम, फेसबुक आदि आते हैं। इसके माध्यम से लोग अपने विचारों, व्यवसायों एवं उत्पाद की गुणवत्ता को पलभर में दुनिया भर के ग्राहकों के सामने रखते हैं। यह कुछ ही समय में विशद लोकप्रियता प्राप्त कर लेता है।

सम्बद्ध या एफिलिएट मार्केटिंग- सम्बद्ध या एफिलिएट मार्केटिंग आज के समय में डिजिटल मार्केटिंग का सबसे प्रभावशाली, सरल व सहज माध्यम है। यह एफिलिएट इस संदर्भ में है क्योंकि इसमें व्यक्तियों को लिंक, वेबसाइट या फिर ब्लॉग के माध्यम से विज्ञापन करने पर कमीशन प्राप्त होता है। एफिलिएट मार्केटिंग में जिस लिंक के माध्यम से प्रचार-प्रसार किया जाता है, यदि लोग लिंक के माध्यम से उत्पाद को खरीदते हैं तो उस पर प्रचार या प्रसार करने वाले को कमीशन प्राप्त होता है।

पे पर क्लिक- पे पर क्लिक इस प्रकार की मार्केटिंग है जिस पर क्लिक करते ही ग्राहक के पैसे कट जाते हैं। इसे पे पर क्लिक एडवरटाइजिंग कहते हैं जिसमें पब्लिशर को पैसे प्राप्त होते हैं।

यू-ट्यूब चैनल्स- ये सबसे ज्यादा भीड़-भाड़ वाला प्लेटफार्म है, जिसकी आम दैनन्दिन जीवन में बड़ी लोकप्रियता है। यू-ट्यूब के माध्यम से हम अपने उत्पाद या सर्विस का प्रचार-प्रसार उन्नत तरीके से कर सकते हैं। कई तरह की खरीदारी हम वीडियो को देखकर भी करते हैं। यू-ट्यूब चैनल पर भुगतान करके हम अपनी पसंद के लोकगीत-संगीत, शैक्षिक वीडियो या अन्य जरूरतमंद वीडियो भी प्राप्त कर सकते हैं।

एस.ई.ओ. सर्च इंजन ऑप्टिमाइजेशन- एस.ई.ओ. सर्च इंजन ऑप्टिमाइजेशन एक ऐसी तकनीक है, जिससे हम अपने पोस्ट या पेज को किसी भी सर्च इंजन पर टॉप में लाते हैं, या रैंक करवाते हैं। सर्च इंजन या वेब खोजी इंजन वह सॉफ्टवेयर है जो इण्टरनेट पर संग्रहित सूचनाओं को खोजने का काम करता है।

डिजिटल मार्केटिंग की मानव जीवन में उपयोगिता- मुझे एक शेर याद आता है जो आज की भागती, दौड़ती जिंदगी के साथ-साथ डिजिटल मार्केटिंग की उपयोगिता को परिभाषित करने के लिए बहुत ही उपयुक्त एवं प्रासंगिक भी है-

तुम्हे गैरों से कब फुर्सत, हम अपने गम से कब खाली।

चलो बस हो गया मिलना, न तुम खाली न हम खाली।।

पहले लोगों के पास साधन नहीं थे, लेकिन लोग समय निकालकर एक-दूसरे से मिला करते थे। आज साधन है लेकिन लोगों के पास वक्त नहीं है। आज मिलने जुलने, आने-जाने, खरीद-फरोख्त, से सम्बन्धित समस्त कार्यों का निबटारा इंसान व्हाट्सएप या इण्टरनेट के माध्यम से करने लगा और तो

और नेह- निमंत्रण भी अब फोन से भेजे जाने लगे। खैर वक्त की कमी से जूझते इंसान के लिए डिजिटल मोड/आई.सी.टी. वरदान साबित हुआ है। इसकी उपयोगिता तो कोविड काल में और देखी गयी कि यदि आई.सी.टी. न होती तो संसार की गति निश्चित रूप से थम जाती। कोविड के दौर में ऑनलाइन मार्केटिंग का चलन आम-आदमी तक होने लगा जब खरीददारी अथवा चाट-समोसे और पकौड़े वालों ने भी, गूगल पे या फोन पे रखना शुरू किया। वक्त की गति के साथ ऑनलाइन मार्केटिंग ने लोगों को सरलता, सहजता तथा उत्पादों की खरीद से पहले उसकी रेटिंग का विकल्प प्रस्तुत किया है। अगर हमें विश्व में जितनी भी संज्ञाएँ अथवा वस्तुएँ हैं, किसी के बारे में भी जानकारी प्राप्त करनी होती है तो हम इण्टरनेट का प्रयोग करते हैं। लोगों को कोई वस्तु खरीदनी होती है तो वे सबसे पहले इण्टरनेट के माध्यम से उस उत्पाद को सर्च करके उसकी उपयोगिता और लोगों के विचार देखते हैं। अब लोगों को बाजार के चक्कर नहीं लगाने पड़ते, वे घर बैठे ही ऑनलाइन मार्केटिंग के माध्यम से अपने मोबाइल या लैपटॉप के द्वारा मनपसंद चीजे सर्वे मार्केट के आधार पर आसानी से प्राप्त कर ले रहे हैं। ऑनलाइन मार्केटिंग की जो सबसे खास बात है वह यह कि लोगों को अपने बजट के अनुसार तुलनात्मक ढंग से सामान पसंदकर पूरी जानकारी के आधार पर खरीदने की सुविधा हो जा रही है। ऑनलाइन मार्केटिंग में लोग रेटिंग के माध्यम से उत्पाद की गुणवत्ता को भी जान सकते हैं। भुगतान के लिए डिजिटल मोड होने से बैंकों में जमा होने वाली तथा बाजारों एवं दुकानों पर लगने वाली भीड़ भी कम हो रही है। अनावश्यक परिवहन व्यय की बचत के कारण वस्तुओं के दाम भी अपेक्षाकृत स्थिर हुए हैं तथा खुला बाजार होने के कारण प्रतिस्पर्धात्मक दौर में कम्पनियों ने मनमाने रेट भी लगाने बंद कर दिये हैं। ऑनलाइन मार्केटिंग की सेवा में लगे कुछ लोगों को रोजगार भी प्राप्त हुआ है जिससे बेरोजगारी का कुछ बोझ कम हुआ।

मानव जीवन पर डिजिटल मार्केटिंग का प्रभाव- डिजिटल मार्केटिंग ने अपनी सेवा-ई-मेल मार्केटिंग, सोशल मीडिया मार्केटिंग (ट्विटर, इंस्टाग्राम, फेसबुक), एफिलिएट मार्केटिंग, यू-ट्यूब चैनल, पे पर क्लिक, एस.ई.ओ. सर्च इंजन के माध्यम से मानव जीवन को आसान बना दिया है। कम्पनी का ऑफलाइन एडवर्टाइज में बहुत सारा पैसा खर्चा हो जाता था जो कहीं न कहीं से उत्पादन मूल्य में जुड़ता था। अब वह पैसा सीमित रूप में खर्चा हो रहा है जिससे वस्तुओं का उत्पादन मूल्य अपेक्षाकृत स्थिर हुआ। पहले के जमाने में कुछ वस्तुएँ तो बनकर कई-कई वर्षों या महीनों तक गोदामों में ही पड़ी रहती थी और कितने तो खराब भी हो जाती थी, क्योंकि वस्तु की बिक्री सही समय पर नहीं हो पाती थी। आज लोग विभिन्न मार्केटिंग माध्यमों से अपने उत्पाद को एडवर्टाइज करा लेते हैं, जिसे ज्यादा से ज्यादा लोग देख भी लेते हैं। प्रोडक्ट्स को खरीदने के लिए भौतिक मौजूदगी की जरूरत नहीं पड़ती

जिसे आप ऑनलाइन भुगतान कर घर पर ही प्राप्त कर ले रहे हैं। ऑनलाइन मार्केटिंग में ये भी संभव हुआ है कि यदि वस्तु पसंद न आये तो वापस कर अपना पैसा भी प्राप्त किया जा सकता है। उपर्युक्त सुविधाओं के साथ-साथ कई बार ऑनलाइन भुगतान में कई तरह की जालसाजी वाली घटनाएं सामने आती हैं जिसका कारण किसी सुरक्षित सुरक्षा तकनीक का न होना है। कुछ लोग फेक तरीके से भी लोगों को ठगने का काम करते हैं। पे पर क्लिप या कुछ ऐसी अनेक वेबसाइट होती है जिसे अनजाने पर छू लेने या साइट पर जाने से ही पैसा कर जाता है। कई बार साइट हैक कर हैकर सीधे-साधे लोगों को चूना भी लगा देते हैं।

उपसंहार- इस भागती, दौड़ती जिंदगी में डिजिटल मार्केटिंग ने एक रोबोट का काम किया है। भविष्य में पूरा व्यापार और हर एक चीज़ डिजिटल मार्केटिंग के माध्यम से ही मुमकिन होगी। विक्रेताओं को भी यह सोचने की जरूरत नहीं पड़ती कि वे अपने उत्पाद को कहाँ एडवर्टाइज करायें। डिजिटल मार्केटिंग से जहाँ लोगों को मनचाहे सामान अपने बजट के अनुसार प्राप्त करने का अवसर प्राप्त हुआ है वही अनावश्यक व्यय भार भी कम हुआ है। मनचाही चीज़ें प्राप्त करने, अनावश्यक भीड़-भाड़ से बचने तथा किसी के सहारे की जरूरत के बगैर, समय बचाने का सबसे अच्छा माध्यम डिजिटल मार्केटिंग ही है।

निष्कर्ष- ऑनलाइन मार्केटिंग खुले बाजार में बजट के अनुसार उपयोगिता को ध्यान में रखते हुए खरीददारी का सरल, सहज व जनप्रिय बाजार है। अपनी सुविधा व आवश्यकतानुसार मनचाही चीज़ें प्राप्त कर व्यक्ति खुशनुमा जीवन व्यतीत करता है। खुला बाजार तथा सभी उत्पादों के संदर्भ में रेटिंग या लोगों की प्रतिक्रिया को जानकर वस्तुओं के चुनाव का एक अच्छा प्लेटफार्म डिजिटल मार्केट साबित हो रहा है। डिजिटल बाजार जहाँ एक तरफ लोगों की सुविधा का ख्याल रखता है वही दूसरी तरफ उन्हें अपव्यय से बचाकर बजट को संतुलित करने में मदद भी करता है। डिजिटल बाजार मनचाही वस्तुओं को प्राप्त करने का अच्छा विकल्प है। ऑनलाइन मार्केटिंग समय, स्वास्थ्य व धन की बचत का अच्छा विकल्प है। ऑनलाइन मार्केटिंग से जीवन का प्रत्येक पक्ष सकारात्मक रूप से सँवरता है।

संदर्भ ग्रंथ सूची

1. न्यूज हिन्दी, बी.बी.सी.- डिजिटल इंडिया की क्या है, चुनौतियाँ, 22 अप्रैल 2021।
2. गोस्वामी, नीतेश- आत्मनिर्भर भारत की ओर एक और कदम, 23 अक्टूबर, 2021।
3. गोस्वामी, डॉ० अदिति- ग्राम्य विकास और आई.सी.टी.एन. इण्टरनेशनल पीयर रिव्यूड रिसर्च जनरल, संशोधन समीक्षा का स्पेशल इश्यू 2017।
4. डिजिटल मार्केटिंग क्या है \ -www.nkmonitor.com

5. डिजिटल मार्केटिंग- <https://hi.m.wikipedia.org>.
6. डिजिटल मार्केटिंग क्या है जानिए इसमें कैरियर के अवसर- <https://leverageedu.com>
7. सिन्हा, श्वेता- असिस्टेन्ट प्रोफेसर कम्प्यूटर विभाग, नेशनल पी.जी. कालेज, लखनऊ- 226001।



भारतातील नैसर्गिक संसाधने आणि शाश्वत विकास

Dr.sameer gaikwad

Hon.Shiri Ananasaheb Dange Arts commerce and science college
hatkanagale

घोषवारा

‘१९४७ ला भारताला स्वतंत्र्य मिळाले. भारतासाठी नवीन आर्थिक विकासाची नवीन दालने खुली झाली. पारतंत्र्यांत जी भारताची हाणी झाली होती. ती भरून काढण्याची संधी प्राप्त झाली पण भारतातील विकासासाठी आवश्यक संसाधने आणि विकासाची सुरुवात याचा मेळ घालने भारतासाठी फार महत्वाचे होते कारण भारत हा नैसर्गिक संसाधनाने विपूल असणारा देश आहे. या साधनाचा वापर भारताच्या विकासासाठी होत असताना साधनाचा वापर शाश्वत स्वरूपात होणे हे एक आव्हान आहे.’

प्रस्तावना :

भारतातील नैसर्गिक संसाधने :

नैसर्गिक दुष्ट्या भारत हा विपूल संसाधने आसणारा देश आहे. ही साधने दोन विभागात विभागली आहेत. १. ज्वीकरणक्षम व २. अनवीकरणक्षम संसाधने आहेत. १. ज्वीकरणक्षम संसाधने : भारतात जमीनप्राणीह्रिमासिसेमारीगिघताळ कुरणेजिगलसंपदा ही संसाधने आहेत.

२. अनवीकरणक्षम संसाधने : खनिजेद्विाडी कोळसाखनिज तेलनिसर्गिक वायूत्तिवे लोखंडप्राणअैल्युमिनिअम इ.

भारतातील नवीकरणक्षम संसाधने :

१. जमीन : भारतात विविध प्रकारचे जमिनीचे प्रकार आहेत. जमीन हा घटक खुप महत्वाचा आहे कारण जमिनीवरून देशाचा विकास किती आहे हे समजण्याचे एक प्रमुख साधन आहे. जमिनीत मानवच्या विकासासाठी असणारे अनेक साधने मानवला प्रथम जमिनिपासूनच मिळाले आहेत. जमिनीचा प्रामुख्याने दोन प्रकारे वापर विकासासाठी केला जातो.

१. जमिनीचा वापर अन्नधान्यसाठी

२. ज्वी आणि औद्योगिक विकासासाठी खनिज पदार्थाचा वापर

जमिन किंवा मृदा हा भूकवचावरील अत्यंत महत्वाचा स्तर आहे. जमिनिचे विविध प्रकार असून त्यात टेकड्या दखिखोयि दलदलीचे प्रदेश इ. समावेश होतो. जमिन ही त्याप्रदेशात ज्याप्रमाणे खडक बनलेला आहे तशा प्रकारे गुणधर्म त्या प्रदेशातील जमिनित असतात. उदा. महाराष्ट्र हा लाव्हा खडकापासून बनलेला आहे म्हणून या भागात काळया प्रकारची जमिन पाहावयास मिळते तर महाराष्ट्रातील कोकणतील जमिन ही जाभ्या खडकापासून बनलेली आहे म्हणून ही जमिन तांबडयाप्रकारची पाहावयास मिळते. जमिनितील प्रकारानुसार जमिनीत पाणी साठवून ठेवण्याची क्षमता सुध्दा जमिनित असणाऱ्या खडकावरूनच ठरते. काळया जमिनित अधिक पाणी साठवणूक करण्याची क्षमता असते तर तांबडया प्रकारच्या जमिनित

कमी पाणी साठवणुक करन्याची क्षमता असते .या जमिनिच्या प्रकारानुसार त्या त्या प्रदेशाचा विकास झाला आहे .

भारतातील जमिनीचे प्रकार १[काली जमीन २[तांबडी जमीन ३[जांभी जमीन ४[गोळाची जमीन ५[भंगर जमीन ६[आबर जमीन ७[खंडर जमीन ८[मिभूज प्रदेशातील जमीन ९[विळवंटी जमीन १०[पर्वतीय जमीन
भारतातील जमीनीचा वापर

अ .नं .	तपशील	क्षेत्र[वशलक्ष हेक्टर]	टक्केवारी
१	एकूण भौगोलिक क्षेत्र	३२९	''
२	एकूण नोंदणी झालेले क्षेत्र	३०६	१००
३	ओसाड जमीन	४२	१४
४	जंगलाखालील जमीन	६९	२३
५	कायमची कुरणाखालील जमीन व चराऊ कुरणे	११	३
६	मशागतीयोग्य टाकाऊ जमीन	१८	६
७	पडीक जमीन	२५	८
८	लागवडीखालील निव्वळ क्षेत्र	१४१	४६
९	एकापेक्षा अधिक वेळा लागवड केलेली जमीन	४९	१६
१०	पिकाखालील एकूण क्षेत्र	१९०	६२

हवा : पृथ्वीच्या भौताली वातावरनाला हवा असे म्हणतात . हवा हा घटक नैसर्गिक घटकातील अत्यंत महत्वाचा घटक आहे . हवा अल्यामुळे देशातील जीवपृष्ठी आपले जीवन जगत असते देशातील हवेचे वातावरनावर देशाचा मानवी विकास महत्वाचा असतो .हवेच्या प्रमाणावर देशातील शेती[उद्योग विकसीत होत असतो . हवेमध्ये ऑक्सीजन[कार्बन डायऑक्साईड[कार्बन मोनोऑक्साईड[मिथेन[क्लोरोफ्लोरो[कार्बन नायट्रोजन ट्राय ऑक्साईड[सल्फर डाय ऑक्साईड[सल्फर ट्राय ऑक्साईड[सल्फर ऑक्साईड अशा अनेक घटकापसासून हवा बनत असते .यातील काही घटल जीवनाला महत्वाचे असतात तर काही घटक जीवनाला अत्यंत घातक असतात .घातक घटकाचे प्रमाण वाढले तर वातावरणाला व विकासाला जीवशृष्ठीला घातक होतात .

मासेमारी : मासेमारी हा घटक मानवाच्या जीवनापासून मानवाला उपजविकेचे साधन बनला आहे . जमीनीवरील अन्नाच्या साखळीचे साधन मानवला कमी पडू लागल्याने किंवा पर्याय म्हणून पाण्यातील मासेमारीवर मानवाने उपजीवका करून आपले जीवन जगत आले आहे . मानवाने जैविक विकासामध्ये मासेमारी हा घटक आपल्या विकासासाठी वापरला आहे . मासेमारी मानवाने दोन प्रकारी केली आहे .

१[गोडया पाण्यातील मासेमारी

२[खोल्या पाण्यातील मासेमारी

गोडया पाण्यातील मासेमारी : नदी नाले आढे विहिर तलाव आणि कृत्िम तळी अशा ठिकणी गोडया पाण्यातील मासेमारी केली जाते .भारतात एकूण ८ मोठया नदया आणि त्याच्या ४०० हून अधिक उपनदया आहेत .या सर्वांमध्ये मासेमारी केली जाते .

खाद्य पाण्यातील मासेमारी : समुद्र व खाडी समुद्राजवळील नदीच्या भागात केले जाते. भारताला सुमारे ६५३५ किलोमीटर लांबीचा समुद्रकिनारा लाभला आहे. सुमारे २० दशलक्ष चौरस किलोमीटर एवढा सागरी मच्छीमारी व्यवसायासाठी भारताला उपलब्ध आहे. सागरातील नैसर्गिक मत्स्यनिर्माती होत असल्याने कधीही न संपणारा प्रचंड मत्स्यसाठा सतत उपलब्ध होत आहे.

गवताळ कुरणे : गवताळ कुरणामध्ये कायम स्वरूपाची कुरणे आणि इतर चराऊ जमिनीचा यात समावेश होतो १९५० ५१ ला याचे क्षेत्र ६.६८ लक्ष हेक्टर गवताळ कुरणे होती याचे प्रमाण २००३ ०४ याकाळात १०.४८ लक्ष हेक्टर इतके झाले आहे. ५३ वर्षात ३.८ लक्ष हेक्टर वाढले आहे.

जंगलसंपदा : भारतात जंगलसंपदा नैसर्गिक दृष्ट्या खुप चांगली आहे. भारतातील जंगलसंपदा तीन प्रकारची आहे. राखीव संरक्षित आणि इतर देशाच्या एकूण क्षेत्रफळापैकी २३टक्के जमिन जंगलाखाली आहे. या जंगलातून कागद, रेशम, लोखंड, काष्ठ, कृत्रिम खनिज, अशा वस्तू मिळतात. १९५० ५१ ला भारतातील जंगलाचे प्रमाण ४०.४८ लक्ष हेक्टर होते तेच प्रमाण २००३ ०४ ला ६९.९७ लक्ष हेक्टर झाले आहे म्हणजे वाढले आहे हे एक चांगला परिणाम आहे.

अनवीकरण संसाधने : जी साधने एकदा वापरल्यानंतर कायमस्वरूपी नष्ट होतात अशा साधनसंपत्तीला अनवीकरण संसाधने असे म्हणतात. या मध्ये खनिजे, दगडी कोळसा, खनिज तेल, नैसर्गिक वायू, तंत्रिकीय लोखंड, प्लास्टिक, अल्युमिनिअम इ. याचा समावेश होतो.

खनिजे : देशाच्या विकासासाठी खनिजे खुप महत्वाची असतात. ही खनिजे रासायनिक घटकापासून पृथ्वीच्या अंतरंगत भागात लाखो वर्षापूर्वी तयार झालेली असतात. भारतात एकूण ८९ खनिजांचे उत्पादन घेतले जाते. यामध्ये ४ इंधन खनिजे, ११ धातू खनिजे, ५२ अधातू खनिजे आणि २२ इतर खनिजे आहेत. खनिजाचे वर्गीकरण

धातू खनिजे : यामध्ये लोह, खनिज, मॅग्नेटाईट, हिमेटाईट, लिमोनाईट, सिडेराईट, मॅग्नेटाईट, हिमेटाईट, सिडेराईट इ. याशिवाय तांबे, कथील, जस्त, सीने, चांदी, मँगनीज, बॉक्साईट, शिसे, अँटिमनी, मॉर्माईट, टंगस्टन इ. धातू खनिजे असून ती अशुद्ध स्वरूपात सापडतात. त्यावर प्रक्रिया कराव्या लागतात.

अधातू खनिजे : अभ्रक, ग्राफाईट, गंधक, पोटॅश, फॉस्फेट इ.

इतर इंधन शक्तीची खनिजे : यात दगडी कोळसा, खनिज तेल, नैसर्गिक वायू इ. समावेश होतो.

लोखंड खनिज : धातू खनिजांत सर्वात महत्वाचे खनिज लोखंड खनिज होय. लोखंडामुळे मानवला त्याचा विकास अधिक वेगाने करता आला. भारतात लोखंड फार प्राचीन काळापासून वापरले जाते. भारतीयाने या खनिजाचा फार प्रगती केलेली दिसते. याचे उदाहरण आज हि दिल्लीत उभा असलेला लोह खांब पाहावयस मिळतो. लोह खनिजात भारताचा जगात चौथा नंबर लागतो. एकूण लोखंड उत्पादनाच्या २५टक्के उत्पादन भारतात होते. भारतात हेमेटाईटचे १४६३० द.ल टनांचे साठे आहेत. त्यातील ९५ टक्के साठे हे ओरिसा, झारखंड, छत्तीसगड, कर्नाटक आणि गोवा या राज्यांत आहेत. मॅग्नेटाईट या धातूचे साठे मार्यादित असून ते छत्तीसगड, कर्नाटक, झारखंड आणि ओरिसा या प्रांतांत आहेत. मॅग्नेटाईट या धातूचे १०६१९ द.ल टनांचे साठे असून त्यातील ६० द.ल टन गोवा राज्यस्थान आणि झारखंड या राज्यात आहेत.

दगडी कोळसा : दगडी कोळसा हा भारतात फार प्राचीन पासून वापरल्याचे पुरावे मिळतात . हे एक महत्वाचे साधन असून उद्योगधंद्यात दगडी कोळशाचा वापर होतो . भारतात दगडी कोळशाचे चार प्रकार दिसून येतात . त्यामध्ये १)अंत्रासाईट २)बिटुमिनस ३)लिग्नाईट ४)पीट इ . भारतातील दगडी कोळशाचे उत्पादन जागतिक उत्पादनाच्या ६टक्के आहे . हे साठे भारतात झारखंडओरिसापश्चिम बंगालमध्ये प्रदेशछत्तीसगडआंध्र प्रदेशउत्तर प्रदेशमहाराष्ट्रआसाममिझोरमिझालयअरुणाचल प्रदेश या राज्यांत दगडी कोळशाचे साठे मोठ्या प्रमाणात आहेत .

खनिज तेल : खनिज तेल हे एक महत्वाचे साधन आहे . खनिज तेल हे ज्वलनशील हायड्रोकार्बन मिश्रण असते . खनिज तेल हे समुद्रात सुध्दा सापडते . भारतात खनिज तेलाच्या साठ्याचा शोध सन १८८६ मध्ये लागला . आसाममधील माटूम भागात तेल साठे आढळून आले . दिग्बोई येथे सर्वप्रथम खनिज तेल उत्पादन सुरु झाले . हा साठा भारतातील सर्वात मोठा साठा आहे . याशिवाय आसाममधील नहरकटियामोरानबाप्पापुंगहारूनपुंगहुगरीजात इ.क्षेत्रे खनिज तेलाच्या दृष्टीने महत्वाची आहेत . तसेच वादरपूरसिमपूरप्रिठारिया या भागातही खनिज तेल साठे आहेत . भारताच्या किनाऱ्याजवळ सागरी क्षेत्रात गाळाच्या प्रदेशात खनिज तेलाचे मोठे साठे मिळण्याची शक्यता आहे . गुजरातमधील अंकलेश्वर आसाममधील रूद्रसागरमुंबई व रत्नागिरी साठे आढळले आहेत .

नैसर्गिक वायु : भारतात खनिज तेलाबरोबर नैसर्गिक वायुचे साठे सापडतात . ज्या ठिकाणी खनिज तेल सापडते अशाच ठिकाणी नैसर्गिक वायुचे साठे सापडतात . हे साठे आसाममधील नहरकटियाबिहारमधील दामोदर खोरेमहाराष्ट्रात मुंबईकडील बॉम्बे हायड्रोकार्बन ठिकाणी वायु साठे आहेत . नैसर्गिक वायु मंडळाच्या मते सन १९८७ मध्ये भारतातील नैसर्गिक वायूचा एकूण साठा ५४१ शतकोटी घनमीटर इतका होता . याचे प्रमाण २००१ मध्ये ७५० शतकोटी घनमीटर इतका असल्याचा अंदाज आहे .

तांबे : लोखंडाच्या खाणींच्या जवळपास तांब्याच्या खाणी सापडतात . तांबे हा धातू शीघ्र वाहक असल्यामुळे विद्युतवाहक म्हणून तांब्याचा वापर केला जातो . युएनएफसी च्या मते भारतात १३९ द.श.टन तांब्याचे साठे आहेत . हे उत्पादन आंध्र प्रदेशगुजरातहरियाणाकर्नाटकमहाराष्ट्रमिझोरमिझालयओरिसातिमिळनाडूउत्तराखंड व पश्चिम बंगाल या भागात तांब्याच्या खाणी आहेत .

अॅल्युमिनिअम : अॅल्युमिनिअम हा मऊ असा धातू आहे . औद्योगिक विकासासामध्ये हा धातू महत्वाचा आहे . या धातु पासून भाडी यंत्रसामुग्री संगणकाचे भाग इ . बनविले जाते . हा धातू बॉक्साईट पासून बनविला जातो . भारतात बॉक्साईट अनेक राज्यात जमिनिच्या कवचा खाली सापडते . याच्या खाणी महाराष्ट्र कर्नाटक झारखंड आसाम ओरिसा इ भागात सापडतात . अशा प्रकारे भारतात मुबलक प्रमाणात नैसर्गिक संसाधने उपलब्ध आहेत . पण या वापर ७४वर्षात या नैसर्गिक साधनाचा वापर पर्याप्त प्रमाणात होणे अपेक्षित होते पण तसे होताना दिसत नाही .

शाश्वत विकास : कोणत्याही देशाला नेहमी भेडवसावनार प्रश्न म्हणजे विकास कसा करावयाचा विकास केल्यानंतर तो कसा ठिकवून ठेवायचा या प्रश्नातून शाश्वत विकासाची संकल्पना उदयास आली असे म्हणता येईल . शाश्वत विकासाचा वेगवेगळा अर्थ काढला जातो . पण याचा अर्थ फार मोठा आहे . विकासाचा अर्थ औद्योगिक क्षेत्रांत देशातील साधन सामग्रीचा वापर करणे अशाच लावला जात होता पण

यामुळे मानसाच्या विकासामुळे पर्यावणाच्या नैसर्गिक चक्रांमध्ये बाधा होत असल्याचे दिसून आले. विकासामुळे कायम स्वरूपाचे नैसर्गिकाचे नुकसान झाल्यास या नुकसानीची किंमत मानवालाच द्यावी लागत आहे. या प्राप्तिवून मानवाने शाश्वत विकासाची संकल्पना पुढे आल्याचे दिसते.

व्याख्या : १. **ब्रिडलॅंड अहवाल :** 'शाश्वत विकास म्हणजे असा विकास जो भविष्यकालीन पिढ्यांच्या त्यांच्या स्वतःच्या गरजा पूर्ण करण्याच्या क्षमतेची कोणतीही तडजोड न करता सध्याच्या गरजा पूर्ण करणे होय.'

२. **रिपोर्ट :** 'शाश्वत विकासासाठी अधिक वस्तुनिष्ठ आणि संभाव्यता मोजता येणारी कसोटी म्हणजे साधनसंपत्तीच्या आधाराची उत्पादकतेची व पूर्ण कार्यात्मकतेची चालू ठेवणे होय.'

या व्याख्या वरून एतकेच म्हणता येईल की शाश्वत विकासाची संकल्पना म्हणजे गरिबी-बेरोजगारी-आधिक श्रीमंती-सामाजिक अस्तिरथा-सिध्दमाचा अतिरिक्त वापर-सिध्दनाचा कमी वापर अशा अनेक अर्थाने शाश्वत विकासाची संकल्पना वापरली आहे. थोडक्यात शाश्वत विकासाचा अर्थ म्हणजे नैसर्गिक पर्यावरणात कोणताही बदल न करता मानवाला त्याचे जीवन सुखमय करण्याचा प्रयत्न करणे होय.

संसाधने आणि शाश्वत विकास : शाश्वत विकासाचा एक भाग म्हणून संसाधनाचा वापर आणि विकास हा संबंध पाहिला जातो. आधिक साधनाचा वापर केला तर निसर्गाचे नुकसान होते तर अर्थव्यवस्थेत असंतुलन निर्माण होते हे नुकसान संसाधने कमी प्रमाणात वापर केला तरी ही होते. म्हणजे संसाधनाचा वापर म्हणजे पर्याप्त वापर होणे होय. त्यामुळे देशाच्या विकासात संसाधने आणि शाश्वत विकास फार महत्वाचा आहे.

भारतातील संसाधनाचा वापर

अ.नं.	संसाधने	१९५०-५१	२०००-०१	२०१९-२०
१	जमीन			
	एकूण भौगोलिक क्षेत्र	३२८.७३	३२८.७३	३२८.७३
	एकूण नोंदणी झालेले क्षेत्र	३२८.७३	३२८.७३	३२८.७३
	ओसाड जमीन	४७.५२	४१.२३	४४.०२
	जंगलाखालील जमीन	४०.४८	६९.८४	७१.८७
	कायमची कुरणाखालील जमीन व चराऊ कुरणे	६.६८	१०.६६	१०.२६
	मशागतीयोग्य टाकाऊ जमीन	२२.९४	१३.६३	१२.२९
	पडीक जमीन	१७.४५	१०.२७	११.३१
	लागवडीखालील निव्वळ क्षेत्र	११८.७५	१४१.३४	१३९.५१
	एकापेक्षा अधिक वेळा लागवड केलेली जमीन	१३.१५	४४.००	५७.५५
	पिकाखालील एकूण क्षेत्र	१३१.८९	१८५.३४	१९७.५१
२	मासेमारी क्षेत्र . टन मध्ये	७५२	५६५६	१०७६२
		२०११-१२	२०१३-१४	२०१५-१६
३	खनिजे क्षेत्र . टन मध्ये			
४	दगडी कोळसा क्षेत्र . टन मध्ये	५३९.९५	५६५.७७	५७८.०३

५	खनिज तेल [एमसीएम मध्ये]	४७५५९ .००	३५४०७ .००	३१७३४ .००
६	लॉंगवुड [ला . टन मध्ये]	१६८ .५८	१५२ .१८	१३९ .७३
७	तांबे [ला . टन मध्ये]	१६७	१७७	१६५
८	अॅल्युमिनियम [ला . टन मध्ये]	१२५८	११३०	१७६०

संदर्भ : अॅगरिकल्व्ह स्टॅटिस्टिकल गॅलान्स २०१९ वरिल टेबल वरून पाहिल्यास भारतात साधन सपत्तीचा वापर मोठ्या प्रमाणात वाढत आहे पण त्याचा विकासावर योग्य असा परिणाम होताना दिसत नाही .

उद्दिष्ट्ये :

१. देशातील विकासाचा अभ्यास करणे .
२. विकासातील दोष दुर करण्यासाठीचे उपाय शोधने .

संशोधन पध्दती

या संशोधन निबंधासाठी दुय्यम साधनाचा वापर केले आहे . यासाठी १९५० ते २०२० या काळातील देशातील वापरलेल्या संसाधन साधनाचा तुलनात्मक अभ्यास पध्दतीचा वापर करून अभ्यास केला आहे .

माहिती संकलण

या संशोधन निबंधासाठी सरकारी अहवालाचा वापर माहिती मिळविण्यासाठी केला आहे . या मध्ये सांख्यिकीय विभाग महाराष्ट्र शासन सांख्यिकीय विभाग भारत सरकार याच्या वार्षिक अहवालाचा वापर केला आहे .

नष्कर्ष :

भारतात नैसर्गिक संसाधने मुबलक प्रमाणात आहे पण या संसाधनाचा वापर योग्य प्रमाण होणे गरजेचे आहे . तो होताना दिसत नाही म्हणून देशाचा विकास हा संथ गतिने होताना दिसतो . यामुळे देशात अनेक समस्या निर्माण होताना दिसतात . जसे बेकारी बेरोजगारी विषमता इ .

समारोप :

भारत हा नैसर्गिक संसाधन असणारा जगातील एक महत्वाचा देश आहे . योग्य पध्दतीने संसाधनाचा वापर केला तर हा देश जगातील एक प्रगतशील देश होऊ शकतो .

संदर्भ सुची :

१. महाराष्ट्राची आर्थिक पाहणी अर्थ व सांख्यिकी संचालनालय नियोजन विभाग महा . शासन मुंबई
२. भारतीय अर्थव्यवस्था डॉ . देसाई डॉ . सौ . भालेराव निराली प्रकाशन
३. भारतीय अर्थव्यवस्था विकास व पर्यावरणात्मक अर्थशास्त्र डॉ . जी . एन . झामरे . पिंपळापुर अॅण्ड कं पब्लिशर्स नागपूर .
४. साधनसंपत्तीचे अर्थशास्त्र भोसले [क्रीट] मजी फडके प्रकाशन
५. अॅगरिकल्व्ह स्टॅटिस्टिकल गॅलान्स २०१९



बाजार में आंधी दौड़

डॉ. शंकर दळवी

राजर्षी शाहू कला तथा वाणिज्य, महाविद्यालय, रुकडी (महाराष्ट्र)

Email- shankardalavi1266@gmail.com

सारांश

भूमंडलीकरण और बाजारवाद पर ममता कालिया का प्रसिद्ध उपन्यास है 'दौड़'। भूमंडलीकरण और आधुनिक समाज ने इक्कीसवीं सदी में रोजगार और नौकरी के नये रास्ते खोले दिए। आर्थिक उदारीकरण ने भारतीय बाजार को शक्तिशाली बनाया। बहुराष्ट्रीय कंपनी में रोजगार के अवसर प्रधान किये। युवावर्ग ने पुरी लगन के साथ इस सिमसिम का द्वार खोला और इस में प्रविष्ट हो गये। वर्तमान सदी में समस्त अन्यवादों के साथ एक नया वाद आरंभ हो गया बाजारवाद और उपभोगतावाद। ममता कालिया का 'दौड़' यह उपन्यास भूमंडलीकरण, व्यावसायिकता, जीविकावाद, विज्ञापनबाजी, उपभोक्तावाद आदि के मिश्रण से बने मनुष्य की कहानी बहुत प्रभावशाली ढंग से प्रस्तुत करता है। बेशक इस दौर में, 'दौड़' ने नये वर्ग की नयी पीढ़ी के चरित्र के माध्यम से नये प्रतिमान और कीर्तिमान कायम किये हैं। बाजारवाद की इस प्रतिस्पर्धा से प्रतिस्पर्धा की तरफ जाती आंधी दौड़ ने नाते-रिश्ते, मानविय संवेदना, लगाव, परंपरा, अर्थहीन, दकियानूसी और बीता हुआ उच्छ्वास सिर्फ बनकर रह गये हैं। यहाँ रिश्ते बहुत व्यवहारिक, अर्थहीन और सतही हैं। शहर का अर्थ केवल रोजगार में खुलता है। यहाँ स्मृतियाँ एकदम व्यर्थ हैं सपने सिर्फ तरक्की से जुड़े हैं और इस बाजार में सब कुछ लील लिया है जो मनुष्य को मनुष्य बने रहने की ताकत नहीं देता है। आज की नई पिढी इंटरनेट, गुगल, यु-ट्यूब, मेल, ई-मेल, सरपिंग, चॅटिंग में व्यस्त है। स्लॅपडील, फ्लिप कार्ड, अमेझॉन, अलीबाबा जैसे ऑनलाइन शॉपिंग के मोह जाल में फस गई है। आभासी तकनीकी अंतरजाल में 21 वीं सदी में कहीं चुनौतियाँ और संधियों की आंधी दौड़ शुरू हो गई है।

प्रस्तावना-

'दौड़' यह ममता कालिया जी का प्रसिद्ध उपन्यास है। दौड़ के द्वारा बाजार के दबाव-समूह, उनके परोक्ष-अपरोक्ष मारक तनाव, आक्रमक और निर्ममता तथा आंधी दौड़ में नष्ट होते मनुष्य के आसन्न

खतरे में पड़े मनुष्यता को उजागर करती है। वर्तमान सदी में समस्त वादों के साथ एक नया वाद प्रारंभ हो गया बाजारवाद और उपभोक्तावाद। 21 वीं सदी का सिधा-साधा खरीददार एक चतुर उपभोक्ता बन गया। 'दौड़' उपन्यास इस प्रभाव और तनाव की पहचान कराता है। दौड़ उपन्यास पर एक नजर डाले तो यह आज के समय की सटीक टिप्पणी है। आधुनिकता के नाम पर समाज में आ रहे जबरदस्त बदलाव का असर पड़ा है मानवीय संबंधों पर। पैसे, ग्लैमर, भव्यता और चकाचौंध की दीवानी आज की नई पिढी किसी के भी कंधे पर पाव रख कर सफलता का चरम चुमना चाहती है। उसके लिए सामाजिक बंधन, परिवार, अपनापन, ममत्व सब कुछ छलावा है। केवल अपना जीवन जीना चाहती है जहां न दुसरो की उखाड़-पछाड़ हो न दबाव और न ही इस्तमाल की जरा भी आशंका।

राकेश और रेखा के पवन और सघन दो पुत्र हैं। बच्चों के बेहतर भविष्य के लिए मां-बाप मिलकर सुख-सुविधा समेटते हैं। बच्चों के लिये महंगी और उंची शिक्षा देकर स्वप्निल दुनिया का दरवाजा दिखाते हैं। वही बच्चे आधुनिक बदले परिवेश में सरसराते हुए इतने आगे निकल जाते हैं कि उन्हें मां-बाप के किमती समय को याद करने का वक्त भी नहीं मिलता। टेक्निकल तथा इंटरनेट जीवन के आदी हो चुके इस बच्चों को अपने सपने, अपने भविष्य अपने वैभव के आगे संबंधों की गरमाहाट बेमतलब लगने लगती है वे हडबडाट और जल्दबाजी में इन से छुटकारा पाने के लिए बेचैन रहते हैं या अपने रिश्ते और संबंधों को झटक ही देते हैं।

राकेश और रेखा शर्मा का बड़ा पुत्र पवन एमबीए कर चुका है। उसे इलाहाबाद जैसे छोटे शहरों में कोई काम नहीं मिलता। नॅशनल, मल्टिनॅशनल कंपनियों में अनेक छलांग लगाते हुए लगातार प्रगति के पथ पर बढ़ता ही पवन चला जा रहा है। माँ-बाप और भाई के लिए उसके मन में कोई जगह नहीं है। बाजार का आदी पवन हवा की तरह चला जा रहा है। पवन के जीवन में स्टेला आती है प्रबुद्ध, कमाऊ, करिअरिस्ट, दोनो लाइफ पार्टनर बनाने का निर्णय लेते हैं। माँ-बाप को पवन का फैसला अच्छा नहीं लगता। माँ उसे कहती है - "मैंने तो कोई लडकी नहीं देखी जो शादी से पहले ही पती के घर में रहने लगे।" राकेश और रेखा का द्वितीय पुत्र सघन अभी अपने कंप्यूटर करियर में मस्त है दोनों को अकेला छोड़कर वह भी नौकरी के लिए निकल जाता है। राकेश-रेखा बुढापे में दोनो एक दूसरे का सहारा बने उसी घर में फोन, कम्प्यूटर,

इमेल ,इंटरनेट में उलझे रहते है।भूमंडलीकरण के दौड़ ने रिश्तो मे दिखावटीपन तथा मतलबीपन आ गया है।बाजारवाद में हर नाते रिश्तो के संबंधो में सिर्फ मुनाफे ,नफा -नुकसान की बात आती है।पहले रिश्तों के जगह पैसो की कोई अहमियत नही थी वह विश्वास तथा भरोसे पर चलते थे लेकिन आज कल बाजारवाद के कारण उसमें दरारे पड चुकी है। उत्पादक कंपनीओ में प्रचंड होड निर्माण हो गई है।

भूमंडलीकरण ने नाते रिश्ते तथा आपसी प्रेम भाव मे दिखावटीपन तथा मतलबीपन का बीज बोया है।उत्पादक कंपनी तथा व्यवसायिको में प्रचंड होड के कारण मुनाफा कमाने के लिए होलसेलर, स्टॉककिस्ट, रिटेलर, डोअर टू डोअर कम्पियन किया जा रहा है। अपना उत्पाद बढ़ाना, बेचना तथा ग्रहाकों को तरह - तरह के प्रलोभन दिखाकर उनके जेबो से पैसा निकालने का काम बहुराष्ट्रीय कंपनी कर रही है।आज का बाजार वाद सिर्फ लोगोके जेबो से पैसा वसूलने का काम कर है और अपने माल की कोई गॅरंटी नही देता। बाजार वाद मे आज की नई पिढी पॅकेज पाने और अपना लक्ष्य पूरा करने के लिए येडी -चोटी एक कर रही है। नई पिढी में भारी भक्कम वेतन पाने की लालसा तथा खुद को साबित करने का जुनून है। अपनी सारी जिंदगी वह कुछ सपनो में जीने की जिद कर रही है।समय जिस तेजी से बदल रहा है उस तेजी से हमारे विचार नही बदल रहे है।पैसा और ग्लॅमर सुख-सुविधा का साधन नही रह गया है। धीरेंद्र अस्थाना के अनुसार -" प्रतिस्पर्धा से प्रतिस्पर्धा की तरफ जाती आंधी दौड में सब कुछ बेनामी। "आज के बाजारवाद में नई पिढी को संवेदनहीन और स्वार्थांध बनाया है।नाते -रिश्ते और परिवारवाद के इस संक्रमणकाल ने नई पिढी को ' बाप हो या भैया सबसे बडा रुपैय्या यही साबित करने का प्रयास किया है। बाजार की अर्थवादिता विषला वैश्वीकरण फाईल रही है और प्रेमभाव, नाते -रिश्ते समाप्त हो रहे है।बाजारवाद ने सभ्य संस्कृती को असभ्य संस्कृती की तरफ मोड दिया है। भूमंडलीकरण तथा बाजारवाद ने संक्रमण तथा संघर्ष की स्थिती निर्माण की है। स्वार्थ की पराकाष्ठा होने के कारण आपसी होड ,संघर्ष तथा जानलेवा व्यवसायिकता ने लोगो मे वैरभाव निर्माण किया है।बाजार के वर्चस्व ने सत्ता के समीकरण को बदल दिया है। कुछ देश वर्चस्ववादी के कारण आमने-सामने आकर युद्ध कर रहे है। बाजार पर वर्चस्व ,सत्ता की अभिलाषा अहभाव निर्माण कर रही है। यही बाजार तथा सत्ता की होड तृतीय महायुद्ध की दस्तक दे रही है

।रशिया -युकेन ,चीन - अमेरिका ,इराक -इराण ,दक्षिण कोरिया -उत्तर कोरिया में आज सत्तांधता की आंधी दौड निर्माण हो गई है ।आज के बाजारवाद को 'न ओर है ना छोरी है ' वह कहा जाकर सकेगी पता नही ।वैश्विक मानवता के लिए वह प्रगती की ओर ले जायेगी या विनाश की ओर इसका पता नही है ।कायदे - कानून ,विवेकता से उन्हे नियंत्रित करने की आवश्यकता है ।बाजार के इस अँधी दौड को स्वार्थ की गहरी खाई तथा अंधेरी के तरफ जाने वाली इस दौड को हमे नये तथा उज्वल रास्ते की तरफ मोडने की आवश्यकता है ।तभी मानव जाती का विकास होगा और वह प्रगती के तरफ दौडेगी।

ग्रंथ सूची :-

1. दौड - ममता कालिया
2. दौड मे भूमंडलीकरण की सार्थकता का यथार्थ चित्रण-डॉ. विद्या शिंदे
3. ममता कालिया का व्यक्तित्व तथा कृतित्व-डॉ.विजापुरे



CHALLENGES AND OPPORTUNITIES OF DIGITAL MARKETING IN INDIA

Dr. Kishor Lipare¹, Dr. Santosh Borate²

¹HOD, Commerce, Waghire College, Saswad,

²Assistant Professor, Shrimati Akkatai Ramgonda Patil Kanya Mahavidyalay,
Ichalkaranji

Email id= santoshborate1301@gmail.com

Abstract

Digital Marketing is the result of important advancement in technology and inventions. Marketers are faced with new challenges and openings within this digital age. We examine the effect of digital marketing on the enterprises' deals. Digital marketing helps in perfecting services at low cost and are liked by customers. The results of the study indicates that the digital marketing increase the effectiveness of business and services. It reduces the time and cost as well as increases the fiscal capacity of the association. Technology, digitization, social media and mobility etc changed our life style drastically. Digital marketing is a more feasible option than traditional media. In this paper an attempt has been made to understand the conception of digital marketing, its challenges and its opportunities. The paper focus on thesis that, Digital marketing helps in perfecting services at low cost and are liked by customers

Keywords-Digital Marketing, Challenges, Opportunities

Introduction:

Digital marketing has surfaced as a buzz word in last half decade. There's a paradigm of shift in how business is conducted from traditional model to E-commerce model. There's under expansion of products and requests and at the same time challenges are arising to make the players; more competitive in the field. Moment, utmost companies are moreover allowing about or pressing ahead with digital change enterprise. Every company has a website, and many marketing strategies are inked off without incorporating social media. Clearly, social media is a critical element of any digital strategy, but a holistic response to the digital shift must go much further.

Objectives of the study:

1. To study the concept and features of Digital Marketing in Indian scenario.

2. To study the necessity of Digital Marketing.
3. To point out challenges and opportunities of Digital Marketing in Indian scenario.
4. To provide necessary suggestions for better future of Digital Marketing in India

Research Methodology:

The present research is Descriptive Research. For the purpose of the study, data have been collected through secondary sources such as reference books, journals, articles published on internet websites etc.

Digital marketing: Concept and Meaning

Digital marketing is the application of electronic media to promote the business services into the request by the organization. The end of digital marketing is to attract customers and allowing them to interact through digital media. Chaffey (2000) simply define internet marketing as "the operation of the internet and related digital technologies to achieve marketing objects Digital Marketing principally involves following crucial features;

1. Contact customers by e-mail or fax
2. Use business-to- business buying and selling
3. Defies all walls of time and space
4. Online Advertising, Dispatch-marketing, Affiliate marketing Social Media Marketing
5. Produce client data bank
6. Give for business-to- business exchange of data

Necessity of Digital Marketing:

With rapid-fire technological developments, digital marketing has changed customers buying behavior. It has brought colorful advantages to the consumers as given below;

24/7 Shopping

Since internet is available all day long, there's no time restriction for when client wants to buy a product online.

Enables instant purchase:

With traditional marketing, customers first watch the announcement and also find applicable physical store to buy the products or services. Still, with digital marketing, customers can buy the products or services incontinently.

Greater engagement:

With digital marketing, consumers can engage with the company's colorful conditioning. Consumers can visit company's website, read information about the products or services and make purchases online and give feedback.

Easy comparison with others:

Since numerous companies are trying to promote their products or services using digital marketing, it's getting the topmost advantage for the client in terms that customers can make comparison among products or services by different suppliers in cost and time friendly way. Customers don't need to visit a number of different retail outlets in order to gain knowledge about the products or services.

Challenges of Digital Marketing:

In malignancy of the below advantages, following are the challenges of Digital Marketing

High Competition of Brands:

Digital Marketing has a disadvantage when a client quests for a specific product of a specific company on internet, numerous contending goods, and services having same marketing strategies appear on the client's home runner. This conflicts the guests and provides an indispensable option to choose cheaper and better quality product of another company. As a result, some consumers warrant the trust on a lot of announcements that appear on a website or social media and consider it as fraud and look like a dishonest brand.

Threat of Hacking Strategies:

The threat of playing creation strategies of a company always rests on digital channels (internet) that's one of the downsides of digital marketing. The hackers or challengers can fluently track and copy the precious promotional strategies of a well famed company and can use for their purposes.

Anti-Brand Conditioning:

Another drawback of digital marketing is that indeed a person or group of persons can harm the image of a honored brand through 'Ringer'. Anti-brand activists, bloggers, and opinion leaders spread the term 'Doppelganger' to disapprove the image of a certain brand.

Announcement for Limited Products:

Another practical debit of Digital Marketing is that it's only salutary for consumer goods. The artificial goods and pharmaceutical products cannot be retailed through digital channels. The forenamed information may help digital marketers to understand the strengths and sins of Digital Marketing.

Limitation of Internet Access:

The Digital marketing is nearly reliant on internet. The Digital Marketing can be unprofitable in those areas having no or limited internet availability.

Limited Consumer Link and Discussion:

As digital marketing is largely dependent on internet, so the marketers may find it hard to make their announcements more comprehensive and start a discussion with their consumers about the company brand image or products.

Opportunities of Digital Marketing:

Digital Marketing can be successful and openings after exercising different tools and ways. These tools help marketers to get maximum benefits of digital marketing similar as:

Cost Effective Channel:

Using the internet, Digital Marketing is plant cost-effective and cheaper source of advertising as compared to traditional marketing channels like T.V, Radio, Magazines, Journals, and Banners etc.

Helping Marketers' Career:

Digital Marketing has come a salutary career for the individualities that are familiar with enforcing digital marketing strategy and helping companies to expand their brands to target guests through internet.

Easy Consumer Reach: Digital Marketing is an effective way of communication for companies to target a large number of implicit consumers at the same time. Using the internet channel for marketing is a quick approach to

target a number of implicit consumers and prospects at same time each over the world.

Direct Advertising:

Digital Marketing enables direct advertising and creates mindfulness about a product or a brand. Now the companies can fluently show their announcements for products and services on different digital channels. But a good online advertising strategy and promotional tools can help digital marketers to perform well in largely competitive marketing terrain.

Global Announcements:

This is one of the most effective benefits of Digital Marketing that enables the companies to make announcements internationally and expand their client reach to other countries across geographical boundaries.

Consumer's Convenience to Shop Online

Due to further fashion ability and capabilities of digital marketing, customers have come more accessible to shop online at any time (24/7 base) whether the shops are over or across the borders. Digital Marketing has opened-up an occasion for companies and retailers to direct its customers to an outlet of the online store.

Responsibility of Marketing Exertion:

Digital Marketing enables the companies to measure their marketing conditioning similar as digital marketing is working or not, the quantum of exertion, and the discussion that's involved. Digital marketing also helps marketers to estimate and review their online contents for quality purposes.

Easy Brand Promotion:

With the development of new technologies and use of internet in business, the brands may take a great advantage of Client's reach and communicate its guests successfully.

Suggestions for better future of Digital Marketing in India

1. Provide a transparent and good service to the consumer before and after purchase.
2. Creating awareness among the people about digital marketing

3. Complete description need to provide about the product to the online shoppers
4. Improve technical advancement in promotion of digital marketing.
5. Collect and implement the feedback provided by the consumer in the right way.

Conclusion:

Digital activities are a decreasingly important part of any marketing and deals strategy. There's a paradigm of shift in how business is conducted from traditional model to E-commerce model. There's under expansion of products and requests and at the same time challenges are arising to make the players; more competitive in the field. Moment, utmost companies are moreover allowing about or pressing ahead with digital change enterprise. Every company has a website, and many marketing strategies are inked off without incorporating social media.

References:

1. Sheth, J.N., Sharma, A. (2005). International e-marketing: opportunities and issues. *International Marketing Review* vol. 22 no. 6, 2005 pp. 611-622
2. G. T. Waghmare, (2012) E-commerce; A Business Review and Future Prospects in Indian Business. *Internet Marketing in India. Indian Streams Research Journal*, vol. 2, no. IV,
3. <http://www.businessdictionary.com/definition/digital-marketing.html>
4. <http://www.entrepreneur.com/encyclopedia/affiliate-marketing>
5. http://www.sas.com/en_us/insights/marketing/digital-marketing.html



DIGITAL AUDIT ITS OPPORTUNITIES AND ISSUES

Mr. Sanjay V. Omase¹ Prof. Dr. Varsha Maindargi²

¹Assistant Professor ,Department of Commerce, Rajarshi Shahu Arts and
Commerce College, Rukadi Dist. Kolhapur –Maharashtra-India.

Email- sanjayomase57@gmail.com

²Professor and Head Department of Commerce –Kamala College –Kolhapur.

Email- varsha.maindargi@hotmail.com

Abstract :-

Today's businesses must be constantly evolving to meet changing business models, new regulatory requirements, technology innovations, and an increase in cyber attacks. To help businesses meet these new challenges, internal audit (IA) functions must evolve as well. While internal audit is not the sole owner of risk within an organization, it provides unbiased insight into an organization's internal controls, corporate governance, and business processes. IA educates board members and executives on the business risks and their impact, helping detect and address issues before they are identified by external audit. As data and technology permeate every aspect of the modern organization, IA departments can no longer work alone. IA teams must expand their skill sets and work alongside other departments to more effectively reduce risk, improve controls, and identify inefficiencies within the organization. How will access to data and systems be handled?

1. What controls will be put in place to monitor the performance of these tools?
2. Who will design and monitor the controls?
3. What processes will be implemented to prevent unauthorized access to these new systems and their sensitive data?

Ultimately, Online audit for the business organization will increase productivity, reduce risk exposure, and bring economic and workforce advantages; therefore, internal audit has the chance to position itself as a trusted partner for these transformation initiatives.

Keywords- Online, Audit, Business, Security, Accounts, Technology, Internal Audit.

Introduction: An audit is an "independent examination of financial information of any entity, whether profit oriented or not, irrespective of its size or legal form when such an examination is conducted with a view to express an

opinion thereon.” Auditing also attempts to ensure that the books of accounts are properly maintained by the concern as required by law. Auditors consider the propositions before them, obtain evidence, and evaluate the propositions in their auditing report. Audits provide third-party assurance to various stakeholders that the subject matter is free from material misstatement. The term is most frequently applied to audits of the financial information relating to a legal person. Other commonly audited areas include: secretarial and compliance, internal controls, quality management, project management, water management, and energy conservation. As a result of an audit, stakeholders may evaluate and improve the effectiveness of risk management, control, and governance over the subject matter. **Digital or Online audit** is a technique, which is used to collect **audit** evidence at the same time as an application system undertakes processing of data or immediately after the processing is completed, in a paperless environment. ... **Online Audit** has different imperatives for internal and external **auditors**.

Opportunities of Online Audit

Following are the some of the opportunities of the Online Audit.

1. More transparency with clients.
2. Enhanced relationship with customers.
3. Resolve all disputes with clients.
4. Co-browsing with customers.
5. A processed online service suited to customer behavior.

Digital Audit Process in Brief: Following the figure which shows the basic process of online audit.



Source :- <https://commons.wikimedia.org/w/inde>

Above figure shows the online audit process in brief the know your client , Audit Planning , Fieldwork, analysis , Exercise professional Judgment , Reporting and Documentation and complete the sequence by final output The all the steps are to be followed so that the main purpose of the audit is served properly . no item from the financial should be left out and we have to maximum software based tools to check all the financial formulas and reports so that we can create the faith in the stakeholders about the online process. Many companies are now creating the infrastructure to make the online audit possible at the company site that is purchasing hard ware copy of software and auditors fees to make the resources available tot the Internal and external audit experts . The minimum drawbacks and maximum care should be taken since money and finance is involved. Security measures should be taken care of properly at all the levels of online audit process. These events have not only heightened the need for more reliable, accurate, and secure systems but have brought a much needed focus to the importance of the accounting profession. Accountants certify the accuracy of public company financial statements and add confidence to financial markets. The heightened focus on the industry has brought improved control and higher standards for all working in accounting, especially those involved in IT auditing.

Digital Audit Flow Chart



Source:-<https://www.google.com/search?q=online+a>

The Audit flow charts in online audit are very useful in understanding the steps in online audit. They are easy to apply for your presentations. Audit Process Flow Chart can be used to build the process of auditing, financial analysis and technology, or for training purposes. The flow chart involves Analysis , Fieldwork, Audit, KYC, Reporting, exercise personal Judgment Stages which

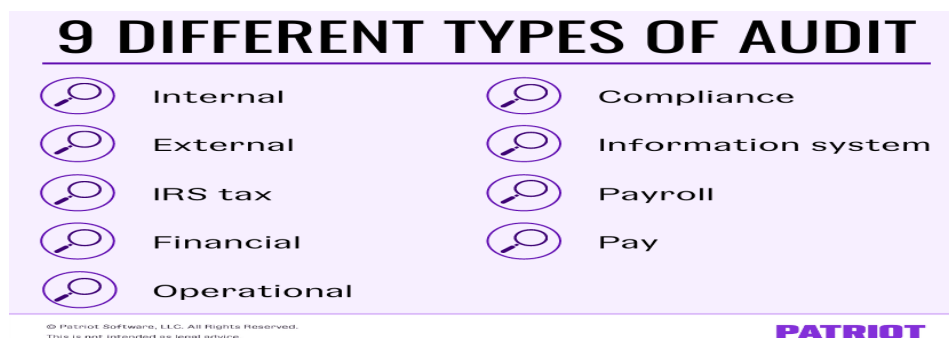
are required to be followed for successful audit process for any company . The stage is involved to make the whole process full proof and error free. The use of judgment is required to intervene in case of totally automated audit system to avoid failure and risk in the audit process.

Importance of audits To Industries

You must conduct audits regularly to understand different aspects of your business. And, audits can help catch issues early on before they snowball into big mistakes. If you don't conduct audits, you may find yourself reviewing inaccurate information, which can impact your business later. Before you kick the idea of audits to the curb, think about how they can benefit your small business. Audits can help you:

1. Find financial problems
2. Catch errors
3. Boost your business's bottom line
4. Stay organized
5. Make better business decisions

Different Types of Audits And Its Role



Source :- <https://www.patriotsoftware.com/blog/accounting>

Applications of Digital Audit

Online Audit helps in generating various audit activities through software package and it can be used to get audit reports . The system manages the audit process by preloaded system instructions at the database and report level. We can use these software's to make the better reports of the audit in the companies. The all the financial activities are performed with high level machines and software's to get more benefits

Security and Protection Issues in Digital Audit

The main security issues are

1. Network Security
2. Operating Security
3. Application Package Security
4. File Security
5. Security issues from physical threat and data theft



<https://www.google.com/search?q=online+audit&source=lnms>



<https://www.google.com/search?q=online+audit&source=lnms>

Conclusion

The Digital audit is going to become mandatory for all the companies in near future . This paper will create awareness about this topic to the stakeholders of companies. It is the active role from policy makers and government will create the positive impact on use of this technology for audit purpose. Therefore, audit has the chance to position itself as a trusted partner for these transformation initiatives.

Acknowledgement

Author thanks all the friends and staff members for motivating me to study this topic . All the references used and endorsed herewith in the paper .

References

1. Anil T Gaikwad, Rajesh Kanthe “Innovative Technology For Business Development Lambert Publication Dec 2020 PP 45-47.
2. Gupta, Kamal (November 2004). Contemporary Auditing. McGraw Hill. p. 1095. [ISBN](#) 0070585849.
3. Loeb, Stephen E.; Shamoo, Adil E. (1989-09-01). "Data audit: Its place in auditing". *Accountability in Research*. **1** (1): 23–32. . ISSN 0898-9621.
4. Power, Michael. 1999. *The Audit Society: Rituals of Verification*. Oxford: Oxford University Press.
5. Assurance, Auditing and. ICAI - The Institute of Chartered Accountants of India. Chapter 1, Volume 1: Institute of Chartered Accountants of India. p. 1.
6. Derek Matthews, *History of Auditing* (2006-09-27). The changing audit process from the 19th century till date. Routledge-Taylor & Francis Group. p. 6. ISBN 9781134177912.
7. A., Moyer (January 1951). "Early Developments in American Auditing". *Accounting Review*. **26** (1): 3–8. JSTOR 239850.
8. Website References :-www.wikipedia.com
<https://searchcio.techtarget.com/definition/onlineaudit>



आंतरराष्ट्रीय विपणन व संगणक तंत्रज्ञान

डॉ.आश्लेषा. मुंगी¹ कु. सिद्धी दत्तात्रय कुंभार² कु. शिवानी सोमनाथ साळवे³

कु. ज्योती सोमनाथ गायकवाड⁴

¹ शारदानगर पवार महिला महाविद्यालय शारदानगर बारामती

Email- kumbharsiddhi7@gmail.com

Email - salveshivani1999@gmail.com

Email- jyotigaikwad9324@gmail.com

गोषवारा - उत्पादन आणि विपणन ही व्यवसायाची प्रमुख कार्य आहेत. त्यांपैकी विपणन हे कार्य आधुनिक व्यवसायात अतिशय महत्वाचे मानले जाते. आज 21व्या शतकात जागतिकीकरणाचा कालखंडांत मोठ्या प्रमाणात मागणी पूर्व उत्पादन होत आहे. पुरातन काळातील वस्तू विनिमय पद्धतीपासून आधुनिक विपणन प्रणालीपर्यंत विपणनात विनिमय (म्हणजेच वस्तू व सेवांची उत्पादकांकडून ग्राहकापर्यंत होणारी विनिमय प्रक्रिया हा विपणनाचा आत्मा आहे. आज हे विपणन फक्त वस्तू व सेवांपर्यंत मर्यादित नसून करमणूक खेळ व्यक्ति शिक्षण कल्पना संघटना इ. घटकाचा बाबतीत घडून येत आहे. थोडक्यात उत्पादक व ग्राहकांचे दुवा साधण्याचे कार्य झालेले दिसून येते. प्रत्येक देशातील राजकीय व भौगोलिकदृष्ट्या भिन्न स्वरूपाचे असते. आर्थिक सामाजिक राजकीय सांस्कृतिक पर्यावरणातील भिन्नता भाषा शिष्टाचार इ. घटकांमुळे आंतरराष्ट्रीय विपणन प्रत्येक देशातील बाजारपेठ वैशिष्ट्यानुसार भिन्न स्वरूपाचे असते.

आंतरराष्ट्रीय विपणन: वस्तू व सेवा उपभोक्ता खर्च नवीन तंत्रज्ञान व नवीन उत्पादने संशोधन इ.

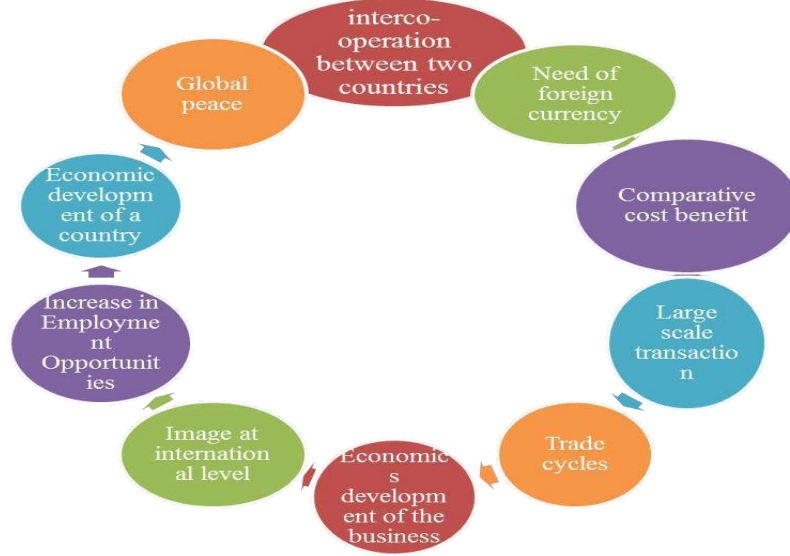
उद्देश:

1. आंतरराष्ट्रीय विपणनाचा सहभागी होण्याचे कारणे माहित करून घेणे.
2. आंतरराष्ट्रीय विपणनाचा विकसातील अडसरंचा अभ्यास घेणे.
3. हा पेपर विविध रिसर्च पेपर जनल पुस्तके वेब स्तोत मधून संकलित केलेल्या दुय्यम आधारित आहे.

परिचय: बाजाराचे जागतिकीकरण हे आजच्या व्यवसायाचे सर्वात महत्वाचे वैशिष्ट्य आहे. मार्केटिंग वित्त आणि कर्मचार्यांमधील व्यवसायिक क्रियाकलापांच्या सर्व क्षेत्रांमध्ये फर्मची रणनीती आणि दूरगामी परिणाम आहे. हा टेंड जागतिक वस्तू आणि वाढत्या सख्येत अॅटोमोटिव्ह इलेक्ट्रॉनिक आणि संगणक उदयोंगामध्ये विकसित होत असलेल्या जटिल औद्योगिक विविध देशातील कंपन्यांमधील भागीदारी आणि

संयुक्त उपक्रमांचा वाढत्या संख्येमध्ये स्पष्ट आहे. या ट्रेडचा संमातर जागतिक सोसिंग आणि उत्पादन विकसित होत आहे.

आंतरराष्ट्रीय विपणनातील विकासाच्या दृष्टीने सूत्रीकरणाचा अभ्यास:-



दोन देशांमधील अंतर सहकार्य: भौगोलिक प्रत्येक देशास उत्पादना व नैसर्गिक निर्मितीच्यामर्यादा असतात एखाद्या देशांत नैसर्गिक देणगी मुळे मोठ्या प्रमाणावर खनिजे किंवा इंधनाचा साठा उपलब्ध असतो

परकीय चलनाची गरज: विकसनशील राष्ट्रांमध्ये परकीय चलनाची गरज व परकीय

चलनाची उपलब्धता यामध्ये मोठ्या तफावत असते आंतरराष्ट्रीय विपणनामुळे परकीय चलन मोठ्या प्रमाणावर उपलब्ध होते

तुलनात्मक उत्पादक खर्च फायदा: प्रत्येक देशातील वस्तूच्या उत्पादकचा खर्च हा सारखाच नसल्याने आंतरराष्ट्रीय विपणनाची गरज निर्माण होते सकारात्मक घटकांमुळे एखाद्या वस्तूचे उत्पादन कमी खर्चात करणे शक्य असते

मोठ्या प्रमाणावर व्यवहार: जागतिक बाजारपेठ व्यापक स्वरूपाची असल्याने ह्या बाजारपेठेमध्ये किती ही उत्पादन खूप शकते अतिशय मोठ्या प्रमाणावर व्यवहार होत असल्याने जास्त उत्पादन करून उत्पादन खर्च कमी करता येते

व्यापार चक्र: कोणत्याही व्यवसायामध्ये व्यापाराचे चक्र कार्यरत असते जेव्हा देशांतर्गत बाजारपेठ मध्ये मंदीची अवस्था येते तेव्हा आपत्ती उत्पादने परदेशी बाजारपेठेमध्ये पाठवून या मंदीचा मुकाबला करता येतो

व्यवसायाची आर्थिक प्रगती: आंतरराष्ट्रीय बाजारपेठेत मध्ये चांगल्या दर्जाचे व गुणवत्तेचे प्रदान स्वीकारले जाते आधुनिक तंत्रज्ञान वापरल्याने उत्तम दर्जाचे उत्पादन आंतरराष्ट्रीय बाजारपेठेत विकल्यास अधिक भाव मिळू शकतो.

जागतिक स्तरावरील प्रतिमा: आंतरराष्ट्रीय विपणन हे व्यवसायास नफ्याबरोबरच जागतिक स्तरावरील पत व प्रतिमा मिळवून देते त्या व्यवसायांच्या वस्तूंना जागतिक स्तरावरील ग्राहकांकडून मागणी येत असते.

रोजगार संधी वाढ: आंतरराष्ट्रीय विपणनात हे उत्पादनास चालना मिळते व रोजगार संधी मध्ये वाढ होते निर्यात वाढीमुळे उत्पादनात वाढ होते.

देशाचा आर्थिक विकास व वाढ: कोणत्याही देशाच्या आर्थिक प्रगती करिता अर्थव्यवस्थेच्या प्रत्येक क्षेत्राचा सर्वांगीण विकास होणे महत्त्वाचे आहे.

जागतिक शांतता: आंतरराष्ट्रीय विपणन हे दोन देशांमधील संबंध वाढविण्याचे व सलेखा निर्माण करण्याचे एक उत्तम साधन आहे सांस्कृतिक व सामाजिक देवाणघेवाण आंतरराष्ट्रीय विपणनामुळे वाढीस लागते.

डिजिटल मार्केटिंग: आजच्या युगात सर्व काही ऑनलाईन झाले आहे. इंटरनेट सुविधा ऑनलाईन शॉपिंग, तिकीट बुकिंग, रिचार्ज व बिल पेमेंट ऑनलाईन सुविधा व्यवहार इत्यादी बऱ्याच गोष्टी आपण इंटरनेटच्या माध्यमातून करू शकतो. वापरकर्त्याकडे इंटरनेटकडे इत्यादी बऱ्याच गोष्टी आपण इंटरनेटच्या माध्यमातून करू शकतो. इंटरनेटकडे असलेल्या टेंडमुळे व्यवसाय बद्दल मार्केटिंग करित आहे. जर आपण बाजारातील अलीकडल्या काकरीत आहे जरा पण बाजारातील आकडेवाडीकडे पाहिले तर सुमारे 80% खरेदीदार कोणतेही उत्पादन खरेदी करण्यापूर्वी किंवा सेवा होण्यापूर्वी ऑनलाईन संशोधन करतात. अशा परिस्थितीत कंपनी किंवा व्यवसायासाठी डिजिटल मार्केटिंग महत्त्वाचे आहे. डिजिटल मार्केटिंग म्हणजे वस्तू किंवा सेवा होण्यापूर्वी अशा परिस्थितीत कंपनी डिजिटल मार्केटिंग करण्यासाठी इंटरनेट इंटरनेटद्वारे केली जाते. आजचा समाज टंचाईसह झगडत आहे. त्यामुळे डिजिटल मार्केटिंग करणे अत्यावश्यक आहे. डिजिटल मार्केटिंग उत्पन्नामध्ये आणि सेवेचा लोगो पोहोचण्यासाठी पोहोचण्यास मदत करते.

सध्याच्या काळात डिजिटल मार्केटिंगची मागणी:

1. डिजिटल मार्केटिंग मागणी जोरदार दिसून येत आहे. आपला माल तयार करणारा व्यापारी सहजपणे ग्राहकांकडे जात आहेत. त्यामुळे डिजिटल व्यवसायाला चालना मिळते.
2. इंटरनेटद्वारे आम्ही सर्व व्यापारी आणि ग्राहकांचे कनेक्शन देखील स्थापित करू शकते.

3. लोकांचा विश्वास हे डिजिटल मार्केटिंगकडे वाटचा करत आहे.
4. सर्वांच्या सोयीच्या दृष्टीने यांची मागणी होत आहे.

डिजिटल मार्केटिंग प्रकार:

सोशल मीडिया: फेसबुक ट्विटर इन्स्टाग्राम लिंक इत्यादी सारख्या बर्याच वेबसाइटवर सोशल मीडिया बनलेला आहे सोशल मीडियाच्या माध्यमातून एखाद्या व्यक्ती हजारो लोकां समोर आपले विचार मांडू शकतो

ई-मेल विपणन: ई-मेल विपणन म्हणजे कोणत्याही कंपनीला ई-मेलद्वारे उत्पादनाचे वितरण करणे ई-मेल विपणन प्रत्येक कंपनीसाठी प्रत्येक मार्गाने आवश्यक आहे

यु ट्युब चॅनेल: सोशल मीडिया हे एक माध्यम आहे ज्यात उत्पादकांना त्यांची उत्पादने थेट लोकांपर्यंत पोहोचवावी लागतात हा एक लोकप्रिय मार्ग आहे

पेपर मार्केटिंग: आपल्याला ज्या जाहिराती पाहाव्या लागतील त्यास पेपर मार्केटिंग क्लिक जाहिराती म्हणतात हे प्रत्येक प्रकारच्या जाहिरातीसाठी आहे डिजिटल मार्केटिंगचा हा एक प्रकार आहे

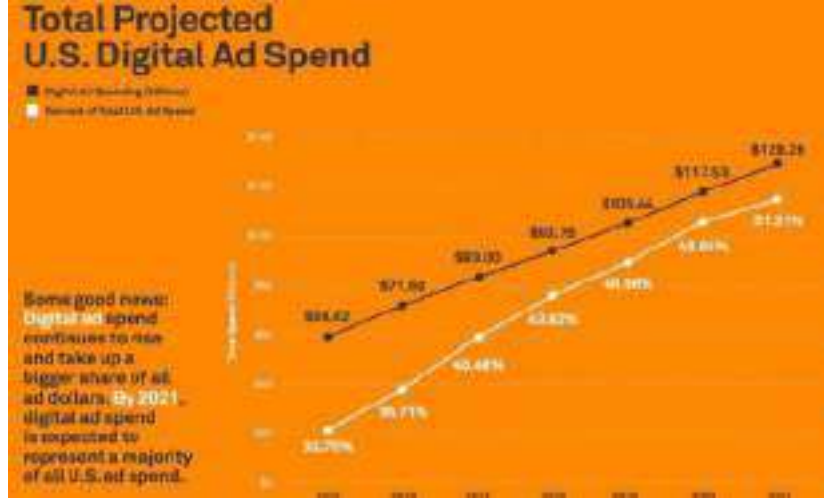
अॅप्स मार्केटिंग: लोकांपर्यंत पोहोचवण्यासाठी आणि त्यावरील उत्पादनांचा प्रचार करण्यासाठी इंटरनेटवर वेगवेगळे अॅप्स बनविणे याला अॅप्स मार्केटिंग म्हणतात मोठ्या कंपनी त्यांचे अॅप्स बनवतात आणि लोकांसाठी अॅप्स उपलब्ध करतात

डिजिटल मार्केटिंगची ऑफलाईन मार्केटिंग माध्यमे:

1. टेलिव्हिजन मार्केटिंग
2. एसएमएस मार्केटिंग
3. रेडिओ मार्केटिंग
4. बिलबोर्ड मार्केटिंग

Digital marketing types:

- 1: Social media
- 2: E-mail marketing
- 3: You tube Channel
- 4: Paper marketing
- 5: Apps marketing



गृहीतः

1. राष्ट्रीय अर्थव्यवस्था बळकट करण्यासाठी निर्यातीस महत्त्व देणे आवश्यक आहे.
2. आंतरराष्ट्रीय विपणन म्हणजे एका किंवा एकापेक्षा जास्त देशातील उद्योगांद्वारे विपणन तत्वांचा वापर करणे.
3. आंतरराष्ट्रीय विपणनातील प्रगती मुळे कंपन्यांना जगभरातील जवळजवळ कोणत्याही देशात व्यवसाय करणे शक्य आहे.
4. आंतरराष्ट्रीय बाजारपेठेतील कोणतीही कंपनी मार्केटिंग वातावरणातील अचानक बदलांना सामोरे जाण्यासाठी नेहमी तयार
5. असले पाहिजे.
6. राष्ट्रांमध्ये सामाजिक आणि सांस्कृतिक देवाणघेवाण वाढवणे.

आंतरराष्ट्रीय विपणन फायदे:

1. आंतरराष्ट्रीय विपणनामध्ये सहभागी होणार्या राष्ट्रांतील नागरिकांना उच्च दर्जाची जीवनशैली आणि संपत्ती सुनिश्चित करणे.
2. आंतरराष्ट्रीय बाजारपेठेतून नवीन मालाला मागणी निर्माण होते त्यामुळे औद्योगिक अर्थव्यवस्था वाढ होते.
3. आंतरराष्ट्रीय विपणन सर्व सहभागी देशांना तुलनात्मक खर्च लाभ निश्चित करते.
4. आंतरराष्ट्रीय विपणनाद्वारे सर्व राष्ट्रांना ऐकमकांच्या जवळ आणतात आणि त्यांच्यातील मतभेद दूर करण्यासाठी संधी देतात.

5. आंतरराष्ट्रीय विपणनामुळे जगातील विविध देशांमधील सामाजिक आणि सांस्कृतिक देवाणघेवाण शक्य होते.

आंतरराष्ट्रीय विपणनाचे तोटे:

1. जगभरातील विविध संस्कृती आणि नियमांमुळे आंतरराष्ट्रीय विपणनाला अनेक अडचणी सामना करावा लागतो.
2. मोठ्या स्पर्धकांच्या उपस्थितीमुळे आंतरराष्ट्रीय मार्क टिंगमधील स्पर्धेचे प्रमाण खूप जास्त आहे.
3. आंतरराष्ट्रीय विपणन सरकार द्वारे लादलेले विविध कठोर नियम आणि नियमांचे पालन करण्यास बांधील आहे.
4. राष्ट्रांमधील तणाव आणि युद्धांसारख्या परिस्थितीमुळे आंतरराष्ट्रीय मार्कटिंगवर विपरीत परिणाम होतो.

निष्कर्ष: आंतरराष्ट्रीय विपणन हे वस्तू व सेवांचे एकापेक्षा जास्त देशांमध्ये केलेले विपणन आहे ही दीर्घकालीन चालणारी प्रक्रिया आहे आंतरराष्ट्रीय व्यापारामध्ये विविध घटकांचे प्राबल्य आढळते उदा: तंत्रज्ञान आंतरराष्ट्रीय व्यापारास पूरक संस्था यंत्रणा आर्थिक उदारीकरण व जागतिकीकरण आधुनिक आंतरराष्ट्रीय विपणनात आधुनिक कल दिसून येतात विविध देशांचे राजकीय पर्यावरण व्यापारी संघाचे प्रश्न बहु करप्रणाली व्यवस्था भाषा, रूढी व परंपरा इत्यादी आव्हाने निर्माण होतात.

शिफारशी:

1. जागतिक स्तरावर काय चालवले जाते आणि स्थानिक पातळीवर काय व्यवस्थापित केले जाते हे स्पष्ट केले पाहिजे.
2. स्थानिक बाजाराच्या गरजा समजून घेतल्या पाहिजे आणि एक सहयोगी दृष्टिकोन विकसित केले पाहिजे.

संदर्भ:

1. 1% www.google.com
2. 2% www.chrome.com



डिजिटल विपणन : २१ व्या शतकातील संधी आणि आव्हाने

अशोक आर.हेरवाडे1 डॉ.आर.एन.शेंडगे2

1सहाय्यक प्राध्यापक, शिक्षणमहर्षी डॉ.बापूजी साळुंखे महाविद्यालय, मिरज

ईमेल. herwadeashokrrc@gmail.com

डॉ.आर.एन.शेंडगे,

२ए.आर.बुर्ला महिला वरीष्ठ, महाविद्यालय, सोलापूर

ईमेल: arburla@gmail.com

गोषवारा: डिजिटल विपणन हे इंटरनेटवर उत्पादने, सेवा, ग्राहकांना जोडणे, डिजिटल तंत्रज्ञान आणि उपकरणे वापरून वापरकर्त्यांच्या गरजा ओळखणे आणि समजून घेणे यासाठी इंटरनेटवरील एक अपारंपरिक डिजिटल व्यासपीठ आहे. ब्रँड जागरूकता आणि व्यवसाय विकासासाठी ऑनलाइन व्यवसायाचा प्रचार करणे ही सर्वात प्रभावी आणि प्रमुख धोरणांपैकी एक आहे. डिजिटल माध्यमांचं प्रसार इतका झाला आहे की कोणीही कधीही कुठेही माहिती मिळवू शकतो. हे विपणकांना ब्लॉग, वेबसाइट आणि सोशल मीडिया चॅनेलद्वारे उत्पादने आणि सेवांचा प्रचार करण्याचे अधिक पर्याय देते. उपलब्ध विविध साधनांद्वारे विक्रेते हे देखील पाहू शकतात की काय कल आहे, उत्पादनाचा अद्वितीय विक्री बिंदू काय आहे आणि लोक चांगल्या लक्ष्यीकरणासाठी उत्पादन किंवा सेवा का आणि केव्हा शोधतात. या पेपरमध्ये २१ व्या शतकातील डिजिटल मार्केटिंगच्या संधी आणि आव्हानांचा समावेश आहे.

प्रास्ताविक

डिजिटल मार्केटिंग ही एक व्यापक संज्ञा आहे जी डिजिटल तंत्रज्ञानाद्वारे ग्राहकांपर्यंत पोहोचण्यासाठी तैनात केलेल्या विविध प्रचार तंत्रांचा संदर्भ देते. डिजिटल विपणनांमध्ये सेवा, उत्पादन आणि ब्रँड विपणन रणनीतींची विस्तृत निवड समाविष्ट आहे जी मुख्यतः मोबाइल आणि पारंपारिक टीव्ही आणि रेडिओ व्यतिरिक्त मुख्य प्रमोशनल माध्यम म्हणून इंटरनेटचा वापर करते. नि फोटो निकॉन गेटवे ग्राहकांना त्यांचे डिजिटल फोटो मित्रांसह ऑनलाइन विभागण्यात मदत करते. टायटनचे ब्रँड रागा ग्राहकांच्या संपर्कात राहण्यासाठी ईमेल वृत्तपत्रांचा वापर करते आणि म्हणूनच ग्राहकांच्या ब्रँडची निष्ठा मजबूत करण्याचा प्रयत्न करते. नियतकालिकाचे प्रकाशक त्यांच्या ग्राहकांना ई-मेल आणि एसएमएस संदेशांसह सक्रिय करू शकतात आणि उदाहरणे फिल्म फेअर मासिकांसाठी पुनर्वरगणीचे दर सुधारू शकतात. विक्रेते ग्राहकांच्या दैनंदिन जीवनात ब्रँड अधिकाधिक जवळ आणतात. मूल्याचे सह-निर्माते म्हणून ग्राहकांची बदलती भूमिका अधिक महत्त्वाची होत आहे. खान आणि महापात्रा (२००९) यांनी टिप्पणी केली की व्यवसाय घटकाद्वारे

प्रदान केलेल्या सेवांचा दर्जा सुधारण्यात तंत्रज्ञान महत्त्वपूर्ण भूमिका बजावते. होज यांच्या मतानुसार नुसार, इलेक्ट्रॉनिक विपणन म्हणजे एक किंवा अधिक इलेक्ट्रॉनिक पद्धती किंवा माध्यमांचा समावेश असलेल्या विक्रेत्याकडून खरेदीदाराकडे वस्तू किंवा सेवांचे हस्तांतरण. एकोणिसाव्या शतकात टेलिग्राफच्या वापराने ई-मार्केटिंगची सुरुवात झाली. टेलिफोन, रेडिओ, टेलिव्हिजन आणि नंतर केबल टेलिव्हिजनचा आविष्कार आणि मोठ्या प्रमाणावर स्वीकार केल्यामुळे, इलेक्ट्रॉनिक माध्यमे हे मार्केटिंगचे प्रमुख बल बनले आहे. मॅकडोनाल्ड ब्रँड संदेश आणि नातेसंबंध मजबूत करण्यासाठी ऑनलाइन चॅनेल वापरते. त्यांनी मुलांसाठी ऑनलाइन समुदाय तयार केले आहेत, जसे की ग्राहकांना नेहमी स्वतःच्या जवळ ठेवण्यासाठी शैक्षणिक आणि मनोरंजक खेळांसह हॅपी मील वेबसाइट कंपनीच्या ई-संदेशाच्या प्रयत्नांची संख्या ही कंपनीच्या नफ्याशी वेळोवेळी सकारात्मकपणे जोडलेली आहे. सामाजिक मध्यम व्यासपीठाची प्राथमिक फायदे म्हणजे खर्च कमी करणे आणि पोहोच वाढवणे. सामाजिक मध्यम व्यासपीठाची किंमत सामान्यतः इतर विपणन माध्यमापेक्षा कमी असते जसे की समोरासमोर विक्री किंवा मध्यस्थ किंवा वितरकांच्या मदतीने विक्री. याशिवाय, सामाजिक विपणन माध्यमामार्फत कंपन्यांना अशा ग्राहकांपर्यंत पोहोचू देते जे विद्यमान वितरण माध्यमाच्या तात्पुरत्या आणि स्थानिक मर्यादांमुळे प्रवेश करण्यायोग्य नसतील. सामान्यतः, सोशल मीडियाचा मुख्य फायदा हा आहे की तो कंपन्यांना पोहोच वाढवण्यास आणि खर्च कमी करण्यास सक्षम करू शकतो. च्याफ्ली यांच्या मते, सामाजिक विपणन माध्यमामध्ये "कंपनीच्या स्वतःच्या वेबसाइटवर किंवा तिच्या सामाजिक उपस्थितीद्वारे ग्राहक संप्रेषणांना प्रोत्साहन देणे" समाविष्ट आहे. सामाजिक विपणन माध्यम हे डिजिटलविपणनाचे एक महत्वाचे तंत्र आहे कारण कंपन्या त्यांचे संदेश त्यांच्या लक्षित प्रेक्षकांना वितरित करण्यासाठी सामाजिक विपणन माध्यम वापरू शकतात जे प्रकाशक किंवा वितरकाला पैसे न देता पारंपारिक विपणनासाठी वैशिष्ट्यपूर्ण आहेत. डिजिटल विपणन , इलेक्ट्रॉनिक विपणन , ई-विपणन आणि इंटरनेट विपणन या सर्व समान संज्ञा आहेत ज्यात "वेबसाइट्स, ऑनलाइन जाहिराती, ऑफ्ट-इन ईमेल, इंटरएक्टिव्ह किऑस्क, इंटरएक्टिव्ह टीव्ही किंवा मोबाईलद्वारे ऑनलाइन विपणन करता येते.कांही तज्ञांना असे आढळून आले की डिजिटल विपणांनासाठी ग्राहक माहिती समाधान ही उपभोगाच्या अनुषंगाने आणि विक्री क्रियाकलाप, माहिती प्रणाली (वेबसाइट्स), डिजिटल उत्पादने यांच्या केंद्रबिंदू पैलूंद्वारे उत्तेजित होणाऱ्या वेगवेगळ्या तीव्रतेच्या प्रभावी प्रतिसादाची बेरीज म्हणून संकल्पना केली जाऊ शकते. वाघमारे (२०१२) यांनी निदर्शनास आणून दिले की

आशियातील अनेक देश ई-कॉमर्सचा फायदा घेत आहेत, जे स्पर्धेला प्रोत्साहन देण्यासाठी आणि इंटरनेट तंत्रज्ञानाच्या प्रसारासाठी आवश्यक आहे. जिया आणि मनीष (२०१२) यांना असे आढळून आले की सध्या, भारतातील महानगरातील ऑनलाइन खरेदीदारांचा कल वाढत आहे. हे ग्राहक प्रवासाचे बुकिंग करत आहेत, ग्राहक इलेक्ट्रॉनिक्स आणि पुस्तके ऑनलाइन खरेदी करत आहेत. प्रत्येक ऑनलाइन खरेदीदाराचा खर्च कमी असला तरी भारतातील महानगरातील सुमारे ६० टक्के ऑनलाइन ग्राहक महिन्यातून किमान एकदा तरी ऑनलाइन खरेदी करतात. डेव्ह चॅफी (२००२) ई-मार्केटिंगची व्याख्या "डिजिटल तंत्रज्ञानाचा वापर" म्हणून करतात. "डिजिटल तंत्रज्ञानाचा ऍप्लिकेशन - ऑनलाइन चॅनेल (वेब, ई-मेल, डेटाबेस, तसेच मोबाइल/वायरलेस आणि डिजिटल टीव्ही) म्हणून नफा संपादन आणि ग्राहक टिकवून ठेवण्याच्या उद्देशाने विपणन क्रियाकलापांमध्ये योगदान देण्यासाठी करतात. एक मल्टी-चॅनेल खरेदी प्रक्रिया आणि ग्राहक जीवनचक्र) ग्राहकांचे ज्ञान (त्यांची प्रतिमा, वर्तन, मूल्य आणि निष्ठा) सुधारून आणि ग्राहकांच्या वैयक्तिक गरजांशी जुळणारे एकात्मिक संप्रेषण आणि ऑनलाइन सेवा प्रदान करून. च्या व्याख्या संबंध विपणन संकल्पना प्रतिबिंबित; होते ते ई- विपणन चालविणारे तंत्रज्ञान नसून व्यवसाय मॉडेल असावे यावर जोर देते. सर्व प्रकारची सोशल मीडिया कंपनी स्वतः किंवा तिची उत्पादने गतिमान समुदाय आणि व्यक्तींसमोर सादर करण्याची संधी प्रदान करते जे स्वारस्य दर्शवू शकतात.

सैद्धांतिक आणि संकल्पनात्मक चौकट

पारंपारिक विपणन वि डिजिटल विपणन

पारंपारिक विपणन हा विपणनाचा सर्वात सामान्य आणि ओळखण्यायोग्य प्रकार आहे. पारंपारिक विपणन हा व्यावसायिक घटकाच्या उत्पादन किंवा सेवांचा प्रचार करण्यासाठी वापरला जाणारा डिजिटल नसलेला मार्ग आहे. दुसरीकडे, डिजिटल मार्केटिंग म्हणजे ग्राहकांपर्यंत पोहोचण्यासाठी डिजिटल माध्यमांचा वापर करून उत्पादने किंवा सेवांचे विपणन केले जाते. व्यवसायाच्या डिजिटल मार्केटिंग धोरणाचा भाग म्हणून वापरल्या जाणाऱ्या जाहिरात माध्यमांमध्ये इंटरनेट, सामाजिक माध्यमे, मोबाइल फोन, इलेक्ट्रॉनिक बिलबोर्ड, तसेच डिजिटल टेलिव्हिजन आणि रेडिओ चॅनेलद्वारे प्रचारात्मक प्रयत्नांचा समावेश असू शकतो. डिजिटल विपणन ही पारंपारिक विपणनाची उपशाखा आहे आणि उत्पादनांच्या स्थाननिश्चितीकरणासाठी आधुनिक डिजिटलमाध्यमे वापरते.

डिजिटल विपणनाचे विविध घटक: डिजिटल विपणनाचे सर्वात महत्वाचे घटक खालीलप्रमाणे

ऑनलाइन जाहिरात

ऑनलाइन जाहिराती हा डिजिटल विपणांनाचा एक महत्त्वाचा भाग आहे. याला इंटरनेट जाहिरात देखील म्हणतात ज्याद्वारे कंपनी उत्पादने किंवा सेवांबद्दल संदेश देऊ शकते. इंटरनेट-आधारित जाहिराती ग्राहकांच्या हितसंबंधांशी सर्वोत्तम जुळणारी सामग्री आणि जाहिराती प्रदान करतात. प्रकाशक त्यांची उत्पादने किंवा सेवा त्यांच्या वेबसाइटवर ठेवतात जेणेकरून ग्राहकांना किंवा वापरकर्त्यांना मोफत माहिती मिळेल. जाहिरातदारांनी अधिक प्रभावी आणि संबंधित जाहिराती ऑनलाइन ठेवाव्यात. ऑनलाइन जाहिरातींद्वारे, कंपनी आपल्या बजेटवर चांगले नियंत्रण ठेवते आणि वेळेवर तिचे पूर्ण नियंत्रण असते.

ईमेल विपणन

जेव्हा उत्पादने किंवा सेवांबद्दल संदेश विद्यमान किंवा संभाव्य ग्राहकांना ईमेलद्वारे पाठविला जातो, तेव्हा ते ईमेल विपणन म्हणून परिभाषित केले जाते. थेट डिजिटल विपणनाचा वापर जाहिराती पाठवण्यासाठी, ब्रँड आणि ग्राहकांची निष्ठा निर्माण करण्यासाठी, ग्राहकांचा विश्वास निर्माण करण्यासाठी आणि ब्रँड जागरूकता निर्माण करण्यासाठी केला जातो. डिजिटल विपणनाचा हा घटक सहजपणे वापरून कंपनी आपली उत्पादने आणि सेवांचा प्रचार करू शकते. जाहिराती किंवा इतर माध्यमांच्या तुलनेत हे कमी खर्चाचे आहे. उत्पादने आणि सेवांवर ग्राफिक, मजकूर आणि साइट्स यांचे आकर्षक मिश्रण तयार करून कंपनी ग्राहकांचे संपूर्ण लक्ष वेधून घेऊ शकते.

सामाजिक माध्यमे

आज सामाजिक माध्यमाद्वारे विपणन हे सर्वात महत्त्वाचे डिजिटल विपणन चॅनेल आहे. हे एक संगणक-आधारित साधन आहे जे लोकांना कंपनीच्या उत्पादन किंवा सेवांबद्दल कल्पना, माहिती आणि चित्रे तयार करण्यास, देवाणघेवाण करण्यास अनुमती देते. नील्सनच्या मते, इंटरनेट वापरकर्ते इतर कोणत्याही प्रकारापेक्षा सोशल मीडिया साइटवर जास्त वेळ घालवतात. सोशल मीडिया मार्केटिंग नेटवर्कमध्ये फेसबुक , ट्विटर ,लिनकडइन आणि गुगल+ यांचा समावेश होतो. फेसबुक द्वारे, कंपनी उत्पादन आणि सेवांशी संबंधित कार्यक्रमांना प्रोत्साहन देऊ शकते, फेसबुक मार्गदर्शक तत्वांचे पालन करणाऱ्या जाहिराती चालवू शकते आणि नवीन संधी शोधू शकते. ट्विटर द्वारे, कंपनी त्यांच्या ब्रँडबद्दल जागरूकता आणि दृश्यमानता वाढवू शकते. कंपनीची उत्पादने आणि सेवांच्या जाहिरातीसाठी हे सर्वोत्तम साधन आहे. लिंकडइन मध्ये, व्यावसायिक त्यांचे माहिती लिहितात आणि माहिती शेअर करतात

मजकूर संदेश

सेल्युलर आणि स्मार्ट फोन उपकरणांमधून उत्पादने आणि सेवांबद्दल माहिती पाठवण्याचा हा एक मार्ग आहे. फोन उपकरणे वापरून, कंपनी मजकूर, चित्रे, दूरचित्र किंवा ध्वनिफित स्वरूपात माहिती पाठवू शकते. मोबाइल एसएमएस द्वारे विपणन २००० च्या दशकाच्या सुरुवातीस युरोप आणि आशियाच्या काही भागांमध्ये वाढत्या प्रमाणात लोकप्रिय झाले. एखादा मजकूर संदेश वापरून खरेदी पुष्टीकरण, माल पाठविलेची सूचना पाठवू शकतो. मोहिमांसाठी मोबाइल संदेश माध्यम वापरल्याने जलद आणि अधिक भरीव परिणाम मिळतात. या तंत्रांतर्गत, कंपनी त्यांच्या ग्राहकांना, कधीही कोणत्याही वेळी विपणन संदेश पाठवू शकतात आणि संदेश दिसला जाईल अशी खात्री बाळगू शकतात. तसेच कंपनी एक प्रश्नावली तयार करू शकते आणि भविष्यात त्यांची उत्पादने किंवा सेवा विकसित करण्यासाठी आवश्यक असलेला मौल्यवान ग्राहकाकडून अभिप्राय मिळवू शकते.

संलग्न विपणन

संलग्न विपणन हा कार्यप्रदर्शन-आधारित विपणनाचा प्रकार आहे. या प्रकारच्या मार्केटिंगमध्ये कंपनीच्या वतीने तयार केलेल्या मार्केटिंग प्रयत्नांद्वारे त्यांनी आणलेल्या प्रत्येक अभ्यागताला किंवा ग्राहकासाठी सहयोगींना पुरस्कार देते. उद्योगात चार प्रमुख खेळाडू आहेत: व्यापारी ("किरकोळ विक्रेता" किंवा "ब्रँड" म्हणून ओळखले जाते), नेटवर्क, प्रकाशक संलग्न म्हणून देखील ओळखले जाते.

संलग्न विपणनाचे दोन मार्ग आहेत: कंपनी इतरांना संलग्न कार्यक्रम देऊ शकते किंवा ती दुसऱ्या व्यवसायाची संलग्न होण्यासाठी साइन अप करू शकते. जर कंपनीला संलग्न कार्यक्रम चालवायचा असेल, तर, कंपनी मालकाने कंपनीच्या वेबसाइटवर चालविलेल्या प्रत्येक लीड किंवा विक्रीसाठी सहयोगींना दलाली फी भरावी लागेल.

शोध इंजिन सर्वोत्तमीकरण

शोध इंजिन सर्वोत्तमीकरण ही शोध इंजिनच्या नैसर्गिक शोध परिणामांमधील वेबसाइट किंवा वेब पृष्ठाच्या दृश्यमानतेवर परिणाम करण्याची प्रक्रिया आहे. सर्वसाधारणपणे, पूर्वीचे (किंवा शोध परिणाम पृष्ठावर उच्च स्तरावर असलेले), आणि अधिक वारंवार एखादी वेबसाइट शोध परिणाम सूचीमध्ये दिसते, शोध इंजिन वापरकर्त्यांकडून तिला अधिक अभ्यागत प्राप्त होतील. शोध इंजिन सर्वोत्तमीकरण प्रतिमा

शोध, स्थानिक शोध, व्हिडिओ शोध, शैक्षणिक शोध, बातम्या शोध आणि उद्योग-व्यवसाय शोध या विविध प्रकारच्या शोधांना लक्ष्य करू शकते.

प्रति क्लिक पे

पे-प्रति-क्लिक विपणन हे क्लिक्स सेंद्रियपणे “कमाई” करण्याऐवजी आपल्या वेबसाइटवर क्लिक निर्माण करण्यासाठी शोध इंजिन जाहिराती वापरण्याचा एक मार्ग आहे. शोधक आणि जाहिरातदारांसाठी प्रति क्लिक पैसे देणे चांगले आहे. कंपनीच्या जाहिरातींसाठी हा सर्वोत्तम मार्ग आहे कारण ते कमी किमतीत आणि उत्पादने आणि सेवांसह अधिक प्रतिबद्धता आणते.

डिजिटल विपणांनाच्या संधी आणि आव्हाने

डिजिटल विपणांनाच्या संधी:

डिजिटल विपणनाच्या संधी खालीलप्रमाणे आहेत -

सुलभ ब्रँड प्रसार

नवीन तंत्रज्ञानाच्या विकासामुळे आणि व्यवसायात इंटरनेटचा वापर केल्यामुळे, ब्रँड ग्राहकांपर्यंत पोहोचतो व याचा फार मोठा फायदा होतो आणि त्यांच्या ग्राहकांशी यशस्वीपणे संवाद साधता येतो.

किफायतशीर वाहिनी

इंटरनेटचा वापर करून, डिजिटल विपणन हे टेलिव्हिजन , रेडिओ, मासिके, वर्तमानपत्रे आणि बॅनर्स इत्यादी पारंपारिक मार्केटिंग चॅनेलच्या तुलनेत किफायतशीर आणि स्वस्त जाहिरातींचे स्रोत आढळले आहे. डिजिटल विपणन विक्रेत्यांना त्यांच्या बजेटच्या उपलब्धतेच्या अधीन राहून त्यांच्या जाहिरात मोहिमा सेट करण्यास अनुमती देते. . मुख्यतः, वेबसाइट्स आणि व्यवसाय प्रोफाइल (जाहिराती प्रदर्शित करणे आणि उत्पादने किंवा सेवांबद्दल माहिती) विनामूल्य प्रचंड प्रसिद्धी करतात. सामाजिक माध्यमे , त्यांच्या असंख्य फायद्यांसह डिजिटल विपणन क्रियाकलापांना प्रोत्साहन देण्यासाठी महत्त्वपूर्ण भूमिका बजावत आहेत. सोशल मीडिया सामाजिक विपणन माध्यम हे असे माध्यम आहे की फेसबुक , ट्विटर ,गुगल+, लिंकडइन , व्हाट्सअप, ब्लॉग, ऐल्प , ईनस्टाग्राम , आणि यू टुब इत्यादी स्रोत आहेत .

ऑनलाइन खरेदी करण्यासाठी ग्राहकांची सोय

डिजिटल विपणनाच्या अधिक लोकप्रियतेमुळे आणि क्षमतांमुळे ग्राहकांना कधीही (चोवीस तास) ऑनलाइन खरेदी करणे अधिक सोयीचे झाले आहे. डिजिटल विपणनामुळे कंपनी आणि किरकोळ विक्रेत्यांना त्यांच्या ग्राहकांना ऑनलाइन स्टोअरमधून खरेदी करण्याची संधी दिली आहे.

विपणन दायित्व निभावण्याची संधी

डिजिटल मार्केटिंग कंपन्यांना त्यांच्या विपणन दायित्वाचे मोजमाप करण्यास सक्षम करते जसे की डिजिटल विपणन कार्य करत आहे की नाही, दायित्वाचे प्रमाण आणि त्यात समाविष्ट असलेले संभाषण. डिजिटल विपणन विपणकाना त्यांच्या ऑनलाइन सामग्रीचे गुणवत्तापूर्ण हेतूसाठी मूल्यांकन आणि अंकेक्षण करण्यास देखील मदत करते.

सुलभ ग्राहक पोहोच

एकाच वेळी मोठ्या संख्येने संभाव्य ग्राहकांना लक्ष्य करण्यासाठी कंपन्यांसाठी डिजिटल विपणन हा संवादाचा एक प्रभावी मार्ग आहे. विपणनासाठी इंटरनेट माध्यम वापरणे हा नंबर लक्ष्य करण्याचा एक द्रुत दृष्टीकोन आहे

थेट जाहिरात

डिजिटल विपणन थेट जाहिरात करते आणि उत्पादन किंवा ब्रँडबहुल जागरूकता निर्माण करते. आता कंपन्या विविध डिजिटल चॅनेलवर उत्पादने आणि सेवांच्या जाहिराती सहजपणे दाखवू शकतात. परंतु एक चांगली ऑनलाइन जाहिरात धोरण आणि प्रचारात्मक साधने यांच्या सहाय्याने डिजिटल विपणक अत्यंत स्पर्धात्मक मार्केटिंग वातावरणात चांगली कामगिरी करण्यास मदत करू शकतात.

सतत जाहिराती प्रदर्शित करणे

डिजिटल विपणन जाहिरातींना कोणत्याही वेळी किंवा कोणत्याही ठिकाणी लक्ष्यित ग्राहकांना अधिक सुलभ बनवते. कोणत्याही वेबसाइटला भेट देण्यासाठी आणि जाहिराती पाहण्यासाठी संभाव्यतेसाठी वेळ आणि ठिकाणाची मर्यादा नाही. सतत प्रदर्शित होणाऱ्या जाहिराती आपल्याशी संपर्क साधण्यासाठी आणि त्यांच्या गरजेची उत्पादने आणि सेवा शोधण्यासाठी संभाव्य लोकांना आकर्षित करतात. परंतु या जाहिराती वेबपृष्ठावर प्रदर्शित करण्यासाठी कार्यक्षमतेने व्यवस्थापित केल्या पाहिजेत.

डिजिटल विपणनापुढील आव्हाने:

डिजिटल विपणनापुढील पुढील आव्हाने आहेत -

हॅकिंग धोरणांचा धोका

कंपनीची जाहिरात धोरणे हॅक करण्याचा धोका नेहमी डिजिटल चॅनेलवर (इंटरनेटवर) टिकून असतो, जो डिजिटल विपणनाच्या त्रुटींपैकी एक आहे. हॅकर्स किंवा स्पर्धक एका प्रसिद्ध कंपनीच्या मौल्यवान जाहिरात धोरणांचा सहज मागोवा घेऊ शकतात आणि कॉपी करू शकतात आणि त्यांच्या हेतूसाठी वापरू शकतात.

ब्रँड विरोधी क्रियाकलाप (डॉपेलगॅंगर)

डिजिटल विपणनाचा आणखी एक दोष म्हणजे एखादी व्यक्ती किंवा व्यक्तींचा समूहही 'डॉपेलगॅंगर' द्वारे मान्यताप्राप्त ब्रँडच्या प्रतिमेला हानी पोहोचवू शकतो. ब्रँडविरोधी कार्यकर्ते, ब्लॉगर्स आणि मत नेते विशिष्ट ब्रँडची प्रतिमा नापसंत करण्यासाठी 'डॉपेलगॅंगर' हा शब्दप्रसार करतात.

मर्यादित उत्पादनांसाठी जाहिरात

डिजिटल विपणनाचा आणखी एक व्यावहारिक दोष म्हणजे ते केवळ ग्राहकोपयोगी वस्तूसाठी फायदेशीर आहे. औद्योगिक वस्तू आणि औषधी उत्पादनांची विक्री डिजिटल माध्यमातून करता येत नाही. उपरोक्त माहिती डिजिटल विपणकाना डिजिटल विपणनाची ताकद आणि कमकुवतपणा समजून घेण्यास मदत करू शकते.

इंटरनेट ऍक्सेसची मर्यादा

डिजिटल विपणन इंटरनेटवर अवलंबून आहे. काही भागात, इंटरनेट सुविधा ग्राहकांना उपलब्ध होत नाही किंवा अस्त नाही. डिजिटल विपणन अशा क्षेत्रांमध्ये अयशस्वी होऊ शकते ज्यामध्ये इंटरनेटची उपलब्धता नाही किंवा मर्यादित आहे.

मर्यादित ग्राहक दुवा आणि संभाषण

डिजिटल विपणन हे इंटरनेटवर खूप अवलंबून असल्याने, विपणकाना त्यांच्या जाहिराती अधिक व्यापक बनवणे आणि कंपनीच्या ब्रँड प्रतिमा किंवा उत्पादनांबद्दल त्यांच्या ग्राहकांशी संभाषण सुरू करणे कठीण होऊ शकते.

ब्रँड्सची उच्च स्पर्धा

जेव्हा एखादा ग्राहक इंटरनेटवर विशिष्ट कंपनीचे विशिष्ट उत्पादन शोधतो, अनेक प्रतिस्पर्धी वस्तू आणि समान विपणन धोरण असलेल्या सेवा ग्राहकाच्या मुख्यपृष्ठावर दिसतात तेव्हा डिजिटल मार्केटिंगमध्ये एक कमतरता असते. यामुळे ग्राहकांना विरोध होतो आणि दुसऱ्या कंपनीचे स्वस्त आणि उत्तम दर्जाचे उत्पादन निवडण्याचा पर्यायी पर्याय उपलब्ध होतो. परिणामी, काही ग्राहकांना वेबसाइट किंवा सोशल मीडियावर दिसणाऱ्या बऱ्याच जाहिरातींवर विश्वास नसतो आणि ते फसवणूक समजतात आणि अप्रामाणिक ब्रँडसारखे दिसतात.

निष्कर्ष: या अभ्यासातून असे दिसून आले आहे की डिजिटल विपणनामध्ये ग्राहकांपर्यंत जलद आणि कमी खर्चात पोहोचण्याची क्षमता आहे आणि ते उत्पादने आणि सेवांच्या विस्तृत श्रेणीला प्रोत्साहन देऊ शकते.

डिजिटल मार्केटिंग आणि सोशल मीडिया जाहिरातींच्या विकासामुळे २१ व्या शतकात जागतिकीकरणाचा वेग आणि डिजिटल विपणनामुळे मिळणाऱ्या संधींची व्याप्ती अधिक असून अनेक व्यावसायिक संधी निर्माण झाल्या आहेत. तसेच अनेक आव्हानेही आहेत.

संदर्भ:

- 1) डिजिटल मार्केटिंगमधील आव्हाने आणि संधी (२०१८) भोजराजा, डॉ. एम. मुनिराजू
- 2) डिजिटल मार्केटिंगचा प्रभाव आणि त्याची आव्हाने (२०१६) नचिकेत एस. सांगवीकर
- 3) डिजिटल मार्केटिंगवर एक अभ्यास (२०१५) पी. सत्या



ISSN 2394-5303



Issue-79, Vol-01, August 2021

rinting Area

Peer Reviewed International Multilingual Research Journal



Editor
Dr. Bapu G. Gholap



www.vidyawarta.com

- 14) Priority Sector Lending : A Study of Commercial Banks in Bihar Since 1991
Munna Kumar Sharma, Chapra (Bihar) ||62
- 15) DESIGN MODELING OF SMARTPHONE CONTROLLED ROBOT
Suvikram Pradhan, Anshuman Nayak, G.Avinash Sharma,
D. Jayanth Kumar, GUNUPUR, ODISHA ||64
- 16) Psycho-social Factors Responsible for Violence and Corruption in the ...
Dr. Prashant Patangrao Yadav, Dist: Kolhapur ||68
- 17) A comparative study between private and public sector banks in india ...
Dr. Mitesh Chowdhary & Akeel Ahmad Mir, Indore ||73
- 18) EMOTIONAL INTELLIGENCE AND ITS IMPACT ON MANAGERIAL PERFORMANCE ...
Neethu S Gopinadh, Rajasthan, India ||78
- 19) Effect of integrated weed management on growth and yield of mustard ...
Rebecca S. Hadke, R. Ghatak, Ambarish Thaokar,
Satish Jatav & Shubhashosh Rakshit, Saikheda, Madhya Pradesh ||84
- 20) Empowering Women Through Agriculture
Dr. Seema Rani & Dr. Anshu Vishnoi, Amroha ||89
- 21) E-Marketing and Consumer Behavior
Mrs. Chanodiya Snehal Mansukhlal, Pune ||93
- 22) Teaching and Learning with Technology: Effectiveness of ICT
Mrs. Vaishali Balasaheb Shinde, Dist-Beed ||97
- 23) Gender Discrimination & Workplace Harassment: A Feminist Analysis ...
Alaknanda Prakash Pathak, Aurangabad ||101
- 24) ANALYTICAL STUDY OF CARBON CREDIT TRADE PERFORMANCE IN INDIA
Mrs. Kalpana Sharad Pathak, Ahmednagar ||106
- 25) A STUDY OF USAGE ON MOBILE BANKING WITH REFERENCE AURANGABAD ...
Mr. Bankar Karbhari Kisan, Rangari ||112
- 26) EDUCATIONAL CONTRIBUTION OF GIZU BHAI BADHEKA IN THE FIELD OF ...
DR. SHUBHRA KANDPAL, NAINITAL ||116

Psycho-social Factors Responsible for Violence and Corruption in the Cities depicted in the Novel Truth

Dr. Prashant Patangrao Yadav

Shri. Vijaysinha Yadav College, Peth Vadgaon,
Dist: Kolhapur

Abstract:

Crime has been in this world right from the beginning of the recorded history of mankind. The murder, brutal beating, violence, rape and other crimes are the central themes of many literary works. Even the common people have great interest in the criminal, his crime, its investigation and punishment to the criminal. Peter Temple is an award winning Australian Crime Novelist. Suspense and thriller are the important features of Peter Temple's writing. Temple has written nine novels and one short story. Temple published novel Truth in 2009.

The novel Truth stretches the curiosity of the readers up to the end to disclose the real criminals. Peter Temple has used many surprising twists and turns to develop the plot. The novel Truth ruthlessly presents that though the human being is living in sophisticated world, his basic instincts, like lust and desire to rule others, are still intact. Neither prosperity nor modern life can overcome them.

Novel ends with poetic justice where crime is punished and virtue is rewarded. The violence and corruption presented in the novel engrosses the readers and opens the dirty truth of rich and sophisticated city life.

Key Terms: Psycho-social, Violence, Corruption, Abnormal Psychology, Sexual Sadism

Psycho-social Factors Responsible for Violence and Corruption in the Cities depicted in the

Novel Truth.

The novel Truth, published in 2010, is about violence, murder, love, corruption, and deceit in city life. It deals with Truth deals with the crimes in the metropolitan cities like Melbourne. Inspector Stephen Villani, head of the Victoria Police Homicide Squad in Melbourne, is the central character in the novel. His herculean efforts to solve the homicide cases in Melbourne are presented. The novel begins with the murder of a young girl in a luxurious apartment of Prosilio, which is very modern and sophisticated building in Melbourne, Australia. The forensic expert announces that the girl has died within twenty four hours due to torture, broken neck and has been damped before killing. Police find drug content in the blood of the dead girl. It is the indication that she was given cocaine to stimulate by the killer. Forensic team does not find any print or clue of the killers. In the post mortem of the dead body, it is found that she has been drugged and severely tortured before killing. Weber, one police officer, gets the reports and tells Villani that:

Time of death around midnight on Thursday. C5 snapped, very likely head jerked back, no bruising or abrasions. Recent intercourse. Tearing to vaginal and anal passages. No semen. Used cocaine. She's sixteen to twenty. Scar on left tricep, more than a year old. Bruising on her ribs left side, probably punched, that's recent. Slightly displaced septum, probably in the last six months. (29)

The horrible torture and exploitation of the girl reveal the cruel psychology of the killers. The girl is harassed and beaten severely. The treatment, given by the killers to the girl, suggests that the criminals were sadistic. Their crime is Sexual Assault, Exploitation and Murder of a young girl.

Through this novel, Peter Temple emphasises that the evil is always hidden in the so called sophisticated, educated and cultured people. The girl in Prosilio building is the victim

of sex and lust of Max Hendry, one of the richest businessmen in Australia, and Guy Ulyatt, Head of Marscay Corporation which owns the Prosilio building. This crime of Max and Guy is revealed at the end of the novel as Villani unfolds the mystery.

Max Hendry and Guy Ulyatt have brought twin young Romanian whores, who are just fifteen years old, to enjoy the sex with them in the building. These girls belong to poor families. The pimps Loran Alibani and Kenny Hanlon have imported them in Australia to provide them to the rich people like Max and Guy. Max and Guy gave them Cocaine to stimulate. One of the twin girls (her name is not mentioned in the novel) dies due to the harassment, torture and extremely hard and inhuman sexual intercourse of Max and Guy.

Max Hendry is a very powerful person in the society. All the politicians including Premier and bureaucrats, and officers from police department, are under his influence. His son Hugh Hendry is also a very dominant person in the business world. Hugh is owner of Stilicho Security Company which looks after the security of the Prosilio building where the girl has been killed.

The act of Max and Guy is a behavioural disorder called Sexual Sadism characterised by a callous, vicious, manipulative, and degrading sexual behaviour towards the Romanian girl. Sexual Sadism involves gaining sexual pleasure from seeing others undergo pain or discomfort. Max and Guy have tortured the girl to get the pleasure. Sexual Sadism is a part of Sadistic Psychopathy which can be traced in the act of Max and Guy as they get the sexual pleasure by torturing, beating and exploiting the poor girl. The girls belonging to the poor countries never complain, even when Max and Guy punch, tie and gag them. Regarding Sexual Sadism, Michael Gelder, Paul Harrison and Philip Cowen in their Shorter Oxford Textbook of Psychiatry say that: Beating, whipping and tying are common forms

of sadistic activity. Repeated acts may be with a partner who is a masochist or a prostitute who is paid to take part. Extreme examples of sadism are the rare lust murders, in which the killer inflicts serious repeated injuries usually stabblings and mutilations on the genitalia of his victim. (489)

The murder of the underage girl is the crime of Sexual Homicide or Lust Murder. It is a homicide in which the offender gets erotic satisfaction by killing someone. Lust murder is also similar to the Paraphilic term Erotophonophilia, which is a sexual arousal or gratification contingent on the death of sexual partner during intercourse. Commonly, this type of crime is manifested either by murder during sexual intercourse or by mutilating the sexual organs or areas of the victims' body. The girl is died during the sexual intercourse with Max and Guy and her vagina and anal passages have been torn by them. Sexual Sadism also includes activities as removing clothing from the body, posing and propping of the body in different positions generally sexual ones and insertion of objects into bodily orifices. Similar treatment is given to the girl by Max and Guy as naked the body of girl is found in the bathroom and she was bumped before killing. On the same subject Irwin G. Sarason and Barbara R. Sarason in their Abnormal Psychology say that:

For some people inflicting or experiencing pain and indignity is linked to sexual gratification. Many people incorporate mildly painful acts such as biting, nipping, and spanking into their sexual practices. However, sadists and masochists often go beyond mild pain and, moreover, cannot enjoy sex any other way. To the sadist, achieving orgasm depends on humiliating others or inflicting pain on them. (294)

Both the critical comments are fit to the act of Mac and Guy. The dead girl is a prostitute paid to take part in the sadistic acts. The normal sexuality is genital intercourse with consenting adults where no one dies. If the sexual

gratification is based on other than that it is labelled deviant sexual behaviour. The girl dies due to the sadistic acts like beating, gagging and tearing her vagina and anal passages which are the extreme acts of Sexual Sadism.

The other criminals in the novel are pimps Loran Alibani and Kenny Hanlon. They import the girls from poor countries by paying money to their parents or relatives. Many times girls are deceived and forced to be prostitutes. Police find out Merica, the twin sister of the dead Romanian girl at the end of the novel. Her pathetic story reveals the criminal acts of pimps. Her story is:

....her uncle brought the man to see her and her twin sister and told them they could go to Australia and be trained as hairdressers and beauticians, the Australian girls did not want to do the work, they were also ugly and had big hands and could not do delicate things, his reward would be a small percentage of their earnings when they were qualified, that was only fair. (391)

Merica and her sister were deceived by their uncle and forced to be prostitute. According to the scholars like Karl Marx and Engels the economic pressures are created by the capitalistic system. Child labour, bad housing, illiteracy, insecurity and poverty are all considered to be the off shoots of the capitalistic system.

The underage prostitute girls are expected to attend the schools to fulfil their life dreams. Instead of helping them, they are forced into this disgusting profession by the poor family members and pimps. The girls are brought from the poor countries like Romania, Thailand and Philippines. Even the parents of these girls sell the daughters because they are unable to nourish and educate the children due to the economic pressure. The poor people are suppressed, crushed and manipulated by the rich and dominant class for the enjoyment in life.

The pimps Loran Alibani and Kenny Hanlon use to bring the fresh batch of under-

age girls for the sexual slavery in Australia. The pimps get a large profit by supplying the girls to the rich people. It is a crime to force the girls in prostitute business. It is also a blot on the humanity to purchase and sell the girls as sex workers. The pimps like Loran Alibani and Kenny Hanlon and the family members of the Romanian girls are criminal.

Max and Guy try to hide the crime with the help of power and money. The girl has died in a well furnished apartment with advance facilities. The servants and management staff of Prosilio building try to save Mac and Guy by not cooperating with the police. Villani meets Alex Manton, Building Manager, Sylvia Allegro, Head of Concierge, David Condy, head of Security for apartment to collect the information about murder, but no one gives any satisfactory answer though they know the criminal. All the proofs of the murder like garbage of the flat, security recordings of building and parking are destroyed. The servants do not provide the list of visitors to the building. The building manager Manton refuses to give any information.

Helping the criminals to hide and not cooperating with police are also crimes, in this sense, all the staff of the building are criminal. With the power of money, Max and Guy become successful in corrupting all the staff of Prosilio building by using economic pressure. Regarding the economic pressure on the behaviour of people, S. Venugopal Rao in his book *Facets of Crime in India* states the remark of William Bonger, the famous Dutch criminologist, from his book *Criminality and Economic Conditions*: "The part played by economic conditions in criminality is preponderant, even decisive". He attributed crime to economic pressures and certain abuses derived from the capitalistic system, viz. child labour, economic insecurity, poverty and deplorable housing conditions.

The economic condition of the workers in Prosilio building or fear of losing the job has forced them to hide the crime of their boss Guy

Ulyatt and rich businessman Max Hendry. The pressure of capitalism on the common people is universal.

Max Hendry and Guy Ulyatt use political influence to detain the investigation of Villani. Max Hendry stops the media disclosure of the murder in the Prosilio building with the help of corrupt police officers. Mr Colby, the assistant commissioner, orders Villani not to disclose the murder in the building to media because it may affect the prestige of the building. It is an order from Mr Pope Barry, (Mr Larry O'Barry) Deputy Commissioner, and Mr David Gillam, Chief Commissioner. Corruption in police department is very deep rooted. Villani is detained from doing his duties. The political interference in the police investigation affects the work of honest police officers. At the end it is revealed that in the Prosilio building, the top police officers and politicians have purchased flats. Guy Ulyatt has provided them these flats on very low rates and for that financial favour; top police officers are detaining Villani from exposing the crime. The types of crimes committed by these police officers are Corruption, neglecting the duty and misuse of position.

The top police officers, whose duty is to motivate Villani for just and fair investigation, are detaining him from discharging his duties. The act of these officers comes under White Collar Crime. They are getting economic benefits from Mac and Guy. They are all corrupt and receiving bribery which is a White Collar Crime. The term Bribery is related to receiving of any item of value to influence the actions of an individual holding a public or legal duty. Due to bribery, the recipient directly alters his behavior in exchange for the gift. Guy has given the police officers flats in the Prosilio building, so now they are not performing the legal duties properly. Bribery constitutes a crime and both, who give it and who receive it, are criminals in the eye of law.

The media is also under the influence of

Max and Ulyatt. In the media, detailed news of casino opening in the Prosilio building is published and shown. But media instead of the highlighting the news of murder, focuses the luxury and richness of the building. The news is:

The boutique gambling venue is housed in this building, the newly commissioned Prosilio Towner, one of Australia's most expensive residential addresses. It's a world of total luxury for the millionaire residents, who live high above the city behind layers of the most advanced electronic and other security.... (17)

The news praises the luxury and security of the building which is a parody as on the same day and in the same building, a girl has been murdered horrifically. Only the dead girl's photo is shown on the television asking for public help to recognise her. While showing the photo, the media does not mention about her murder and place of murder. It is a part of corruption in media too. On the television, an appeal is made to inform Crime Stoppers if anyone knows the girl.

Media is considered the fourth pillar of democracy. It has a key role to play in monitoring and investigating the actions of those in power and informing citizens about them. It should be unbiased and just. The incident shows that the media and journalists are not immune to corruption. Types of corruption in the media vary from bribery in the form of cash for news, staged or fake news, gift giving, concealed advertisement to nepotism and capture by vested private or political interests. In the case of girl's murder in Prosilio building, media acts under the influence of Max and Guy. Before starting his career as a writer, Temple has worked many years as a journalist, so he is well aware about the corruption in media which he has presented in the novel.

When the police department makes progress in the case nevertheless hindrances, criminal Max Hendry becomes restless. To detain Villani from probing deep in the matter, he

again uses his political influence. Mr Colby, the assistant commissioner, asks Villani to stop the investigation of Prosilio murder case immediately. Colby also praises Villani for handling the Prosilio matter coolly because the building is very expensive and many flats are not yet sold. If the reputation of the building is damaged, then the flats will not be sold. Mr Colby tries to detain Villani by offering him high position in the police department. For corrupt police officers, the reputation of the building is more important than the life of the girl.

Colby gets financial benefits from Max Hendry so he is working to save him. The capitalistic mentality is reflected through the act of Mr Colby. Regarding this, The Dutch criminologist, Mr Bonger W.A. in his *Criminality and Economic Conditions* (1916) has emphasized that: The basic cause of crime is the economic pressure of a capitalistic system. Under the capitalistic system man has become egoistic and more capable of committing crime.

The capitalistic order has, therefore, had a prejudicial influence upon character. (409)

The acts of Mr Colby are influenced by financial gain from Max Hendry. Under this pressure, he has become totally blind, forgets his legal duties and does illegal acts. Peter Temple has focused the reality of the police department. The proud behaviour of Max, his influence on top politicians and police officers is the indication of his Narcissistic Personality Disorder. People with this disorder cross the border of confidence having very boastful and pretentious nature. Max in his speech tries to keep himself high above the other people. Regarding the Narcissistic Personality Disorder David H. Barlow and Mark Durand in their book *Abnormal Psychology* state:

People with Narcissistic Personality Disorder have an unreasonable sense of self importance and are so preoccupied with themselves that they lack sensitivity and compassion for other people. (396)

The same is the condition of Max Hendry and Guy Ulyatt. They feel themselves very important and do not show any compassion for the poor Romanian girl. Even after the death of the girl, they exhibit total insensitivity.

Peter Temple predominantly focuses on the corruption in the police department. The police officers have to deal with all these people. Villani regrets that many police officers do not follow their duties properly and easily become corrupt to get financial advantages from rich and corrupt politician and businessmen. Even the corrupt police officers economically exploit common or poor people.

The crime of aristocratic class in cities is depicted by Peter Temple through the criminal acts of Max Hendry and Guy Ulyatt.

In this way, Peter Temple has presented the crime in city life. The criminals in the novel are Max Hendry, Guy Ulyatt, Corrupt Politicians and Police Officers. The crime presented in the story is Murder, Sexual Sadism, Corruption, White Collar Crime and misuse of position. Criminal have Narcissistic Personality Disorder, Mania, and Psychopathy. Marxist Theory and Capitalist Theory are used to explain the reasons behind crime.

References:

1. Temple, Peter: *Truth*. Melbourne: Text Publishing, 2010. Print.
2. Bonger, W.A. *Criminality and Economic Conditions*. <http://archive.org/stream/criminalityecono00bong/criminalityecono00bong_djvu.txt> Retrieved on: 25/01/13
3. Barlow, David and Durand Mark. *Abnormal Psychology*. London: Printice Hall, 2003. Print.
4. Rao, Venugopal S. *Facets of Crime in India*. Bombay: Allied Publishers Private LTD, 1967. Print.
5. Sarason, G. Irwin and Sarason R. Barbara. *Abnormal Psychology*. Delhi: Pearson Education, Inc, 2002. Print.
6. Gelder, Michael, Harrison Paul and Cowen Phillip. *Shorter Oxford Textbook of Psychiatry*. London: Oxford University Press, 2006. Print.

KANPUR PHILOSOPHERS

ISSN 2348-8301

**International Journal of
Humanities, Law and Social
Sciences Published Biannually
by New Archaeological &
Genological Society Kanpur India**

Vol. VIII, Issue-I, 2021

ISSN 2348 – 8301

Kanpur Philosophers

Volume VIII, Issue I, June 2021

**An UGC Care Listed, Internationally Peer Reviewed and
Refereed Journal of History, Archaeology, Indology,
Epigraphy, Numismatics, Law, Literature & allied disciplines
of Arts, Humanities and Social Sciences.**

**NEW ARCHAEOLOGICAL & GENOLOGICAL SOCIETY
125/L/89, FF104, GOVIND NAGAR, KANPUR U.P. INDIA 208006**

61.	Revisiting Thriller Fiction in Indian Context with Special Reference to the Novels of Ashwin Sanghi	Mr. Rajendra Ashok Pradhan Dr. S. B. Bhambar	254
62.	From The Sundarbans to Italy: Ecocritical Concerns in <i>The Hungry Tide</i> and <i>Gun Island</i> by Amitav Ghosh	Dr. Pranav D. Khoche	258
63.	AN INTERVENTIONAL STUDY FOR THE EFFICACY OF NUTRITION LABELS IN READY TO EAT FOODS	Anjana Singh Dr. Garima Upadhyay	261
64.	Smartphone Addiction: A Comprehensive Approach to Understand the FOMO and Difficulties in Emotion Regulation among Youth	Radhika Rajput Dr. Sneha Saha	267
65.	Reflection of Dalit Labour and Caste in the Selected Dalit Autobiographies	Mr. Mane Sanjay Rajaram Dr. Yadav Prashant Patangrao	273
66.	Regional Imbalance in Economic Development of India	Dr. Ashutosh Abasaheb Deshmukh	277
67.	INVESTMENT SIZE, SATISFACTION LEVEL, QUALITY OF ALTERNATIVES AND COMMITMENT LEVEL ACROSS FRIENDSHIPS AND INTIMATE RELATIONSHIPS: A COMPARATIVE STUDY	Shubham Gupta Dr. Priyanka Tiwari	282
68.	Changing role of newspapers and new Educational policies	Dr. Dhiraj Suresh Shinde	291
69.	A Study of Perception and Awareness of Goods and Service Tax in Layperson.	Dr. Vinayak Dagadu Kundlik Dr. Dendra Vinayak Ujagare Dr. Prashant Sathe Brihan	295



Reflection of Dalit Labour and Caste in the Selected Dalit Autobiographies

Mr. Mane Sanjay Rajaram

Research Scholar, Shivaji University,
Kolhapur

Dr. Yadav Prashant Patangrao

Research Guide & Asst. Professor,
Dept of English,

Shri. Vijaysing Yadav Arts and Science College,
Peth- Vadgaon, Dist- Kolhapur (MS)

Abstract

India is a multi-cultural nation with its amalgam of religion and people. Her long traditional history of Vedic foundation of Hindu religion and scripture maintained class structure based on occupations/labor. The duality of labor divided labor entities into white color and menial jobs, consequently segregating society into upper caste and lower caste. The division of people based on labor hierarchy pushed Dalits to the bottom of the social pillar. The pushing at labor marginality forced them to do menial works that have little work value in society. This low 'laborer' degradation debased and devalued Dalits. They are 'bonded Laborers' similar to slavery and are devoid of any kind of benefits (social, economic, medical) and have to perform menial works. Dalit autobiographies are full of this account of hard-working laborers, Siddalingaiah, Gunshetkara, Namdev Ningade, and Bama depict Dalit labor in their life narratives and bring forth the issues of caste, dignity, and violation of human rights of Dalit people.

Introduction:

Caste: A key determinant of the social Divide

Underlying the hierarchical social system is the fundamental Hindu idea that people are born into an existence that is the fruit of their past karma. One's social status in life is therefore traditionally considered predetermined and immutable and the individual must adhere to the particular practices and dietary rules of his or her jati (Michael D. Coogan 159-160)

Caste/untouchability has been an inherent mark of Hindu society. Even after its legal abolition, it is present in our actions and psyche. Caste is a deep-rooted thought which has a perspective of a casteist mindset that cannot go towards caste free society even after seventy years of independence, it's a fact we cannot deny. Ours is a republic state where the Indian constitution grants equal treatment irrespective of caste, class, religion, language, culture, etc. However Dalits- men, women, and children- have been facing discrimination in terms of caste, gender, culture, labor, poverty, etc. The discrimination based on these issues poses a question of Dalit's human dignity and human rights violation.

The caste has concretized the social division of Indian society. India is a multicultural nation with its amalgam of religion and people. Her long traditional history of Vedic foundation of Hindu religion and scripture maintained class structure based on occupations/labor. This is explained clearly by Madgubh thus,

"The first group was made of *Brahmins* (priests). They came from Purusha's mouth and were to provide for the intellectual and spiritual needs of the community. The second group was called the *Kshatriyas* (warriors and rulers). They were created from the arms and were to rule and to protect the others. *Vaisyas* (landowners and merchants) sprang from Purusha's thighs. This group was in charge of trade and cared for agriculture. *Shudras* (artisans and servants) came from the feet. They had to do all the manual work". [Mugdum: 2009: 7-8]

The division of people based on labor hierarchy pushed Dalits to the bottom of the social pillar. The pushing at labor marginality forced them to do menial works that have little work value in society. Sudhir Kumar Kathiyar aptly exposes the bi-polar division of labor division. He says, "The duality of the Indian labor class reflects the duality of Indian society. The organized sector comprises primarily the upper castes and upwardly mobile sections from among the Other Backward Castes (OBCs). The unorganized sector is drawn from primarily the Scheduled Castes, Scheduled Tribes, and the lower sections of the OBCs. The extremely low wages and the primitive work conditions have to be understood in the context of the caste system where manual work is considered polluting and lies in the domain of the *Shudras* and Untouchables. The upper castes perform only white-collar managerial jobs". (<https://www.forwardpress.in>)

Upper caste Perception of Dalit labor:

Different societies have different perspectives, thoughts, and cultures regarding labor. Both colonial and modern India dominant power structure and ideologies look contemptuously towards manual work. The privileged non-manual work and degrade Dalit labor. It is labeled as filthy and 'dirty work' attaching it to impurity. (Hughes, 1958) Consequently, Dalits, being manual laborers, became objects of prey for the upper caste structure. This contemptuous approach of dominant power structure concretized subjugation of Dalit labor, especially in a rural area. Dalit autobiographies of Siddalingaih, Ganshekan, Namdev Nimgade, and Banna laid bare this subjugation.

Caste and Labor:

Caste and labor are outputs of upper caste ideology and both entities go hand in hand. In this regard, Dr. B.R. Ambedkar traces out the nexus between caste structure and labor. He explains the practice thus, "caste framework is not merely a division of labor, but it is a 'division of laborers'. (BAMS, 47). Dalits are landless and bonded laborers. They were forced for manual laborers, which have less social value, which include- manual scavenging, cleaning carcasses, leatherwork, grazing cattle, collecting human excreta, collecting firewood. Due to caste hierarchy dalit's fate is sealed with bonded labor that goes from generation to generation and therefore lacking choice regarding working conditions and wages. Dalit laborers are forced to do physically straining and menial types of works. They have to do hard work for long hours, without break for lunch, with no control of time limit. The picture of this harassment is documented by Namdeo Nimgade thus,

"My grandfather was a bonded landless laborer working for a high caste landholder. His various tasks included removing animal waste, cleaning animal stalls, gathering and chopping firewood, and even conveying important messages to neighboring villages because there were no post offices around there. This was the life of servitude bonded laborers could look forward to. When old age made it hard for Budha to perform his duty, I and my two uncles, Rameshwar and Someshwar, helped out." (Nimgade: 2010:15)

Forgetting their human existence, Dalit bonded laborers were treated worse than animals. This equity of them with animals is visible in the narration of Nimgade. He says, "It was because of the curse of untouchability that we had to compete with animals. This was but one of several inhuman and very painful but somehow "necessary" social rituals devolving from *chaturvarna*, the Hindu code that created the caste system." (ibid: 16).

A similar account of inhuman treatment is also noticed at the very outset of Siddalingaih's autobiography *A Word with you, World*. He narrates the experience of his parent's pain, thus, "one day as we stood on the ruined walls and watched for our parents, we noticed something. A man had fastened a yoke onto the shoulders of two other men and was ploughing Amoru's fields. It was amusing to watch the two men trundle on like bullocks, while the third followed them, swinging a whip and making them plough. Then I realised that one of the men carrying the yoke was my father. A strange agony gripped me at that moment. Some women came up to us and sighed, "What a plight has befallen poor Dyavanama!" This doubled my agony. When my father returned home after toiling like a bullock all day, my mother warmed up some oil and massaged his shoulders with it." (Siddalingaih: 2003:16)

Seasonal migration is imposed on Dalit laborers due to the nonvariability of work. Due to this forced migration, they were deprived of family and its proximity which is very much important for a human being. This exclusion pains and tears other members of the family. Siddalingaih documents the account thus, "He (father) started going farther and farther away to look for work, and came home only at intervals of three to six months. We were scared at night, and wouldn't sleep at home... we were all delighted when my father came home after one of his stints away". (ibid: 21)

Dalit women Laborers: the most peripheral subjectivities

According to Nicholas Dirks, Caste is, "a specter that continues to haunt the *social history of India*" (Italics mine) (17). The above comment is apt regarding Dalit women laborers. Dalits women laborers are at the bottom of social hierarchy and are the victims of economic deprivation(class) untouchability (caste) and patriarchy(gender). The UN Special Rapporteur's 2013 report on Violence against Women explains that Dalit women are "at the bottom of the political, economic and social systems, and they experience some of the worst forms of discrimination and oppression - thereby perpetuating their socio-economic vulnerability across generations." (<http://idsn.org>)

The pollution-purity matrix of the upper caste structure is responsible for their social exclusion. They have to perform various duties that include collecting water and fuel for daily use, preparing food,daily wage labor, agricultural work scavenging, cleaning, etc.Dalit autobiographies document this account of hard-working laborers. Bann aptly focuses on the toils and troubles of Dalit women laborers when she observes, "From the moment they wake up, they set to work both in their homes and in the fields. At home they are pestered by their husbands and children; in the fields, there is back-breaking work besides the harassment of the landlord. When they come home in the evening, there is no time even to draw breath. And once they have collected water and firewood, cooked a Kanji, and fed their hungry husband and children, even then cannot go to bed in peace and sleep until dawn. (Bann: Sangati 22).Dalit women laborers have to do seasonal jobs to live their life. This is realistically narrated by Gunasekaran in his autobiography *The Scar*. He narrates, "During monsoon months she [mother] would cut grass and sell to the Muslim houses." (Gunasekaran: 10)

The patriarchal power structure has been one of the barriers to the economic deprivation of Dalit laborerwomen. She is notgiven enough space to restrict herself to four walls of the home.Gunasekaran narrates the account of his mother's economic deprivation. His mother was educated and had the opportunity to do a government job but his father opposed and kept her away from the job. Gunasekaran says, "My mother had been educated, even in those days, up to the eighth standard at Schwartz School in Ramanathapuram.... Our father did not allow my mother to take up a government job." (ibid 8)

Like women,Dalit Children are also travelers of the agony of bonded labor. Being the most venerable, they have to work in hazardous working conditions facing discrimination on issues of social security and wages. This labor necessity deprives them of access to education, sports, and social life. The candid account of child labor get reflects when Ningade narrates his own experience thus, "So I started laboring at an age where I should have been going to school. My work was to run back and forth with seedlings and small plants for laborers to transplant in the rice paddies" (ibid: 11)

However, Kanuchalliah critiques the upper caste ideology of Dalit labor and proposes a counter ideology of Dalit labor where he glorifies Dalit labor. The tasks performed by Dalits are skill-based and productive having their significance, though upper-caste psyche stratifies it is of low status. Comments Kancha Iliash in this regard, "The farmers (several shudra, chandala, and Advaiti communities) perform the task of tilling and have developed highly sophisticated knowledge... A Brahman pundit does not know how to measure the levels of rain—the tiller knows it in its all dimensions. (*Post-Hindu India*146)

Conclusion:

Caste is the monster that haunts Dalit people's world. The purity-pollution matrix is a catalytic agent that dilutes the social, economic, political, and cultural life of Dalits.The division of people based on labor hierarchy pushed Dalits to the bottom of the social pillar. The labor marginality forced them to do menial works that have little work value in society. Dalits being 'bonded and landless laborers are treated as cattle class citizens and thus are exploited (socially, economically, culturally) for livelihood without concerning human rights and dignity.Dalit Autobiographies depict a realistic picture of Dalit laborers and asks for their human rights and dignity as human beings.

References

1. Bama, Faustina. *Sangati Events*. Trans. Lakshmi Holmstrom. New Delhi: Oxford University Press, 2005. Print.
2. Coogan Michael D. *The Illustrated Guide to World Religions*. New York: OUP 2003. Print.
3. Dirks, Nicholas B. *Castes of Mind: Colonialism and the Making of Modern India*. Delhi: Permanent Black, 2003, Print)
4. Dr. Babasaheb Ambedkar: Writings and Speeches (B.A.W.S). 12 vols. Bombay, Education Department, Government of Maharashtra, 1979. Print.
5. Gunasekaran, K. A. *The Scar*. Trans. V.Kadambari, Chennai: Orient Black Swan, 2009. Print.

6. Hughes, E. C. 1958, *Men and their work*. Glencoe, IL: Free Press.
7. Magdum, Ajit B. *Comparative Literature: Dali Poetry and African Poetry*, Kanpur: Roli Book Distributors, 2009; 7-8
8. Nimgade, Nandoo. *In the Tiger's Shadow*, New Delhi, Navanyana 2010. Print.
9. Siddalinguniah. *A Word with you World*, Trans. S. R. Ramakrishna, New Delhi: Navanyana 2013. Print.
10. The Hindu, April 15, 2007, *Writing has to be classless*. Chennai Edition
11. <http://idsn.org/news-resources/idsn-news/read/article/culture-of-impunity-harms-dali-women/128/>
12. <https://www.forwardpress.in/2016/11/the-great-divide-in-the-indian-labour-class/>

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)



TABLE OF CONTENTS

Amphibian Survey from Mahad Tahsil Western Ghats, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	1-5
Survey of Dung Beetles in Mahad Tehsil Western Ghats, Raigad District, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	6-9
Impact of COVID-19 on Agriculture, Livestock, and Biodiversity: A Review <i>Parinita Kumari and Dr. Vinod R. Ragade</i>	10-15
Impact of Botanical Extracts on Histopathology of Midgut of CSR2 Race of Mulberry Silkworm (<i>Bombyx Mori L.</i>) Inoculated by <i>Staphylococcus Aureus</i> <i>S. J. Patil, S. S. Patil, G. P. Bhawane</i>	16-20
Impact of Climatic Conditions on Rice Crop of Pune Division: A Geographical Analysis <i>B. S. Jadhav and M. B. Hande</i>	21-31
The Study of Phytoplankton and Zooplankton in Freshwater Tulsi Lake, Mandangad, Ratnagiri, Maharashtra, India <i>S. S. Bhaisare</i>	32-37

Study of Avifaunal Diversity from Shendri Reservoir Gadhinglaj, Dist. Kolhapur (M.S.)

K. J. Adate and V. V. Ajagekar

38-44

Development in Pesticides for Control and Prevention of African Giant Snails, Achatina Fulica in Jalgaon, Dapoli Dist. Ratnagiri (M.S.)

Janhavi Vidya Patil and Nanda Bhupal Jagtap

45-51

The Influence of Boron on Some Plant Nutrients in Sweet Sorghum (Sorghum bicolor L.)

Jadhav Sujeet S.

52-57

A Study of Butterfly Diversity in Nandgaon Village and Gulmohar Park in Khed Tehsil District of Ratnagiri (M.S.) India

Ayesha A. Rauf Murudkar and Nanda Bhupal Jagtap

58-68

Impact of COVID-19 Pandemic Lockdown on Fishery Potential of Uran Tehsil, M. S., India

Shital S. Taware, Vishwajeet M. Lagade, Mansi K. Gurav, Ayush D. Koli

69-75

Avifauna of Zambre Reservoir, Chandgad, Dist- Kolhapur (Maharashtra)

Dr. K. N. Nikam

76-81

The Floristic Studies on Narande Sacred Grove Narande, Dist. Kolhapur, Maharashtra

Patil Aparna A and Minchekar Rahul

82-87

Impact of COVID-19 Pandemic on Rivers: A Review

Aishwarya S. Pawar, Sachin J. Pawar, Rutuja A Chavan

88-92

Impact of Disinfectant and Sanitizer on Human and Environment during COVID-19 Pandemic

V. M. Lagade, S. S. Taware, S. V. Lagade, P. S. Pawar, B. S. Wali

93-106

Estimation of the Population Size of Crocodile *Crocodylus palustris* (Lesson, 1831) from Two Incomplete Survey Methods-Daylight Ground Counts and Night Counts

Atigre R. H., S. R. Patil, R. J. Patil, M. G. Babare

107-113

Diversity and Distribution of Agricultural Insect Pest in Some Selected Areas of Indapur (Pune) and Phaltan (Satara) Tehsil, Maharashtra, India

Rupesh B. Yadav, Prajakta D. Khaire, Suryakant V. Maske

114-121

Impact of the COVID-19 Pandemic on the Dairy Farming

Ingavale Dipali Rajaram

122-125

Plant Diversity at Katyayani Temple Area, Kolhapur

P. A. Sonar, V. B. Nalawade, M. N. Desai

126-129

Impact of Social Background on Learning English as a Second Language

Dr. Prashant P. Yadav

130-133

Relation of Physical Fitness Index with Body Mass Index: Study Among Female Students of Balwant College Vita, Dist. Sangli, (M.S.), India

Rahul Patil, Satyawant Patil, Yogita Patil, Rajaram Atigre

134-137

Impact of the Corona Virus Pandemic on Wetland Avifauna Diversity of JAT Region

Dr. S. B. Deshmukh and Dr. M.Y. Kulkarni

138-140

Identification of Some Genera of Family Cucurbitaceae based on Characters of Seeds

S. S. Bhosale, D. G. Jagtap, R. S. Bhosale, S. M. Khandare, A. S. Dhabe

141-145

Seasonal Variation of Phytoplankton Diversity in the Fresh Water Body of Atpadi Lake, Maharashtra

Shivaji M. Vibhute

146-150

- Ichthyofaunal Diversity of Atpadi Lake, Tal- Atpadi, Dist-Sangli (MS) India**
Shivaji M. Vibhute 151-154
- Seasonal Variation of Physicochemical Parameters in Perennial Tank of Atpadi, Maharashtra**
Shivaji M. Vibhute 155-161
- Biology of Apanteles Baoris Wilkinson (Hymenoptera: Braconide) A Larval Parasitoid of Chapra Maathas Fab**
T. M. Chougale 162-166
- Diversity of Braconid Parasitoids (Hymenoptera: Braconide) of Horticultural Insect Pests from Kolhapur, Maharashtra**
T. R. Patil and T. M. Chougale 167-171
- Total Lipid Alteration Gill and Muscle of Fingerlings of Freshwater Fish Labeo Rohita Fed on Formulated Feed**
V.B. Nalawade, M.P. Bhilave, M. N. Desai 172-176
- Impact of COVID-19 Pandemic on Animal Husbandry: A Review**
S. G. Patil and N. A. Patel 177-186
- Influence of Ipomoea muricata (L)Jacq. Weed Manure on The Aerial Biomass of Maize Crop**
Sangita Anandrao Ghadge 187-193

Impact of Social Background on Learning English as a Second Language

Dr. Prashant P. Yadav

Assistant Professor, Department of English

Shri. Vijaysinha Yadav Arts and Science College, Peth Vadgaon, Kolhapur

Abstract: *It has been a subject of debate for many years in India that how many languages can be learnt by pupils and at what stage the study of English Language should be commenced? To understand the issue, one should know the purposes of the second language learning mainly English to have clear perspective of the Second Language Learning. While learning Second Language, there is high impact of Social Background of the Learner. So, the present research paper focuses on the various aspects of Social Background which influence the language learning of the students.*

Keywords: Language Learning, Influencing Factors, Motivation, Language Aptitude, etc.

I. INTRODUCTION

Learning any language is a natural and social phenomenon. India is a multilingual country in which English is an alien language. Indians need to take special efforts to learn English as a second language where they face many difficulties and hurdles. To understand the problems of Indians learning English, there is need to study the process of Language Learning. Mankind, being a born learner, starts learning while he/she is a baby and continues until his/her death. Smith H. P. In his book *Psychology in Teaching* Says, "Learning is the acquisition of new behaviour or strengthening or weakening of old behaviour as the result of experience" (260). With proper stimulation and incentives, there are virtually no limits to men's ability to learn. Hence, a man, primarily, is endowed with limitless ability to learn.

Ability to speak and write a language is God's gift to mankind. Though Learning Language is a natural phenomenon, it cannot be denied that it is a complex matter. Robert Lado in his book *Language Teaching: A Scientific Approach* remarks, "Language learning is complex. It ranges acquisition of simple automatic skills to an understanding of abstract conceptual and aesthetic meaning, all occurring in the same sentence" (280).

Learning a language implies learning of the four basic skills- Listening, Speaking, Reading and Writing. Linguists admit the complexity of learning of a language. There is no unanimity on how the process of Language Acquisition takes place.

II. SIGNIFICANCE OF THE STUDY

Till the end of nineteenth century, psychology had dominated education. It is only in the twentieth century that a sociological concept of individual has come to be accepted. Whether and individual is learning within a family or in school, whether he is at play or elsewhere, he is not isolated individual, but an individual in interaction with other individuals. According to this approach, any study of the educational system must go beyond the individual and give sufficient consideration to the complexity of individual-group interaction. There is no one ideal type of education for all but it differs from society to society, from group to group because of different socio-cultural environment and different needs of different societies and groups.

It is important to study the impact of Social Background on the language development of student and particularly the second language learning.

III. LEARNING THE SECOND LANGUAGE

Learning the second language is much more difficult and complex than learning the first language. The first language learning is comparatively simple because the learner is constantly exposed to his first language at his home and in the society at large. Being badly in the communicative need and having a strong desire to express himself to gratify his essential needs, the learner picks up the first language with the help of plenty of models around to imitate. Henu Ronald

Ward Hough in his book *TESOL: Current Problems and Class-room* aptly remarks “Languages are not taught; they are learnt for they are too complicated to be taught” (13).

Learning the second language is not an unconscious activity, rather, it is a deliberate activity, a social accomplishment. Reasons of this are obvious:

1. The child, after learning his mother tongue, has means of communication and does not feel any urgency to learn the second language.
2. Its exposure is restricted as the classroom is the only place where the second language is taught and heard and the teacher is the only model to imitate.
3. As stated by William Little wood in his book *Foreign and Second Language Learning*, “Language development depends upon the concepts a child forms about the world” (14)

In the case of second language learning, the child has already formed the concept about the world while learning his mother tongue. Hence, while learning the second language, he has to develop an awareness for the new concepts and their relationship with the second language.

Thus, learning the second language is much more complex activity than that of the first language. It is certainly not a mere formation of automatic habits.

The Purpose of the Second Language Teaching/ Learning in Indian Schools:

It has been a subject of debate for many years in India that how many languages can be learnt by pupils and at what stage the study of English Language should be commenced? To understand the issue, one should know the purposes of the second language study mainly English to have clear perspective of the Second Language Learning.

It is the admitted fact that regional languages are important but it does not mean that the national language of the country can be ignored completely. Above all, the study of foreign language i.e., English has its own importance. Now the question arises which language should be given the top most position in the country? Regional language or mother tongue of the student should be given first preference because it is the most suitable language as a medium of instruction for the child to begin its study. The national language of the country should come at number two and the study of English should come after the national language.

While learning Second Language, there is high impact of Social Background of the Learner. So, the present research paper focuses on the various aspects of Social Background which influence the language learning of the students.

Factors Influencing Learning the Second Language:

The Second Language is alien to the child’s context and environment. Hence, learning the second language is influenced by various factors. They can be summed as:

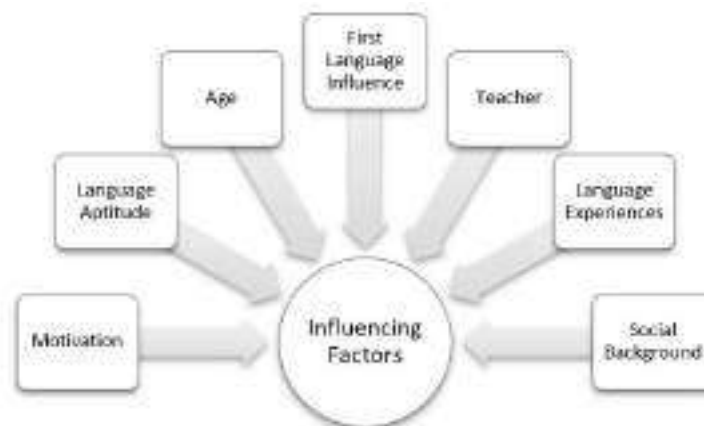


Figure 1.1:

These are some of the important factors influencing the second language learning. While learning English as a second language, these factors affect the English learning capacity of the student.

The Social Background and Language Development:

Man is primarily a social animal. His life gets meaning only if it is collective and co-operative. For proper growth of mankind, the sense of belongingness first to family, then for the neighbourhood, the community, the nation and the world is essential. Self-realization and self-expression is possible only in the context of society. Human nature and personality are the results of sociological behaviour and reactions. The contact with other human beings influences the thoughts and actions of the man through which he/ she learns to act, react, interact, adjust, readjust and respond.

Education is a manmade process influenced by the social structure. The social influences play vital role in the education process as the biological, psychological and philosophical factors.

The language development of child is also largely influenced by the social factors. A child may be endowed with potentialities for language growth, yet the direction, rate and quality of his language development depends mainly upon the human group to which he belongs as well as his social environment. Language development among children, belonging to the different social groups, varies the way of their thinking, acting and living is different. The community, institution, the governmental agencies and mass media also affect the language development of the child as language teaching and learning takes place within the sociological context. Following diagram shows the impact of social context on language learning.

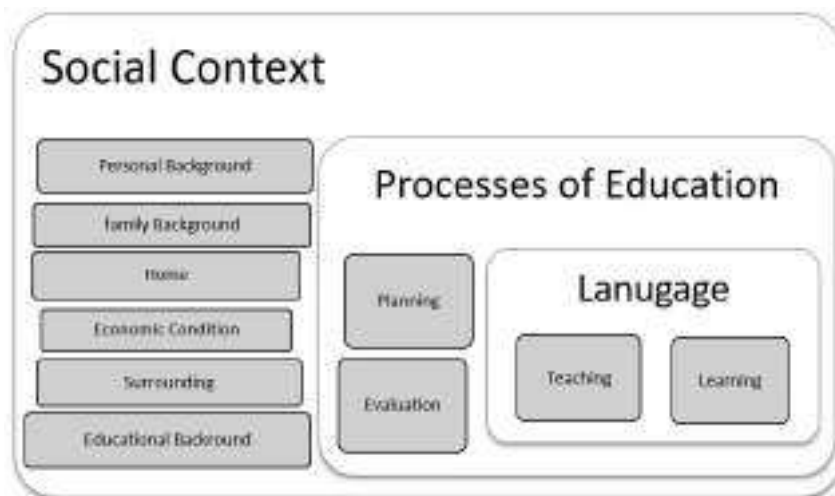


Figure 1.2: Social Background and Language Development

Any type of human learning is the outcome of innate ability and social background. While, learning English language which is alien to Indian students, social background influences in a great extent.

Social background includes personal background like religion, caste, locality, occupation. The family background is also part of social background. The nature of family, total members in the family, the condition of family come in this category. The third aspect of social background is Home. The type of home and facilities available in the home are the important components of home. Another important factor of social background is Economic condition. Surrounding and educational background are also the parts of social background. All these factors collectively influence on the learning in general and language learning ability in particular.

IV. CONCLUSION

Every Indian classroom is full of pupils from various social background. They vary in social, economic and educational levels. Their problems and needs are also different to each other. Their social background affects their educational achievement in general and English language learning in particular.

REFERENCES

- [1] Randolph, Quick, 1972, A grammar of Contemporary English, Longman, Print
- [2] Allen, S. W., 1947, Living English Speech, Longman, Print.
- [3] Stern, H. H., 1983, Fundamental Concepts of Language Teaching, Oxford University Press, Print.
- [4] Crystal, David, 1997, English as a Global Language, Cambridge University Press, Print.
- [5] Smith, H. P., 1962, Psychology in Teaching, Englewood Cliffs, Prentice Hall, Print.
- [6] Robert, Lado, 1974, Language Teaching- A scientific Approach, New Delhi, Tata McGraw Hill Publishing Co. Ltd., Print.
- [7] Ronald, Ward Hough, "TESOL: Current Problem and Class-room Practics". Published in Teaching English as a Second Language, New Delhi, T. M. H. Company Ltd., Print.
- [8] William Littlewood, 1984, Foreign and Second Language Learning, Cambridge, Cambridge University Press, Print.

₹ 25

वर्ष : 15, अंक : 08

मई 2022, बैसाख-ज्येष्ठ, वि. संवत् 2079

नव विवर्ष

हिन्दी साहित्य के नव उत्कर्ष, नव संवेतना
और नव भावबोध की प्रतिनिधि मासिकी

रेफीड पोयसर् जर्नल, Standard Journal Abbreviation ISCA



खिल उठा हृदय,
पा स्पर्श तुम्हारा अमृत अभय!

खुल गए साधना के बंधन,
संगीत बना, उर का रोदन,
अब प्रीति द्रवित प्राणों का प्रण,
सीमाएँ अमित हुई सब लय।

सुमित्रानंदन पंत



नव निष्का

हिन्दी साहित्य के नव उत्कर्ष, नव संवेतना
और नव भावबोध की प्रतिनिधि मासिकी

आई.एस.एस.एन-०६७५-०८२७



वर्ष-१५, अंक-०८, मई २०२२ त्रैमासिक-ज्येष्ठ वि.संवत् २०७८

३. आत्मनेपद
कसौटी पर किरदार - डॉ. लक्ष्मीकांत पाण्डेय
४. जगतगुरुओं के भी दादागुरु हैं हनुमान जी
धर्म-दर्शन - अशोक पाण्डेय
६. श्री हनुमान चालीसा : अक्षर-अक्षर मंत्र
साहित्य/शोध चिंतन
८. साठोत्तरी हिन्दी कविता में ग्रामांचलिक जीवन - डॉ. नाजिम शेख
११. स्त्री-अस्मिता: परम्परा, पहचान और संघर्ष की दिशाएं - वेद प्रकाश अमिताभ
१५. आल्ला कथा संबंधी कुछ नवीन महत्वपूर्ण तथ्य - डॉ. गंगा प्रसाद बरसैया
४७. 'रानी केतकी की कहानी' ही है हिन्दी की पहली कहानी
संस्मरण/श्रद्धांजलि - उपेन्द्रनाथ राय
१७. केशव प्रसाद मिश्र: स्मृतियों के आइने में - श्री प्रकाश मिश्र
२१. ओ जाने वाले हो सके तो लौट के आना
कहानी/लघुकथा/उपन्यास अंश - डॉ. कीर्ति काले
२६. उनका मासूम आग्रह - श्याम सुन्दर चौधरी
२६. रिश्ते का पंचनामा - श्यामल बिहारी महतो
३१. मुन्नी जान - जयराम सिंह गौर
३४. एक टुकड़ा जिंदगी - रूप सिंह चन्देल
- ३८ जमाना - भीना सिन्हा
- कविता
५. अरुणिमा की ओर - चन्द्र नारायण राजपेयी
१६. सच्चा दर्द - विवेक रंजन अग्निहोत्री
३८. गजल - डॉ. सुशील शुक्ल
४४. दो गज़ले - विज्ञान व्रत
४८. गजल - अभय शुक्ला
- पुस्तक समीक्षा
३६. मुस्तरी बेगम : मानवीय संवेदना एवं जिजीविषा का आईना - डॉ. पंकज साह्य
४१. बनकर खिलो गुलाब: मौलिकता की सुगंध - डॉ. कीर्ति काले
४३. भावनाओं के समुन्दर में पहचान बनाती कहानियां - हरभजन सिंह मेहरोत्रा
४५. महामानव : सामान्य चेतना से ऊर्ध्वमुखी हुई
चेतना को लेखा-जोखा - डॉ. प्रमिता अवस्थी
४८. परस्मैपद

पत्रिका में प्रकाशित विचार लेखकों के हैं। सम्पादक की महामति आवश्यक नहीं है।

साहित्य चिंतन साठोत्तरी हिंदी कविता में ग्रामांचलिक जन-जीवन



● डॉ. नाज़िम शेख

स्वतंत्रता प्राप्ति के पश्चात यह सोचा गया था कि गांव की समस्याएं, गांव की दरिद्रता, किसानों की स्थिति में बुनियादी परिवर्तन आएगा लेकिन ऐसा न हो सका। आजादी के पश्चात स्वराज्य के सपने देखने वाला गांव आजादी के पहले की ही त्रासदी को झेलता रहा। इस मोहभंग के लिए गलत राजनीति, विकास योजनाओं की असफलता और जनविरोधी नीकरशाही जिम्मेदार रही। गांव के इस यथार्थ को साठोत्तरी कवियों ने पूरी प्रामाणिकता और अन्तरंगता के साथ अपनी कविताओं में अभिव्यक्त किया है।

गांव देश का आईना होता है, जो पूरी दुनिया में देश की पहचान बरकरार रखता है हमारा देश भी गांव की विशिष्टता के कारण ही पहचाना जाता है। गांव की संस्कृति, तीज-त्यौहार, रहन-सहन, कौशलकारी आदि द्वारा गांव अपना अलग महत्व रखता है। स्वतंत्रता प्राप्ति के पश्चात यह सोचा गया था कि गांव की समस्याएं, गांव की दरिद्रता, किसानों की स्थिति में बुनियादी परिवर्तन आएगा लेकिन ऐसा न हो सका। आजादी के पश्चात स्वराज्य के सपने देखने वाला गांव आजादी के पहले की ही त्रासदी को झेलता रहा। इस मोहभंग के लिए गलत राजनीति, विकास योजनाओं की असफलता और जनविरोधी नीकरशाही जिम्मेदार रही। गांव के इस यथार्थ को साठोत्तरी कवियों ने पूरी प्रामाणिकता और अन्तरंगता के साथ अपनी कविताओं में अभिव्यक्त किया है। किसानों की पीड़ा, यातना और संघर्ष को इन कवियों की कविताओं में संपूर्ण



सहानुभूति के साथ अभिव्यक्त किया गया है। गांव का सामान्य से सामान्य परिवर्तन भी इन कवियों की दृष्टि से अनदेखा नहीं रहा है। इसका एक कारण यह भी रहा कि साठोत्तरी लगभग सभी कवियों ने स्वयं ग्राम-जीवन को उसकी तमाम सफलताओं-दुर्बलताओं के साथ जिया था। इन कवियों की कविताओं में अभिव्यक्त गांव स्वातंत्र्योत्तर भारत के संपूर्ण गांवों का प्रतिनिधित्व करते हैं। इन कवियों ने अपनी कविताओं में स्वातंत्र्योत्तर गांवों को विभिन्न कोनों से आंकने का प्रयास किया है। गांव की समस्याएं दिन-प्रति-दिन बढ़ने लगीं, गांव में सड़क, बिजली, स्कूल, अस्पताल आदि में परिवर्तन आया लेकिन जिस विकास को गांव के आखिरी आदमी तक पहुंचने की आवश्यकता थी वह उस आदमी तक पहुंच नहीं सका। गांव के विकास की जो बात की गई वह कागजों पर अधिक जमीन पर कम हुई। स्वतंत्र भारत के केंद्र में और राज्य में जितनी सरकारें आईं उन सब ने गांव के विकास की बात की लेकिन नगर और महानगर में जिस प्रकार की सुख-सुविधाएं उपलब्ध करा दी गईं उस प्रकार की सुख-सुविधाएं गांव तक नहीं पहुंच सकीं। शिक्षा और स्वास्थ्य जैसी बुनियादी समस्याएं भी गांव के आम आदमी की पूरी न हो सकीं। आजादी के बाद हुए सभी परिवर्तन और लोकाधिकार मूल्यों की स्थापना के बावजूद गांव मूलतः बदरंग और कुस्प ही रहा। गांव की गलियाँ वैसी ही सुनसान दिखाई देती हैं। जैसे आजादी की पहले थी। धूमिल की कविता वाजिव है-

“बीस साल बाद और इस शरीर में
सुनसान गलियों से चोरों की तरह गुजरते हुए
अपने-आप से सवाल करता हूँ-
क्या आजादी सिर्फ तीन धके हुए रंगों का नाम है
जिन्हें एक पहिया डोता है
या इसका कोई खास मतलब होता है?”

(धूमिल-संसद से सड़क तक पृ. १०)

इन कवियों ने वर्तमान गांव की सीधी सच्चाई को रेखांकित किया है। गांव की समस्याओं के प्रति साटोलरी कवियों ने अत्यंत गम्भीरता से विचार किया है। इन समस्याओं के समाधान के लिए साटोलरी कवि प्रातः किसी परिवर्तन न आने का, किसानों को दो वक्त की रोटी न मिलने का चित्रण करते हैं, तो ब्रिजेश त्रिपाठी आजादी के चालीस वर्ष बाद भी गांव के आम आदमी के जीवन में परिवर्तन न आने का चित्र आंकते हैं-

“आजादी के चालिस वर्ष
कोई कम तो नहीं होते
कि हर व्यक्ति
दो 'जून' रोटी खा सके
अपना तन ढंक सके
अपनी झोपड़ी में रह सके
सच कहूँ.....
इस व्यवस्था में
जब जी पाना
नामुमकिन हो गया है
आदमी का आदमी की तरह.....”

(ब्रिजेश त्रिपाठी-तलाश पृ. २७)

मात्र बीस वर्ष पश्चात या चालिस वर्ष पश्चात की बात नहीं है आज-तक ग्रामीण आम आदमी की बुनियादी जरूरतें पूरी नहीं हो सकी। आज भी ग्रामीण जनता रोटी, कपड़ा और मकान जैसी बुनियादी सुविधाओं से कोसों दूर है। देश के शासकों द्वारा गांव के विकास की मात्र घोषणाएं होती रहीं लेकिन प्रत्यक्ष में गांव के किसानों का, मजदूरों का विकास नहीं हो सका। साटोलरी कवि अपने समकालीन ग्रामीण परिवेश को देखकर उदासीन होता है। गांव के उस आदमी का दुःख सिर्फ उस आदमी तक सीमित नहीं है बल्कि पीढ़ी-दर-पीढ़ी दुःखों का यह सिलसिला चलता रहता है। पर्याप्त भोजन न मिलने के कारण गांव का आम आदमी कुशकाय हो गया है, ऐन जवानी में ही इन ग्रामीणों की हालत कुड़ापे को पहुँच जाती है। लीलाचर जगूड़ी लिखते हैं-

“लेकिन गांव में तमाम चेहरे
सूखे घोंसलों में बदल गए,
जिनमें वारंट और अकाल
और बाद के समकालीन पक्षी
हर एक पत्ती को
झांसा देते उड़ रहे हैं।

(लीलाचर जगूड़ी-इस यात्रा में पृ. ३८)

पेट भर भोजन न मिलने के कारण गांव के लोगों की स्थिति बद-से-बदतर हो गई है। उनके चेहरे झुर्रियों की झोली बन चुके हैं। खेतों की अवस्था इतनी दयनीय है कि वहाँ पंछी तक रहना पसंद नहीं कर रहे हैं। जिस गांव में जिन लोगों को पेट भर भोजन नसीब नहीं होता उनके पास रहन-सहन, वेश-भूषा और आवास के साधन कैसे होंगे? इसका मात्र अंदाजा ही लगाया जा सकता है। आज भी गांव के लोग अपना जीवन अत्यंत बदहाली से जीते हैं। गांव में ऐसे कई लोग मिलेंगे जिनके पास इज्जत ढंकने के लिए फटा-पुराना चिथड़ा या पैबन्द लगी लुंगी भी पर्याप्त नहीं है। दूसरों के कपड़े और दूसरों की चारपाई बुननेवाले मजदूरों के हाथ अपने खुद के लिए कुछ नहीं कर सकते। केदारनाथ सिंह लिखते हैं-

“जब शाम होती है
तो बुनते-बुनते ढक जाते हैं हाथ
और फिर सो जाते हैं
उसी अंधोर अनंत चारपाई पर
जो आज-तक
बुनी नहीं गई।”

(केदारनाथ सिंह-अकाल में सारस - पृ. ६०)

सारी दुनिया का जन्मदाता किसान खुद भूखा, दूसरों को कपड़े पहनाने वाला दर्जी खुद नंगा और दूसरों के घरों को बांधनेवाला मजदूर खुद बेघर है। किसानों, मजदूरों की बुनियादी जरूरतों का पूरा न होना यह दुनिया के सबसे बड़े लोकतांत्रिक देश की असफलता है। हमारी खेती का अपेक्षित विकास न हो पाना यह हमारे किसान के बदहाली का मूल कारण है। पुरानी और नयी खेती के चक्कर में स्वतंत्रता के पश्चात का किसान पिस्तला रहा। आधुनिक नयी खेती के लाभ चंद मुट्ठी भर बड़े किसानों को होले रहे, आम छोटे किसानों के जीवन में कोई परिवर्तन नहीं आया। इन कवियों को किसानों की इस हालत पर गहन अध्ययन किया था और इस निष्कर्ष तक पहुँचे हैं कि -

“क्या तुमने कभी सोचा कि तुम्हारा
यह जो बुरा हाल है
इसकी वजह क्या है?
इसकी वजह वह खेत है
जो तुम्हारी भूख का दलाल है
आह! मैं समझता हूँ यह एक ऐसा सत्य है
जिसे नकारते हुए, हर आदमी झिझकता है।”

(धूमिल-संसद से सड़क तक - पृ. ४७)

इन कवियों ने किसानों की इस हालत को मात्र सापने नहीं रखा बल्कि

उसके समाधान पर भी धिंतन किया। वे जानते थे कि इन समस्याओं का मूल देश का अशिक्षित किसान है जो अनपढ़ होने के कारण अणू दिन गांव के जमींदारों और साहूकारों के शोषण का शिकार बनता जा रहा है। मेहनती किसानों के मिट्टी होने की वजह इन कवियों को निराशा और आक्रोश के साथ भर देती है। चंद्रकांत देवताले लिखते हैं-

“वे भी जो अपने पसीने से
घुमाते हैं समय का पहिया
नहीं जानते अपनी ताकत
क्योंकि उनके हाथ
नमक और प्याज के टुकड़े दूड़ते-दूड़ते
एक दिन काल हो जाते हैं।”

(चंद्रकांत देवताले- लकड़बग्घा हंस रहा है-पृ. ११)

शोषण, आतंक और अत्याचार एक साथ मिलकर किसानों का जीवन बर्बाद करते हैं। जिन किसानों के बलबूते पर पूरा देश खड़ा है वह किसान दिन-प्रति-दिन गिरता चला जा रहा है। आजाद भारत के गांव में आज भी शोषक और शोषित यह दो वर्ग बराबर बने हैं। शोषक वर्ग साधन सम्पन्न, भूमिपति, सेठ, साहूकारों, नेता, नौकरपेशा और बड़ी बिरादरीवाला है। जिसे उसकी इच्छानुसार भोजन और भौतिक सुख-विद्या प्राप्त है और दूसरे किसान, मजदूर, गरीब, लोग हैं, जिन्हें दो बक्त की रोटी भी पेट-भर मयस्सर नहीं होती। इन दोनों वर्गों के खान-पान, रहन-सहन एवं वेश-भूषा में पर्याप्त अंतर है। गांव में जाति के आधार पर भी दो वर्ग आज-तक बने हुए हैं। एक कविता में ओमप्रकाश वाल्मीकि लिखते हैं-

“कुआ ठाकुर का
पानी ठाकुर का
खेत खलियान ठाकुर के
गली-मुहल्ले ठाकुर के
फिर अपना क्या?
गांव?
ये सहर/देश?”

(ओमप्रकाश वाल्मीकि- बस! बहुत हो चुका-पृ. ४१)

गांव के बड़े किसानों द्वारा, साहूकारों द्वारा छोटे-छोटे किसानों को सूद पर पैसे लेने पड़ते हैं, लेकिन कभी मौसम के कारण तो कभी और कितने कारण उसकी फसल सही नहीं आती तब वह बड़े किसानों के साहूकारों के पैसे चुका नहीं सकता। सूद पर सूद बढ़ता जाता है, उन पर लदा कर्ज उन्हें अंतिम समय तक उनका साथ नहीं छोड़ता, बॉन्क-वत पीढ़ी-दर-पीढ़ी चलता रहता है। हर समय वह अभाव और कर्ज में ही जीता है, कर्ज पर कर्ज और उस पर लदा सूद,

फिर अगर कर्ज पर नहीं गया तो चक्रवृत्त, किसान इस कर्ज और के चक्कर में ही अपना पूरा जीवन नष्ट कर देता है-

“कर्ज-कर्ज-कर्ज
घारे नहीं मरता कर्ज
भारता है घारे बिना
जादमी का कर्ज।”

(केदारनाथ अग्रवाल-आग का आईना-पृ. ६७)

यह कारण तो कभी-कभी दुगुना-चौगुना वहाँ तक की की गुना-तीस गुना हो जाता है। इस प्रकार यह ऋण बक अनवरत गति। चलता रहता है। बैंकों और साहूकारों के ऋण के कारण किसानों के पै जमीन पर टिक से टिक नहीं पाले। साठोत्तरी कवियों ने किसानों के सर्भ पक्षों का चित्रण अत्यंत यथार्थता के साथ दिखाने का प्रयास किया है। इन सारी निराशाओं के बावजूद भारतीय किसान अपने परिवार को पालने के लिए संघर्षरत है। साठोत्तरी कविता में वर्तमान ग्रामीण जीवन की ज़रूरतों को जरूर दिखाया गया है, लेकिन यह कवि कल के सुंदर शिल्प के लिए आशावादी भी है। केदारनाथ सिंह एक कविता में लिखते हैं-

“मुझे जादमी का सड़क पार करना
हमेशा अच्छा लगता है
क्योंकि इस तरह
एक उम्मीद-सी होती है
कि दुनिया जो इस तरफ है
शायद उससे कुछ बेहतर हो
सड़क के उस तरफ।”

(केदारनाथ सिंह-यहाँ से देखो-पृ. ५७)

निष्कर्षतः कहा जा सकता है कि साठोत्तरी कविता में ग्रामास्तिक जीवन का चित्रण अत्यंत यथार्थ रूप में अभिव्यक्त हुआ है। इन कवियों ने ग्राम-जीवन सभी समस्याओं का चित्रण किया साथ ही इन समस्याओं के समाधान पर भी सर्भों को है। गांव के किसानों का और उनको समस्याओं का इतना सजीव एवं सूक्ष्म चित्रण इन कवियों द्वारा हुआ है इसका मूल कारण इन कवियों का अपना परिवेश ग्रामीण रहा है। अपने भोगी हुई ज़रूरतों को उन्होंने यथार्थ रूप में अभिव्यक्त किया है। इन कवियों पर किसानों सम्बन्ध रहे, इसी कारण उनको दृष्ट उन सर्भों छोटी-बड़ी घटनाओं पर लिखता से पड़ी है। इन कवियों की कविताओं में अभिव्यक्त विन्ध तथा मुहल्लों किसानों दुनिया में आते हैं। उन्होंने किसानों को सिर्फ स्थिति को नहीं दिखाया बल्कि उसमें परिवर्तन लाने के लिए व्यवस्था के विरुद्ध विरोध करने का संकेत दिया। इन कवियों ने एक ओर वर्गहीन समाज-रचना की मांग की तो दूसरी ओर किसानों को आत्मनिर्भरता देकर उनके सुंदर भावों की रचना करने हैं। □

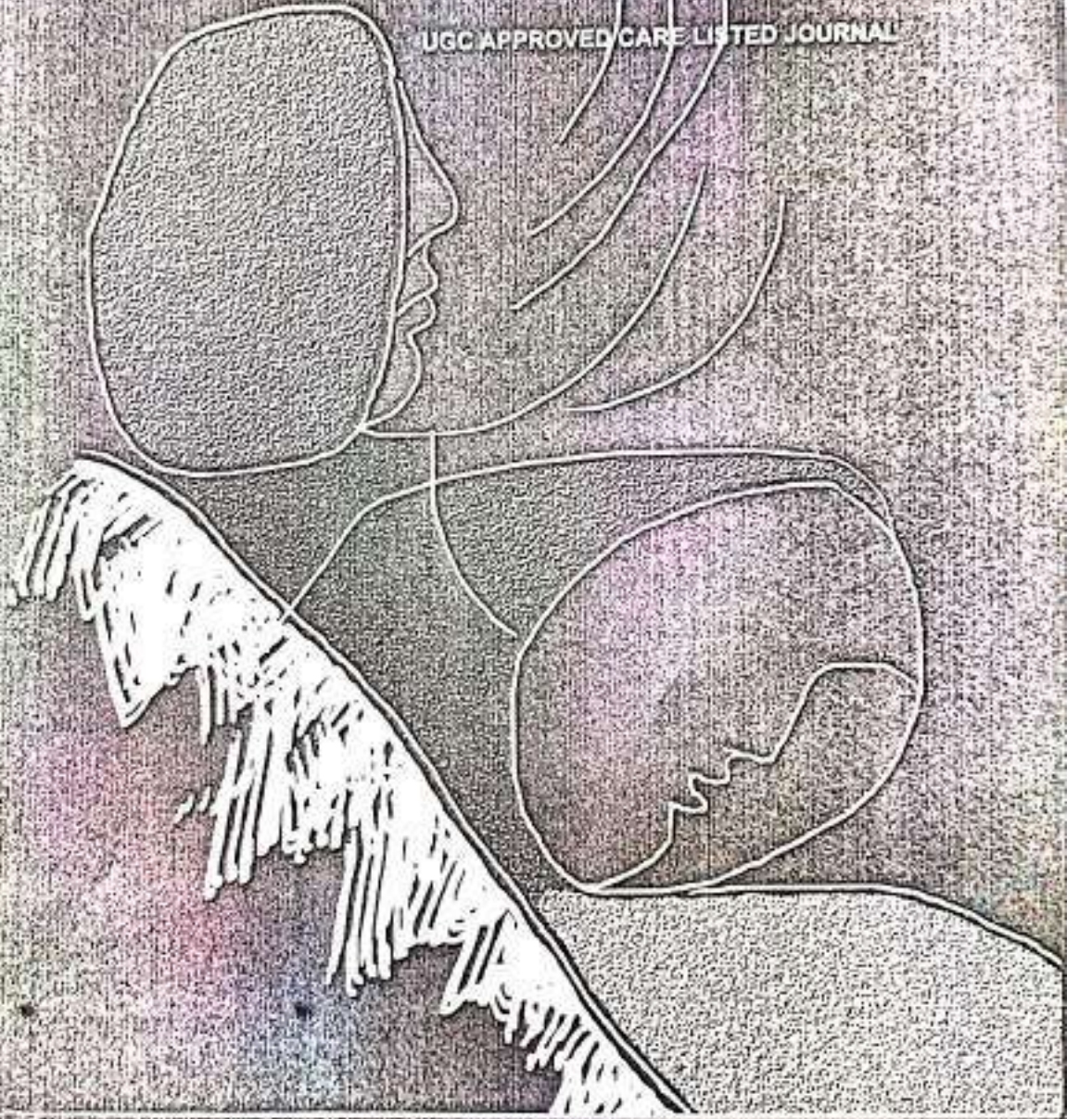
संपादक
डॉ. गिरिराजशरण अग्रवाल
डॉ. मीना अग्रवाल

ISSN 0975-735X

शोध दिशा

58

UGC APPROVED CARE LISTED JOURNAL



शोध दिशा

ISSN 0975-735X

विश्वस्तरीय शोध-पत्रिका

केंद्रीय हिंदी संस्थान, आगरा से अनुदान प्राप्त

UGC APPROVED CARE LISTED JOURNAL

विश्वविद्यालय अनुदान आयोग द्वारा मान्यता प्राप्त शोध पत्रिका

शोध अंक 58-4 अप्रैल-जून 2022 400.00 रुपए

संपादकीय कार्यालय

हिंदी साहित्य निकेतन, 16 साहित्य विहार,

बिजनौर 246701 (उ०प्र०)

फोन : 0124-4076565, 09557746346

ई-मेल : shodhdisha@gmail.com

वेब साइट : www.hindisahityaniketan.com

क्षेत्रीय कार्यालय

हरियाणा

डॉ० मीना अग्रवाल

ए-402, पार्क व्यू सिटी-2 सोहना रोड,

गुडगाँव (हरियाणा)

दिल्ली एन०सी०आर०

डॉ० अनुभूति

सी-106, शिवकला अपार्टमेंट्स

बी 9/11, सेक्टर 62, नोएडा

फोन : 09958070700

(सभी पर मानद एवं अर्बतविक हैं।)

संपादक

डॉ० गिरिराजशरण अग्रवाल

07838090732

प्रबंध संपादक

डॉ० मीना अग्रवाल

संयुक्त संपादक

डॉ० शंकर क्षेम

प्रमोद सागर

उपसंपादक

डॉ० अशोककुमार

डॉ० कनुप्रिया प्रचण्डिया

कला संपादक

गीतिका गोयल/ डॉ० अनुभूति

विधि परामर्शदाता

अनिलकुमार जैन, एडवोकेट

आर्थिक परामर्शदाता

ज्योतिकुमार अग्रवाल, सी०ए०

शुल्क

आजीवन (दस वर्ष):

संस्थागत : छह हजार रुपए

वार्षिक शुल्क : एक हजार रुपए

यह प्रति : चार सौ रुपए

प्रकाशित सामग्री से संपादकीय सहमति आवश्यक नहीं है। पत्रिका से संबंधित सभी विवाद केवल बिजनौर स्थित न्यायालय के अधीन होंगे। शुल्क की राशि 'शोध दिशा' बिजनौर के नाम भेजी। (सन् 1989 से प्रकाशन-क्षेत्र में सक्रिय)

स्वत्वाधिकारी, मुद्रक, प्रकाशक डॉ० गिरिराजशरण अग्रवाल द्वारा श्री लक्ष्मी ऑफसेट प्रिंटर्स, बिजनौर 246701 से मुद्रित एवं 16 साहित्य विहार, बिजनौर (उ०प्र०) से प्रकाशित। पंजीयन संख्या : UP HIN 2008/25034

संपादक : डॉ० गिरिराजशरण अग्रवाल

ISSN 0975-735X

अप्रैल-जून 2022 ■ 1



समकालीन हिंदी कविता में यथार्थिक भावना/गीता मृदुल	142
दण्ड और साहित्य/डॉ० उषा वर्मा	146
सुरेन्द्र का उपन्यास 'समकालीन कथा' में नारी चित्रण/ अंजुम आग ब्रह्म, डॉ० सखी चंद्राकर	150
समकालीन प्रशासनिक यथार्थ 'समदर्शन'/ डॉ० अवधार्थहारी पुरान	154
आपका बंटी उपन्यास की आधुनिक संदर्भ में समीक्षा/ दर्शना	158
सुभद्राकुमारी चौहान के काव्य में राष्ट्रीयता और भक्ति भावना/ इंदू रानी	164
हिंदी कहानी में दलित उत्पीड़न/ डॉ० अशोक कुमार	169
विद्यालय में बच्चों की संरक्षा एवं सुरक्षा में अध्यापक की भूमिका/ डॉ० वृजेश कुमार मिश्र, पीयूष श्रीवास्तव	175
मृणाल पांडेय : साहित्यिक व्यक्तित्व के विविध आयाम एवं उनका मानवीय पक्ष/ डॉ० श्रीमती निर्मला त्रिपाठी	180
उषा प्रियंवदा 'भया कबीर उदास' अपूर्ण शरीर के साथ संपूर्णता की खोज/ डॉ० रश्मि कुमारी, रीना नागर	187
दलितों की प्रगतिशील परंपरा के संवाहक मुकेश मानस/ डॉ० सर्वेश मौर्य	194
परशुराम शुक्ल की बाल कविता में पर्यावरण चित्रण/ सुरेखा संदीप जाधव, डॉ० वर्षा रानी निवृत्तीराव सहदेव	201
सामाजिक विज्ञान विषय में आलोचनात्मक शिक्षणशास्त्र : सामाजिक निर्माण एवं परिवर्तन/ शशि रंजन	206
हिंदी भाषाशिक्षण और डिजिटल माध्यम/ डॉ० सहदेव वर्षारानी निवृत्तीराव	213
पोस्ट बॉक्स नं० 203, नाला सोपारा : किन्नर मन की संवेदनाएँ/ ज्योति	219
महिला सवलीकरण और विकास कार्यक्रम : एक समाजशास्त्रीय अध्ययन/ डॉ० मालती	224
ठाट है फकीरी अपना : गोपालदास नीरज/ देवीलाल रोझ, डॉ० अनिल अग्रवाल	231
असमीया जातीय-जीवन की रूपरेखा नामधर/ डॉ० शरिफुज जमाँ	237
प्राचीन रहती हैं अधिव्यक्तियाँ : अनामिका/ डॉ० प्रज्ञा त्रिवेदी	241
सूरदास के कृष्णकाव्य की भाषा एवं शैली का विवेचनात्मक अनुशीलन/ डॉ० सुशील उपाध्याय	246
मनरेगा और प्रवासी संकट/ डॉ० पुष्पा कुमारी	254
कला में स्वतंत्रता एवं सामाजिक परिवर्तन : एक विश्लेषण/ डॉ० अर्चनारानी, शिवानी राठी	262
भारत में मतदान व्यवहार का संवैधानिक स्वरूप : सैद्धांतिक विवेचन/ उदय सिंह	267
किशोरी स्वास्थ्य, स्वच्छता एवं पोषण : समस्याएँ एवं नुसूतियाँ/ डॉ० आरती कुरील	271

12. बोरिंग, डब्ल्यू. एच. (2005), अंतरराष्ट्रीय प्रोब्लेम्स इन क्रिटिकल क्लेमसफ, कर्लीव बर्गोनीशन एंड कम्प्यूटिकेशन, 57(1), 114-141
13. नोला, जे. (2011), एकेडमिक के लिए शिक्षा-समूहों में सामाजिक विज्ञान शिक्षा को प्राथमिकता, लॉरेल बर्ड-स्यंगल डब्ल्यू. ऑन सोशल साइंस इन स्कूल (अंग्रेजी), 15 अप्रैल, 2010 का हिंदी अनुवाद। स्कूल में सामाजिक विज्ञान, 3, 23-27
14. मानोजल, आर. (2011), मध्यम विज्ञान में स्कूलों में शिक्षा का मूल्यांकन: वर्तमान अनुभव, प्रयोग और संशोधन, एन. के. एवं एंडीक-संग, एस. एन. (2018), अंतर्राष्ट्रीय शिक्षा का मूल्यांकन: वर्तमान अनुभव, प्रयोग और संशोधन, शारिसि पब्लिसि डिबैट, 28(1), 1-5
15. फोल्डर, डी. के. एवं एंडीक-संग, एस. एन. (2018), अंतर्राष्ट्रीय शिक्षा का मूल्यांकन: वर्तमान अनुभव, प्रयोग और संशोधन, शारिसि पब्लिसि डिबैट, 28(1), 1-5
16. फोर्ड, जी. जॉन (2015), पेट्रोलियो, सोशल टुवैथियन एंड स्पेस: डुबई ए. टेक्नोलॉजी क्रिटिकल एडमिनीस्ट्रेशन ऑफ स्पेस, डेवेलोप-आर: सायणलूवर यूनिवर्सिटी
17. फ्रे, पी. (1977), पेट्रोलियो ऑफ ए. जे. एंडीक-संग, न्यूयॉर्क: एंगुइर बुक्स
18. फ्रे, पी. (2000), पेट्रोलियो ऑफ ए. जे. एंडीक-संग: 30वीं परिष्कृतरी एडिशन, न्यूयॉर्क, एनवाई: स्काईलीन्यूयॉर्क पब्लिशिंग प्रेंस
19. फर्न, ए. एंडीक-संग, जॉन एच. जॉन (2012), न्यूयॉर्क अंतर्राष्ट्रीय मार्केटिंग, विसे एवं स्पेस
20. फिफ्ट, जी. (1998), जी. वू. चो. अ. टेक्नोलॉजी, सोशल फोर्स एंड इंफॉर्मेशनल प्रोड्यूसर ऑफ क्रिटिकल एडमिनीस्ट्रेशन, एंगुइरशासन प्रोब्लेम, 48(4), 499-510
21. गोरिंग, डब्ल्यू. एच. (2013), टीचिंग ऑफ टुवैथियन : ए. प्रो. फोर्स ऑफ क्रिटिकल एडमिनीस्ट्रेशन सोशल स्टडीज एडुकेशन, ए. फोर्सिस: ए. फोर्सिस ऑफ यूनिवर्सिटी ऑफ फ्लोरिडा
22. फोल्डर, डी. के. (1992), सोचो एंड प्रोब्लेम-सॉल्यूशन, लॉरेल, डेवेलोप
23. जे. जे. (2011), सामाजिक विज्ञान अध्यापन-का सही है और क्या गलत?, लॉरेल जे. जे. सोशल स्टडीज ऑन सोशल साइंस इन स्कूल (अंग्रेजी), 15 अप्रैल, 2010 का हिंदी अनुवाद, स्कूल में सामाजिक विज्ञान, 3, 41-44
24. जे. जे. (2005), एन. के. एंडीक-संग, न्यूयॉर्क

ई-मेल: shashikroy@gmail.com

हिंदी भाषाशिक्षण और डिजिटल माध्यम

डॉ. सहेब बापारणी निवृत्तीराव
श्री विजयसिंह चारव महाविद्यालय, पेटवडगाँव
ता. शेतकजणतल खिल कोल्हापुर

हिंदी भाषा शिक्षण में डिजिटल माध्यमों को प्रोत्साहित करने का समय आ चुका है। वर्तमान समय की तकनीकी महत्वपूर्ण जलवायु डिजिटल शिक्षा बन गई है। कंप्यूटर के आविष्कार ने मनुष्य के सभी कार्यों में क्रान्तिकारी परिवर्तन किया है। इंटरनेट के आविष्कार ने ही मनुष्य को संपूर्ण विश्व के साथ जोड़ दिया है। वर्तमान में कोविड-19 के चलते शिक्षा डिजिटल माध्यमों पर ही चल रही है। ऐसे में डिजिटल शिक्षा का ज्ञान होना समय की पुकार है।

किसी भी भाषा के सर्वांगीण विकास के लिए यह आवश्यक है कि उससे संबंधित सामग्री डिजिटल माध्यमों पर अधिक मात्रा में उपलब्ध हो। डिजिटल शिक्षा वर्तमान समय की महत्वपूर्ण जरूरत है। हिंदी के विकास और वैश्विक प्रचार-प्रसार में डिजिटल माध्यमों की प्रोत्साहित करना है। कंप्यूटर के आविष्कार से हुई डिजिटल क्रांति एक महत्वपूर्ण परिवर्तन है। इंटरनेट ने मनुष्य को एक ऐसा ऑनलाइन प्लेटफॉर्म दिया है जिसके माध्यम से वह बिना किसी बाधा के संपूर्ण विश्व से जुड़ सकता है। वर्तमान समय में डिजिटल माध्यमों की वजह से हम समय, स्थान और संसाधनों की सीमितता से बच सकते हैं। ऑनलाइन तकनीकों के प्रयोग से विश्व में कहीं भी और कभी भी शिक्षण दिया जा सकता है। इंटरनेट या इलेक्ट्रॉनिक माध्यमों द्वारा शिक्षण दिया जा सकता है।

वर्तमान में डिजिटल शिक्षण संपूर्ण विश्व में विस्तारित हो चुका है। विश्व की प्रमुख भाषाओं में सभी प्रमुख विषयों में पर्याप्त मात्रा में डिजिटल शिक्षा का सामग्री प्राप्त की जा सकती है। इसमें हिंदी भी पीछे नहीं है। सरकारी और संस्थान स्तर पर अनेक प्रयास हो रहे हैं। जैसे-ईपेजी पाठशाला, इसी प्रकार का एक उदाहरण है। हिंदी भाषा की एक प्रमुख भाषा है। इसलिए विश्व के अनेक देशों के विद्यार्थी हिंदी सीखते हैं। वर्तमान में हिंदीभाषा शिक्षण को डिजिटल माध्यम से जोड़ना जरूरी है। डिजिटल माध्यम से तत्पर है जो डिजिटल और कंप्यूटर। आज हर क्षेत्र में कंप्यूटर जोड़ना जरूरी है। डिजिटल माध्यम से तत्पर है जो डिजिटल और कंप्यूटर। आज इसलिए हिंदीभाषा शिक्षण में कंप्यूटर का उपयोग अपरिहार्य है।

वर्तमान समय में जोड़ना एक मिनी कंप्यूटर के रूप में कार्य कर रहा है। हिंदीभाषा शिक्षण के लिए स्मार्टफोन एक प्लेटफॉर्म की तरह प्रयोग किया जा रहा है। उपर्युक्त माध्यम से हिंदीभाषा शिक्षण सामग्री हर प्रकार से पढ़ाई जा सकती है-ऑनलाइन तथा ऑफलाइन। ऑनलाइन शिक्षण के लिए इंटरनेट जरूरी है, तो ऑफलाइन के लिए इंटरनेट की आवश्यकता नहीं है। हिंदीभाषा शिक्षण के लिए दोनों ही प्रकार के डिजिटल माध्यम का प्रयोग करके ज्ञान प्राप्त करने की प्रक्रिया ई-लर्निंग है। पारंपरिक अध्ययन से दूर इलेक्ट्रॉनिक माध्यम का प्रयोग करते हुए किया

जाने वाला ज्ञानार्जन है लेकिन है। आज ई-लर्निंग डिजिटल माध्यम का सर्वाधिक उपलब्ध हुआ व्यापक क्षेत्र है। इंटरनेट के माध्यम से शिक्षा अथवा ज्ञानार्जन, कंप्यूटर पर सॉफ्टवेयर से ज्ञानप्राप्ति, मास्टरीने पर विभिन्न शिक्षण एपस का प्रयोग, शिक्षण प्रयोग आधुनिक कक्षा, अंतर क्रियात्मक कक्षा अध्यापन, ऑडियो-वीडियो सामग्री का प्रयोग, आदि का समावेश होता है। वर्तमान समय में संपूर्ण दुनिया में विशेष उल्लेखनीय प्रयास हो रहे हैं। भारत भी इस दिशा में अग्रण करन उठा रहा है।

भाषा अधिष्ठाताओं को अपनी निर्माण करती है; इस दृष्टि से भाषा मनुष्य की विशेष उपलब्धि है। आज भाषा-शिक्षण शिक्षार्थी केंद्रित माना जा रहा है। भाषा सीखनेवाले छात्र को दृष्टि से भी हमें सोचने की जरूरत है। इस उद्देश्य को हासिल करने में आई-सी-टी संधित भाषा-शिक्षण को बल सामने आती है। यहाँ हमारा संघर्ष कंप्यूटर संधित द्वितीय शिक्षण से पड़ता है। आधुनिक समय में कंप्यूटर और इंटरनेट ही प्रभावशाली साधनत्व हैं, जो इस भाषा-शिक्षण कार्य को आगे बढ़ा सकते हैं। आई-सी-टी संधित भाषा-शिक्षण के लिए ई-मेल, वॉर्डस पेस, टेक्स्ट चैट, वीडियोचैट, फ्लैशकार्डों के लिए ब्लॉग, सोशल नेटवर्क आदि कई सुविधाओं का साथ उठाना होगा। अग्रणी बालों को विकसित करने की बात-आरंभ मुन सकते हैं और भी कई सुविधाएँ आई-सी-टी संधित भाषा-शिक्षण में विकसित हो रही हैं। कई पोर्टल उपलब्ध हैं, जिनके माध्यम से भाषा-संबंधी कार्यों का विकास किया जा सकता है। कई सॉफ्टवेयर उपलब्ध हैं, जिनके माध्यम से आई-सी-टी संधित भाषा-शिक्षण संपन्न है। इन सबकी हिंदी में बहने की आवश्यकता है। हिंदी में ई-सामग्री के इस्तेमाल को बढ़ावा देने की जरूरत है। इस क्षेत्र के कुछ महत्वपूर्ण डिजिटल माध्यम इस प्रकार हैं-

1. COL (Commonwealth of Learning) - यह Commonwealth देशों का एक संगठन है, जिसका स्थापना 1988 में हुई थी। इसका मुख्यालय Vancouver, Canada में है। इसका मुख्य उद्देश्य मुक्त और दूरस्थ शिक्षा (Open and Distance Learning) हेतु तकनीक का विकास करना है।

2. INFILIBNET (Information and Library Network) - यह इंटरनेट के माध्यम से ज्ञान-विज्ञान को सामग्री को सर्च के लिए विशुद्ध उपलब्ध कराने का मानव संसाधन विकास मंत्रालय, भारत सरकार का एक उपक्रम है।

3. NKN (National Knowledge Network) - यह भारत में उच्च शिक्षा से जुड़े सभी शैक्षिक संस्था न को आपस में जोड़ने के उपाय से निर्मित कार्यक्रम है। इसके अंतर्गत अब तक 1648 संस्थाएं आपस में जुड़ चुके हैं और शोध, ज्ञान, तकनीक एवं सूचनाओं का परस्पर आदान-प्रदान करते हैं।

4. NMEICT (National Mission on Education through Information and Communication Technology) - यह मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा आयोजित एक महत्वपूर्ण कार्यक्रम है, जिसके अंतर्गत उच्चशिक्षा के क्षेत्र में ज्ञान और तकनीक के विकास और प्रसार-प्रसार को प्रोत्साहित और Regulate किया जाता है।

5. NPTEL (National Program on Technology Enhanced Learning) - यह NMEICT के अंतर्गत ही एक उपक्रम है, जिसमें इंजीनियरिंग और विज्ञान-संबंधी सामग्री तैयार की जाती है।

6. MOOCs (Massive Open Online Courses) - MOOCs भी विभिन्न पाठ्यक्रम के

ऑनलाइन अध्यापन-अध्यापन हेतु एक प्लेटफॉर्म है, जो मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा आयोजित है।

7. OER (Open Educational Resource) - इस Term का प्रयोग सर्वप्रथम UNESCO द्वारा 2002 किया गया। इसका उद्देश्य सबको उच्चशिक्षा की सामग्री निशुल्क उपलब्ध करना है।

8. SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) - यह विभिन्न पाठ्यक्रम के ऑनलाइन अध्यापन-अध्यापन हेतु एक प्लेटफॉर्म है। SWAYAM भारत सरकार को एक महत्वाकांक्षी परियोजना है जिसका लक्ष्य किसी भी व्यक्ति को कहीं भी, कभी भी इंटरनेट के माध्यम पठन-पाठन को सुविधा उपलब्ध कराना है। मोबाइल प्लेटफॉर्म के लिए भी SWAYAM एप उपलब्ध है।

9. ई-पी-सी, पाठशाला INFILIBNET के अंतर्गत ही ई-पी-सी पाठशाला भारत सरकार को एक महत्वाकांक्षी परियोजना है। इसका उद्देश्य स्नातक (PG) स्तर पर विभिन्न विषयों को निशुल्क पाठपत्रक एवं ऑडियो-विशुद्धता सामग्री ऑनलाइन उपलब्ध कराना है। भारत सरकार द्वारा इसे National Mission on Education through Information and Communication Technology (NME&ICT) के अंतर्गत ई-सामग्री विकास (E & Content Development) के रूप में निर्मित कराया गया है।

उपर्युक्त तकनीकी ज्ञान से भाषा के विस्तार को भी सहायता मिलती है। किसी भी भाषा को समसामयिक परिवेश के अनुरूप काम करना पड़ता है। कंप्यूटर आज के युग को आवश्यकता है और हिंदी भारत के अधिकांश लोगों द्वारा व्यवहृत की जाने वाली भाषा है अतः हिंदी में कंप्यूटर ही अधिक आवश्यक है। आज जीवन के हर क्षेत्र को आई-सी-टी (Information & Communication Technology) ने प्रभावित किया है। इसी के कारण आज के युग को 'सूचना युग' कहा जाने लगा है। सूचना एवं संचार प्रौद्योगिकी आज के विज्ञान युग की देन है। यह प्रौद्योगिकी सूचना के संचालन की योग्यता रखता है तथा संचार के विभिन्न माध्यमों (रेडियो, टेलीविजन, सेलफोन, कंप्यूटर, इंटरनेट, सॉफ्टवेयर) से सूचना के प्रसारण को सुविधा प्रदान करता है। अतः आई-सी-टी के कार्यान्वयन से हिंदीभाषा शिक्षण में निरिचत हो सुविधा होगी। है। आज बहुराज्य इस बात को है कि हम विविध, विज्ञान, वाणिज्य तथा नवीनतम प्रौद्योगिकी के क्षेत्र में पाठ्यसामग्री उपलब्ध कराने में तैयारी लें। इसके लिए समवेत प्रयास की जरूरत है। यह सभी संभव है जब लोग अपने दायित्वबोध को महसूस करें और दृढ़ इच्छाशक्ति के साथ सकलित हो।

शिक्षा क्षेत्र में भी आई-सी-टी की वजह से प्रौद्योगिकी आधारित शिक्षण-आधारण के लिए कई संसाधनों का विकास हुआ है। भारत में भी शिक्षा में आई-सी-टी संबंधी कुछ नीतियाँ निर्धारित की गई हैं। जिसका उद्देश्य यह है कि डिजिटल क्रांति से अछूते रहे लोगों को चेतना और क्षमता को बढ़ावा मिले और भारत को ज्ञान महशुशक्ति के रूप में विकसित करने की दिशा में आगे लाया जा सके। हम देखते हैं कि भारत में डिजिटल साक्षरता की बहुत कम संख्या है। इस दिशा में निरंतर प्रयास करने की जरूरत है।

आई-सी-टी आधारित शिक्षा के प्रमुख साधन कंप्यूटर व इंटरनेट है। इनमें पाठ (Text), चित्र (Image), ध्वनि (Audio), चलित दृश्य (Video), कम्प्यूटरिज्ड ऑडियो दृश्य (Anima-

tion) आदि कई रूपों में प्रयोग की सुविधाएँ हैं। इन समाज सुविधाओं का प्रयोग करने के लिए शिक्षकों के पास न केवल कंप्यूटर, लैपटॉप बल्कि डैबलट, स्मार्टफोन आदि से संबंधित कौशलों को जानकारो होने चाहिए। ऐसा होने से निराश्रय ही आई-सी-टी, शिक्षण-कार्य में सहायिष्क को पुराना निभा सकता है। इससे पाठ्य-संबंधी समस्याओं एवं संदेहों से निवृत्ति कर सकते हैं। आज आई-सी-टी स्वतंत्र पाठ्य-शिक्षक को पुराना निभाने की दृष्टि से विकसित हो रही है और जल्द ही यह पुराना स्तरक ही जाएगा। इसके लिए व्यवस्था के सहयोग अर्थात् प्रशिक्षण कार्य का आयोजन, मूलभूत सुविधाओं का विकास आदि रूपों में पी जरूरत होगी। वैसे इंटरनेट के सहारे भी हम ऐसे पुराना कार्य हासिल कर सकते हैं।

भाषा-शिक्षण के संदर्भ में खासतौर पर शिक्षासूचक का यह मानना है कि 'भाषा-शिक्षण का व्यापार शिक्षण-तंत्र को प्रकृति एवं दुनियाद से जोड़कर नहीं चल सकता है। इसको निम्नलिखित कारक प्रभावित करते हैं-

- समाज को आर्थिक-सांसाध्यिक प्रकृति
- सरकार को शिक्षा-नीति और भाषा-नीति
- स्कुल का ढाँचा
- शिक्षक की योग्यता

वर्तमान सूचना-जगत के युग में विश्वभरमा बचने का रही हिंदी हमसे नई तकनीकों के साथ यह शिक्षण-तंत्र के निर्माण की माँग कर रही है। हमें सुदृढतापूर्वक को छोड़ अर्थव्यक्तिक को भाषा के माध्यमों को बदलना होगा। अपने गुण और समाज के साथ करम-से-करम मिलकर चलना होगा। इसके लिए आई-सी-टी, आधुनिक आधुनिकतम प्रविधियों को अपनाना होगा।

आई-सी-टी, आधुनिक भाषा-शिक्षण में कंप्यूटर को पुराना महत्वपूर्ण है। परंपरागत रूप से शिक्षा मानव द्वारा ही जाती थी। आज इस कार्य में हम मशीन के प्रयोग को भी शुरू कर चुके हैं। यह अंग्रेज आई-सी-टी, को ही जाना है। आधुनिक समय में भाषा-शिक्षण कार्य के लिए कंप्यूटर और इंटरनेट प्रभावशाली साधन हैं। भाषा की मूलभूत धारा कुशलतापूर्व (श्रवण, बोलना, पढ़ना, लिखना) अर्थात् करने के लिए आई-सी-टी के कई साधन उपलब्ध हैं। सुनने और बोलने के साधनों के रूप में ऑडियो, वीडियो उपलब्ध हैं। संवाद के लिए पाठ, वाक और दूरग सुविधाएँ कई रूपों में उपलब्ध हैं। जैसे, टेक्स्ट चैट, ईमेल, वॉइस मेल, वॉइस चैट, ब्लॉग, सोशल मीडिया आदि। अपनी बातों को रिकॉर्ड करके भी वाच-वाच सुनने की सुविधा है। मूडल, एडमोडो, जा-व्यू जैसे कई सॉफ्टवेयर अंतर्गत से पाठ्य साधनों के अवसर उपलब्ध हैं। इनकी सुविधाओं के बीच ई-शिक्षण, मॉड्यूलर-शिक्षण में भी तेजी आई है। यह क्लिकुलर सच है कि अधिकांश सामग्री अंग्रेजी में है लेकिन इस स्थिति को बदलना होगा और हिंदी में ई-सामग्री के विकास को बढ़ावा देना होगा।

भाषा प्रयोगशालाओं के लिए हिंदी शिक्षण हेतु आदि हिंदी सॉफ्टवेयर उपलब्ध है। लेकिन इसमें और भी संभावनाओं को आवश्यकता है। इस युग से हिंदी में डिजिटल चेतना का विकास और ई-समाज के विकास के लिए आवश्यक तंत्र को विकसित करने की आवश्यकता है। वैसे कंप्यूटर साक्षात् हिंदीभाषा शिक्षण को परिवर्तन कई दृष्टियों से की गई है-

- कंप्यूटर की सहायता से अधिगम
- कंप्यूटर आधारित शिक्षण

• कंप्यूटर प्रवर्धित शिक्षण आदि।

आई-सी-टी, संबंधी अध्ययन आज बड़ा प्रासंगिक है। हिंदी शिक्षण को प्रभावी बनाने के लिए आई-सी-टी, आधारित शिक्षण सामग्री करने हेतु आवश्यक प्रेरणा, हिंदी शिक्षकों को प्रशिक्षण देने के लिए आवश्यक सभी करम सभी स्तरों पर उठाने की जरूरत है।

'हिंदी में कंप्यूटर का स्वतः प्रशिक्षण प्राप्त करने के लिए एक सी-डी का निर्माण भी भारत सरकार के उच्चभाषा विभाग ने किया है। इसके द्वारा एम.एस-वर्ड के साथ साथ हिंदी का प्रयोग, इंटरनेट तथा ई-मेल आदि की विस्तृत एवं सहज जानकारी भी शामिल की जा सकती है। इस दिशा में हिंदी में निःशुल्क कंप्यूटर-प्रशिक्षण की सरकारी योजना भी अत्यंत कारगर सिद्ध हुई है। राष्ट्रीय सूचना विज्ञान केंद्र तथा ई-आर एंड डी-सी-आई-नोएडा ने हिंदीभाषा के कंप्यूटीकरण को दिशा में अत्यंत सुलभ कार्य किए हैं।'

ई-जानकोष, एन-पी-टीईएन-ई-पीटी पाठशाला स्वयंप्रया आदि आनलाइन ई-सामग्री के शोत भारत सरकार के मानव संसाधन मंत्रालय के अनुदान से विकसित हुए हैं। mood को हिंदी में विकसित करने की जरूरत है। किसी भी भाषा के सर्वांगीण विकास के लिए यह आवश्यक है कि उससे संबंधित सामग्री डिजिटल साधनों पर अधिकाधिक मात्रा में उपलब्ध हो। आई-सी-टी, भाषा-शिक्षण वर्तमान समय को सर्वाधिक सशक्त डिजिटल तकनीक है। हिंदी के विकास और शैक्षिक प्रचार के लिए भारत सरकार का पाठशाला यह एक उत्कृष्ट प्रयास है। आज सर्वाधिक लोकप्रिय एस श्रेणी में अनेक हिंदी व्याकरण, शैडक को-वर्ड, हिंदी कैंसेटर, लर्न हिंदी, गुडरब एंड लैंग्वेजिज, शाश्वती, कविता, हिंदी मुद्रकुल, आयुर्वेद, सामान्यज्ञान, चौ-सी-सी, हिंदी, परिवर्ध आदि अनेक एप्स उपलब्ध हैं। एंड्रॉइड में अनेक उपरुक्त एप्स बनाए गए हैं, जिसमें शोधभाषा विभागा का लीला नामक मोबाइल एप काफी लोकप्रिय हुआ। लॉली मोबाइल एप में प्रबंध, प्रयोग, प्राव, परांगत, हिंदी टंकण तथा हिंदी व्यापुलति जैसे परीक्षाएँ दे सकते हैं। इससे मोबाइल पर हिंदी आसानी से सीखी जा सकती है।

वर्तमान समय सूचना एवं तकनीकी का युग है। इंटरनेट के इस युग में सूचनाओं का विस्तार हो रहा है। जीवन का कोई भी क्षेत्र इससे अछूता न रहा जाएगा। भाषाओं के अध्ययन-अभ्यास, प्रचार-प्रसार के लिए भी तकनीकी सहायता उपलब्ध रहेगी। जहाँ तक प्रयोजनमूलक हिंदी के प्रासंगिकता का प्रश्न है, तकनीकी ज्ञान से विभिन्न कार्य-कलाप सुगमता से संपन्न किए जा रहे हैं। आज कंप्यूटर से हिंदी में कार्य किया जाना आसंभ हो रहा है। चाहे मुद्रक से या चाहे पत्र-पत्रिकाएँ वर्तमान परिदृश्य में भाषा से अधिक अवधारण को जा रही है। सूचना प्रौद्योगिकी के विस्तार से भाषा को आधुनिक मशीनों जैसे कंप्यूटर, फैक्स, मोबाइल, पेजर आदि को आवश्यकता पूर्ण किए स्वयं को वैचार करना पड़ रहा है। हिंदी के महत्त्व एवं व्यापकता को देखते हुए सूचना योग्य प्रौद्योगिकी मंत्रालय ने निःशुल्क हिंदी सॉफ्टवेयर जारी किए, जिसमें 525 फॉन्ट्स हैं, जिसमें टाइपिंग कंप्यूटर आदि अनेक सुविधाएँ उपलब्ध हैं। इसी प्रकार टेलेक्स, टेलीग्रैफ, फैक्स आदि प्रकाशित एवं संपादन कला का वैज्ञानिक प्रशिक्षण आवश्यक है। इसलिए हिंदी का प्रयोजनमूलक रूप ही वर्तमान संदर्भ में सबसे बड़ी चुनौती है।

आज भाषा-शिक्षण शिक्षार्यियों को विरह मागिरिक बनाने के लिए किया जाना चाहिए। हिंदी के बदलते तौर को परचानना होगा, समय के साथ चलकर हिंदी में ट्रिबिटल शिक्षा लानी होगी। शिक्षा में आई-सी-टी के आधुनिक रूपों को शामिल करना होगा। इसे प्रभावी तौर पर करने के लिए योजनाकारों, प्रधानाध्यापकों, शिक्षकों और प्राचीनकी विशेषज्ञ इनके प्राचीनिक, प्रशिक्षण, शैक्षिक क्षेत्र में बहुत से निर्णय लेने को आवश्यकता होगी। इंटरनेट-प्रयोग के लिए सबसे बड़ी बाधा हिंदी के मानकीकृत साफ्टवेयरों को अनुपलब्धता है। इस संबंध में डॉ॰ अर्जुन चक्रान जी का सुझाव प्रत्यक्ष है-

‘एक ऐसा सॉफ्टवेयर बनाया जाए जो ‘सॉफ्टवेयर का सॉफ्टवेयर’ हो। इसमें अब तक के बनाए गए सभी सॉफ्टवेयर पैकेज को जानकारी और उसमें निहित सुविधाओं का परिचय दिया गया हो। इससे हिंदी में कार्य करनेवालों को सुविधा होगी तथा संगणक के हिंदीकरण में वृद्धि होगी इसमें संदेह नहीं।’

निकाय

वर्तमान में हिंदीभाषा शिक्षण को डिजिटल दुनिया से जोड़ना बेहद जरूरी है। तकनीकी निकायों का हिंदीभाषा शिक्षण के लिए प्रयोग किया जाए। आज के समय में मोबाइल केवल संचार का माध्यम नहीं रहा, बल्कि यह मिनी-कंप्यूटर के रूप में कार्य कर रहा है। इसीलिए हिंदीभाषा शिक्षण में कंप्यूटर का उपयोग आवश्यक है। आई-सी-टी में शिक्षा पर सकारात्मक और नरहन्पूर्ण प्रभाव डालने को क्षमताएँ मौजूद हैं। आई-सी-टी में समीक्षित शिक्षण ज्ञान के प्रसार में नरहन्पूर्ण दुनिया का निपा सकता है, जो आर्वाचन अध्यापन के लिए छात्रों को उत्प्रेरित करता रहेगा। इंटरनेट पर हिंदी प्रयोग को अपना संभावनाएँ हैं- आवश्यकता है बस दृढ़ इच्छाशक्ति तथा समन्वित प्रयास की। आई-सी-टी के फलान से हिंदी का हित हो तो रहा है, बस जरूरी यह है कि इस माध्यम पर अपनी भाषा को लेकर चलो। साक्ष हो हिंदीभाषा शिक्षण को जन-जन तक पहुँचाने के लिए मोबाइल और म्पाइफोन का भी प्रयोग किया जाना चाहिए। आई-सी-टी के इस्तेमाल से छात्र जल्दी सीख भी जाते हैं, जसरा आकर्षित भी होते हैं और कंप्यूटर के साथ काम करते बने कहीं जसरा उत्साही होते हैं।

संदर्भ

1. विरह हिंदी सात्रका 2018, पृ॰ 54
 2. अनर अक्षर (उरभाह हिंदी विश्वविक्), जुलाई-सितंबर 2017, पृ॰ 42
 3. मॉडरनाकार्गन हिंदी-स्वरूप एवं सांभाजनार्, डॉ॰ अर्जुन चक्रान, पृ॰ 201
- मं॰ 8806919900, 8421712350
varsha.sahadev@gmail.com

पोस्ट बॉक्स नं॰ 203, नाला सोपाग : किन्नुर मन की संवेदनाएँ

व्याधि

गोधाधी, पीएच-टी (हिंदी)
महर्षि दयानंद विरार्विद्यालय, रोहताक (हरिं॰)

संवेदना मानव-मन को प्रवित करने वाला विभाट गुण है। संवेदना मटन या परितस्थितियों के वर्णन से सहज रूप में उत्पन्न होती है। यह संवेदनात्मक, संवेदनात्मक तथा सांवेदनात्मक भावना है। इसकी उत्पति बहल जगल की अपेक्षा अंतर्जगत में अधिक फलानूत होती है। संवेदना ऐसे अनजान, अनरखे व्यक्तियों या समाज के प्रति हो सकती है। इसकी प्रतीति में मानवता सुटि भी साम्यलित हो जाती है अर्थात् संवेदना मानव मन का ऐसा भाव है जो कौट-पतांग से लेकर हिमालय तक को अपने अंदर समाहित करने को क्षमता से अंत-प्रति है। संवेदना ऐसा मानवीय गुण है जो अति सूक्ष्म होते हुए भी अपने में पूरे विरह को प्रवित करती है। यह मानव मन में उद्भूतित होती है। व्यक्ति के अंदर मानवता अर्थात् मानव होने के भावदंड के रूप में भी संवेदना को समझा जा सकता है। मानव मन में फलित भावनाओं को ही उसको संवेदना के रूप में परिलिखित किया जा सकता है।

किन्नुर में एक मानव है। केवल शारीरिक विकलतांगल के भावदंडों पर उसे मानव की श्रेणी से विमुख नहीं किया जा सकता हिंदी साहित्य जगत के अनेक साहित्यकारों ने किन्नुरों को वेदना को अपनी कलम से स्वरूप प्रदान करने का सफल प्रयास किया है। इन्हीं साहित्यकारों में से एक नाम विश्व मुद्राल का भी है।

प्रसूतः उपन्यास ‘पोस्ट बॉक्स नं॰ 203, नाला सोपाग’ में विश्व मुद्राल जी ने किन्नुर मन को अनेकों संवेदनाओं को अपनी कलम द्वारा काणव पर उकेरने का प्रयास किया है। उपन्यास के मुख्य पात्र विनोद, पूरम व मंडू के चित्रांकन और विनोद द्वारा अपनी माँ (बा) को लिखी गई चिट्ठियों में उसके मन के भावों, उसकी संवेदनाओं को तो पाठकों को जान होता हो है साथ ही पूरम बोरगी (एक अन्य पात्र) की भी संवेदनाओं का चित्र पाठक के समक्ष उजागर होता है।

थर्ड बौंडर के रूप में स्थान देकर हमारा समाज किन्नुरों के प्रति अपनी जिम्मेदारियों से मुक्त होना चाहता है लेकिन हमारा ऐसा करना एक पृथिल कृत है। विनोद नामक पात्र किन्नुर समुदाय द्वारा जवान धीरे जने वाले बंधनों को स्वीकार नहीं करता। प्रताड़ना के बाद भी वह अपना जीवन अपनी मर्जी से जीने का इच्छुक है। वह अपनी ‘बा’ (माँ) को पत्र लिखता है जिससे उसकी संवेदनाएँ व्यक्त होती हैं। किन्नुर मन परिवार द्वारा टुकटाए जाने के परजाल अपने ही परिवार से रुट है, पर बापसो को चाह रखता है, अपने संतान धर्म के पालन के लिए लालाय है, समाज द्वारा धोषी गई शारीरिक (जननांग) विकलतांगल को मानसिक विकलतांगल समझने की विचारधारा को नहीं आपता, प्रेम-संबंध और सामान्य जीवन निर्वाह करने की लालसा उसके मन में विद्यमान है। सामान्य व्यक्तियों के समाज वह शिक्षित जन किन्नुर समुदाय को अपारक करने के

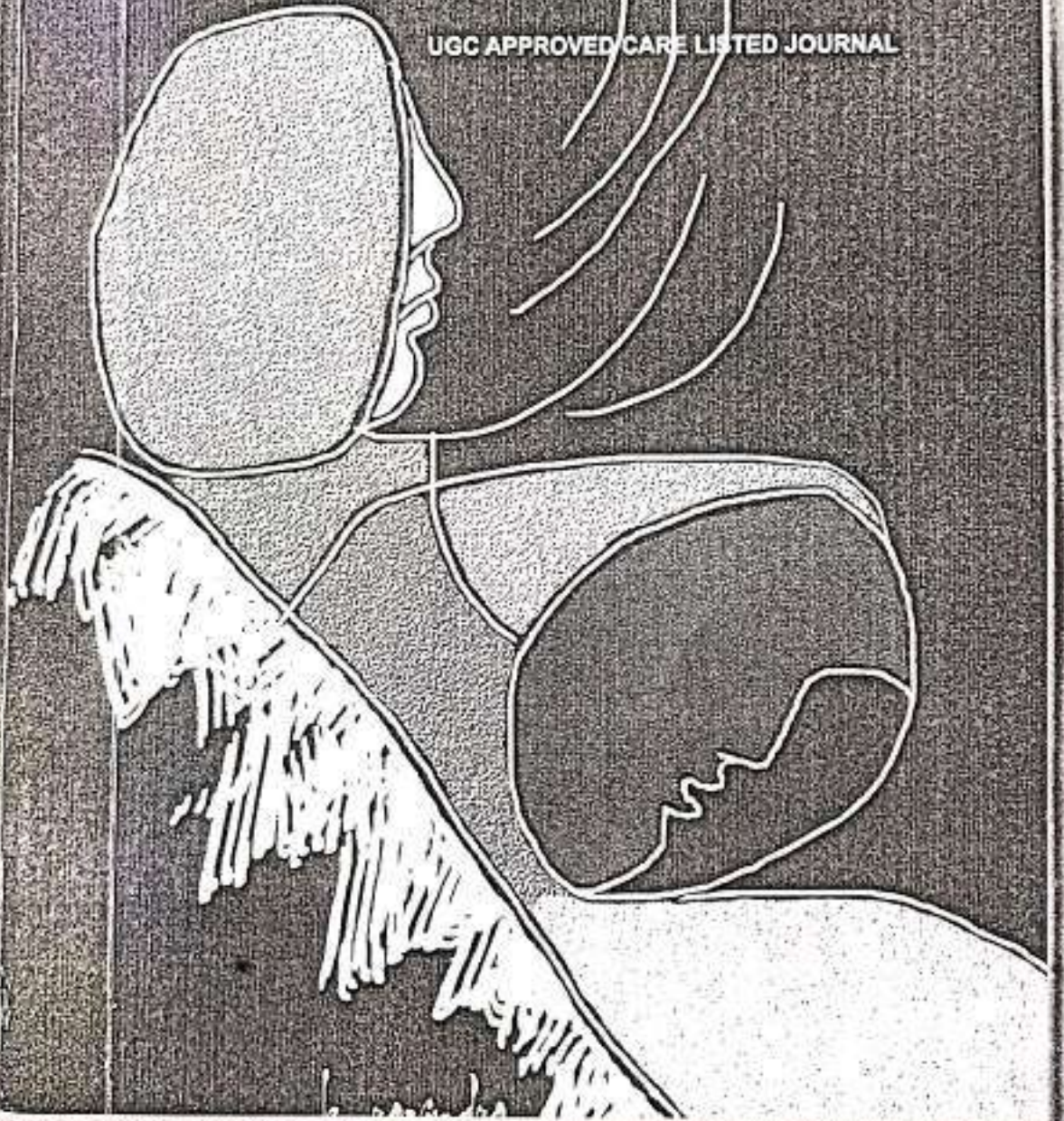
संपादक
डॉ. गिरिराजशरण अग्रवाल
डॉ. मीना अग्रवाल

ISSN 0975-735X

शोध दिशा

58

UGC APPROVED CARE LISTED JOURNAL



शोध दिशा

ISSN 0975-735X

विश्वस्तरीय शोध-पत्रिका

केंद्रीय हिंदी संस्थान, आगरा से अनुदान प्राप्त

UGC APPROVED CARE LISTED JOURNAL

विश्वविद्यालय अनुदान आयोग द्वारा मान्यता प्राप्त शोध पत्रिका

शोध अंक 58-4 अप्रैल-जून 2022 400.00 रुपए

संपादकीय कार्यालय

हिंदी साहित्य निकेतन, 16 साहित्य विहार,
बिजनौर 246701 (उ०प्र०)

फोन : 0124-4076565, 09557746346

ई-मेल : shodhdisha@gmail.com

वेब साइट : www.hindisahityaniketan.com

क्षेत्रीय कार्यालय

हरियाणा

डॉ० मीना अग्रवाल

ए-402, पार्क व्यू सिटी-2 सोहना रोड,
गड़गाँव (हरियाणा)

दिल्ली एन०सी०आर०

डॉ० अनुभूति

पी-106, शिवकला अपार्टमेंट्स

पी 9/11, सेक्टर 62, नोएडा

फोन : 09958070700

(सभी पद मानद एवं अवैतनिक हैं।)

संपादक

डॉ० गिरिराजशरण अग्रवाल
07838090732

प्रबंध संपादक

डॉ० मीना अग्रवाल

संयुक्त संपादक

डॉ० शंकर क्षेम

प्रमोद सागर

उपसंपादक

डॉ० अशोककुमार

डॉ० कनुप्रिया प्रचण्डिया

कला संपादक

गीतिका गोयल/ डॉ० अनुभूति

द्विधि परामर्शदाता

अनिलकुमार जैन, एडवोकेट

आर्थिक परामर्शदाता

ज्योतिकुमार अग्रवाल, सी०ए०

शुल्क

आजीवन (दस वर्ष):

संस्थागत : छह हजार रुपए

वार्षिक शुल्क : एक हजार रुपए

यह प्रति : चार सौ रुपए

प्रकाशन यात्रा से संपादकीय सहमति आवश्यक नहीं है। पत्रिका से संबंधित सभी विवाद केवल बिजनौर स्थित न्यायालय में दायरे में रहेंगे। शुल्क की राशि 'शोध दिशा' बिजनौर के नाम भेजी (सन् 1989 से प्रकाशन-क्षेत्र में सक्रिय)

स्वत्वाधिकारी, मुद्रक, प्रकाशक डॉ० गिरिराजशरण अग्रवाल द्वारा श्री लक्ष्मी ऑफसेट प्रिंटर्स, बिजनौर 246701 से मुद्रित एवं 16 साहित्य विहार, बिजनौर (उ०प्र०) से प्रकाशित। पंजीयन संख्या : UP HIN 2008/25034

संपादक : डॉ० गिरिराजशरण अग्रवाल

ISSN 0975-735X

अप्रैल-जून 2022 ■ 1



सामाजिक विज्ञान विषय में गहनतम गणना सीमा मुद्रण	142
2017 और 2018 का वर्ष	146
संस्कृत के अन्तर्गत प्रथम वर्ष के अन्तर्गत	-
अन्तर्गत आग बयम, डॉ. मण्डो चंद्रका	150
सामाजिक प्रशासनिक यथाार्थ 'समाजशास्त्र'	
डॉ. अवधविहारी पुरान	154
आपका बंटी उपन्यास की आधुनिक संदर्भ में समीक्षा/ दर्शना	158
सुभद्राकुमारी चौहान के काव्य में राष्ट्रीयता और भक्ति भावना/ इंदू रानी	164
हिंदी कहानी में दलित उत्पीड़न/ डॉ. अशोक कुमार	169
विद्यालय में बच्चों की संरक्षा एवं सुरक्षा में अध्यापक की भूमिका/	
डॉ. वृजेश कुमार मिश्र, पीयूष श्रीवास्तव	175
मृणाल पांडेय : साहित्यिक व्यक्तित्व के विविध आयाम एवं उनका मानवीय पक्ष/	
डॉ. श्रीमती निर्मला त्रिपाठी	180
उषा प्रियंवदा 'भया कबीर उदास' अपूर्ण शरीर के साथ संपूर्णता की खोज/	
डॉ. रश्मि कुमारी, रीना नागर	187
दलितों की प्रगतिशील परंपरा के संवाहक मुकेश मानस/ डॉ. सर्वेश मौर्य	194
परशुराम शुक्ल की बाल कविता में पर्यावरण चित्रण/	
सुरेखा संदीप जाधव, डॉ. वर्षा रानी निवृत्तीराव सहदेव	201
सामाजिक विज्ञान विषय में आलोचनात्मक शिक्षणशास्त्र :	
सामाजिक निर्माण एवं परिवर्तन/ शशि रंजन	206
हिंदी भाषाशिक्षण और डिजिटल माध्यम/ डॉ. सहदेव वर्षारानी निवृत्तीराव	213
पोस्ट बॉक्स नं. 203, नाला सोपारा : किन्नर मन की संवेदनाएँ/ ज्योति	219
महिला सबलीकरण और विकास कार्यक्रम : एक समाजशास्त्रीय अध्ययन/	
डॉ. मालती	224
टाट है फकीरी अपना : गोपालदास नीरज/ देवीलाल रोझ, डॉ. अनिल अग्रवाल	231
असमीया जातीय-जीवन की रूपरेखा नामधर/ डॉ. शरिफुज जमाँ	237
प्राचीन रहती हैं अभिव्यक्तियाँ : अनामिका/ डॉ. प्रज्ञा त्रिवेदी	241
सूरदास के कृष्णकाव्य की भाषा एवं शैली का विवेचनात्मक अनुशीलन/	
डॉ. सुशील उपाध्याय	246
मनरेगा और प्रवासी संकट/ डॉ. पुष्पा कुमारी	254
कला में स्वतंत्रता एवं सामाजिक परिवर्तन : एक निरूपण/	
डॉ. अर्चनारानी, शिवानी राठी	262
भारत में मतदान व्यवहार का संवैधानिक स्वरूप : सैद्धांतिक विवेचन/ उदय सिंह	267
किशोरी स्वास्थ्य, स्वच्छता एवं पोषण : समस्याएँ एवं चुनौतियाँ/	
डॉ. आरती कुरील	271

स्वतंत्रता के हमारे मुकेश मागस को पत्र में प्रेम एक बड़ा मानवीय मूल्य था। उन्हें लगता था कि प्रेम एक प्रातिशोभ शक्ति है जो हमें जनकारी और लोकतांत्रिक बनाती है। वह व्यक्ति का ही नहीं, परिवार, समाज, देश और विश्व का भी जनकारीकरण करती है। इतिहास गवाह है कि हर समय समाज में प्रेम ने सकारात्मक परिवर्तन किया है इस कारण ही प्रेम प्रातिशोभ मूल्य है।¹⁴

सच ये है कि कार्लोवार्ड, सांघाविकता, जाति, जनतंत्र, राजनीति, संस्कृति, विश्वासधर्म, धर्मों व धुलीकचरी सजा उनको चिल्लाओं के केंद्र थे। उनकी विचारों का धार इस परिधि को भी लीककर बहल हो जाती थी। मानवता, प्रकृति, प्रेम और इकोलॉजी के बारे में भी वे लेखने से जैसे 'कोयलजाने' भावक अपने एक कविता में कहते हैं कि 'कहाँ गए सब जंगल?' कहाँ गए सब बाग-बगीचे? कहाँ गए सब खूबसूरत फूल? जो वे कहेवाल ग रही है। दिल्ली जैसे महानगर में रहने वाले/मैंने जैसे एक कवि के घर में।¹⁵ इसी तरह अपने एक और छोटी कविता 'गीत' में वे कहते हैं कि 'उधे कि तुम जाँदे हो/ उधे/ कि उदह्य तुमका धर्म है/ उधे/ कि साठ अक्षरों तुमका है।'¹⁶

संदर्भ

1. भारत-देशीय बचपन, ऑन-4, संपादक, मुकेश मानस, जनवरी 2013 ISSN-2319-865X 'सर्वज्ञान' - मुकेश मानस, कोयल, कविताकाश, 1991
2. कवि के लिए कविता सत्य-मुकेशमानस, कविता/कविताकाश, 2010
3. स्यादशब्द 'केतन', देशीयक नवी-मुकेशमानस, लेख, संपादकश
4. कवि
5. कवि
6. कवि
7. हिंदी दक्षिण साहित्य आश्रयण : कुछ सवाल, कुछ विचार-मुकेश मानस, लेख, संपादकश, सर्वज्ञान साहित्य परिषदा के अगस्त 1999 के अंक में सर्वप्रथम प्रकाशित
8. कवि
9. कार्लोवार्ड, सांघाविकता और दर्शन उदा, मुकेश मानस, लेख 'फिलहाल' पत्रिका, मार्च, 2003
10. कवि
11. 'कार्लोवार्ड', मुकेश मानस, कविता काश, 1992
12. कवि 'कार्लोवार्ड, सांघाविकता और देशीयक', मुकेशमानस, लेख 'फिलहाल' पत्रिका, मार्च, 2003
13. कवि
14. सांघाविक कवि, मुकेशमानस, लेख, संपादकश, 2000
15. कवि
16. कवि
17. कवि
18. कविता का गन्ना : धर्मोसिंह का कवि याद करें, मुकेशमानस, लेख, संपादकश 1996
19. 'प्रेम', मुकेशमानस, लेख, संपादकश 2006
20. 'कोयलजाने', मुकेशमानस, कविता, कविताकाश 2004
21. 'गीत', मुकेशमानस, कविता, कविता काश 1992

मो 9999508476
 drsarveshmanus@yahoo.com

परशुराम शुक्ल की बालकविता में पर्यावरण-चित्रण

सुरेखा संदीप नाथ (शोधार्थी)
 दिवागर्भा विश्वविद्यालय, कोलकाता
 डॉ. चर्चार्थी निवृत्तीगण सहदेव
 शोध निदेशक

श्री विजयसिंह यादव महाविद्यालय, पैठ बडगाँव

भूखंडलीय ताप वृद्धि अथवा प्रकृति पर मनुष्य के अतिक्रमण से असंतुलित हुए पर्यावरण के कारण आना जिन प्रलयकारी प्राकृतिक आपदाओं का संकट खड़ा हुआ है, उनके प्रति निरन्तरों लगाया आधा सदी से पर्यावरणविद् सचेत करते आ रहे हैं। वे जिस चिंतन को प्रबंधों-निबंधों, भाषणों-संवादों, अंतरालों के रूप में प्रसारित कर रहे हैं उसी चिंतन को नए कवि अपनी सीधी, सरल, प्रबल कविताओं के रूप में जन-जन तक पहुँचाने का काम कर रहे हैं। युवावस्था कवि परशुराम शुक्ल जिस संकट के प्रति सचेत कर रहे हैं, वह आज एक वैश्विक समस्या बन गई है। विश्व की सभी भाषाओं के कवियों ने अपनी रचनाओं में प्रकृति सौंदर्य के वैश्वध्वनिपूर्ण रूपों के अनभिन्ना चित्र उकेरे हैं। मानव समाज की भौतिक प्रगति, वैज्ञानिक प्रगति उपयोग की बढ़ती प्रवृत्ति से एक से प्रकृति का अधाधुंध सौहन होने लगा है, वहीं दूसरी ओर उसका रूप प्रदूषित और असंतुलित होने लगा है। पर्यावरण चिंतन के विभिन्न क्षेत्रों में से एक महत्वपूर्ण क्षेत्र बालसाहित्य है, जो शब्दों रचनाओं के माध्यम से पर्यावरण के प्रति सामाजिक चेतना जाग्रत करता है।

हिंदी साहित्य में परशुराम शुक्ल जी का नाम बाल साहित्यकार के रूप में सर्व परिचित है। उन्होंने कविताएँ, कहानियाँ, बाल पाठ्याहारिक, बाल उपन्यास, बाल एकांकी और बाल नाटक लिखकर हिंदी बाल साहित्य को समृद्ध बनाया है। बालसाहित्य को एक विशेष विषय के रूप में पहचान बनाने में परशुराम शुक्ल जी का योगदान रहा है। इनके लेखन में देश में ही नहीं बल्कि विदेशों में भी बालसाहित्य जगति प्राप्त कर चुका है। आज पूरे विश्व में बच्चों के स्वास्थ्य के लिए बालसाहित्य को आवश्यकता महसूस की जा रही है। बच्चों के स्वास्थ्य में पर्यावरण को अहम भूमिका रही है। पर्यावरण विज्ञान स्वच्छ रहनेग उठना बच्चों का स्वास्थ्य अच्छा रहेगा। परशुराम शुक्ल जी ने अपनी कविताओं में बच्चों में पर्यावरण के प्रति जागृकता उत्पन्न की है तथा पर्यावरण-संबंधी विस्तृत जानकारी दी है। परशुराम शुक्ल जी ने बालसाहित्य में नए प्रयोग किए हैं। उन्होंने विशाल, प्रकृति एवं पर्यावरण जैसे काव्य विषयों के द्वारा बालसाहित्य को अधिक समृद्ध बनाया है।

हिंदी बालसाहित्य में पर्यावरण चेतना के प्रथम तथा अब तक के सर्वप्रमुख कवि परशुराम शुक्ल हैं। उन्होंने प्रकृति के पर्यावरणीय महत्त्व को पहुँचाने हुए सबसे पहले अपनी कविताओं के माध्यम से उसके संरक्षण का संदेश प्रसारित किया। साथ ही मनुष्य द्वारा प्रकृति सौहन तथा विविध प्रकार के प्रदूषणों द्वारा उसका असंतुलन बढ़ाने के प्रति सावधान किया। शुक्ल जी ने

शरितार कविता में पर्यावरण को सुंदर परिभाषा प्रस्तुत की है-

पर्यावरण कैसे कहते हैं?

आओ हम सब इसको जानें।

पर्यावरण प्रदूषण के

माध्यम से धरती को परवाने।

जो है चारों तरफ हमारे,

पर्यावरण उसे कहते हैं।

ध्वनि, मिट्टी, जल, वायु आदि

सब इसके अंतर्गत रहते हैं।

कितने घंटे राष्ट्र का विकास बढ़ते के संसाधनों और पर्यावरण पर आधारित होता है। पिछले कई दशकों से बढ़ रहे प्रमदलोकता, औद्योगिकरण, बाजारवाद तथा नगरीकरण के कारण प्रकृति का संतुलन तोड़ा है। देश का बढ़ती आबादी और मर्यादित संसाधनों के कारण प्रकृति का असंतुलन बना हुआ है। मानव की बढ़ती जीवनशैली में प्रकृति का मोहन हो रहा है। इसका परिणाम यह है कि पवित्र में मानव को अपने मूलभूत आवश्यकताओं को पूरा करना असंभव करित हो जाया।

भारत सरकार द्वारा पर्यावरण का संतुलन बनाए रखने तथा उसके संरक्षण हेतु अनेक कानून बनाए गए हैं। भारत संविधान के 42वाँ संशोधन अधिनियम 1976 के द्वारा जल, वन्यजीवों एवं पक्षियों का संरक्षण इस विषय को राज्य सूची में सम्मिलित सूची से स्थानांतरित किया गया। सम्मिलित सूची में 17क और 17ख में पर्यावरण संरक्षण-संबंधी प्रावधान किए गए हैं। भारत सरकार द्वारा पर्यावरण संरक्षण हेतु निम्नलिखित कानून बनाए गए हैं-

1. पर्यावरण (संरक्षण) कानून 1986
2. हवा (प्रतिबंध व प्रदूषण) नियंत्रण कानून
3. जल (प्रतिबंध व प्रदूषण) नियंत्रण कानून
4. वन्यजीव संरक्षण कानून
5. जल संयोजन कानून

इस प्रकार भारत सरकार तथा हिंदी साहित्यकार पर्यावरणीय चेतना के प्रति जगजाहस में जागृति लाने के लिए प्रयत्नशील हैं।

परशुराम शुक्ल मूलतः व्यावहारिक जीवन के कवि हैं। कविता उनके लिए निरालं आध्यात्म एवं यशस्वी चीज है। प्रकृति के सौंदर्य का रुपायन उनके वैचारिक संबन्धन का आभास है। प्रकृति के अनेक रूप उनकी कविताओं में उपस्थित हैं। परशुराम शुक्ल को बाल कविताओं में पर्यावरणीय चेतना निम्नलिखित रूप से चित्रित हुई है-

बाल प्रदूषण-पृथ्वी पर पशुपत जीवन के लिए सबसे आवश्यक चीजों में से एक है-जल। जीवन समय में धरती पर जल-प्रदूषण लगातार तेजी से बढ़ रहा है। वास्तव में जल का तेजी से अक्षय होना ही जल प्रदूषण कहलाता है। जल प्रदूषण ज्यादातर उद्योग धंधों एवं रासायनिक पदार्थों के द्वारा निकले गंध, पदार्थ या कचरों के द्वारा होता है। वास्तव में हम जो वैश्विक समस्याओं से जूझ रहे हैं। एक ओर पृथ्वी पर जल को भूया कचर होनी या नहीं है, दूसरी ओर जल प्रदूषण होनी से जूझ रहा है। जल प्रदूषण होने के कारण अनेक जीवाणु या विषाणु उत्पन्न हो सकते हैं। जिसके

कारण जल को पीना मानवीय सेहत के लिए हानिकारक है। परशुराम शुक्ल जो बाल सतसई में भोजन को निरंतर सफल करते हैं और इस जल का बोध भी करते हैं कि पर्यावरण को प्रदूषित और असंतुलित मत कीजिए-

पानी, मिट्टी, वायु सब, रक्षित बिलकुल साफ।

बचना पावो पीढ़ियाँ, नहीं करोगी माफ।

वास्तव में जल प्रदूषित होने के अनेक दुष्परिणाम हैं जिनसे मानव जीवन अधिक प्रभावित है। प्रदूषित पानी पीने से अनेक बीमारियाँ फैल रही हैं। यहाँ तक कि प्रदूषित पानी पीने से अनेक जीवों को अलगव मृत्यु हो रही है। इसलिए बच्चों के स्वास्थ्य के लिए शुद्ध पानी आवश्यक है। पानी या जल को महिम का महत्व प्रतिपादित करते हुए परशुराम शुक्ल 'बाल सतसई' में कहते हैं-

जल को महिमा जानना, है यह सकल ज्ञान।

जल दुर्भित कर ले रहे, बच्चों बच्चों को जान।

प्रस्तुत कविता में कवि ने बच्चों को जल प्रदूषण के प्रति सचेत किया है और हमें यह धन सभार्याओं से बचने का संदेश भी दिया है।

हवा प्रदूषण-आधुनिक युग में वैज्ञानिक आविष्कारों तथा औद्योगिकरण उत्पत्तियों में वृद्धि हो रही है जैसे-जैसे प्राकृतिक पर्यावरण का असंतुलन बढ़ रहा है। इसीकारण पृथ्वी के समस्त जीवों का अस्तित्व संकट में आ गया है। परिणामस्वरूप मू-स्त्रलन, वादू, सूखा, महामारी जैसे अनेक प्राकृतिक आपदाएँ निरंतर बढ़ती जा रही हैं। परशुराम शुक्ल जो 'बाल सतसई' में इन्हीं चिन्ताओं को व्यक्त करते हैं-

बहर परी इस हवा में, कैसे लें हम सौधा।

आती जाती सौध में, चुपे गले में फँसा।

ध्वनि प्रदूषण-पर्यावरण में अनेक प्रकार के प्रदूषण हैं। उसमें से एक है-ध्वनि प्रदूषण। वास्तव में ध्वनि प्रदूषण बड़े प्रदूषण है जो पर्यावरण में अवांछित ध्वनि के कारण उत्पन्न होता है। यह प्रदूषण बच्चों के स्वास्थ्य के लिए बहुत ही हानिकारक है। विज्ञान के तहत 60 डेसिबे आवाज को सामान्य आवाज माना जाता है, हालाँकि 80 डेसिबे कम से अधिक आवाज स्वास्थ्य के लिए हानिकारक होती है। पृथ्वी पर सजीव सृष्टि के लिए ध्वनि का संतुलन होना आवश्यक है। अवांछित शोर या आवाज मनुष्य, पशु, पौधों व अन्य जीवों के जीवन को प्रभावित करती है। अधिक तेज आवाज धीरे-धीरे बच्चों के स्वास्थ्य का प्रभावित करती है और एक धीरे जहर के रूप में कार्य करती है। उच्च स्तर की आवाज शारीरिक अवाज पहुँचाती है यहाँ तक की मृत्यु का कारण भी बन सकती है। उच्च स्तर की ध्वनि बच्चों के चिद्धिदहन और महिलाओं के गर्भपात का कारण भी बनती है।

दर्शकान में औद्योगिकरण और शहरीकरण बढ़ती हुई माँ में अवांछित आवाज के प्रसरण का कारण बनती है। ध्वनि-प्रदूषण को रोकने के लिए योजना बनाने की आज सबसे बड़ी आवश्यकता है। परशुराम शुक्ल जो बाल सतसई कविता में ध्वनि प्रदूषण को रोकने की सलाह देते हुए कहते हैं-

कान फोड़ती ध्वनि हमें, बतरा रही बनाय।

ध्वनि कम से कम कीजिए, है बस यही उपाय।

कवि को प्रकृति के प्रति गहरी आत्मीयता है जो अन्यत्र दुर्लभ है। व्यक्ति प्रकृति के लिए कवि बच्चों की सवाल जगहका बच्चा है।

मृदा प्रदूषण-कवि प्रकृति का बाल सखा है। उसका सहचर है उसे प्रकृति के प्रति गहरी सहायुक्ति है। प्रदूषण और पर्यावरण असंतुलन का सबसे बड़ा कारण वृक्षों के काटने को मानते हैं और परशुराम शुक्ल जो इस पीढ़ी को निरंतर व्यक्त करते हैं। युवक को वृक्षों की बेहलाशा कटारें तथा यांत्रिक सभ्यता के अनावश्यक विस्तार के कारण समूचे पर्यावरण के लिए उत्पन्न खतरों के निरतक हैं। शुक्ल जी बाल सतसई में वृक्षों की काटने पर अपनी गहरी विता तथा वृक्षारोपण के महत्त्व को प्रतिपादित करते हुए कहते हैं-

पेड़ों में हम सब का गाल,
पेड़ सभी के भाग्यविधाता।

सी-सी पेड़ लगाओ!

कवि ने वृक्षारोपण के महत्त्व को प्रतिपादित किया है साथ ही पर्यावरण संरक्षण हेतु बालमन को प्रबोधन किया है। परशुराम शुक्ल जो वृक्षों की काटने पर अपनी गहरी विता पीढ़ी की इन शब्दों में व्यक्त करते हैं-

वृक्षों पर विरकाल से, करते देव निवास।

फिर क्यों इनको काटकर, अपना करें विनाश!

प्रकृति के प्रति कवि को गहरी गणितकला और सहज आत्मीयता निरंतर प्रशस्त होती दिखाते देते हैं। कवि का मन पेड़-पौधों के प्रति प्रेम से धरा हुआ है और हर पेड़, फूल उसका अंतरोप है। कवि मानता है कि प्रकृति की आत्मीय छवि मनुष्य की सारी सुश्रुतियों, आशंकाओं और अस्वस्थ भौतिक जीवन को खटपटाइट के बीच रगितों और संतोष का एहसास करा देती है। कवि मानता है कि बच्चों को स्वस्थ, उत्साही तथा आनंद में रहने के लिए फूल, पक्षी, हवा लहरें, मशाल आलवन हैं इसलिए कवि ने बच्चों को वृक्ष न काटने तथा नए पौधों को लगाने और उनका जालन करने का संदेश दिया है-

आओ बच्चों पेड़ लगाएँ

नीम, बबूल, आम, नीपल के

धरार साल और शीतान के

बनार धरती हरी बनाएँ

आओ बच्चो पेड़ लगाएँ!

पेड़ लगाने हवा चलाने

रू-गर्मी से मुक्ति मिलेगी,

यह रहस्य सबको समझाएँ!

यशु-पीधानों, फूलों के प्रति भी स्वयंवरत संवेदन का अनुभव करते हैं। वे मानते हैं कि पृथ्वी इन समस्त धर-अधर जीवों की प्रसन्नता से ही मनुष्य के जीवन में प्रसन्नता भर सकती है। कवि बच्चों को पेड़ लगाओ का संदेश देता है। एक पेड़ हमें किन-किन प्रकारों से लाभदाई देता है और मानव-जीवन में वृक्ष का महत्त्व क्या है यह प्रतिपादित करते हुए शुक्ल जी कहते हैं-

हरियाली की रक्षा करना, लगातार कितना ध्याप वृक्ष

मीठे-मीठे फल देता है, गर्मी भी हर लेता वृक्ष

पहले बनता नन्हा पौधा, फिर धीरे से बनता वृक्ष
रंग-धिरंगे फल-फूलों से, हर मौसम में पलता वृक्ष
पक्षी को छाया देता है, ठंडी हवा चलाना वृक्ष!

संशोधन: कहा जा सकता है कि परशुराम शुक्ल जी का बालकाव्य प्रकृति का काव्य है। उनकी कविताओं में प्रकृति अत्यंत स्पष्ट, प्रसन्न, सहज एवं प्रबल है। उन्होंने अपने बालगीतों के माध्यम से विभिन्न प्रकृति का सुंदर चित्रण ही नहीं किया बल्कि बच्चों के मन में पर्यावरण के प्रति जागरूकता की भावना अंकित करने में महत्वपूर्ण भूमिका निभाई है। प्रदूषण पर नियंत्रण रखकर मानव को आरोग्यकर वायु तककर मदद करना चाहिए। वर्तमान में इस विषय की अनेक विधाओं पर महत्त्वपूर्ण कार्य किया जा रहा है परंतु अभी भी पर्यावरण-चेतना के संदर्भ में ऐसे विषय हैं जो अछूते रह गए हैं। अंतः बाल साहित्यकारों को इस दिशा में अपना और जागरूकता की आवश्यकता है। पर्यावरण-चेतना आज युग की आवश्यकता है। इस क्षेत्र में अपना योगदान प्रदान करने के लिए बहुत बड़ा भेदान चाहती है। पर्यावरण-चेतना को लेकर युवक युवक को अपार संभावनाएँ हैं। सजग बाल साहित्यकार इस दिशा में कार्यरत होने ऐसी आशा की जा सकती है।

संदर्भ

1. परशुराम शुक्ल, विरंग, अनवाणी प्रकाशन, दिल्ली, पृ० 48
2. परशुराम शुक्ल, बाल सतसई, यमन प्रकाशन, नई दिल्ली, पृ० 84
3. मरी, पृ० 84
4. मरी, पृ० 84
5. मरी, पृ० 84
6. परशुराम शुक्ल, एकता की शक्ति, अनवाणी प्रकाशन, दिल्ली, पृ० 22
7. परशुराम शुक्ल, बाल सतसई, यमन प्रकाशन, नई दिल्ली, पृ० 85
8. परशुराम शुक्ल, एकता की शक्ति, अनवाणी प्रकाशन, दिल्ली, पृ० 11
9. परशुराम शुक्ल, भंगल घर आँसू, सन्मार्ग प्रकाशन, दिल्ली, पृ० 42

Impact Factor-7.675 (SJIF)

ISSUE No-(CCCXVIII) 318 (C)

ISSN-2278-9308

September-2021

B.Aadhar

Peer-Reviewed & Refreed Indexed

Multidisciplinary International Research Journal

Thoughts and Works of Dr. Babasaheb Ambedkar



Chief Editor
Prof. Virag S. Gawande
Director

Editor
Dr. Pramod S. Meshram
I/c Principal.

56	Annihilation of Caste System in India: A Perspective of Dr. B. R. Ambedkar Dr. Nisargandh Prabhakar	228
57	Dr. Ambedkar's Vision For Uniform Education In India Dr. Prem Bhagwan Acharya	232
58	डॉ. बाबासाहेब आंबेडकर दलित चळवळीचे प्रेरणास्रोत मनिष आत्माराम आवसरमोल	236
59	स्त्री स्वातंत्र्याचे उद्गाते बाबासाहेब प्रा. डश. शर्मिला बाळासाहेब घाटगे	238
60	आंबेडकरवादी मातंग लेखिका शकुंतला वायदंडे प्रा. डॉ. शरद गायकवाड	243
61	बहिष्कृत भारतकार डॉ. बाबासाहेब आंबेडकर विकास गवई	247
62	डॉ.बाबासाहेब आंबेडकर यांचे नियोजन व समाजकल्याण विषयक विचार प्रा. डॉ.तरोडे विजय लक्ष्मण	252
63	मानवी स्वातंत्र्याचे कैवारी डॉ. बाबासाहेब आंबेडकर प्रा. डॉ. वसुमती पी. पाटील	255
64	डॉ. बाबासाहेब आंबेडकरांच्या विचारांचा मुस्लीम मराठी कवितेवरील प्रभाव प्रा. वंदना सांडूराव पाटील	258
65	डॉ.बाबासाहेब आंबेडकर यांचे स्त्री विषयक विचार प्रा.श्री.वैभव नानासाहेब कांबळे	264
66	डॉ. बाबासाहेब आंबेडकरांचे कामगार विषयक विचार आणि कार्य प्रा. सुनिल भालेराव पाटील	268
67	डॉ.बाबासाहेब आंबेडकरांची जातीअंताची चळवळ सिध्दार्थ विठ्ठलराव मस्के	273
68	महिला उध्दाराचे पुरस्कर्ते - डॉ.बाबासाहेब आंबेडकर डॉ. शुभांगी एस्. माने	276
69	डॉ. बाबासाहेब आंबेडकरांच्या विचारांचा दलित साहित्यावरील प्रभाव भूषण प्रदीपकुमार देशमुख /डॉ. वंदना स. भोयर	281
70	आंबेडकरवादी स्वकथन : आठवणीचे पक्षी डॉ. शिवराज काचे	285



Annihilation of Caste System in India: A Perspective of Dr. B. R. Ambedkar

Dr. Nisargandh Prabhakar

Department of Sociology, Shri. Vijaysinha Yadav College, Peth Vadgaon
pnisargandh.sociology@vypmv.ac.in

Introduction:

The India has a legacy of prosperity in equality-based values. There were numbers of eminent personalities devoted to making casteless India. The present paper has understood the perspective of Dr. B. R. Ambedkar who were fought for equality and humanity.

Caste system has axiomatic social process to exist in society; as like there is long history of eradication process of caste system in India. Various thinkers and ideologies made efforts to annihilate the caste system. It seems that struggle between the ideology of equality and inequality in all views from Indus civilization up to contemporary period. Specially it has seen the contribution from Buddha to Ambedkar to eradicate the caste system. The present paper tries to understand the struggle for annihilation of caste system in India.

Research Methodology

Objectives:

- 1) To Understand Perspective of Dr. B. R. Ambedkar on Annihilation of Caste System in India.
- 2) To study the contribution of Dr. B. R. Ambedkar for the Annihilation of Caste system in India.

Research Design and Data collection

The Present Research Paper is qualitative in nature for that historical research design has been used. The primary documentary and secondary data have been used for the interpretation of the research arguments.

Theoretical Approach:

The study is depending upon the theoretical approaches developed by Joytiba Phule, and Dr. Babasaheb Ambedkar in understanding the various realities in India.

Pre-Ambedkar Reforms:

The pre- Ambedkar Dalit leader, Kisan Fagugji Bansode (1870-1946) organized Untouchables in 1903. He has organized Mahar conference on 1913, All India conference of the Boycotted on 1920 and Depressed Classes Conference on 1930. Jayabai Chaudhri and G. A. Gavai have done eminent role to lead the backward class society with Bansode. Gopal Baba Valangkar, Shivaram Janaba Kambale have effectively worked for annihilate the Untouchability in western Maharashtra. This was the emerging period of Dalit's revolts against caste system and untouchability. They fought against the caste system but up to limited the destroyed of untouchability.

Dr. B. R. Ambedkar- the visionary revolts to annihilate the caste system:

The emergence of Dr. Ambedkar has seen as a foundational pioneer of annihilation of caste. From his emerging social life, he had concentrated on the issues of caste and its problems and solutions. That was the first time, any backward class leader had taken big canvas for annihilate the caste. The movement under led of Dr. Ambedkar has got supports from each and every area of Indian society. The traditional leader of Dalits, Bansode and Gavai has organized 'Akhil Bhartiya Bahiskarat Parishad' (All India Boycott conference) at Mangaon of district Kolhapur in western Maharashtra on March 1920. The most important thing was that, the special presence of Shahu Maharaja and Dr. Ambedkar. This conference should be seen as symbol of transference of



their leadership. Not only leadership has changed but the perspectives, values and issues have also changed through this conference. By the late 1930s, Ambedkar had firmly emancipated himself from the topic of Sanskritization and embraced a complete rejection of the caste system. (Jaffrelot, 2012: 48)

It has perfectly cleared the perspective of Dr. Ambedkar on caste issues in his book 'Annihilation of Caste'. He expressed that, 'What is your ideal society if you do not want caste is a Liberty, Equality and Fraternity' (Ambedkar 1936-rep.2005:43). He had explored and run activity 'The real method of breaking up the caste system was not to be bring about inter-caste dinners and inter-caste marriages but to destroy the religious notions on which caste was founded.' (Ambedkar: 1936-rep. 2005:11)

The perspective of Ambedkar has been absolutely cleared from his vast literature and his various movements related to annihilation of castes. The contribution in the making of Indian constitution itself has shown the views on Indian society. He has scientifically proved the mechanism and operation of caste system. He did not follow the reform within the caste system; he wants total change in social system. At the age of twenty-five Ambedkar's career as a sociologist of caste began when he attained A. A. Goldenweiser's seminar at Columbia. In May 1916 he gave a lecturer that was published the following year in Indian Antiquary as 'Caste in India: Their Mechanism, Genesis and Development' in which he claimed 'to advance theory of caste'...he argued, for caste is social phenomenon, not a racial one. (Jaffrelot: 2012, 32) In his Jaffrelot pointed out the notion of 'graded inequality' was Ambedkar's main sociological finding. He explained the mechanism of caste through the theory of 'surplus women' and 'surplus men'. He tried to prove how the system of endogamy marriage is root cause of caste system.

He concentrated on the Hindu dharma Shastra as a basic source of caste system. He warned Indian society about worst future of Indian social system. He stated 'Caste devitalizes a man. It is a process of sterilization. Education, Wealth, labour are all necessary for every individual if he has to reach a free and full Manhood. Mere education without wealth and labour is barren. Wealth without education is brutal. Each is necessary to everyone. They are necessary for the growth of a man'. (BAWS: 2008, 68-69) The caste system has anti-social spirit which is harmful to the Indian society. It is protecting their own interest and make isolate from others. The anti-social spirit is not confined to caste alone. It has gone deeper and has poisoned the mutual relations of the sub-castes as well. (Ambedkar: 1936-reprint2007, 19)

Dr. Ambedkar emphasized on the ways of eradication of caste as like critical analysis through his rationalist perspective. He expressed in the letter sent to Mr. HarBhagwan on 27 April 1936. "The real method of breaking up the caste system was not to bring about inter-caste dinners and dinners and inter-caste Marriages but to destroy the religious notions on which caste was founded". (Ambedkar: 1936-reprint2007, xii)

He criticized the reformist like Gandhi for their work on the abolished Untouchability. They were trying to organized inter-caste dinner and inter- marriage to agitate on the problems of castes. But they didn't think about destroyed Hindu belief on Shastra to solve problems created by caste system. Ambedkar stated 'No wonder that such efforts have not produced any results. You also seem to be erring in the same way as the reformers working in cause of removing Untouchability. To agitate for and to organized inter-caste dinners and inter- caste marriages is like forced feeding brought by artificial means. Make every man and women free from the thralldom of the Shastras, disengage their minds of the pernicious notions founded on the Shastras, and he or she will inter-dine and inter-marry, without your telling him or her to do so.' (Ambedkar: 1936-reprint2007, 37-38)



Ambedkarite Movements or Movements for Eradication of Caste System:

Dr. B. R. Ambedkar had organized Mahad Satyagraha, (August-1927) fired of Hindu holy book *Manusmriti* (December-1927), Temple entry in *KalaramMandir* at Nashik (1930) activities for the awaking of Caste eradication. At the time of Mahad conference clearly mentioned the objects of that conference; which was annihilation of caste.

Dr. Ambedkar has concentrated notional thoughts for eradication caste as like he had done activities on material issues. The Independent labour party has done eminent role for the eradication of caste under the leadership of Dr. Ambedkar. Jafferlot has pointed out, the IPL responded by launching a rural protest movement. It was supported by Untouchable's atavists but also by Kumbhi, many of whom suffered under the *khoti* system. On January 12, 1938, 20,000 Farmers from the districts of Thana, Kolaba, Ratanagiri, Satara and Nasik gathered at Bombay for demonstration that was led by Ambedkar Ambedkar's activism against the *Vatan* and *Khoti* system tended to project him as the spokesman of those who suffered from the traditional socio-economic organization in the villages. (Jaffrelot: 2012/78)

All movements and activities of Dr. Ambedkar have devoted to the process of eradication of castes. The *Mahad* movement, fired of *Manusmriti*, *Kalarammandirsatyagraha*, visit with Sioman commission, participation in round table conferences, fight for separate electoral, conversion of Buddhism, various literature and so on activities have objectively done for the eradication of caste. At time of mahad movement he expressed that, we are also human being. . This conference has been called to inaugurate an era of equality in this land... Hindu society should be reorganized on two main principles- equality and absence of casteism. (Jaffrelot: 2012, 47)

Dr. Ambedkar declared if I have born in Hindu religion but I will not die as a Hindu in *Yewala* (district- Nasik) conference on 1935 and Bombay conference on 1936. He has cleared his object related to underrating and chosen of Buddhism on radio talk on 3rd October 1954. He expressed my social philosophy may be said to be enshrined in three words: liberty, equality and fraternity. Let no one however say that I borrowed my philosophy from the French Revolution. I have derived them from the teaching of my master, the Buddha... My philosophy has a mission. I have to do the work of conversion (to Buddhism) (Jaffrelot: 2012, 133)

Ambedkar rejected the Hindu Shastra and chose Buddha as an idol of equality. He has shown his perspective in his book *Annihilation of caste* on 1936 about the rejection and acceptance of religion. He stated 'you must take the stand that Buddha took. You must take the stand which Guru Nanak took. You must not only discard the Shastras, you must deny their authority, as did Buddha and Nanak.' He had accepted Buddhism concern with this philosophy. After conversion of Buddhism not only the Ambedkar thought to achieve equality but the massive have seen fight for equality, kharat confides as much: 'I am not Mahar, nor an Untouchable nor even a Hindu. I have become a human being. I am now equal with high caste Hindus. I am equal with all. I am with low born or inferior now. (Jaffrelot: 2012, 138)

The impact has seen all over word of this movement of conversion. The area of Marathawada has wholly participated in these activities; particularly the thousands of Mahars from this region participated in initiation programme and then arranged Dhamma -Dhisha Programmes on districts and taluka levels. The wave of Buddhist conversion was floted in Marathawada during the decade on 1960s. The Mahars sought refuge of triple gems i.e. the Buddha, the Dhamma and Sangha and identified as Buddhist. (Salve: 2010, 25)

The Rationalist thinker Kanchallaiiah has noted the importance of the perspective of Ambedkar on Buddhism and contribution for annihilation of caste. He stated 'Ambedkar's Navayana Buddhism became both a builder of a new system of Buddhism and an annihilator of the Hindu caste system and Hinduism itself. He brought back king Ashoka's mode conversionist Buddhism, which has deeper implications upon the process of death of Hinduism. (Ilaiah: 2009, xvii)

The emergence of Indian constitution and conversion of Buddhism are the main stone on way of Caste eradication. The Dr. Ambedkar has known as a principles architect of Indian constitution. The fundamental articles in the Indian constitution have given supports to the eradication of castes. Specially the article seventeenth has abolished the Untouchability. Article fourteenth to eighteenth has destroyed the principles of castes therefore laws, policies, and programmes related these articles are the basic ways for the eradication of castes. The conversion of Buddhism has chosen for the values of equality, liberty, brotherhood, and Justice. The practices of all values have abolished the caste system. Progressive movements of Indian society in the nineteenth century have given the perspectives and opportunities for the eradication of caste.

Post-Ambedkar Reforms:

The Republic Party of India founded in 1957 after the death of Dr. Ambedkar, which was the dream political party of Dr. Ambedkar. The agenda of this party has shown the dream of eradication of castes.

The second line leadership in the movements of Dr. Ambedkar had taken initiative to agitate for equality-based society after the death of Dr. Ambedkar. The popularity of *Jay-Bhim* (The victory of Ambedkar) itself indicated that the intensity against caste exploitation and need of eradication of inhuman caste system. They want socialism, which is mentioned in the constitution of India. The question of land reform is deeply related to the aspect of economy for the annihilation of caste; with this perspective the important leader Dadasaheb Gaikwad has organized the land less citizens, the most of followers belonged to scheduled castes and rural poor in both 1956 and 1965. They agitated for the land with government of India with large numbers of persons from common mass.

Conclusion:

It has clearly shown the struggle between supporters of caste system and anti-caste reformers and revolutionaries in Indian history in the Perspective of Dr. Ambedkar. The great contribution of Ambedkar has remarkably high comparatively to others in the movements of eradication of caste.

It has seen longtravelled from Buddha to Ambedkar for eradication of castes. The period, circumstances, obstacles, have different at every time but the object of revolutionaries has been same, which was to eradicate the caste system. The revolutionaries fought for total eradication of caste system. No doubt, Dr. Ambedkar's Perspective and Contribution has given the road map for annihilation of castes system in India.

References:

- Ambedkar B. R. - (1936- Reprint-2007) *Annihilation of Caste*, Critical Quest, New Delhi
- Bagade Umesh- (2006) *MaharashtrateelPrabodhanAniVargjatiprabhotva*, Sugava publication, Pune
- Beteille Andre- (1983) *Ideologies and Intellectuals*, Oxford University press, New Delhi
- Jaffrelot Christophe- (2012) *Analysing and Fighting Caste Dr. Ambedkar and Untouchability* PERMNET BLACK, Delhi
- Jogand P.G. (1989) *Protest Movement and Social Change: Study of Dalit Movement in Maharashtra*, Unpublished Ph.D. Thesis, Dr. Babasaheb Ambedkar Marathwada, University Aurangabad
- Omvedt Gail- (2008) *Dalit Visions*, Orient Longman Private Limited, New Delhi
- Omvedt Gail (2009) *Dalit and Democratic Revolution: Dr. Ambedkar and the Dalit Movement* Colonial India, Rawat Publication, New Delhi
- Teltumbde Anand (2007) *Anti-Imperialism and Annihilation of Castes*, Sugava publication, Pune
- Zelliott Eleanor- (2005) *From Untouchable to Dalit Essays on the Ambedkar Movement*, Mani Publishers, New Delhi

**International Journal of Advanced Research in Science,
Communication and Technology (IJARSCT)**



TABLE OF CONTENTS

Amphibian Survey from Mahad Tahsil Western Ghats, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	1-5
Survey of Dung Beetles in Mahad Tehsil Western Ghats, Raigad District, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	6-9
Impact of COVID-19 on Agriculture, Livestock, and Biodiversity: A Review <i>Parinita Kumari and Dr. Vinod R. Ragade</i>	10-15
Impact of Botanical Extracts on Histopathology of Midgut of CSR2 Race of Mulberry Silkworm (<i>Bombyx Mori L.</i>) Inoculated by <i>Staphylococcus Aureus</i> <i>S. J. Patil, S. S. Patil, G. P. Bhawane</i>	16-20
Impact of Climatic Conditions on Rice Crop of Pune Division: A Geographical Analysis <i>B. S. Jadhav and M. B. Hande</i>	21-31
The Study of Phytoplankton and Zooplankton in Freshwater Tulsi Lake, Mandangad, Ratnagiri, Maharashtra, India <i>S. S. Bhaisare</i>	32-37

Study of Avifaunal Diversity from Shendri Reservoir Gadhinglaj, Dist. Kolhapur (M.S.)

K. J. Adate and V. V. Ajagekar

38-44

Development in Pesticides for Control and Prevention of African Giant Snails, Achatina Fulica in Jalgaon, Dapoli Dist. Ratnagiri (M.S.)

Janhavi Vidya Patil and Nanda Bhupal Jagtap

45-51

The Influence of Boron on Some Plant Nutrients in Sweet Sorghum (Sorghum bicolor L.)

Jadhav Sujeet S.

52-57

A Study of Butterfly Diversity in Nandgaon Village and Gulmohar Park in Khed Tehsil District of Ratnagiri (M.S.) India

Ayesha A. Rauf Murudkar and Nanda Bhupal Jagtap

58-68

Impact of COVID-19 Pandemic Lockdown on Fishery Potential of Uran Tehsil, M. S., India

Shital S. Taware, Vishwajeet M. Lagade, Mansi K. Gurav, Ayush D. Koli

69-75

Avifauna of Zambre Reservoir, Chandgad, Dist- Kolhapur (Maharashtra)

Dr. K. N. Nikam

76-81

The Floristic Studies on Narande Sacred Grove Narande, Dist. Kolhapur, Maharashtra

Patil Aparna A and Minchekar Rahul

82-87

Impact of COVID-19 Pandemic on Rivers: A Review

Aishwarya S. Pawar, Sachin J. Pawar, Rutuja A Chavan

88-92

Impact of Disinfectant and Sanitizer on Human and Environment during COVID-19 Pandemic

V. M. Lagade, S. S. Taware, S. V. Lagade, P. S. Pawar, B. S. Wali

93-106

Estimation of the Population Size of Crocodile *Crocodylus palustris* (Lesson, 1831) from Two Incomplete Survey Methods-Daylight Ground Counts and Night Counts

Atigre R. H., S. R. Patil, R. J. Patil, M. G. Babare

107-113

Diversity and Distribution of Agricultural Insect Pest in Some Selected Areas of Indapur (Pune) and Phaltan (Satara) Tehsil, Maharashtra, India

Rupesh B. Yadav, Prajakta D. Khaire, Suryakant V. Maske

114-121

Impact of the COVID-19 Pandemic on the Dairy Farming

Ingavale Dipali Rajaram

122-125

Plant Diversity at Katyayani Temple Area, Kolhapur

P. A. Sonar, V. B. Nalawade, M. N. Desai

126-129

Impact of Social Background on Learning English as a Second Language

Dr. Prashant P. Yadav

130-133

Relation of Physical Fitness Index with Body Mass Index: Study Among Female Students of Balwant College Vita, Dist. Sangli, (M.S.), India

Rahul Patil, Satyawant Patil, Yogita Patil, Rajaram Atigre

134-137

Impact of the Corona Virus Pandemic on Wetland Avifauna Diversity of JAT Region

Dr. S. B. Deshmukh and Dr. M.Y. Kulkarni

138-140

Identification of Some Genera of Family Cucurbitaceae based on Characters of Seeds

S. S. Bhosale, D. G. Jagtap, R. S. Bhosale, S. M. Khandare, A. S. Dhabe

141-145

Seasonal Variation of Phytoplankton Diversity in the Fresh Water Body of Atpadi Lake, Maharashtra

Shivaji M. Vibhute

146-150

Identification of Some Genera of Family Cucurbitaceae based on Characters of Seeds

S. S. Bhosale¹, D. G. Jagtap², R. S. Bhosale³, S. M. Khandare⁴, A. S. Dhabe⁵

Department of Botany, Shri. Vijaysinha Yadav College, Pethvadgaon, Kolhapur^{1,2}

Department of Botany, Bhogawati Mahavidyalaya, Kurukli, Kolhapur³

Maulana Azad Research Institute, Aurangabad⁴

Department of Botany, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad⁵

Abstract: *Cucurbitaceae* family represented by 94 species from 31 genera throughout India. Present paper deals with classical and morphological studies of seeds of some species from family *Cucurbitaceae* (gourd family) to determine and analyze the seed characters which would help to differentiate distant genera of the family providing photographs, character analysis chart and taxonomic key.

Keywords: Cucurbitaceae, Seeds, Distant Genera, Taxonomic Key, etc.

I. INTRODUCTION

Cucurbitaceae family representing 122 genera and about 900 species throughout the world (Simpson, 2010), Chakravarty (1982) reported 36 genera and ca. 100 species in India and 94 species and 31 genera throughout the India are reported by Renner & Pandey (2013). *Cucurbitaceae* is characterized by prostrate herb bearing tendrils; leaves palmately lobed, surface hispid; flowers pentamerous, unisexual, monoecious or less commonly dioecious; stamens five, usually less, anthers free or connate, ovary inferior, trilobular, parietal placentation, fruit fleshy, pepo. Vascular bundles bicollateral and in two alternating rows. As seed is very distinct reproductive character, seed morphology of the members of family *Cucurbitaceae* is required critical study; by undertaking this view in the mind we keenly observed the characters of seeds. The aim of present study was to investigate the range of variability of seed characters in 18 genera (20 species). In order to delimit the taxa of family, collection of seeds was objected as it would help in identification of taxa at generic level. This aspect has been studied by Heneidak and Khalik (2015) to distinguish different tribes of the family *Cucurbitaceae* based on seed diversity. Present work will help to prepare simple key to the family *Cucurbitaceae* to delimit different genera. Such type key will also help to make different clades of the species and to predict the evolutionary trends.

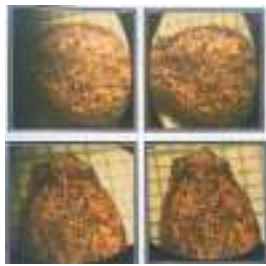
II. MATERIALS AND METHODS

During our field exploration 20 taxa belonging to 18 genera of family *Cucurbitaceae* were collected from Western Maharashtra and Marathwada region of Maharashtra state. Most of them are under cultivation. We objected towards the collection of seeds of different species and varieties. The plant material brought to the laboratory and compared with the herbarium specimens deposited in BAMU, Aurangabad and Herbarium, Department of Botany, Shri. Vijaysinha Yadav College, Pethvadgaon and studied thoroughly by using pertinent literature (Naik, 1998 and Yadav & Sardesai, 2002) for confirmation and correct identification of taxa. For the observation and measurements of seeds stereo microscope, scale, thread, digital camera, graph paper was used. All observations are tabulated as length and width of seeds, shape, colour and texture. Based on observed characters of the seeds of different species, the simple bracketed taxonomic key to the genera of family *Cucurbitaceae* was prepared. Specimens were deposited in BAMU, Aurangabad.

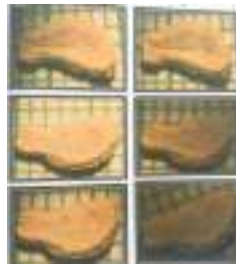
III. OBSERVATIONS

Sr. No.	Name of species	Length of Seeds (mm)	Width of Seeds (mm)	Colour of Seeds	Texture of Seeds	Shape of Seeds	Local Name
1	<i>Benincasa hispida</i> (Thunb.) Cogn.	10	6	White or Yellowish	Distinctly Marginate	Compressed, Ovoid	
2	<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai.	6	3	Black or Brownish	Rough	Ovate-Oblong	Tarbooz
3	<i>Coccinia grandis</i> (L.) Voigt.	8	4	Yellowish brown	Rough	Oblong	Tondali
4	<i>Corallocarpus epigaeus</i> (Rottl.) Hook. f.	5	3	Brownish	Smooth, Margined, Turgid	Pyriiform	Mirchi Kand
5	<i>Ctenolepis garcinii</i> (L.) C. B. Clarke.	7	3	Yellowish	Smooth, Rounded at apex with a deep pit on the face	Oblong	
6	<i>Cucumella ritchiei</i> (Chakr.) Jeffrey. (<i>Cucumis indicus</i> Ghebret. & Thulin.)			Yellowish	Smooth	Ovoid	
7	<i>Cucumis melo</i> L.	10	5	Whitish yellow	Smooth	Ovate-Oblong	Kharbooz
7a	<i>Cucumis sativus</i> L.	5	3	Dull white, Straw coloured	Smooth	Obovoid-Oblong	Kakdi
8	<i>Cucurbita maxima</i> Duch.	10	4	White	Smooth, Narrowly margined	Obovoid, rounded at apex and narrowed at base	Bhopla
8a	<i>Cucurbita pepo</i> L.	11	10	Whitish yellow	Smooth, Margined	Ovoid	Kashibhopla
9	<i>Dicaeospermum ritchiei</i> Cl.			Whitish brown	Rough, Beaked, Ribbed	Ovoid	Ghugarya
10	<i>Diplocyclos palmatus</i> (L.) C. Jefferey	7	4	Yellow brown	Rough, Sculptured on margin	Ovoid	Shivlingi
11	<i>Kedrostis foetidissima</i> (Jacq.) Cogn.	5	4		Turgid, granular, marginate	Obovoid	
12	<i>Lagenaria siceraria</i> (Molina) Standl.			White	Smooth	Obovate-oblong, Truncate or bidentate at apex	Dudhi Bhopla
13	<i>Luffa cylindrica</i> (L.) M. Roem.	10	5	Pale yellow	Smooth, margined	Ovate	Gilka
14	<i>Momordica charantia</i> L.	10	9	Dull white	Smooth, Sculptured on face	Oblong, quadrate, subtridentate at apex	Karla
15	<i>Mukia maderaspatana</i> (L.) M. Roem.	5	3	Grey	Prominently sculptured	Ovoid Oblong	
16	<i>Solena amplexicaulis</i> (Lam.) Gandhi	5	3	White	Smooth	Obovoid	
17	<i>Trichosanthes cucumerina</i> L.	11	5	Brownish	Smooth, compressed	Ellipsoid, truncate at apex, narrowed at base	Padwal
18.	<i>Zehneria scabra</i> Sond.	7	4		Smooth	Much flattened	

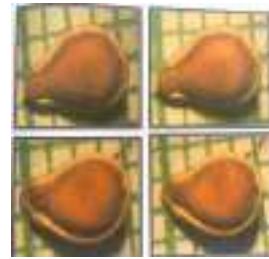
IV. PHOTO PLATES



A. Citrullus Lanatus



B. Coccinia Grandis



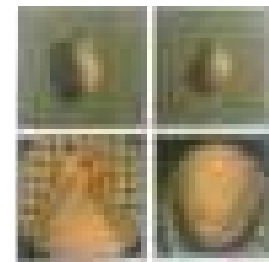
C. Corallocarpus Epigaeus



D. Cucumis Melo



E. Cucumis Sativus



F. Cucurbita Maxima



G. Cucurbita Melo



H. Diplocyclos Palmatus



I. Luffa Cylindrica



J. Momordica Charantia



K. Mukia Maderaspatana

Taxonomic Key to the Genera Based on Characters of Seed.

- 1a. Seeds distinctly margined..... 2
- 1b. Seeds not margined..... 7
- 2a. Margins distinctly sculptured..... Diplocyclos
- 2b. Margins not sculptured..... 3
- 3a. Seeds turgid 4

3b. Seeds compressed	5
4a. Seeds pyriform.....	Corallocarpus
4b. Seeds obovoid.....	Kedrostis
5a. Margins distinct.....	Benincasa
5b. Margins narrow.....	6
6a. Seeds obovoid, white.....	Cucurbita
6b. Seeds ovoid, pale yellow.....	Luffa
7a. Seeds prominently sculptured.....	8
7b. Seeds not sculptured.....	9
8a. Seeds sculptured throughout, ovoid.....	Mukia
8b. Seeds sculptured only on the face, quadrate.....	Momordica
9a. Seeds rough.....	10
9b. Seeds smooth.....	12
10a. Seeds beaked.....	Dicaeospermum
10b. Seeds not beaked.....	11
11a. Seeds black.....	Citrullus
11b. Seeds yellow.....	Coccinia
12a. Seeds truncate or bidentate at apex.....	13
12b. Seeds acute or rounded at apex.....	14
13a. Seeds obovate-oblong, white.....	Lagenaria
13b. Seeds ellipsoid, brownish.....	Trichosanthes
14a. Seeds with deep pit on the face.....	Ctenolepis
14b. Seeds without pit on the face.....	15
15a. Seeds much flattened.....	Zehneria
15b. Seeds adequately compressed.....	16
16a. Seeds obovoid.....	Solena
16b. Seeds ovoid-oblong.....	17
17a. Seeds dull white.....	Cucumis
17b. Seeds yellowish.....	Cucumella

V. RESULTS AND DISCUSSION

The seed characters of the species from the genera *Benincasa*, *Citrullus*, *Cucumis*, *Coccinia*, *Corallocarpus*, *Ctenolepis*, *Cucumella*, *Cucurbita*, *Dicaeospermum*, *Diplocyclos*, *Kedrostis*, *Lagenaria*, *Luffa*, *Momordica*, *Mukia*, *Solena*, *Trichosanthes* and *Zehneria* are critically studied in this small piece of work. Seed size, shape, texture and colour shows variability among different genera which can help delimit easily. The genera like *Cucumis* and *Cucumella* are showing similarity in their seed characters and other correlated characters and are merged recently. The genera having perfectly margined seeds (*Diplocyclos*, *Corallocarpus*, *Kedrostis*, *Benincasa*, *Cucurbita* and *Luffa*) are clearly separated from non-margined seeds. *Mukia* and *Momordica* shows prominently sculptured seeds and are clearly differentiate from non-sculptured seeds. Pyriform, obovoid and ellipsoid shapes of the seeds are uniquely found in some genera like *Corallocarpus*, *Solena* and *Trichosanthes*. Seed shape, texture, sculpture and margin are significant characters are found in the family Cucurbitaceae to delimiting the genera.

VI. CONCLUSION

The morphological characteristics of seeds are very distinct in their size, shape, sculpture and texture at generic level of the family *Cucurbitaceae*. The comparison of the species within the genera is appeared closely similar morphologically. All characters of seeds are satisfactorily facilitated to prepare a taxonomic key of the genera of family *Cucurbitaceae*.

ACKNOWLEDGEMENT

We are thankful to Shri. Gularabrao Pol Saheb, President, Shri. Shahu Shikshan Prasarak Seva Mandal, Pethvadgaon, Smt. Vidyatai Pol, Secretary, Shri. Shahu Shikshan Prasarak Seva Mandal, Pethvadgaon and Smt. Dr. Vijaya Chavan, Principal, Shri. Vijaysinha Yadav College, Pethvadgaon for their continuous support and help by providing necessary facilities to complete present work. We are grateful to Dr. R. H. Atigre, Head, Department of Zoology, Shri. V. Y. M. Pethvadgaon, Dr. S. V. Maske, Assistant Professor, Department of Zoology, Shri. V. Y. M. Pethvadgaon and Smt. Dr. A. S. Pawar, Assistant Professor, Department of Zoology, Shri. V. Y. M. Pethvadgaon for their kind help in the preparation of manuscript.

REFERENCES

- [1] Chakravarty H. L. 1982. Fascicles of Flora of India. Fascicle II (Cucurbitaceae). Botanical Survey of India, Howrah.
- [2] Heneidak Samia and Kadry Abdel Khalik. 2015. Seed Coat Diversity in Some Tribes of Cucurbitaceae: Implication for Taxonomy and Species Identification. *Acta Botanica Brasilia*. 29(1): 129-142.
- [3] Naik, V. N. 1998. Flora of Marathwada. Amrut Publication, Aurangabad.
- [4] Renner, S. S. and A. K. Pandey. 2013. The Cucurbitaceae of India: Accepted Names, Synonyms, Geographic Distribution, and Information on Images and DNA Sequences. *Phytokeys* 20:53-118.
- [5] Simpson, M. G. 2010. Plant Systematics. 2nd Edn. Academic Press, London.
- [6] Yadav, S. R. and M. M. Sardesai. 2002. Flora of Kolhapur District. Shivaji University Press, Kolhapur.

Aayushi International Interdisciplinary Research Journal (AIIRJ)

Peer Reviewed And Indexed Journal

ISSN 2349-638x

Impact Factor 7.149

Website :- www.aiirjournal.com

Theme of Special Issue

**Trends, Challenges and Issues in The Science, Social Science and
Languages for Social Welfare**

Chief Editor

Mr. Pramod P. Tandale

Guest Editor

Dr.D.G.Kanase

Principal,

Dr.Patangrao Kadam Mahavidyalaya , Sangali

Member Management Council, Shivaji University, Kolhapur

Executive Editor

Dr.N.V.Gaikwad

Head, Department of Geography,

Dr.Patangrao Kadam Mahavidyalaya , Sangali

No part of this Special Issue shall be copied, reproduced or transmitted in any form or any means, such as Printed material, CD – DVD / Audio / Video Cassettes or Electronic / Mechanical, including photo, copying, recording or by any information storage and retrieval system, at any portal, website etc; Without prior permission.

Aayushi International Interdisciplinary Research Journal

ISSN 2349-638x

Special Issue No.86

Disclaimer

Research papers published in this Special Issue are the intellectual contribution done by the authors. Authors are solely responsible for their published work in this special Issue and the Editor of this special Issue are not responsible in any form.

73.	Miss.Susmita Mahadev Walake	Use Of Youtube In Libraries	321
74.	Anil S. Kamble	Application Of Information & Communication Technology (ICT) In Library	325
75.	Vikas Awale, Dhashrat Jagtap	Wealth Of Ayurveda From Sangli, District, Maharashtra	329
76.	डॉ. गिरीश मोरे	मराठी कादंबरीतील कोरोनाकाळ	337
77.	प्रा. सौ. संगमित्रा दि. कोनारकर	कोविड-19 : बालकों के मानसिक और शारीरिक स्वास्थ्य पर प्रभाव - एक अध्ययन	344
78.	महेशकुमार विष्णू साळुंखे	भारतीय अर्थव्यवस्थेतील शेती क्षेत्रासमोरील आव्हाने	350
79.	डॉ. विजय बैसाणे	औरंगाबाद जिल्ह्यातील तेलबीया लागवड व उत्पादन : एक अभ्यास	357
80.	डॉ. सोमनाथ दऱ्याप्पा हुबाले	कोविड-19 च्या नियोजन कार्यातील राजकारण हेच भारतासमोरील एक आव्हान	361
81.	प्रा. डॉ. प्रदीप शा. ढोले	छत्रपती शाहू महाराज यांचे समाजकल्याणविषयक आणि शैक्षणिक कार्य	367
82.	किशोर अंकुशराव जावळे डॉ. विजय बैसाणे	पशुवैद्यकिय संस्थांद्वारे पशु संवर्धन व दुग्धोत्पादनासाठी कृत्रीम तंत्राचा वापर : विशेष संदर्भ बुलडाणा जिल्हा	373
83.	सुंदर खरात डॉ. विजय बैसाणे	भूजल मत्स्य व्यवसायाचा भौगोलिक अभ्यास : विशेष संदर्भ औरंगाबाद जिल्हा	378
84.	श्री. हनुमंत शंकर हेळकर प्रा. डॉ. डी. जी. शिंदे	सोलापूर जिल्ह्यातील ग्रामीण व नागरी क्षेत्रातील बदलत्या स्त्री-पुरुष प्रमाणाचा- एक भौगोलिक अभ्यास	382
85.	अंकुश रामराव शिंदे	मागासलेपणाचे राजकारण आणि मराठा समाज	388
86.	डॉ.गजानन बापुराव ठाकरे	छत्रपती शाहू महाराज - एक महान लोककल्याणकारी राजा	393
87.	प्रा. संदीप बबन घाडगे डॉ. संजय मोहन वाघ	कोरोना महामारी सारख्या राष्ट्रीय आपत्तीच्या काळात राजकीय एकात्मतेची गरज	399

Wealth of Ayurveda From Sangli, District, Maharashtra

Vikas Awale, Dhashrat Jagtap*

Department of Botany, Dr. Patangrao Kadam Mahavidyalaya,
Sangli (MS.) 416416.*Department of Botany, Vijaysinha Yadav College, Peth Vadgaon,
Dist. Kolhapur.(MS) 416112.vikasawale@gmail.com**Abstract**

Sangli district is one of southern district of Maharashtra State. It is situated between the latitudes of 16° 43' and 17° 38' N and the longitudes of 73° 41' and 75° 41' E. The district is bordered by Satara district on the north – western side. On the north – eastern side it is bordered by Solapur district. On the southern side it is bordered by Belgaum and Bijapur district of Karnataka State. It meets Kolhapur district in south – western side and Ratnagiri district lies on the west of Sangli district. Total area of district is 8501.05 sq. km. and lying mainly in the basin of river Krishna and tributaries Warana, Yerla, Agrni and Man. District has ten talukas, of which Shirala taluka and to some extent Atpadi taluka are hilly, while the greater part of district lies in plains. The average rain fall of the district is 692.40 mm per annum. Petlond region of the Shirala taluka and its adjoining is a part of Chandoli Wild Life Sanctuary recently declared as Chandoli National Park and Sahyadri Tiger Project. Another Wild Life Sanctuary in the Sangli district is Sagreshwar Wild Life Sanctuary. Westward part of the district is situated in the Western Ghats ranges shows tropical evergreen, tropical semi-evergreen and tropical moist deciduous type of vegetation, while eastern part and major region of district shows tropical dry deciduous and open thorny scrub vegetation. Various types of vegetation of district harbors variety of medicinal plants. Survey of plant wealth of Sangli district resulted in enumeration of over 300 plant species of some therapeutic value. List of the medicinal plants with their botanical and vernacular names, part of plant used, medicinal values along with their status of occurrence are discussed in the present paper.

Keyword:- Ethno-botany, Plant parts uses, tradition.

Introduction :-

Plants have been used in all the traditional Indian medicine from time immemorial, particularly in folk medicine and house hold remedies. The world health organization estimated that more than 80% of the world population relies on traditional medicine practices for primary health care needs. Over 75% of the world population is depending upon local health practioners and tradition medicines for their primary needs (Kattaamani et al., 2000) India represented by rich traditional practices The present research paper focused on traditional uses of medicinal plant parts and natural diversity. India has rich traditional knowledge of medicine include Ayurveda, Siddha, and Unani use over 7500 plant species have reported. Herbal Medicine are assumed to be a great importance in the primary health care of individual (Sheldon et al., 1997). In India During last two decades ethnobotanical studies with good scientific base have been appeared.

Enumeration of Medicinal Plants of Sangli District.

Sr. No.	Name of the Plant	Vernacular Name	Part used	Status	Specimen No.
	DILLENIACEAE				
1.	<i>Dillenia indica</i> L.	Mota Karamal	Seeds	Cultivated	VBA 85
	MENISPERMACEAE				
2.	<i>Tinospora cordifolia</i> (Willd) Miern	Gul Vel	Stem	Cultivated	VBA 814
	NYMPHAEACEAE				
3.	<i>Nymphaea nouchali</i> Burm. f.	Karnal	Rhizome	Cultivated	VBA 122
4.	<i>Nelumbo nucifera</i> Gaertn	Karnal	Rhizome	Cultivated	
	PAPAVERACEAE				
5.	<i>Argemone mexicana</i> L.	Pivala Dhotara	Seeds	Common	VBA 1069
	CAPPARACEAE				
6.	<i>Crateva adansonii</i> DC.	Waiwarana	Lvs	Wild	VBA 622

	VIOLACEAE				
7.	<i>Hybanthus enneaspermus</i> (L.) F. Muell.	Purushratna	Stem	Wild	VBA 955
	BIXACEAE				
8.	<i>Bixa orellana</i> L.	Shendri	Seeds	Wild	VBA 40
	PORTULACACEAE				
9.	<i>Portulaca oleracea</i> L.	Ghol	Lvs	Common	VBA 925
	CLUSIACEAE				
10.	<i>Garcinia indica</i> (Thou.) Chois.	Kokam	Fruits	Wild	VBA 90
	MALVACEAE				
11.	<i>Bombyx micranthus</i> (L.f.) Riedl.		Seeds	Wild	VBA 1065
12.	<i>Hibiscus rosa-sinensis</i> L.	Jaswand	Lvs, Fls	Cultivated	VBA 931
13.	<i>Hibiscus sabdariffa</i> L.	Lal Ambadi	Lvs.	Cultivated	VBA 76
14.	<i>Sida acuta</i> Burm.f.	Bala	Root	Common	VBA 548
15.	<i>Sida rhombifolia</i> L. var. <i>rhombifolia</i>	Jangli Methi		Common	VBA 842
	BOMBACACEAE				
16.	<i>Adansonia digitata</i> L.	Gorakh Chinch	Lvs	Cultivated	VBA 24
17.	<i>Bombax ceiba</i> L.	Kate Savar	Fls	Wild	VBA 499
	STERCULIACEAE				
18.	<i>Helicteris isora</i> L.	Murad Sheng	Frts.	Wild	VBA 764
19.	<i>Sterculia urens</i> Roxb.	Kandol	Lvs	Wild	VBA 492
	ZYGOPHYLLACEAE				
20.	<i>Balanites aegyptiaca</i> (L.) Del.	Hinganbet	Seeds	Wild	VBA 488
21.	<i>Tribulus terrestris</i> L.	Sarata	Fruits	Wild	VBA 521
	OXALIADACEAE				
22.	<i>Biophytum sensitivum</i> (L.) DC.	Lajalu	Roots	Wild	VBA 982
	RUTACEAE				
23.	<i>Aegle marmelos</i> (L.) Corr.	Bel	Lvs, Frts, Roots, Stem, Bark	Cultivated	VBA 491
24.	<i>Murraya koenigii</i> (L.) Spreng.	Kadi Patta	Lvs, Roots	Wild	VBA 857
25.	<i>Toddalia asiatica</i> (L.) Lam.	Jangli Mirachi	Lvs, Root, Bark	Wild	VBA 990
26.	<i>Zanthoxylum rhetsa</i> (Roxb.) DC.	Tirphal	Frts.	Wild	VBA 845
	BURSERACEAE				
27.	<i>Boswellia serrata</i> Roxb.	Salai	Stem Bark	Wild	VBA 526
28.	<i>Garuga pinnata</i> Roxb.	Kakad	Frts.	Wild	VBA 55
	MELIACEAE				
29.	<i>Azadirachta indica</i> Juss.	Kadu Nimb	Lvs., Fl., Frts.	Cultivated	VBA 487
30.	<i>Melia azedarach</i> L.	Limbara	Root, Stem, Lvs, Fl., Frts.	Cultivated	VBA 486
	ICACINACEAE				
31.	<i>Nothapodytes nimmoniana</i> (Grah.) Mabb.	Ghanera	Stem	Wild	VBA 773
	CELASTRACEAE				
32.	<i>Celastrus paniculatus</i> Willd.	Mal Kangoni	Seeds	Wild	VBA 541
	RHAMNACEAE				
33.	<i>Ziziphus rugosa</i> Lam.	Toran	Seeds	Wild	VBA 775
	LEEACEAE				
34.	<i>Leea indica</i> (Burm. f.) Merr.	Dinda	Stem	Wild	VBA 856
	SAPINDACEAE				
35.	<i>Dodonea angustifolia</i> L.f.	Bandukichapal	Lvs	Cultivated	VBA 989
36.	<i>Spindus laurifolius</i> Vahl.	Ritha	Frts.	Cultivated	VBA 32
37.	<i>Schleichera oleosa</i> (Lour.) Oken, Allg.	Kosimb		Wild	VBA 31
	ANACARDIACEAE				
38.	<i>Anacardium occidentale</i> L.	Kaju	Thalamus	Wild	VBA 115
39.	<i>Buchanania cochinchinensis</i> (Lour.) Almeida	Char	Seeds	Wild	VBA 739
40.	<i>Holigarna grahamii</i> (Wight) Kurz.	Ran Bibba	Seeds	Wild	VBA 874
41.	<i>Mangifera indica</i> L.	Amba	Frts.	Cultivated	VBA 472
		Amani	Frts	Wild	VBA 636

42.	<i>Rhus sinuata</i> Thunb.				VBA 498
43.	<i>Semecarpus anacardium</i> L.f.	Bibba	Frts	Wild	
	FABACEAE				
44.	<i>Abrus precatorious</i> L.	Gunj	Lvs, Seeds	Wild	VBA 683
45.	<i>Butea monosperma</i> Kuntz.	Palas	Seeds	Cultivated	VBA 475
46.	<i>Clitoria ternatea</i> L. var. <i>pilosa</i> Wall.	Pandhara Gokarna	Lvs, Roots.	Cultivated	VBA 114
47.	<i>Cullen corylifolia</i> (L.) Medik	Bavachi	Seeds	Wild	VBA 1049
48.	<i>Indigofera tinctoria</i> L.	Nil	Leaves	Wild	VBA 1457
49.	<i>Mucuna monosperma</i> DC.	Khaj kuhiri	Roots, Seeds.	Wild	VBA 865
50.	<i>Pongamia pinnata</i> (L.) Pierre.	Karanja	Seeds	Cultivated	VBA 933
51.	<i>Sesbania grandiflora</i> (L.) Poir	Hadga	Lvs, Roots, Flowers	Cultivated	VBA 64
52.	<i>Tephrosia purpurea</i> (L.) Pers.	Sharpunkha		Wild	VBA 663
53.	<i>Trigonella foenum- graecum</i> L.	Methi	Lvs	Cultivated	VBA 414
54.	<i>Caesalpinia bonduc</i> (L.) Roxb.	Sagaragota	Lvs	Common	VBA416
55.	<i>Cassia fistula</i> L.	Bahava	Seeds	Cultivated	VBA947
56.	<i>Cassia obtusifolia</i> L.	Tarwad	Seeds	Common	VBA668
57.	<i>Cassia tora</i> L.	Takala	Seeds	Common	VBA1057
58.	<i>Moullava spicata</i> (Dalz) Nicols.	Wakeri	Roots	Wild	VBA823
59.	<i>Saraca asoca</i> (Roxb.) Willd.	Sithecha Ashok	Bark, Seeds	Cultivated	VBA4
60.	<i>Tamarindus indica</i> L.	Chinch	Lvs., Seeds	Cultivated	VBA497
61.	<i>Acacia concinna</i> (Willd) DC.	Shikekai	Frts	Wild	VBA634
62.	<i>Ertada rheedei</i> Spreng.	Garambi	Seeds	Wild	VBA1094
63.	<i>Xylia xylocarpa</i> (Roxb) Taih.	Jambha	Seeds	Wild.	VBA1095
	CRASSULACEAE				
64.	<i>Kalanchoe pinnata</i> (Lam) Pers.	Paaphuti	Leaves	Wild	VBA
	COMBRETACEAE				
65.	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall	Dhavda		Wild	VBA539
66.	<i>Terminalia alata</i> Heyne ex Roth	Ain	Bark	Wild	VBA482
67.	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Behada	Frts	Wild	VBA471
68.	<i>Terminalia chebula</i> Retz.	Hirda	Frts	Wild	VBA1098
69.	<i>Terminalia cureata</i> Roth	Arjuna	Bark	Wild	VBA618
70.	<i>Terminalia paniculata</i> Roth.	Kinjai	Bark Seeds	Wild	VBA644
	MYRTACEAE				
71.	<i>Eucalyptus globules</i> Labill	Nilgiri	Lvs	Cultivated	VBA469
72.	<i>Syzygium cumini</i> (L.) Skeels.	Jambhul	Frts.	Cultivated	VBA752
	LECYTHIDACEAE				
73.	<i>Careya arborea</i> Roxb.	Kumbha	Frs.	Wild	VBA750
	LYTHRACEAE				
74.	<i>Woodfordia fruticosa</i> (L.) Kurz.	Dhayati	Lvs., Fls	Wild	VBA724
	ONAGRACEAE				
75.	<i>Ludwigia octovalvis</i> (Jacq.) Raven subsp. <i>sesiliflora</i> (Micheli) Raven.	Pan- Lavang.	Seeds, Lvs	Common	VBA731
	PASSIFLORACEAE				
76.	<i>Passiflora foetida</i> L.	Veli- Ghani	Lvs	Wild	VBA449
	CARICACEAE				
77.	<i>Carica papaya</i> L.	Papai	Frts	Cultivated	VBA176
	CUCURBITACEAE				
78.	<i>Cucurbita maxima</i> Duch. Ex Lam.	Bhopala	Frts., Seeds	Cultivated	VBA602
79.	<i>Lagenaria siceraria</i> (Molina) Standl.	Dudhi Bhopala	Frts.	Cultivated.	VBA446
80.	<i>Momordica dioica</i> Roxb, ex Willd	Kartoli	Tubers	Wild.	VBA420
81.	<i>Trichosanthes tricuspidata</i> Lour.	Kaundal	Seeds	Wild	VBA783

	APLACEAE				
82.	<i>Centella asiatica</i> (L.) Urb.	Brahmi	Lvs	Cultivated	VBA421
83.	<i>Cuminum cyminum</i> L.	Jire	Seeds	Cultivated	
	CORNACEAE				
84.	<i>Alangium salvifolium</i> (L.f.) Wang.	Ankol	Lvs, Fls, Frts	Wild	VBA553
	RUBIACEAE				
85.	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Gelphal	Frts, Seeds	Wild	VBA573
86.	<i>Gardenia resinifera</i> Roth.	Dikemali	Resin	Wild	VBA994
87.	<i>Mitragyna parviflora</i> (Roxb.) Korth.	Kadamb		Cultivated	VBA826
88.	<i>Morinda citrifolia</i> L.	Bartondi	Root, Lvs, Fr	Wild	VBA961
89.	<i>Neolamarckia cadamba</i> (Roxb.) Bosser.	Kadamb		Cultivated	VBA797
90.	<i>Rubia cordifolia</i> L.	Manjith	Roots	Wild	VBA1107
91.	<i>Spermatocyon suaveolens</i> Roxb.	Jisaya	Root, Lvs,	Wild	VBA995
	ASTERACEAE				
92.	<i>Eclipta prostrata</i> (L.) L.	Maka	Lvs.	Common	VBA1029
93.	<i>Glossocardia bosvallea</i> (L.f.) DC.	Khadak Shepu	Lvs	Wild	VBA523
94.	<i>Spilanthes calva</i> DC.	Akkalkara	Lvs	Wild	VBA1186
95.	<i>Tridax procumbens</i> L.	Dagadi Pala	Lvs.	Common	VBA1023
96.	<i>Xanthium indicum</i> Koen.	Landaga	Seeds	Common	VBA605
	LOBELLIACEAE				
97.	<i>Lobelia nicotianaefolia</i> Roth ex S. Syst.	Ran Tanbhaku	Root, Lvs, FL	Wild	VBA1109
	PLUMBAGINACEAE				
98.	<i>Plumbago zeylanica</i> L.	Pandhara Chittrak	Roots	Common	VBA708
	PRIMULACEAE				
99.	<i>Embelia ribes</i> Burm.	Vavding	Lvs, Root, Fruits.	Wild	VBA
	SAPOTACEAE				
100.	<i>Mimusops elengi</i> L.	Bakul	Seeds, Frts, Stem Bark.	Wild	VBA75
	OLEACEAE				
101.	<i>Jasminum officinale</i> L.	Jai	Seeds	Cultivated	VBA
102.	<i>Nyctanthes arbor-tristis</i> L.	Parijatak	Seeds	Cultivated	VBA496
	APOCYNACEAE				
103.	<i>Alstonia scholaris</i> (L.) R.Br.	Saptarni	Stem Bark, Lvs, Milky Juice	Cultivated	VBA8
104.	<i>Catharanthus roseus</i> (L.) G.Don	Sadaphuli	Lvs, Bark, Seeds	Cultivated	VBA1035
105.	<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall.	Pandhara Kada	Stem Bark Lvs, Seeds.	Wild	VBA805
106.	<i>Plumeria alba</i> L.	Pandhara Chapha	Root Bark, Milky Juice.	Cultivated	VBA57
107.	<i>Tabernaemontana alternifolia</i> (Roxb.) Nicols & Suresh .	Nagkuda	Lvs, Milky Juice	Wild	VBA165
108.	<i>Calotropis gigantea</i> (L.) R.Br.	Rui	Lvs	Common	VBA1009
109.	<i>Calotropis procera</i> (Ait) R.Br.	Rui	Lvs	Common	VBA494
110.	<i>Gymnema sylvestre</i> (Retz.) R.Br.	Bedkicha Pala	Lvs	Wild.	VBA501
111.	<i>Pergularia daemia</i> (Forssk.) Chiov. Result.	Utarni	Lvs.	Common	VBA623
112.	<i>Hemidesmus indicus</i> (L.) Sch.	Anantmul	Roots	Wild	VBA1003
	BORAGINACEAE				
113.	<i>Cordia dichotoma</i> Forst.f.	Bhokar	Lvs, Bark, Fls, Mucilage	Wild	VBA680
114.	<i>Cordia gharaf</i> (Forssk.) Ehrenb & Asch.	Godani	Lvs, Mucilage Frts	wild	VBA152
115.	<i>Heliotropium indicum</i> L.	Bhurundi Hati	Lvs.	Common	VBA503
	CONVOLVULACEAE				
116.	<i>Ipomoea batatas</i> (L.) Lam.	Ratali	Tuber	Cultivated	VBA
117.	<i>Ipomoea maurandrioides</i> Meisa.	Chandvel	Seeds	Common	VBA667
	SOLANACEAE				
118.	<i>Datura metel</i> L.	Kala Dhotara	Seeds	Common	VBA808
119.	<i>Nicotiana tabacum</i> L.	Tambakuu	Lvs	Cultivated	VBA402
120.	<i>Solanum anguivi</i> Lam.	Ran Ringani	Root, Lvs, Frt	Common	VBA909
121.	<i>Solanum virginianum</i> L.	Bhui Ringani	All Parts	Rare	VBA963

122.	<i>Withania somnifera</i> (L.) Dunal.	Ashwagandha	Seeds	Rare	VBA966
SCROPHULARIACEAE					
123.	<i>Bacopa monnieri</i> (L.) Penn.	Brahmi	All Part.	Common	VBA688
BIGNONIACEAE					
124.	<i>Dolichandrone falcata</i> (Wall.ex DC) Seem.	Medkhingi	Lvs.	Wild	VBA825
125.	<i>Heterophragma quadriloculare</i> (Roxb.) K. Schum.	Varas		Wild	VBA744
126	<i>Sterospermum chelenoides</i> (L.f.) De	Paral	Root, Bark	Fl. Rare	VBA100
ACANTHACEAE					
127.	<i>Andrographis paniculata</i> (Burm.f.) Wall ex Nees	Kadechirayat	Leaves		VBA566
128.	<i>Crossandra infundibuliformis</i> (L.) Nees	Aboli	Seeds	Cultivated	VBA207
129.	<i>Hygrophila schulli</i> (Buch.- Ham.) M.R. & S.M.Almeida.	Talimkhana	Seeds	Common	VBA171
130.	<i>Justicia adhatoda</i> L.	Adulsa	Leaves	Cultivated	VBA1052
131.	<i>Lepidagathis cristata</i> Willd.			Wild.	VBA504
132.	<i>Peristrophe paniculata</i> (Forssk.) Brummit.		Leaves	Common	VBA604
VERBENACEAE					
133.	<i>Clerodendrum serratum</i> (L.) Moon.	Bharangi	Root, Leaves	Wild	VBA789
134.	<i>Gmelina arborea</i> Roxb.	Shivan	Root, Leaves, Fl.	Wild	VBA701
135.	<i>Vitex negunda</i> L. var. <i>negundo</i> Cl.	Nirgudi	Leaves	Common	VBA788
LAMIACEAE					
136.	<i>Leonotis nepetifolia</i> (L.) R.Br.	Dipnal	Seeds	Wild	VBA1056
137.	<i>Leucas stelligera</i> Wall	Shankrobu	Root Lvs	Wild.	VBA593
NYCTAGINACEAE					
138.	<i>Boerhavia repens</i> L. var. <i>difflusa</i> (L.) Hook.	Punarnava	All parts	Common	VBA518
AMARANTHACEAE					
139.	<i>Achyranthes aspera</i> L.	Aghada	Leaves	Common.	VBA965
140	<i>Celosia argentea</i> L. var. <i>argentea</i>	Kurdu	Leaves	Common	VBA974
ARISTLOCHIACEAE					
141	<i>Aristolochia bracteolata</i> Lam.	Kadmar	Leaves	Rare	VBA172
PIPERACEAE					
142.	<i>Piper betle</i> L.	Paan	Leaves	Cultivated	VBA169
THYMELAEACEAE					
143.	<i>Gnidia glauca</i> (Fresen.) Gilg.	Darpadi	Root Stem	Wild	VBA833
ELAEAGNACEAE					
144.	<i>Elaeagnus conferta</i> Roxb.	Ambgul	Fruits	Wild	VBA834
LORANTHACEAE					
145.	<i>Dendrophthoe falcata</i> (L.f.) var. <i>Falcata</i>	Bandgul	Lvs	Wild	VBA240
SANTALACEAE					
146.	<i>Viscum articulatum</i> Burm.f.	Bandgul	Lvs	Wild	VBA616
147.	<i>Santalum album</i> L.	Chandan	Stem	Wild	VBA617
EUPHORBIACEAE					
148.	<i>Bridelia retusa</i> (L.) Spreng.	Katak	Stem Seeds	Bark, Wild	VBA528
149.	<i>Emblica officinalis</i> Gaertn .	Awala	Fruits	Wild.	VBA460
150.	<i>Jatropha curcas</i> L.	Mogali Erand.	Fruits	Common.	VBA672
151.	<i>Macaranga peltata</i> (Roxb.) Muell- Arg.	Chandiva	Latex.	Wild.	VBA 1127
152.	<i>Mallotus philippensis</i> (Lam.) Muell- Arg.	Shendri	Fruits	Wild.	VBA 738
153.	<i>Phyllanthus reticulatus</i> Poir.	Darwan	Fruits	Common	VBA562

154.	<i>Ricinus communis</i> L.	Erand	Seeds	Common.	VBA179
155.	<i>Sapium insigne</i> Benth. var. <i>malabaricum</i> (Wight). Hook.	Hura	Latex	Wild.	VBA1128
156.	<i>Scorinaga leucopyrus</i> (Willd.) Muell.- Arg.	Pandharphalli	Fruits	Wild.	VBA1488
	MORACEAE				
157.	<i>Artocarpus heterophyllus</i> Lam .	Phanas	Frts., Seeds	Cultivated	VBA80
158.	<i>Ficus benghalensis</i> L.	Wad	Milky juice		VBA635
159.	<i>Ficus carica</i> L.	Anjir	Frts		VBA154
160.	<i>Ficus racemosa</i> L.	Umbar	Frts.		VBA979
161.	<i>Ficus religiosa</i> L.	Pimpal	Frts.		VBA459
	SALICACEAE				
162.	<i>Salix tetrasperma</i> Roxb.	Walunj	Bark Leaves, Flowers	Common	VBA388
	ZINGIBERACEAE				
163.	<i>Costus speciosus</i> (Koen.) J. E. Smith	Pcv	Tubers	Wild	VBA1142
	HYPOXIDACEAE				
164.	<i>Cuculigo orchitoides</i> Caertn.	Kali Musali	Rhizome	Wild	VBA971
	AMARYLLIDACEAE				
165.	<i>Allium cepa</i> L.	Kanda	Leaves, Bulb	Cultivated.	
	DIOSCOREACEAE				
166.	<i>Dioscorea bulbifera</i> L.	Dukkar Kand	Tubers	Common	VBA762
	LILIACEAE				
167.	<i>Aloe vera</i> L.	Korphad	Leaves	Cultivated	
168.	<i>Asparagus racemosus</i> Willd var. <i>javanicus</i> (Kunth.) Baker.	Shatavari	Tubers	Wild.	VBA576
169.	<i>Gloriosa superba</i> L.	Kal -lawi	Tubers, Leaves	Wild.	VBA968
	ARACEAE				
170.	<i>Colocasia esculenta</i> (L.) Schoot.	Alu	Leaves	Cultivated	
	CYPERACEAE				
171.	<i>Cyperus rotundus</i> L.	Nagar motha	Root	Common.	VBA270
	POACEAE ANDROPOGONEAE				
172.	<i>Cymbopogon citratus</i> (DC.) Stapf .	Gavati Chaha	Leaves	Cultivated.	VBA691
173.	<i>Cynodon dactylon</i> (L.) Pers.	Harali	Leaves	Common.	

References:

1. Cooke, T. (1901-1908). *The Flora of The Presidency of Bombay*, London. (B.S.I Reprint). Calcutta, Vols. I-III, 1958pp.
2. Kirtikar K.R. and Basu B.D.(1935). *Indian Medicinal Plants.*, Lalit Mohan Basu; Allahabad Vol.III.,852pp.
3. Sharma B.D. , S. Karthikeyan and N.P. Singh (1996). *Flora of Maharashtra State, Monocotyledons* B.S.I , Calcutta.1-898pp.
4. Singh N.P. and S. Karthikeyan (2000). *Flora of Maharashtra State, Dicotyledons-* Vol. I B.S.I., Calcutta. 1-793pp.
5. Singh N.P., P. Lakshminarasimhan, S. Karthikeyan and P.V. Prasanna (2001). *Flora of Maharashtra State, Dicotyledons-* Vol. II B.S.I., Calcutta. 1-1080pp.
7. Yadav S. R. and M.M. Sardesai (2002). (*Flora of Kolhapur District*, Shivaji University, Kolhapur, (MS).1-668pp.

Acknowledgment:

Authors are thankful to the Conservator of Forest (Wild Life), Kolhapur Division Mr. Samadhan Chavan and RFO Chandoli National Park Mr. Govind Langote for their kind cooperation. Authors grateful to the Principal Dr. D.G. Kanase , Dr. Patangrao Kadam Mahavidyalaya, Sangli, for constant encouragement and for providing necessary facilities. They are also thankful to Mr. Prakash Kumbhar , Department of Statistics, Dr. Patangrao Kadam Mahavidyalaya, Sangli and Deputy Director, B.S.I Western Circle, Pune.

Statistical Analysis:

(A) The Percentage study and goodness of fit of the distribution of the plants.

Ho : The parts used in Medicinal Plants of Sangli District are uniformly distributed.

Against

H1 : The parts used in Medicinal Plants of Sangli District are not uniformly distributed.

Parts	No. of Plants (O _i)	Percentage	E _i	O _i	E _i	Chi.
Root	25	11.11111111	22.5	68	22.5	92.011111
Stem	11	4.88888889	22.5	42	22.5	16.9
Leaves	68	30.22222222	22.5	35	22.5	6.944444
Flower	9	4	22.5	25	22.5	0.277778
Fruit	35	15.55555556	22.5	15	22.5	2.5
Seeds	42	18.66666667	22.5	14	22.5	3.211111
Rhizomes	3	1.33333333	22.5	11	22.5	5.877778
Bark	14	6.22222222	22.5	9	22.5	8.1
All plants	3	1.33333333	22.5	6	45	33.8
Other	15	6.66666667	22.5	Total		169.6222
Total	225	100	225			

$$\text{Chi.} = \frac{((O_i - E_i)^2)/E_i}{\text{Chi. (Cal)}} = 169.62$$

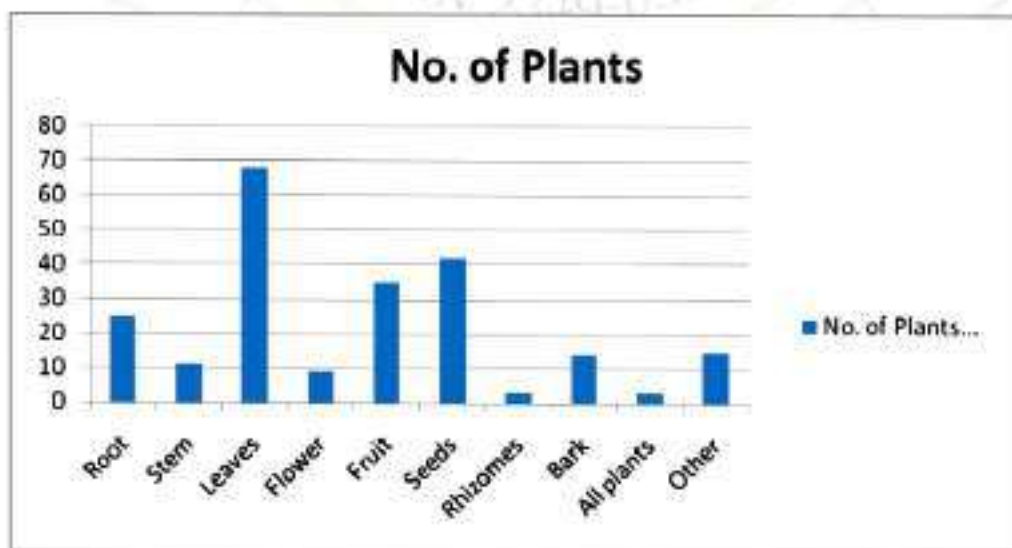
The Tabled Value of Chi. At 5% level of significance (l.s.) and at (9-1=8) d.f. is 15.51.

Since (Chi.) calculated > Chi. Table at 5% l.s. we reject Ho.

And conclude that the medicinal Plants used are not uniformly distributed.

Conclusion :

- 1) There is Max. use of Leaves for a Medicinal purpose.
- 2) There is Min. use of Rhizomes for a Medicinal purpose.
- 3) The percentage use of Leaves are 30.22 %, i.e. Max. use of plants.



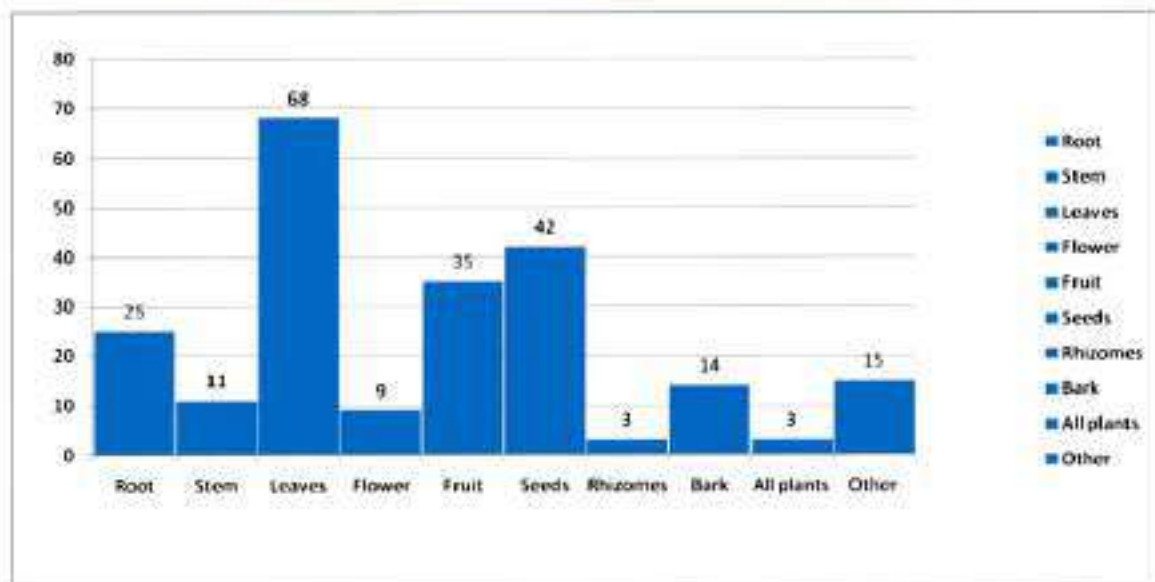
(B) The distribution of Status of the Plants.

Status	No. of Plants	%
Cultivated	49	28.3236994
Wild	87	50.2890173
Rare	4	2.31213873
Common	33	19.0751445
Total	173	100

There is 2.31 % of rare plants, so that we have to Protect these plants.

Status	No. of Plants	%
Cultivated	49	28.3236994
Wild	87	50.2890173
Rare	4	2.31213873
Common	33	19.0751445
Total	173	100

Histogram for the above data.



Relation of Physical Fitness Index with Body Mass Index: Study Among Female Students of Balwant College Vita, Dist. Sangli, (M.S.), India

Rahul Patil¹, Satyawan Patil², Yogita Patil³, Rajaram Atigre⁴

Department of Zoology, Balwant College, Vita^{1,3}

P.G. Department of Zoology, A.S.C. College, Palus²

Department of Zoology, Shri. Vijaysinha Yadav College, Pethvadgaon⁴

Abstract: The present study was undertaken to find out the correlation between Physical Fitness Index (PFI) and Body Mass Index (BMI). Physical Fitness Index was measured using the Modified Harvard step test. BMI was calculated by the Quetelet Index. In the present study total 85 female students having the age group between 18 to 25 years were selected from Balwant College, Vita. The present study showed that 64.70 % students were having low average PFI. 28.23 % students were having poor average PFI. 5.88% students were having high average PFI. 1.75 % Students were having good PFI. This study showed that there was no correlation between BMI and Physical Fitness.

Keywords: PFI, Harvard Step Test, BMI, Quetelet Index, etc.

I. INTRODUCTION

Fitness is a common term used to describe the ability to perform an exercise. Physical fitness has been defined in different ways, but the generally accepted definition is the ability to carry out daily tasks with vigour and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and meet unforeseen emergencies (Kluwer, 2018). Physical fitness suggests not only absence of a disease or a disabling deformity and capacity to perform a sedentary task efficiently but also a sense of physical well-being and the capacity to deal with sudden and unaccustomed physical efforts (Parmar, 2015). Physical fitness is a set of attributes a person has or achieved (Caspersen *et al.*, 1985), which is linked to the person's capability to do physical activity (Pescatello, 2014). There are many psychological, behavioral and physiological reasons why people do not perform physical activity or perform limitedly (Bulut, 2013). The levels of physical fitness are generally assessed by different measurements such as body weight, height, chest size, etc. and these measurements are useful for entry into various government jobs.

Poor physical fitness will result in increased incidences of various health problems such as cancer, obesity, cardiovascular diseases, and diabetes mellitus. Some of these diseases are the leading cause of death in the world (Powell K.E. and Blair S.N., 1994).

The selected girls for this study were from the village background as well most of them were from farmer families and they do not aware of their physical fitness. Due to this reason the present study was carried out to find the relation between physical fitness index and body mass index of selected girls' students.

II. MATERIALS AND METHODS

For the present investigation, 85 girls' students whose age varied from 19 to 25 years were selected from Balwant College, Vita, district Sangli, India.

Study Design: Observational study.

Study Setting: Balwant College, Vita

Sample Size: 60 subjects.

Sampling: Convenient sampling method,

Inclusive Criteria: Female students age between 18 to 25 years.

Exclusive Criteria: Participants were excluded if they have any health problems such as cardiovascular or respiratory problems, endocrine problems, any lower limb pathology and chronic diseases,

Body Mass Index (Quetelet Index):

All the selected girls were asked for Body mass index assessment by applying standard method Quetelet Indexing. Observations of weight and height of girls were carried out by properly calibrated weighing balance and height in meter respectively. The BMI was calculated by using formula,

$$BMI = \frac{\text{Body Weight in kg}}{\text{Height (Meter)}^2}$$

For the differentiation, as per the data, of BMI was subjected to various categories as underweight, normal, overweight and obese individuals by using the BMI chart provided by WHO.

Table 1:Body Mass Index

Range	Below 18.5	18.5-25	25-30	Above 30
Type	Underweight	Normal	Overweight	Obese

Physical Fitness Index(Mahajan, 2020):

Students were asked to sit quietly for 5 min. Thereafter, they were asked to perform the stepping up and down on 18 inch high step for women [23] for 5 min at the frequency of 30 times per min. The participant performed this exercise as long as she could, but not in excess of 5 min. Time for which the participant can perform the test was noted. The time at which the participant felt that she cannot perform the test any more was taken into consideration. This time is known as the time of exhaustion. After the completion of the test, pulse rate was counted from 1 to 1½ min (pulse rate 1), 2–2½ min (pulse rate 2), and 3–3½ min (pulse rate 3) (Mahajan, 2020).

PFI was then calculated using the formula, **PFI = Duration of exercise (in seconds) × 100/2 (Pulse rate 1 + 2 + 3)**

The fitness of the participant was graded on the basis of the score of PFI as poor, low average, high average, good, and excellent.

Table2:Physical Fitness Index Rating

Male	>90	80-89	65-79	55-64	<55
Female	>86	76-86	61-75	50-60	<50
Grade	Excellent	Good	High average	Low average	Poor

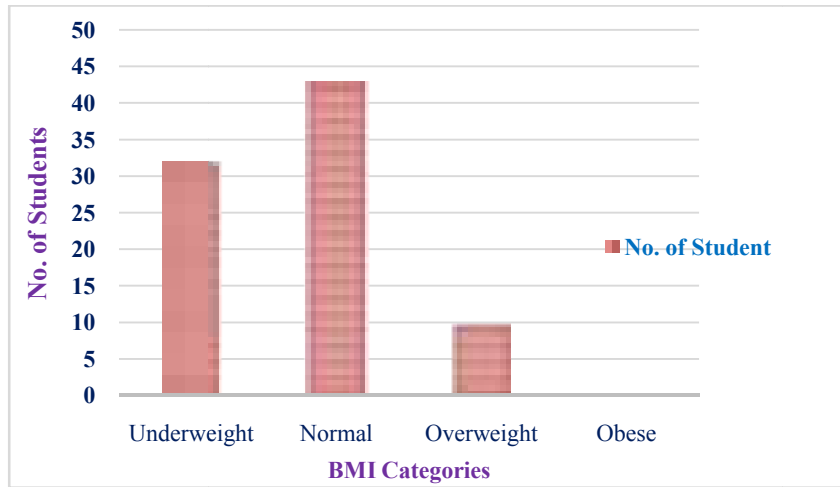
Data Analysis:

Data were analysed on Microsoft Excel version 2016 for making tables and bar graphs. Pearson’s correlation (*R*) was used to test the hypothesis to determine the relation between PFI and BMI. *P* < 0.05 was considered statistically significant.

III.RESULT AND DISCUSSION

Table3:The Values of Body Mass Index

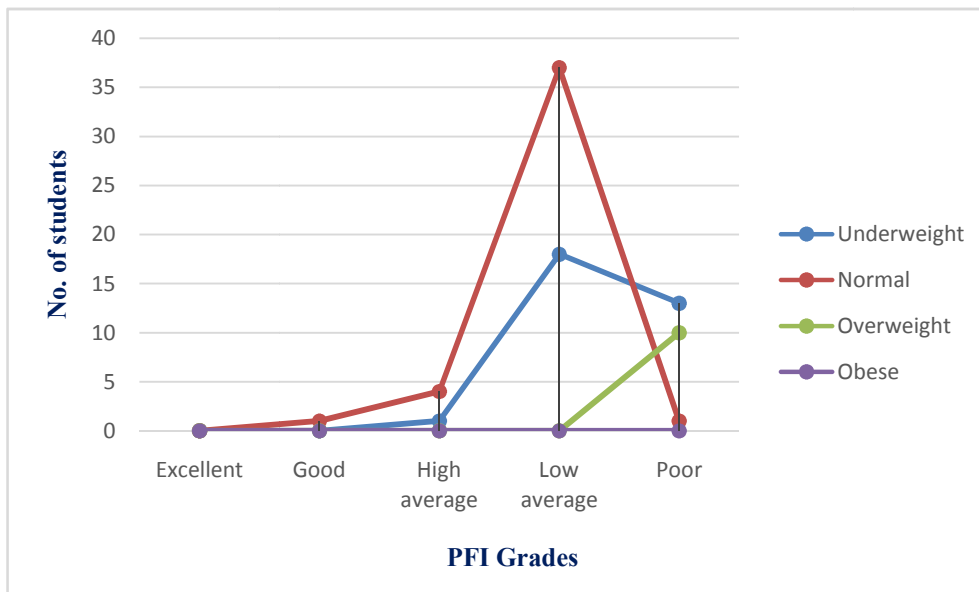
BMI Categories	Underweight	Normal	Overweight	Obese
No. of Student	32	43	10	00
Percentage	37.64	50.28	11.76	00



Graph 1:Number of Students in Different BMI Categories.

Table 4: The Values of Physical Fitness Index of the Students

PFI Grades BMI Categories	Excellent	Good	High average	Low average	Poor
Underweight	00	00	1	18	13
Normal	00	01	4	37	1
Overweight	00	00	00	00	10
Obese	00	00	00	00	00
Total	00	1	5	55	24
Percentage	00	1.17	5.88	64.70	28.23



Graph 2: Relation of Number of Students of Different BMI Categories with Different PFI Grades

A total 85 girl students from college campus were tested for the determination of PFI and its correlation with BMI for the age group of 18–25 years. The results of the present study showed percentage of girl students having the following BMI: underweight 32 (37.64 %), normal weight 43 (50.28%), overweight 10 (11.76 %), None of the participant found as obese [Table 3 and Graph 1]. Results also showed that 28.23% of the girl students had poor physical fitness, 64.70 % of the girls' students had low average PFI, 5.88% of the girl students had high average PFI, 1.17 of the girl students had good PFI and none of the participants had excellent fitness [Table 4 and Graph 2].

The Pearson's correlation (R) was used to test the hypothesis to determine the relation between PFI and BMI. It was found that there was no correlation between PFI and BMI ($r = -0.058$).

Our results are in good agreement with the findings of Munagekar (2021), Puskas *et al.* (2020), Mahajan (2020), Khodnapur *et al.* (2012), Shrivastav *et al.* (2013), Saeed *et al.* (2013) Apart from these, the differences was observed (Parmar (2015) may be because of sampling size.

IV. CONCLUSION

The present study was clearly revealed that there is no correlation between Physical Fitness Index and Body Mass Index. The present study was carried out in Covid- 19 Lockdown period. So, there may be chances of adverse effect of covid- 19 pandemic situation on the health of the participant girl students.

ACKNOWLEDGEMENT

The authors are thankful to the principal and other staff of Balwant College, Vita, district Sangli, to carry out the work. Authors are especially thankful to Ankita, Nida and Urmila students of B.Sc. III for help during work.

REFERENCES

- [1] Apoorva Uday Munagekar, Apoorva Likhite (2021). Comparison of Physical Fitness Index (PFI) between Spinning (indoor cycling) female practitioners and Zumba female practitioners using Modified Harvard's Step Test: A pilot study. *Int J Physiother Res* 9 (2), 3800-3807. DOI: 10.16965/ijpr.2021.114.
- [2] Caspersen, C.J., Powell, K.E., Christenson, G.M. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public Health Rep.*, 100(2):126-131.
- [3] Dharmesh Parmar and Vishwas Vaghela (2015). Study of physical fitness index using modified harvard step test in relation with body mass index in physiotherapy students. *IJRAMR*, 2 (12), 1075-1077.
- [4] Jyoti P Khodnapur *et al.* (2012). Status of Physical Fitness Index (PFI %) and Anthropometric Parameters in Residential School Children Compared to Nonresidential School Children, *Journal of Krishna Institute of Medical Sciences University* 1 (2) 137 -141.
- [5] Mahajan and Rawat (2020). Physical fitness index and Body mass index among physiotherapy students, *Physiotherapy-The Journal of Indian Association of Physiotherapists*, 84-88. DOI: 10.4103/PJIAP.PJIAP_25_19.
- [6] Srivastava, S., Dhar, U., Malhotra, V. (2013). Correlation between physical fitness and body mass index. *IJCRR.*, 5(23): 44-48.
- [7] Shashiala, L. and Geetanjali, H. (2014). Efficiency of Recovery pulse rate as an index of physical fitness. *Indian Journal of fundamental and applied life science.* vol 4(2), April-June, pp 216-219.
- [8] Summaya Saeed *et al.*, (2013). Relationship Between Bmi and Blood Pressure Among Students Of 3rd Year at Institute of Medical Technology (Duhs), *Quarterly Medical Channel* 19 (4)., 5-8.
- [9] Pescatello, L. (2014). *American College of Sports Medicine: ACSM's guidelines for exercise testing and prescription.* Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health.
- [10] Powell, K.E. and Blair S.N. (1994). The public health burdens of sedentary living habits: theoretical but realistic estimates. *Med.Sci.Sports Exerc.*, 26:851.
- [11] Valerija Puskas *et. al* (2020). Body Mass Index and Blood Pressure-to-Height Ratio in Predicting Incidence of Hypertension in Serbian Children. *Children*, 7, 254; doi:10.3390/children7120254.
- [12] Wolters Kluwer (2018). *ACSM's guidelines for exercise testing and prescription.* Philadelphia.

Estimation of the Population Size of Crocodile *Crocodylus palustris* (Lesson, 1831) from Two Incomplete Survey Methods-Daylight Ground Counts and Night Counts

Atigre R. H.¹, S. R. Patil², R. J. Patil³, M. G. Babare⁴

Asst. Prof. and Head, Dept. of Zoology, Shri Vijaysinha Yadav Arts and Science College, Peth-Vadgaon, Kolhapur¹

Principal, Deshbhakta Anandrao Balawantrao Naik Arts and Science College Chikhali, Shirala, Sangli²

Assistant Professor, Department of Zoology, Balwant College, Vita³

Principal, Arts, Science and Commerce College Naldurg, Osmanabad, MS, India⁴

rajan6340@rediffmail.com

Abstract: *The population count of crocodiles was undertaken from the Warana basin of Maharashtra, India for successive two years 2013-14 and 2014-15. Two main survey methods Daylight Ground count and Night Count were used to access the population. As the Crocodile is a shy animal and the study area is so big it was impossible to locate every crocodile from the study area as well as to cover the whole study area. Hence population statistics was applied to calculate the population size of the Crocodile. The statistical approach explained by W. E. Magnusson (1978) was used for the present work. The calculation of probabilities for two survey methods estimated that the study area has about 182. It has an approximate variance of 806 and hence a standard error of ± 28.39 .*

Keywords: Crocodile, Warana basin, Daylight Ground count, Night count, Incomplete counts, Population size, Probability, Variance, etc.

I. INTRODUCTION

The Crocodiles as known to human beings are the largest reptiles present on the earth. They are known in the remote past. The Indian mythology represents crocodiles as a ride of Maa Ganga (the Ganga River goddess). Also, it is said that the god of rain – Varuna rides on the monster of Makara. Still, the world represents only 22 species of Crocodiles, out of which only 3 are found in India. These are – the Gharial- *Gavialis gangeticus*, the mugger- *Crocodylus palustris*, and the salt-water crocodile- *Crocodylus porosus*.

In India, Madras crocodile bank Trust, Chennai, TN is the private trust involved in the protection and conservation of crocodiles along with the crocodile conservation project of Govt. of India. H. R. Bustard – a consultant from the Food and Agricultural Organization (FAO) of the United Nations Development Programme (UNDP) was invited to look at the crocodile situation by Govt. of India in 1974. Before the launching of a crocodile conservation project by Govt. of India, Biswas and Whitaker paid attention to the status of crocodiles in the early 1970s.

Currently, Gharial is found only in restricted parts of the Ganga basin, like areas nearby Lucknow in UP, Patna in Bihar, and parts of Mahanadi at Bhubaneswar, Orissa. In the past, they were abundant all over in Ganga, Brahmaputra, and Mahanadi basins of North-East India. The mugger was pre-dominant all over central and south India from Rajasthan, UP, WB to the Tamilnadu, but presently they are restricted to very limited parts of the same region. In Maharashtra, they were present all over the state, but presently they are observed only in the Krishna basin of western Maharashtra and at the boundary of MP in northern Maharashtra. The salt-water crocodiles were dominant all along the east coast of India and Kerala coast, but presently it is found only on the West Bengal and Orissa coast.

In recent eight to ten years, crocodile *Crocodylus palustris* (Lesson, 1831) was reported from the Warana basin by people from various fields like farmers, newspaper reporters, and biology teachers (Patil et. al. 2012, Atigre et. al 2015,

Atigre 2018). Hence author has tried to estimate its population size by incomplete counts of Daylight Ground count and Night Count and applying a statistical approach as explained by W. E. Magnusson (1978).

II. REVIEW OF LITERATURE

Many workers have used the daylight ground counts method for crocodile surveys. According to Graham (1968) daylight, ground surveys of crocodilians generally reveal only a small percentage of the population. Chapman (1970) estimated that percentage as 20-50% for *Crocodylus niloticus*. Modha (1967) used daylight ground counts for *Crocodylus niloticus* and found them together on a few beaches of Lake Rudolf. Pooley (1969) observed that all mature crocodiles of Lake St. Lucia (45 miles long) are coming together on a 1 ½ miles nesting beach. Night Counts is the best method ever used for crocodilians survey. Chabreak (1976) used this method to monitor the hunted population. Graham (1968), Campbell (1972), Parker and Watson (1970) and Pernetta and Burgin (1980) have used this method for the survey of the status of crocodiles. Messel reported about 60-70 % of the population in tidal rivers of northern Australia with this method. Woodward and Marion (1979) evaluated the factors affecting night counts of Alligator *Mississippiensis* in lakes in Florida U.S.A. All of them found that this method is a superior one than others as the results are more accurate for different workers in the same area.

Eltringham (1972) and Magnusson (1978, 2008) have used a statistical approach to estimate the population size from incomplete counts of elephants (*Loxodonta africana*) and crocodiles (*Crocodylus porosus*) respectively. Magnusson (1978, 2008) has used the probability and variance to the data of incomplete nest counts from swamps of the Liverpool River System, Northern Australia

III. STUDY AREA

The river Warana is a major tributary of the river Krishna. It begins its course close to the western crest of Sahyadri at a height of about 987 m. above MSL at Patherpunj in Patan Taluka of Satara District. River Warana runs north to south direction on the hilltop (Sada) in the Sahyadri ranges. Further, it takes an eastward turn and runs about 148 km between 16° 33' and 17° 16' North latitudes and 73° 33' and 74° 41' East longitudes on the famous Deccan plateau in Maharashtra, just east of the Western Ghats till it joins the river, Krishna, at Haripur near Sangli city of Maharashtra. The major tributaries of the river Warana on the left bank are Zolambi and Morana and on its right bank are Tanali, Kansa & Kadavi. Rivers Zolambi & Tanali merges in river Warana behind this dam in the Vasantsagar water reservoir.

Study Regions: The study was carried out by dividing the entire study area into four different study regions. The study regions were made by considering ecological conditions, topographical settings of river Warana and previous information about crocodiles sighting in the study area. The study regions made, are as follows.

1. Study Region A -CHANDOLI DAM TO SAGAON WITH RIVER - This is the first and uppermost study region with the first part of river Warana and river Kanasa. The length of this study region of river Warana is 48 km while that of river Kanasa is 14 km.
2. Study Region B - RIVER KADAVI - River Kadavi is a major tributary of the river Warana. It begins its course in the Sahyadri ranges at the border of Kolhapur and Sangli district and merges in River Warana near village Thergaon. The total length of river Kadavi is about 46 km and the covered study area from a dam up to where it merges in river Warana is about 40.8 km.
3. Study Region C -SAGAON TO SHIGAON WITH RIVER MORANA - This part of river Warana runs in the east direction on the famous Deccan plateau and it includes part of river Warana and river Morana. The length of this study region of river Warana is 46 km while that of river Morana is 14 km.
4. Study Region D -SHIGAON TO HARIPUR. - This is the last study region. The length of this study region of river Warana is 36 km.

IV. METHODOLOGY

The survey methods that are used in the present study on the nesting biology of crocodiles are described below.

1. **Daylight Ground Counts:** Ground counts on foot or by boat in a river or by a vehicle along the river in daylight is a more effective method. When the crocodiles come out of the water for basking or for any other purpose they can be sighted easily. This method is easy during breeding season as all adults congregate in a

small area. But it is not a suitable method as one can cover a small area for the survey. The author has tried to cover the maximum study area in a day and collected maximum data.

2. **Night Counts:** Counting at night, usually from a boat, with the aid of a spotlight is the most widely used method of counting crocodiles. For this method, a spotlight of 400,000 candlepower Q-beam and 12-volt headlights are used. This spotlight causes the shining eyes of crocodiles. The tapetum of eyes glows red in the spotlight and can be seen from a considerable distance. Usually, the spotlight is used by poachers for hunting at the night. The method may be biased as the younger animals avoid the spotlight at the night. All crocodiles sighted were classified by total length (TL) as hatchlings (TL < 30 cm), juveniles (TL = 30-90 cm), subadults (TL = 90-180 cm), or adults (TL > 180 cm). Crocodiles that submerged before TL could be determined were classified as 'eyeshine only' (EO). Encounter rates were calculated as the number of crocodiles observed per kilometer of survey route (Platt & Thorbjarnarson, 2000a)

Statistical Approach: Eltringham (1972) and Magnusson (1978, 2008) have used a statistical approach to estimate the population size from incomplete counts of elephants (*Loxodonta africana*) and crocodiles (*Crocodylus porosus*) respectively. Magnusson (1978, 2008) has used the probability and variance to the data of incomplete nest counts from swamps of the Liverpool River System, Northern Australia.

The data about the crocodile population obtained by two methods from the Warana basin is used statistically in the following way.

Let us assume,

Number of crocodiles, seen by both surveys - B,

Number of crocodiles, seen by survey 1 but not by survey 2 – S₁, And Number of crocodiles, seen by survey 2 but not by survey 1 – S₂.

If M is the unknown number missed by both surveys and N is the total number of crocodiles, also unknown, then the exhaustive frequencies and the probabilities associated with them are

$$B + S_1 + S_2 + M = N$$

$$P_1 P_2 + P_1 (1 - P_2) + P_2 (1 - P_1) + (1 - P_1) (1 - P_2) = 1$$

P₁ is the probability of crocodiles being seen by the first survey and P₂ is the probability of crocodiles being seen by the second. Hence the unknown parameters can be estimated from the known frequencies B, S₁, and S₂, by

$$P_1 = B / (B + S_2)$$

$$P_2 = B / (B + S_1)$$

$$M = S_1 S_2 / B$$

$$N = (B + S_1) (B + S_2) / B \text{ ----- eq. 1}$$

The model is logically equivalent to that of the Petersen estimate. On the first survey, a sample is mapped (marked), the sample of the second survey comprises some entities previously mapped (recaptures), others unmapped. The difference lies in the symmetry of the present model: the first and second surveys are interchangeable. Nonetheless, the well-explored mathematics of the Petersen estimate can be adapted easily to this model. Chapman (1951) has given a correction for the Petersen estimate. Applying this to equation 1 our estimate becomes

$$N = \frac{(S_1 + B + 1) (S_2 + B + 1)}{(B + 1)} - 1 \text{ -----eq. 2}$$

This is, in contrast to the estimate of eqn. (1), exactly unbiased when

$$S_1 + S_2 + 2B \approx N$$

Its variance can be estimated by a translation of Seber's (1973:60) formula which is also exactly unbiased when

$$\text{Var} (N) = \frac{S_1 S_2 (S_1 + B + 1) (S_2 + B + 1)}{(B + 1)^2 (B + 2)} \text{ -----eq. 3}$$

The use of this method assumes that the counts of the 2 surveys are independent and that there is a constant probability of seeing each crocodile by a given method of survey.

V. OBSERVATION AND RESULTS

The number of Crocodiles counted by two survey methods Daylight Ground Counts and Night Counts in different study regions is summarized in Table 1 and Table 2 respectively and a comparative chart for both survey methods is given in Table 3.



Figure 1: Eyeshine of the Crocodile observed during night count in study region B



Figure 2: Two Crocodiles observed in water during daylight ground count in study region D



Figure 3: One Crocodile on the bank of River Warana during daylight ground count in study region C

Table 1: Summary of Daylight ground counts for *Crocodylus palustris* performed in Warana basin during 2014-15

Sr. No.	Study Region	Hatchlings	Juveniles	Sub-adults	Adults	Total
1	Study Region A	0	0	0	0	0
2	Study Region B	2	0	0	1	3
3	Study Region C	5	3	0	3	11
4	Study Region D	6	3	2	4	15

Table 2: Summary of Night counts for *Crocodylus palustris* performed in Warana basin in 2014-15

Sr. No.	Study Region	Eyeshine	Sub-adult	Adult	Total
1	Study Region A	0	0	0	0
2	Study Region B	7	0	2	9
3	Study Region C	14	2	3	19
4	Study Region D	18	3	3	24

Table 3: Observations of crocodile population from Warana basin with two survey methods

Sr. No.	Survey Methods	Study Region A	Study Region B	Study Region C	Study Region D	Total
1	Daylight Ground Counts	0	3	11	15	29
2	Night Counts	0	9	19	24	52
3	Both surveys	0	2	5	10	17

VI. DISCUSSION

By applying the probability and variance to the data following population size estimate is obtained. The total number of crocodiles observed along the river Warana and Kadavi by the first survey method – daylight ground counts are 29 ($S_1 = 29$), crocodiles observed by second survey method – night counts are 52 ($S_2 = 52$) and crocodiles observed by both surveys are 17 ($B = 17$). Hence the probability of seeing a crocodile by daylight ground count is estimated as $P_1 = 17 / (17 + 52) = 0.25$, and from the night count is estimated as $P_2 = 17 / (17 + 29) = 0.37$. The number missed by both surveys is estimated as $M = 29 \times 52 / 17 = 88.71$ i. e. 89 and the total number, both counted and uncounted, is estimated by eqn. (2) as $N = 181.78$ i. e. 182. It has an approximate variance (eqn. 3) of 805.93 i. e. 806 and hence a standard error of $\sqrt{806} = \pm 28.39$.

Above statistics about crocodile population size from Warana basin by two survey methods Daylight Ground Counts and Night Counts for all study regions and total study area is summarized in Table 4.

Table 4: Summary of probability and variance of observations about crocodiles by two survey methods from the Warana basin.

Sr. No.	Study Region	S1	S2	B	P1	P2	M	N	Variance	Standard Error
1	A	0	0	0	0	0	0	0	0	0
2	B	3	9	2	0.8	0.4	14	23	54	± 7.35
3	C	11	19	5	0.21	0.31	42	71	353	± 18.79
4	D	15	24	10	0.4	0.29	36	83	226	± 15.03
5	Total	29	52	17	0.25	0.37	89	182	806	± 28.39

Where,

- S₁ - Daylight ground counts survey
- S₂ - Night counts survey method
- B - Observations by both surveys
- P₁ - Probability of the first survey
- P₂ - Probability of the second survey
- M - Crocodiles missed by both surveys
- N - Total number of crocodiles

The use of this method assumes that the counts of the 2 surveys are independent and that there is a constant probability of seeing each crocodile by a given method of survey. The first assumption is critical. The second assumption is not critical. The pairs of surveys have been simulated in which the probability of seeing a crocodile, rather than being a constant for a survey, was a random draw from a beta distribution of fixed mean and variance, with different distributions being used for the 2 surveys. These produced estimates similar to those of control simulations in which probabilities were set at the means of the beta distributions.

REFERENCES

- [1] Atigre, R. H., S. R. Patil, M. G. Babare (2015). Counting of probable basking sites of Mugger Crocodile *Crocodylus palustris* (Lesson, 1831) from Warana Basin, Western Maharashtra, India. Reptile Rap 17: 27–29.
- [2] Atigre, R.H. (2018). Crocodiles of river Krishna: impact on agriculture, economy, and the sociology of human population in Sangli, Maharashtra, India. Journal of Threatened Taxa 10(11): 12571–12576; <https://doi.org/10.11609/jott.3501.10.11.12571-12576>
- [3] Campbell, H. W. 1972. Preliminary report, Status investigations of Morelet's crocodile in Mexico, Zoologica 57 (3): 135-136.
- [4] Chabreck R. H. (1976) Cooperative survey of populations trends in the American alligator, 1971-1975, Proc. 3rd working committee meeting CSG IUCN Supplementary paper, 8 pp. (mimeo).
- [5] Chapman C. M. (1970) Survey of the crocodile (*Crocodylus niloticus*) population of the Blue Nile. pp 55-59 in J. N. Blashford-Snell (ed.) "Conquest of the Blue Nile". Geog. J. 136 (1): 42-60
- [6] Eltringham, S. K. 1972. A test of the counting of elephants from the air. E. Afr. Wildl. J. 10(4):299-306.
- [7] Magnusson W. E., G. J. Caughley, and G. C. Grigg. (1978). A double survey estimates of population size from incomplete counts. Journal of Wildlife Management. 42: 174-176.
- [8] Modha ML (1967) The ecology of the Nile crocodile (*Crocodylus niloticus* Laurenti) on Central Island, Lake Rudolf. Afr J Ecol 5(1):74–95.
- [9] Parker, I. S. C., and R. M. Watson. 1970. Crocodile distribution and status in the major waters of western and central Uganda in 1969. E. Afr. Wildl. J. 8: 85-103.
- [10] Patil S.R., R.H. Atigre & S.V. Patil (2012) First Record of Mugger Crocodile *Crocodylus palustris* (Lesson, 1831) from River Kadavi at Sarud, Tal, Shahuwadi, Dist. Kolhapur, M.S., India. Proceedings of the 4th International Conference on Agriculture and Animal Science, IACSIT Press, Singapore 47: 100–104.
- [11] Pernetta J. C. and S. Burgin (1980). Census of crocodile populations and their exploitation in the Purari area. Env. Studies Vol. 14 Office of Environment and Conservation, Papua, New Guinea.



- [12] Platt, S.G. & Thorbjarnarson, J.B. (2000a). Status and conservation of the American crocodile, *Crocodylus acutus*, in Belize. *Biol. Conserv.* 96, 13-20.
- [13] Whitaker, R. (1977). Note on the status of Gir crocodiles. *J. Bombay Nat. Hist. Soc.* 75(1): 224-227.
- [14] Whitaker, R. (1987). The management of crocodilians in India. Pp. 63-72 in *Wildlife Management: Crocodiles and Alligators*, ed. by G.J.W. Webb, S.C. Manolis, and P.J. Whitehead. Surrey Beatty and Sons: Sydney.
- [15] Whitaker, R. 1978. Growth rate of *Crocodylus palustris* J. *Bombay nat. Hist. Soc.* 75: 231–232.
- [16] Woodward A. R. and W. R. Marion. (1979). An evaluation of factors affecting night light counts of Alligators. *Proc. of Ann. Conf. of Southeast Association of Game and Fish Commission.* 32: 291-302.

WEBLIOGRAPHY

- [1] Google Earth
- [2] www.mapdevelopers.com/distance_finder.php
- [3] www.mapsofindia.com
- [4] www.wikimapia.com



A Review on Aspects of Nanotechnology in Food Science and Animal Nutrition

Rai Dharendra Prasad,¹ A.K.Sahoo,² Om Prakash Shrivastav,³ Naresh Charmode,¹² Saurabh R Prasad,⁴ Rakesh Kamat,⁶ N. G. Kajave,⁷ Jinesh Chauhan,⁵ Sunnera Banga,⁸ Ujma Tamboli,⁵ M.S. Pandharpatte,⁹ R.H. Atigre,¹⁰ Viqar Shaikh,¹¹ M.N.Padvi,⁵ Prashant Salvalkar⁵ and Neeraj R Prasad^{5,*}

Abstract

Nano science and nanotechnology are new frontiers of this century and food nanotechnology is an emerging technology. Food and animal nutrition nanotechnology is an area of emerging interests and opens up a whole universe of new possibilities for the food and livestock feed industry. In food engineering, two major applications related to nanotechnology are food nano sensing and food nanostructured ingredients. In the former field, better food quality and safety evaluation can be achieved by using nanotechnology. Recently, “Nanotechnology” is essentially a modern scientific field that is constantly evolving as a broad area of research, with respect to dairy and food processing, preservation, packaging and development of functional foods. Food and dairy manufacturers, agricultural producers and consumers could gain a more competitive position through nanotechnology. Nano food packaging materials may extend food life, improve food safety, alert consumers that food is contaminated or spoiled, repair tears in packaging, and even release preservatives to extend the life of the food in the package. Nanotechnology applications in the food industry can be utilized to detect bacteria in packaging, or produce stronger flavors and color quality, and safety by increasing the barrier properties.

Keywords: Nano-packaging; Nano-coating; Nano-encapsulation; Nano-sensors; Nano-ceuticals.

Received: 03 February 2022; Revised: 27 March 2022; Accepted: 07 April 2022.

Article type: Review article.

1. Introduction

Food is the basic requirement for all living organisms including humans. The animals are collecting food directly from nature, whereas human beings are collecting food from nature as well as consuming processed food. Once upon a time cooking was a domestic phenomenon that did not require preservations. However, with urbanization and industrialization, the scenario is changed and the food sector becomes a promising sector for marketing. The food and beverage sector is day by day becoming important and covers a global multi trillion-dollar industry. All the major food

companies are consistently looking for ways to improve production efficiency, food safety and food characteristics. Extensive research and development projects are ongoing with the ultimate goal of gaining competitive advantage and market share. For an industry where competition is intense and innovation is vital, nanotechnologies have emerged as a potential aid to advances in the production of improved quality of food with functionalised properties. Advances in areas such as electronics, computing, data storage, communication and the growing use of integrated devices are likely to indirectly impact the food industry in the areas of food safety, authenticity and waste reduction. According to the National Nanotechnology Initiative (2009), in the United States the federal funding budgeted for \$1.64 billion to be spent on the advancement of nanotechnologies in 2010. This represented steady growth in the area, up from \$1.5 billion in 2009.^[1] The fund was divided out among eight investment categories, none of which was specifically related to food. It can be said, however, that the food industry is likely to benefit hugely from funding to other areas, such as “nanomaterials”.

Nanotechnology is an integrative discipline, which

¹ Bihar Veterinary College, Patna and Retired Gazetted officer Government of Maharashtra, India.

Nagpur Veterinary College, Nagpur and Retired Gazetted officer Government of Maharashtra, India.

² Department of Technology, Shivaji University, Kolhapur, India

³ Principal scientist, IARI, Pusa, Bihar, India.

⁴ DKTE College of Engineering, Ichalkaranji, India.

⁵ School of Nanoscience and Technology, Shivaji University, Kolhapur, India.

represents unique combination of classical natural, mathematical, computer and material sciences, investigating and manipulating physical matter on the scale of nanometer. The unparalleled potential of engineered submicron structures, which are comparable in the size of biological molecules, has been recognized since the 1950s. However, the rapid development of applied nanotechnology only began in the 1990s. This is due to discovery and availability of electron microscopes, scanning tunnelling microscope, atomic force microscope and so on. These techniques allowed the visualization and handling of small physical matter with exceptional accuracy, triggered on exceptional growth in nanoscience. By the year 2000, nanotechnology was universally recognized as a landmark innovation, and named the sixth truly revolutionary technology introduced in the modern world. There has been a saying since a long time "Necessity is the mother of invention." Hence people have been passionate enough to nurture science and transform it into fruitful technology. Since the dawn of human civilization, human beings are using different types of materials to meet their daily needs. Therefore, materials have always been an integral part in the progress of human civilization. Material science is the domain of science and technology where changes are taking place continuously, and a particular age of civilization is known after the name of materials in use, *e.g.* stone age about 5000 BC, copper age 5000-800 BC, bronze age 300 - 00 BC, iron age 800 BC to 40 AD, plastic age since 1907 after the discovery of Bakelite.^[2] Gold was probably the first elemental metal used by mankind.^[3] After gold, the next metal used by mankind was copper. The evidence of this is obtained from archeological study of Indus valley civilization. Material scientists and engineers now have focused on tailored materials from the atomic scale upwards to obtain desired properties. A new age in materials known as the tailored material age has been used to describe the revolutionary changes in material science and engineering as well as their impact on society.^[4]

Nanotechnologies involve the manipulation of matter at a very small scale generally between 1 and 100 nanometers. They exploit novel properties and functions that occur in matter at this scale. Nanomaterials may include any of the following nano forms: nanoparticles, nanotubes, fullerenes, nanofibers, nanowhiskers, nanosheets. A nanoparticle is defined as a discrete entity that has three dimensions of the

order of 100 nm or less.^[5] There is no scientific reason in support of this specific upper limit. A nanomaterial is defined as an "insoluble or biopersistent and intentionally manufactured material with one or more external dimensions, or an internal structure, on the scale from 1 to 100 nanometers" as detailed in the recent EC Cosmetics Regulation ((EC) No 1223/2009). Thus, nanoscience and nanotechnology have been defined by different researchers in different ways. But none of this definition seems to fit perfectly on the materials at nanoscale. Therefore, efforts are underway to establish a more comprehensive definition for nanomaterials. Hence, this is a provisional definition until a uniform, both European and international, definition is made available.^[6]

In recent years, research in nanotechnology is emerging as cutting-edge technology interdisciplinary with physics, chemistry, biology, material science and medicine.^[7] The Greek word nano identifies a material whose size has been reduced to 10^{-9} m, which is 1000 times smaller than one micron. It is obvious that nanoscience, nano-engineering, nano-structure and nanotechnology all these deal with very small sized objects and systems. Structures on nano scale are considered at the border line of the smallest of human made devices and the largest molecule of living system. Our ability to control and manipulate nanostructure will make it possible to exploit new physical, biological and chemical properties of system that are intermediate in size between single atoms and bulk materials. Presently nanotechnology and its associated research discipline together constitute the complete spectrum of activities towards the promised next industrial revolution.

Nanotechnology has been defined in various ways by different scientists. According to Hunt, "Nanomaterials are an enabling component of the popularly labelled area of nanotechnology".^[5] Nanotechnology as described by Scientific Americana; "The field is a vast grab bag of stuff that has to do with creating tiny things that sometimes just happen to be useful. It borrows liberally from condensed matter physics, engineering, molecular biology, and large swaths of chemistry."^[8] However, a more comprehensive definition is given by the US National Nanotechnology Initiative (NNI) as: (i) research and technology development at the atomic, molecular, or macromolecular levels, approximately 1-100 nanometers in length, (ii) creation and use of structures, devices, and systems that have novel properties and functions because of their small and intermediate size, and (iii) ability to control or manipulate on the atomic scale.^[9] Another definition given by The Royal Society and The Royal Academy of Engineering is "nanotechnology is the design, characterization, production, and application of structures, devices, and systems by controlling shape and size at the nanometer scale."^[10] According to the British Standards Institution, nanotechnology is defined as design, characterization, production and application of structures, devices and systems by controlling shape and size at the nanometer. It is the most promising scientific fields of research in decades. It works on manipulation of materials at macromolecular, molecular and

⁶ Abote Pharmaceuticals, India.

⁷ Sharad Institute of Technology, Ichalkaranji, India.

⁸ Baba Mastnath Ayurvedic college, Rohtak-124001, Haryana, India.

⁹ N Wadia College, Pune, India.

¹⁰ Shri Vijaysinha Yadav College, Peth Vadgaon, India.

¹¹ Abeda Inamdar Senior College, Camp, Pune, India.

¹² Nagpur Veterinary College, Nagpur and Retired Gazetted officer Government of Maharashtra, India

*Email: neeraj_prasad21@rediffmail.com (N. Prasad)

atomic scales. Thus, improvement of properties of materials by controlling their nanoscale structures is the heart of nanotechnology.

Nanomaterials can be classified based on their dimensionality. Let us consider the three dimensional space vectors for a specific nanomaterial. If the size of nanomaterial is within the critical regime of 1-100 nm in all three-dimension vectors, they can be known as 0-dimensional particles or quantum dots, *e.g.* spherical nanoparticles of Au, Ag, CdS, CdSe, *etc.* Similarly, if the growth of nanomaterial is restricted within the critical regime of 1-100 nm in two spatial dimensional vectors allowing nanomaterial to grow only in the third direction, then the resultant nanomaterial is known as one-dimensional (1D) nanostructure, *e.g.* quantum wires, nano-rods, nano-wires, single walled carbon nanotubes, *etc.* In two-dimensional (2D) nanostructures, only one dimension is restricted to that critical regime and nanomaterial is allowed to grow in 2 dimensional vectors, *e.g.* quantum sheets.

Evolution of nanotechnology

The existence and use of nanoparticles goes long back. Many types of materials exist naturally at nanoscale. The first relationship between human life and nano-scale was developed in Ayurveda, which is about 5000 years old Indian system of medicine. Ayurveda had some knowledge of nano medicine synthesis and its effects even before the term nanotechnology was coined.^[11] The process of formation of *bhasmas*, a kind of metallic nano-particle, was well described in ancient Ayurveda literature *Ras Ratnakar* authored by Nagarjun in 50 BC.^[5] Ayurveda describes this process as *shodhan* (*i.e.* purification) and *maran* (*i.e.* killing the metallic properties) so that it becomes digestible and suitable for medicinal use.^[12] Also, the modern therapy of medicine homeopathy developed by Dr. Samuel Hahnemann uses alcoholic solution of metallic nanoparticles for curing the diseases. In homeopathic book “Organon of Medicine”, Dr. Samuel Hahnemann mentions number of homoeopathic medicines in which metal is in nano form *Aurum metallicum* (nano gold), *Argentium* (nano silver), *etc.*^[13] In fact the homeopathic way of treatment has a strong belief that by lowering the concentration the property changes and the product can be used to cure diseases.

History claims that nanoparticles have been around us for a long time. Presumably the use of nanoparticles was reported in 1570 as *aurum potable* (potable gold) and *luna potable* (potable silver) which alchemist used as elixirs.^[14,15] Unfortunately, they did not make the consumer immortal, as is evident by the fact that those alchemists are not among us today. However, one of the oldest application of nanoparticles that we come across in literature is the use of gold nano particles for staining glasses, a famous example of which is Lyncurgus cup that dates back to 4th century AD.^[16] The origin of unusual optical properties of nano-structured materials however could be dated back to 17th century when the brilliant color of some of these nanoparticles was used advantageously

to make stained glass window of cathedrals. Faraday explained the origin of their color owing to presence of metallic gold nanoparticles especially in colloidal form.^[17] Mie theoretically explained the origin of color of these nanoparticles by applying Maxwell’s equation.^[18]

Table 1. Evolution of Nanotechnology.

Period	Development in Nanoscience and Technology
5000 years ago	Ayurveda system of medicine describes use of nanoparticles in medicine
2000 years ago	Sulfide Nanoparticles were used by Greek and Romans to dye the hair
1000 years ago	Gold nanoparticles of different size and shapes were used to colour the glass
1857	Michel Faraday synthesized colloidal solution of gold
1905	Einstein publishes his study on the dimension of sugar molecule, approximately 1 nm R. Feynman, in his lecture at the annual meeting of American Association of Physical Sciences, claims that <i>There is Plenty of Room at the Bottom</i>
1959	Norio Taniguchi introduced the term nanotechnology
1974	E. Drexler designs molecular machines that mimic enzymes and ribosomes
1981	1984 The first description of the term “dendrimer” by D.A. Tomalia and the preparation method of PAMAM dendrimers
1984	Engines of Creation First book on Nanotechnology by K Eric Drexler
1986	The discovery of carbon nanotubes (CNTs)
1991	Drug delivery systems
1994	FDA approved Doxil® (liposomal doxorubicin)
1995	FDA approved AmBisome® (liposomal amphotericin B)
1997	DNA nanoparticles for controlled gene delivery
1998	The first FDA approval of medicinal product based on the technology of
2000	Liquid Crystals (NanoCrystal® Technology) and the solid dose formulation of the immunosuppressant sirolimus – Rapamune®
2005	FDA approves Abraxane®, the nanotechnological formulation of paclitaxel In market: PEG-Certolizumabpegol (trade name, Cimzia®) anti-TNF Fab for rheumatoid arthritis and Crohn’s disease
2008	Biomimetic drug delivery systems: the first publications in literature
2012	July 2015 Successful clinical trials of ThermoDox® (<i>lyso-thermosensitive liposomal doxorubicin</i>)
October 2015	FDA approves Onivyde® (irinotecan liposomal) for advanced pancreatic cancer

However, research on nanomaterials has got attention only

during last few decades. This is because of the development of electron microscope which could reveal the structure of nanomaterials. In the present age indeed, the nano-technology mania is sweeping through essentially all the fields of science and technology and the public is practically experiencing the meaning of quote of Nobel Laureate Richard Smalley: “Just wait – the next century is going to be incredible. We are about to build things that works on smallest possible length scales, atom by atom. These little nano-things will revolutionize our industries and our lives.”^[19] This is becoming more and more evident in the form of potential applications of nanoparticles which extend to a wide range of areas such as catalysis, biosensors, solar cells, super capacitors, smart windows and medical sciences. A remarkable aspect of nanomaterials is that a number of factors can influence their properties which are their size, shape, surface composition, dielectric environment and the inter-particle interactions.^[20] The chronological development of science at the nanoscale is depicted in [Table 1](#).

2. Classification of nanomaterials

There are various ways to classify the materials at nanoscale. The nature is the best manufacture of nanomaterials and nanostructure. By natural nanomaterials means, the materials that belong to the natural world without human modification or processings. Due to their structure, they have remarkable properties because of their inherent nanostructure. Herein we will try to focus on some types of classifications of nanomaterials.

(a) Classification based upon origin of nanoparticles

The nanomaterials can be classified in different ways. One of the ways to classify nanomaterials is based on their origin. The classification of nanomaterials based upon origin is shown in [Table 2](#).

Table 2. Classification of NPs base on origin

Anthropogenic or Engineered NPs	Incidental Particles	Natural Particles
Nanotubes, Fullerenes	Combustion products	Plants, trees
Metal oxides	Industrial process	Erosion
Quantum dots	Vehicle emission	Dust
Nanotubes	Construction	Viral Nanoparticles Cowpea mosaic virus, cowpea chlorotic mottle virus, canine parvovirus and bacteriophage
Nanowires		
Dendrimers		

(b) Dimensionality of nanomaterials: The nanoparticles can be classified based upon its dimensionality. Nanomaterials are the materials with one external dimension that measures 100 nm or less or with internal structures measuring 100 nm or less.

The nanomaterials that have the same composition as known materials in the bulk form but differs in their physico-chemical properties.

(1) Zero dimensional nanomaterials: In this type of nanomaterials all the three dimensions lies within the nano range, *i.e.* 1 nm to 100 nm. *E.g.* molecules, clusters, fullerenes, rings, metal carbides, powders and grains, *etc.*

(2) One dimensional nanomaterials: In this type of nanomaterials out of three dimensions, two dimensions lie within the nano range, *i.e.* 1 nm to 100 nm and one dimension is not within the nanorange. *E.g.* Nanotubes, nanorods, nanowires, fibers, filaments, whiskers, spirals, belts, springs, columns, needles, *etc.*

(3) Two dimensional nanomaterials: In this type of nanomaterials out of three dimensions one dimensions lies within the nano range, *i.e.* 1 nm to 100 nm and two dimension is not within the nanorange. *E.g.* Layers, nanowells, nanofilms, nanocoatings.

(4) Three dimensional nanomaterials: In this type of nanomaterials all the three dimensions lies outside the nano range, *i.e.* 1 nm to 100 nm. In true sense these are not nanomaterials. *E.g.* bulk powders, bulk nanomaterials, dispersion of nanoparticles, bundles of nanowires and nanotubes as well as multi-nanolayers.

(c) One of the ways to classify them is (1) organic nanomaterials and (2) inorganic nanomaterials.

Organic nanomaterials: In recent years, engineered nanoparticles have raised substantial interest due to their possible medical applications in vaccination, diagnostic imaging procedures or sustained delivery of drugs. The organic nanoparticle includes dendrimers, chitosans, liposomes, micelles *etc.* Over the past few years there has been considerable interest in developing protein nanoparticles as drug delivery vehicles. Casein a generally recognized as safe protein is a major milk protein that forms an integral part of the daily diet. It possesses a number of interesting properties that make it good candidate for conventional and novel drug delivery system. Casein nanoparticles may be alternative to albumin as a matrix for drug delivery because it is inexpensive and has better amphiphilicity, good dispersibility and rapid reconstruction in aqueous solution.

Inorganic nanomaterials: Inorganic nanomaterials have been widely used in various fields due to their excellent mechanical properties, optical properties, magnetic properties, electrical properties, catalytic properties, thermal properties and sensitivity properties. According to different sources inorganic nanomaterials can be classified into two main categories (1) non-metallic nanomaterials, *e.g.* silica based nanomaterials and (2) metallic nanomaterials, *e.g.* silver, gold nanomaterials, *etc.*

(d) Nanocomposites: These are class of nanomaterials wherein one or more phases at nano-sized dimensions (zero dimension, one dimension, two dimension) are embedded in a ceramic, metal or polymer materials. These can be made by inorganic or organic components at molecular level to obtain

new properties.

(e) Carbon based nanomaterials: The carbon-based nanomaterials include fullerene, single walled carbon nanotubes, multiple walled carbon nanotubes. These are novel class of nanomaterials that are widely used in biomedical fields including the delivery of therapeutics, biomedical applications. Owing to exceptional structural, mechanical, electronic and optical properties carbon nanotubes are regarded as new generation nanoprobes.

(f) Ceramic nanomaterials: These are inorganic solids made up of oxides, carbides, carbonates, and phosphates. These nanoparticles have high heat resistance and chemical inertness. These nanomaterials can be successfully applied in various ways such as photocatalyst, photodegradation of dyes, drug delivery, and imaging.

(g) Metal nanoparticles: Metal nanoparticles are generally synthesized through a bottom-up approach using precursors of metals. Normally salts of metals are used for the synthesis of metallic nanomaterials. The metallic nanoparticles are having high absorption capacity. Therefore, such nanoparticles are widely used as a catalyst in organic transformation reactions. Apart from catalytic applications, these nanoparticles have applications in research areas, detection and imaging of biomolecules, and in the environmental and bioanalytical applications.

(h) Semiconductor nanoparticles: Semiconductor nanoparticles have properties like those of metals, and also like non-metals. Thus, they have intermediate properties. These particles have a wide bandgap, which in turn shows different types of properties. They are wide as a photocatalyst, in electronic industries, photo-optics, and water splitting applications.

(i) Polymeric nanoparticles: Polymeric nanoparticles are organic-based nanoparticles. Depending upon the method of preparations, these have structures like nanocapsules or nanospheres. A nanosphere particle has a matrix-like structure whereas nanocapsules particles have core-shell morphology. The polymeric nanomaterials can protect drugs and control their release of the drug. They have a wide range of applications in drug delivery and diagnostics.

3. Food nanotechnology

Nano-food" can be defined as food that has been produced or packaged by nanotechnology techniques.^[21] Nanoscale molecules show different chemical reactivity or different catalytic behaviour as compared with classical molecules.^[19] Nanotechnology for food-packaging aims at reducing ultraviolet light exposure or microbial growth. Moreover, food safety can be improved by nano-sensors able to detect pathogens or contaminants.^[22] In today's world, food materials are often considered not only a source of nutrients but also as having to contribute to the health of consumers. Most of the nanoparticles used traditionally belong to the group of colloids (*i.e.* emulsions, micelles, mono- and bi-layers). One of the first colloidal gold dispersions was prepared by Michael Faraday

in the middle of the 18th century. The particles were attracted to each other through Van der Waals forces, which give them colloidal stability. In colloidal particles, steric stabilization is achieved by adsorbing polymers and surfactants on the surface. Nanoparticles could be further stabilized by coating them with molecules that can form chemical bonds.^[23,24] In the food industry, several novel applications of nanotechnologies have become apparent, which includes the use of nanoparticles, such as micelles, liposomes, nanoemulsions, biopolymeric nanoparticles and cubosomes, as well as the development of nanosensors, which are aimed at ensuring food safety. However, despite the increased marketing efforts in the nanotechnology sector, research into nanotechnology of food and food-related products is only just beginning to develop.^[25] Some examples of the use of nanotechnology in food products are cooking oils that contain nutraceuticals within nanocapsules, nanoencapsulated flavor enhancers and nanoparticles that have the ability to selectively bind and remove chemicals from food. The main reasons for the late incorporation of nanotechnology into the food sector are issues associated with the possible labeling of the food products and consumer-health aspects. The knowledge gained from these sectors could be adapted for the use of food and agriculture products, such as for applications in food safety (*e.g.* detecting pesticides and microorganisms), in environmental protection (*e.g.* water purification) and delivery of nutrients.^[26]

A. Nanotechnology in food modulation

Researchers from medicine, veterinary science and nutrition have worked a lot to see the absorption, uptake and bio-availability of bulk molecules as compared with nanomaterials. They observe that food in nanoform can be better uptaken, absorbed and also bioavailability is higher. Such features of nanotechnology have attracted the attention of the researchers to develop and commercialize the nano-sized ingredients, supplements and nutraceuticals. The nanotechnology is having impact in entire food sector starting from production, processing, transportation, storage and delivery. Thus, nutrients and other additives preparation, structure control and encapsulation are applications of nanotechnology in food industry.

Nanofood is developed to improve food safety, enhance nutrition, flavor, and cut costs. This technology is also employed to produce low-calorie food with better taste, appearance, functionality aided with nutritional supplement by altering the sugar and salt content in food.^[27] Bioactive compounds that can be found naturally in certain foods have physiological benefits and might help to reduce the risk of certain diseases, including cancer. By reducing particle size, nanotechnology can contribute to improve the properties of bioactive compounds, such as delivery properties, solubility, prolonged residence time in the gastrointestinal tract and efficient absorption through cells. Omega 3 and omega 6 fatty acids, probiotics, prebiotics, vitamins and minerals have found

their applications in food nanotechnology as bioactive compounds. Based on the current state of knowledge, the debate on the benefits and risks of applying nanotechnology in the food industry will last long. Although there are currently no conclusive data about the undesirable results of nanotechnology, it is probably wise to take a precautionary principle to deliberate the possible regulatory control as a proactive approach until proven otherwise. Regulation on the use of nanotechnology in food systems is, therefore, necessary for managing the potential adverse effects of nanotechnology and protecting the public.^[28]

B. Nanosize and nanostructured materials

(1) Nanoencapsulation

Development and application of nanosize and nanostructured materials represent an important field of food nanotechnology. Nanoencapsulation can make significant savings for formulators, as it can reduce the amount of active ingredients needed. Also, improvement of site specific drug delivery can be achieved by encapsulating nano-poly D, L-lactic acid with drugs. Nanoencapsulation techniques have been implemented to improve flavor release, retention, and to deliver culinary balance. Nanocarriers have been introduced as delivery systems to carry food additives in food products without disturbing their elementary morphology.^[29] The main advantage of using nanomaterials is that it can release encapsulated compounds much slower and over longer time periods, they are carriers of fragrances and flavors, and also provide a favorable improvement in the bioavailability of nutraceuticals due to their subcellular size. The nanoencapsules may be of different types such as (1) organic, (2) inorganic and (3) biological. The nanocapsules have a shell and core. The cavity is filled with polar or non-polar solvents. Nanoliposomes are multilayered leak resistant liposomes as a way to encapsulate anti-bacterial like nisin. Encapsulated nanoemulsions are better than free nisin. Nanocochleates wrap around nutrients and stabilize them. The nanocochleates are made of soy based phospholipids.^[30]

(2) Main types of nanoencapsulation systems

The main types of nanoencapsulation systems designed for food application are formed from accepted food ingredients as lipids, carbohydrates, and proteins, which are in the group of GRAS (generally regarded as safe materials).^[31]

Nanoparticles can be formed from food biopolymers, proteins, or polysaccharides by self-association, controlled aggregation, or inducing phase separation to encapsulate functional ingredients. Polysaccharide-based biodegradable nanoparticles can be used to control rheological behaviour or for nanoencapsulation. A new beverage product was prepared by applying starch, probably the most abundant functional polysaccharide in foods, by ultra-high-pressure homogenisation. The enriched product contained powder with particle size around 100 nm with about 15% vitamin E acetate, which was stable in the beverage and did not alter its

appearance.^[32]

The requirements for the nanoencapsulation systems are similar to the encapsulation of other bioactive components with special importance, controlled, gradual release of sufficient amount of antimicrobials to continuously inhibit bacterial growth. Solid lipid nanoparticles (SLN) as carriers are well suited for hydrophobic antimicrobials. The diffusion of molecules is slower than in liquid oil, so the solid matrix slows down movement of the bioactive compound to the droplet surface, as well as slows down penetration of any reactants (*e.g.* metals and oxygen) into the particle.^[33] Their appearance despite the small size might be turbid, because the refractive index of solid fat is higher than liquid oil. Gravitational stability is rather good, since the density difference between the particles and the medium is small.^[34] Crystallized matrices can also be convenient means to building a preservation system that is able to provide long-term protection by slowly releasing the antimicrobial agent into the food. Crystalline matrices can contribute to maintaining the activity during storage by reducing the volatility of the encapsulated compounds, which is advantageous when essential oils with high volatility are applied as food antimicrobials.^[35]

C. Emulsion type systems

The dispersion of polymer, droplets and solid materials in the form of viscous liquids leads to interesting materials. In case of emulsion we observe two phases, the dispersed phase also known as discontinuous phase or internal phase and the dispersion medium or external phase known as continuous phase. The two phases are kept together by means of emulsifying agent also known as intermediate or interphase. The emulsion carry hydrophobic food components in aqueous phase emulsions. The main types of nanostructures formed from immiscible liquids as O/W and W/O emulsions. These systems cover a wide size range from nanometer to micrometer. As a comparison, surfactant micellar and lipid liposome systems are also included.^[36]

Milk, cream, ice-cream, dressings, mayonnaise, beverages, soups, dips, and sauces are typical examples of oil-in-water (O/W) emulsions, while butter, margarine, and some spreads are examples of water-in-oil emulsions (W/O). Common emulsions are (macro-) emulsions with a milky, opaque appearance with droplet diameters between 100 nm and 100 μm . These emulsions tend to show instability such as gravitational creaming or sedimentation, aggregation, coagulation, and Ostwald ripening finally leading to phase separation. The emulsions are also classified according to the character of the emulsifying agents such as surfactant, polymers, or particles. The application of the latter, called Pickering emulsions, relevant to food and drink was reviewed by Murry (2019).^[37] Organic crystals, cellulose, starch, and microgel particles from food components provide a particularly versatile and effective way of stabilisation.

Nanoscale emulsion droplets, produced during high

pressure homogenizers or microfluidizers for encapsulating functional components, enable slowdown of chemical degradation process. Nanoemulsion allows the effective delivery of target compounds. Multiple emulsions can be formed to encapsulate functional food ingredients within their individual phases. Single delivery systems containing multiple functional components is also possible. Canola oil based nano sized micellar system is used for delivery of materials such as vitamins, minerals or phytochemicals. Nanosized emulsions based ice cream contains lower fat. Nanoemulsion can be synthesized by two methods, high ultrasonification and low energy emulsifications. Properties and usefulness of nanoparticles has been proved to various aspects, including size, polydispersity, dimensions and stability of nanoparticles and bio-molecules. Nanoparticles are produced by three different methods such as chemical, physical and bio-based.

D. Synthesis of nanoparticles

For food applications, nanotechnology can be applied by two different approaches, either “bottom up” or “top down.”^[38-40] The top-down approach is achieved basically by means of a physical processing of the food materials, such as grinding and milling. For example, dry-milling technology can be used to obtain wheat flour of fine size that has a high water-binding capacity. This technology has been used to improve antioxidant activity in green tea powder. As the powder size of green tea is reduced to 1000 activity of an oxygen-eliminating enzyme gets multiplied. By contrast, self assembly and self organization are concepts derived from biology that have inspired a bottom-up approach in food nanotechnology.^[41] The organization of casein micelles or starch and the folding of globular proteins and protein aggregates are examples of self-assembly structures that create stable entities. Self organization on the nanometer scale can be achieved by setting a balance between the different non-covalent forces. Owing to the greater surface area of nanoparticles per mass unit, they are expected to be more biologically active than their bulk counterparts having same chemical compositions. As a result, this offers several innovative perspectives for food science applications. The organization of casein micelles or starch and the folding of globular proteins and protein aggregates are examples of self-assembly structures that create stable entities.^[42]

E. Social and economic impact of food nanotechnology

In a future scenario, food could be created by shaping atoms and molecules by means of nanotechnology and then packaged in 'intelligent', safe containers capable of detecting spoilage or harmful contaminants. The products of the future will strengthen and change their colors, flavors or nutrient content, so as to satisfy the tastes of each consumer and the needs resulting from personal health state. In agriculture, nanotechnology promises to reduce the use of pesticides, improve the efficiency of animal and plant breeding and the creation of new bio-industrial products.^[43] The food and

agricultural industry has already invested billions of dollars in nanotechnology research however, in the absence of the obligation to label such products worldwide, it is currently impossible to determine how many commercial food products contain nano-ingredients.^[44] The Helmut Kaiser Consulting Group, an analyst with pro-tech attitude, reports that there are currently approximately 300 nano-food products around the world.^[45]

F. Properties of nanoparticles

It is observed that materials at nano-scale show substantially different properties than in bulk state.^[46] Due to possible favorable variation in optical, mechanical, thermal and electrical properties of nanoparticles, they remain point of interest for scientist from all branches of science. The materials sustain their regular physical and chemical properties up to micrometer level.^[13] But as their size goes down the micro-level, interestingly they start exhibiting astonishingly exotic properties. But the properties of nanoparticles are not only dependent upon the size but they also depend upon other factors like shape, stabilizing agent, method of preparation *etc.* For example, the changes in optical, thermal, electrical, electronic, magnetic and mechanical properties are noticeable at nanoscale. These properties are briefly discussed below.

G. Mechanical properties

Mechanical strength of the material depends on various parameters such as arrangement of the atoms in the materials, stress developed during manufacturing process, dislocation, impurity and surface to volume ratio, *etc.*^[47] The mechanical properties of nanomaterials increases with decrease in size, because smaller the size, lesser is the probability of finding imperfections such as dislocations, vacancies, grain boundaries. Strength of materials improves significantly as the particle size decreases due to perfect defect free surface. Hardness and yield strength of material, as well as elastic modulus and toughness, also increase as particle size is decreased. The strength and hardness of the material depends on grain size. Due to small cross section and less number of imperfections, nano material like nano rod, carbon nano tubes or nano wire exhibit improved mechanical strength. However, the capability of nanomaterials to undergo extensive tensile deformation without destroying the structure has been well reported and is called as super-plasticity.^[15] The large surface to volume ratio of nanoparticles results in a generation of different local environment for the surface atoms that alters the magnetic coupling and interaction with neighboring atoms and thereby changing mechanical properties. Unlike bulk ferromagnetic materials, which usually form multiple magnetic domains, their nanoparticles could consist of only a single magnetic domain. The particle having single magnetic domain can be used in super-para-magnetism, in which the magnetizations of the particles are randomly distributed and they are aligned only under an applied magnetic field, and the

alignment disappears once the external field is withdrawn.^[48] These could be used in various applications such as in ultra-compact information storage where the size of the domain determines the limit of storage density.

The nanomaterials may be stronger than bulk. The relationship between the material strength and grain size can be given by Hall-Petch effect, which can be shown in the form of Equation 1 as below:

$$\sigma_y = \sigma_0 + \frac{k_y}{\sqrt{d}} \quad (1)$$

where, σ_y is the yield stress, σ_0 is the material constant, k_y is the strengthening coefficient and d is the average grain diameter. Theoretically, a material could be made infinitely strong if the grain size is made infinitely small.

H. Optical properties

Light is the form of energy detected by eyes and at ordinary scale can be treated as waves. Light waves are part of electromagnetic waves. Optical properties can be defined as operating in or employing in the visible part of electromagnetic spectrum.

The optical properties can be as

- (1) Absorption: How strongly a chemical attenuates the light.
- (2) Birefringence: This is the optical property of a material having a refractive index that depends upon polarization and propagation direction of light
- (3) Luminescence: It is the amount of electromagnetic energy a body radiates per unit. It is most frequently measured in two forms (a) visual: visible light only, (b) bolometric: total radiation energy
- (4) Photosensitivity: It is the amount to which an object reacts upon receiving photons, especially visible light.
- (5) Refractive index: It is dimensionless numerical number which describes how light propagates through the medium.
- (6) Scattering: It is a general physical process where some form of radiations such as light, sound or moving particles are forced to deviate from a straight trajectory by one or more path due to localized non-uniformities in the medium through which they pass,
- (7) Transmittance: It is the fraction of incident electromagnetic power that is transmitted through the sample in contrast to transmission co-efficient.

When incident light is absorbed it essentially causes activation processes in the material and it goes into excited state. The excitation may be of different types such as (1) electronic, (2) vibrational, (3) rotational. Optical properties are widely studied for noble metallic nanomaterials such as silver, gold, *etc.* The metal nanoparticles exhibit substantially different optical properties from their bulk counterparts. The reduction of material dimension has pronounced effect on optical properties. The size dependent properties are due to surface plasmon resonance and quantum size effects. The optical properties of nanomaterials are size and shape dependent phenomenon. Gold which is yellowish color metal can be obtained in different colours in the form of its colloidal

solution. The different color of butterfly is due to the way in which the nanostructure interacts with light. The absorption profile of nanoparticles varies from visible region to NIR region depending on the size and shape of nanoparticles. Gold, silver and copper nanoparticles are known to exhibit unique optical properties in visible and NIR region within certain size limit of particle. The size dependent optical properties of nanomaterials are depicted in Fig. 1. In this figure, different colors are observed due to different size and morphology of nanomaterials dissolved in the solvent.



Fig. 1 Size dependent optical properties of nanoparticles.

I. Surface plasmon resonance:

Surface plasmon resonance (SPR) is the optical electrical phenomenon that is due to charge density oscillation at interference between the dielectric medium and a metal layer. Here surface electromagnetic waves that propagate in the direction parallel to metal dielectric interfaces. Since wave is on the boundary of the metal and external medium, these oscillations are very sensitive to any change in the boundary. Electron oscillations due to charge density at the interface of a material with a positive dielectric constant and that of a negative dielectric constant is called as electromagnetic field. Surface plasmon resonance is simply excitation of surface plasmon by light or planar surfaces. SPR is a process which takes place when there is coherent oscillation of conduction band electrons upon interaction with an electromagnetic field. This phenomenon is observed when size of nanoparticle is smaller than wavelength of incident radiation. This phenomenon is observed mostly in case of metal nanoparticles such as gold or silver nanoparticles. It appears due to the interaction of electromagnetic radiation with the electron cloud present on the surface of metal nanoparticles. Surface plasmon resonance is the collective oscillation of electrons in a solid or liquid stimulated by incident electromagnetic radiation. The resonance condition is established when frequency of photons matches the natural frequency of surface electrons oscillating against the restoring force of positive nuclei.^[49] The SPR in nanomaterials is also called localized surface plasmon resonance. SPR is the basis of many standard tools for measuring absorption of material onto planar metal surfaces or onto the surface of metal nanoparticles. It is the fundamental principle behind many color based biosensor applications and different lab-on-a-chip sensor.

Atoms present on the surface of nanoparticles contribute to electron cloud.^[15] As shown in Fig. 2, the movement of these

free electrons under the influence of electric field vector of the incoming electromagnetic radiation leads to a dipole excitation in the nanoparticle. This induces positive polarization charge on cationic lattice. This charge acts as a restoring force, and brings back electron cloud to its original position, thus causing the oscillation of electrons.^[15]

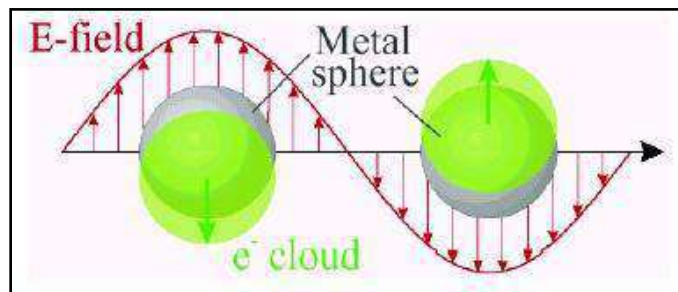


Fig. 2 Schematic of surface plasmon oscillations for a sphere showing the displacement of the conduction electrons charge cloud relative to the nuclei.

Thus, the oscillation of surface electrons, whose thickness is nearly equal to the screening length of a few Ångström s, takes place whereas the electron density in the interior of the particle remains constant. This distinguishing property of nanoparticles is called surface plasmon resonance, and was first explained by Mie in 1908, based on the Maxwell's equation of scattering.^[11] The absorption spectrum of particle in a given solvent can be calculated from the optical constant of the bulk metal. The absorption spectrum of spherical particles of sizes between 3 to 20 nm does not strongly depend upon particle size. This is because the particles are below size at which higher order terms in the Mie formula for the absorption constant becomes significant thus one has to regard only the dipole terms, which depends upon the total metal concentration in the solution and not on particle size.^[50] Higher order modes become more dominant with increasing particle size, causing the plasmon absorption band to red shift and resulting in increased bandwidth. In case of large particle size, the light cannot polarize the nanoparticles homogeneously and retardation effects lead to the excitation of higher order modes.^[51] Within the size range of 25 nm, the nanoparticles can be treated within the dipolar approximation and the absorption profile does not much depend on the particle size.^[52] Though, it has been reported that below the size limit of 10 nm the particle starts showing size dependence of the plasmon resonance band and ultimately disappear for particle size below 2 nm.

To explain the optical absorption of the cylindrical and oblate nanoparticles, Gans extended the Mie theory within the dipole approximation. The plasmon resonance of nano-rods shows two discrete energy levels; one is the high energy band for the out of phase transverse plasmon resonance and another is low energy band corresponding to in phase longitudinal plasmon resonance along the axis of nano-rods.^[53] The transverse plasmon band shows a linear relationship with the aspect ratio and dielectric constant of the medium. With an

increase in aspect ratio, the energy separation between the two plasmon bands also increases. Similarly triangular nanoparticles also show two absorption bands corresponding to transverse and longitudinal plasmon resonance. In certain cases, another peak in between two plasmon peaks has also been reported which has been attributed to the in-phase quadruple mode of plasmon resonance.^[54]

Several attempts has been made towards successful synthesis of anisotropic metal nanostructures such as rods, disks, triangular prisms, multi-pods, cubes and nano-shells and their optical properties has been studied. Some noble metal nanoparticles such as gold and silver possess transverse plasmon absorption on the visible region of electromagnetic radiations.^[55]

J. Quantum Size Effects

The unique optical properties of nanomaterials also arise due to quantum size effects. When the size of nanocrystal is smaller than de Broglie wavelength, electron and holes are spatially confined and electric dipoles are formed, discrete energy levels are also formed. Similar to particle in box, energy separation between adjacent levels increases with decreasing dimensions. The charge arises through systematic transformations in density of electronic energy levels as a function of size and these changes result in strong variation in the optical and electrical properties with size. The quantum size effect occurs mostly in case of semiconductor nanoparticles where band gap increases with decreasing size, resulting in interband transition shifting to higher frequencies.

K. Magnetic properties

The magnetic properties of nanomaterials differ to that of bulk. For nanomaterials, important consideration is the interaction among exchange energy, anisotropic energy and demagnetization energy. For small grain sizes, exchange forces are dominant due to strong coupling causing all spins in neighboring atoms to align. There exists a critical diameter, for example the critical diameter for Co is 70 nm and for Fe it is 15 nm. As the size of particle becomes smaller than critical diameter, magnetization becomes unstable and loss of magnetization takes place and ferromagnetic material becomes superparamagnetic material. The coercive field of ferromagnetic material increases with decreasing particle size with maxima within the critical diameter range. If particle size decreases further, coercive field is significantly reduced until the magnetization becomes unstable due to superparamagnetic behavior. At this stage hysteresis loop is completely removed. Magnetization reversal also becomes insignificant when size of particle decreases. As the size of particle decreases saturation magnetization increases. This enhancement of magnetization restricts the rotation of magnetization vector by thermal motion which is helpful in magnetic recording applications. The noble metallic nanomaterials exhibit different magnetic properties than that of bulk in two ways. The one of the reason for above mentioned property is the high

surface to volume ratio that results in generation of different local environment for the surface atoms in their magnetic coupling/ interaction with neighboring atoms.^[56] The second reason behind this is unlike bulk ferromagnetic materials which usually form multiple magnetic domains, several small ferromagnetic particles could consist of only a single magnetic domain.^[57] The supermagnetism occurs in single particle in which magnetization of the particles are randomly distributed and they are aligned only under the influence of an applied magnetic field and the alignment disappears once the magnetic field is withdrawn.^[58] This effect is applied in several commercial and scientific applications such as optical recording or storage medium, super-magnets, *etc.* The magnetic properties have been in focus of much research in recent days due to their wide application in various areas such as catalysis, biomedicine, magnetic resonance imaging, magnetic particle imaging, data storage, environmental remediation, optical filters, *etc.*^[59]

L. Biocompatibility property

The concept of biocompatibility can be defined as a set of properties that a material must have to be used safely in biological systems. The essential features of biocompatible materials are such that it should not be carcinogenic, absence of immunogenicity, absence of teratogenicity (ability to cause birth defects), absence of toxicity, *etc.* Nanoparticles are known to play an important role in many processes of life sciences and pharmaceutical sciences. Nanoparticles affect the cytotoxicity levels in living systems and that is an important aspect in the study of nanoscience and nanotechnology.^[60] Nanoparticles have been used for various biological applications especially in medicine and veterinary sciences.^[61] The nanoparticles are observed to exhibit potential features in the field of bio-diagnostics, therapeutics, drug delivery, bio-imaging, immune-staining and bio-sensing, *etc.* Therefore, it becomes an important issue to study the short- and long-term effects based upon size, shape and surface functional groups on the bioavailability, sub-cellular distribution, metabolism and degradation of these different nanostructures^[62]

M. Electrical properties

At nano scale the materials are showing different electrical properties. The metals that are known for their good conductance behave as semiconductor at nano-level.^[56] As explained earlier the size can have drastic effects on the properties of samples in nano scale range. At nano level, electrons are confined within a small radius. Single electron tunneling is one of the most remarkable effects exhibited by quantum dots. The capacitance of a dot can be changed drastically simply by the addition of a single extra electron as a result of one electron tunneling. Researchers are trying to develop flexible and transparent coatings that conduct electricity particularly well. Size plays an important role in electrical properties and is based on 4 mechanisms:

N. Surface scattering

Electrical conductivity of metal is described by various electron scattering phenomena and total resistivity is combination of individual and independent scattering known as Matthiessen rule. The impurity atoms, defects such as vacancies, grain boundaries disrupt electrical potential of lattice and cause electron scattering. Considering individual resistivity inversely proportional to the respective mean free path between collisions, reduction in material's dimension will increase crystal perfection or reduction of defects, which would result in reduction in defects scattering and thus a reduction in resistivity and conductivity increases. In nanowires and thin films, the surface scattering of electrons results in reduction of electrical conductivity. When the electrical dimension is smaller than mean free path, motion of electron will undergo elastic and inelastic scattering.^[63]

O. Charge on the electronic structure

Reduction in characteristic dimension below a critical size, *i.e.* below de Broglie wavelength results in change of electronic structure, leading to wicking of bandgap. Such change results in reduced electrical conductivity. Some metal nanowires undergo transition to becoming semiconductor and semiconductor might become insulators where their diameters are reduced below the critical diameter.^[64]

P. Quantum transport

This includes ballistic conduction, Coulomb blockade and tunneling.^[65]

Q. Ballistic conduction

This type of conduction occurs when length of conductor is smaller than electron mean free path. In this case, each transverse waveguide mode of conducting channel contributors. In ballistic transportation there is dissipation of energy and np elastic scattering takes place and electrical conductance is reduced. The phenomenon of ballistic scattering was first reported in carbon nanotubes.^[66]

R. Coulomb blockade

This type of conduction occurs when length of contact resistance of nanostructure and total capacitance of object is so small that adding a single electron requires significant energy. Metal or semiconductor nanocrystals exhibits quantum effects that give rise to discrete charging of metal nanoparticles. Such an electron configuration permits one to pick up electric charge one electron at a time at specific voltage values. This Coulomb blockade behavior is also known as Coulomb staircase and finds use in single electron transistors. The electron can move from one energy level to another when it has charging energy.^[67]

S. Effect of microstructure

Electrical conductivity may change due to formation of ordered microstructure, when size is reduced to nm range. For

example, polymer fiber demonstrated an increase in electron conductivity. When polymer size is reduced to nm size, polymers are aligned parallel to the axis of the fibers, which results in increased contribution of intramolecular conduction and reduced intramolecular conduction.^[68]

T. Catalytic properties

Catalyst can be defined as a foreign material which alters the rate of a chemical reaction. A catalyst can either accelerate or retard the rate of a chemical reaction. The presence of catalyst does not change the equilibrium of reaction. The catalyst can be recovered and remains unchanged at the end of reaction. The catalyst decreases the energy of activation. As the particle size decreases, the fraction of surface atoms significantly increases; for example, 3 nm particles would have 45% of its atoms on the surface and a 1 nm particle would have 76% of the atoms on its surface. As any reaction takes place at the surface, therefore small particle sized nanomaterial having high percentage of surface atoms make them a good catalyst.^[69] A nanocatalyst can be defined as a substance or material with catalytic properties that has at least one nanoscale dimension either externally or in terms of external structure. Generally, catalysts that are able to function at atomic scale are nanocatalysts. Nanocatalyst can fit where many of the traditional catalysts will not. Some of the nanocatalysts can develop partial or net charge that help in the process of making and breaking bonds at a more efficient scale. Adsorption is a primary step in heterogenous catalysis. Size dependent adsorption energy reactants on catalyst surfaces with different co-ordination numbers have been studied. Apart from the particle size, the other factors controlling the rate of chemical reaction are surface structure, shape of the nanomaterial, electronic state of atoms in nanomaterial, and work function of a nanoparticle, *etc.*^[70] The reactant molecules show differential affinity in adsorption towards different faces of the catalyst. Hence, metal nanoparticles of different shapes covered by different faces could be used to increase the selectivity of a catalyst.

U. Electronic properties

When the particle size enters nanometer level, electronic motion is restricted to a smaller space compared to mean free path of electrons leading to the stronger confinement of electronic motion (spatial confinement). These materials do not follow the classical theory of electronic motion which exhibit quantum effect. The quantization of electronic motion in metallic nanoparticles restricts them into certain discrete energy levels making the valence band and conduction band no longer in-separable. The energy gap between valence band and conduction band (Kubo gap) becomes comparable to or larger than thermal energy (KBT) at certain size regime and hence metallic nanoparticles become semiconductor and further reduction of size causes higher confinement and reaches a stage when the material becomes an insulator.^[15] At this stage materials behave differently towards various

perturbations and exhibit properties not achievable from its individual counterparts or from the bulk. Apart from the size dependence of various properties of nanomaterials, they also exhibit interesting shape dependence due to the execution of electronic motion in different dimensions. For example, electronic tunneling phenomenon is observed for 0-D nanostructures which is the key concept used for building artificial atoms and devices like single electron transistors.^[71] Similarly the electron can oscillate in two distinct ways in 1-D nanostructures under electromagnetic field, namely in longitudinal and transverse modes. The way an electron executes its motion alters their various properties and thus nano-rods and nano-tubes give rise to surface plasmon absorption peaks due to the two different types of electronic motion.

V. Thermal properties

Thermal properties of the materials are the properties which are exhibited when material is heated. The amount of the matter, *i.e.* mass and temperature, determines the thermal properties of the material. Higher the temperature of a substance the more thermal energy it has. Thermal energy is produced when rise in temperature causes atoms and molecules to move faster and collide with each other. There are three main thermal properties such as specific heat, thermal conductivity and thermal diffusivity. The thermal properties of materials at nanoscale depends upon many factors. The surface properties, shape of nanomaterials, interfacial structures, quantum or classical size determines the thermal properties of nanomaterials. To measure thermal transport of nanomaterials having high spatial resolutions atomic force microscope is used. Many researchers work upon thermal conductivity of nanomaterials. The thermal conductivity is found to decrease as tensile strain increases and increase as compressive strain increases, which could aid the modification of thermal conductivity.

4. Characterization techniques

Characterization refers to the study of material's features such as its composition, structure and various properties like physical, electrical and magnetic. Nanoparticles are microscopic particles whose size is measured in nanometers. The particle can be spherical, tubular or irregularly shaped and can exist in fused, aggregated or agglomerated forms. Because of extremely minute size nanoparticles are invisible to human eyes. The magnification power of human eye is up to 10^{-3} M and its resolving power is 1° . Thus, nanoparticles cannot be directly visualized. The size and shape of nanoparticles determine the activity. Thus, it can be indirectly analyzed by advanced instrumental methods. Two of the main parameters studied in the characterization of NPs are size and shape. We can also measure size distribution, degree of aggregation, surface charge and surface area, and to some extent evaluate the surface chemistry. Size, size distribution and organic ligands present on the surface of the particles may affect other

properties and possible applications of nanoparticles. The instruments used for analysis is of two types, *i.e.* 1) spectroscopes and 2) microscopes.

A. Spectroscopy: It is the branch of science which deals with the interaction of electromagnetic radiations with matter. Spectroscopy is the most powerful tool available for the study of atomic and molecular structure and is used in analysis of a

wide range of samples. Herein we are trying to enlist the characterization and information we get after analysis in tabular form. After these the commonly used characterization techniques are discussed in detail. Tables 3 and 4 give the information regarding various characterization techniques and the main information obtained from them.

Table 3. Glimpses on experimental techniques that Are used for nanomaterial characterization.

Abbreviation	Characterization Techniques	Main Information (Utility)
XRD	X-Ray Diffraction	Crystal structure, composition, crystallite size
XAS	X-Ray Absorption Spectroscopy	X-ray absorption co-efficient, chemical state of species, interatomic distances, Debye-Waller factors, and non-crystalline NPs
SAXS	Small Angle X-Ray Scattering	Particle size, size distribution, growth kinetics
XPS	X-Ray photoelectron Spectroscopy	Electronic structure, elemental composition, oxidation states, ligand binding
FT-IR	Fourier Transform Infrared Spectroscopy	Surface composition, ligand binding
NMR	Nuclear Magnetic Resonance Spectroscopy	Ligand density and arrangements, electronic core structure, atomic composition, influence of ligands on NP shape, NP size
BET	Brunauer Emmett Teller	Surface area
TGA	Thermogravimetric Analysis	Mass and composition of stabilizers
LEIS	Low Energy Ion Scattering	Thickness and chemical composition of self assembled monolayers of NPs
UV-Visible spectroscopy	Ultra-violet Visible Spectroscopy	Optical properties, size, concentration, agglomeration state, hints on nanoparticles shape
PL Spectroscopy	Photoluminescence spectroscopy	Optical properties, relation to structure features such as defects, size, composition
DLS	Dynamic Light Scattering	Hydrodynamic size, detection of agglomeration
NTA	Nanoparticle Tracking Analysis	Nanoparticles size and their distribution
DCA	Direct Coupling Analysis	Nanoparticles size and their distribution
ICP-MS	Inductively Coupled Plasma Mass Spectroscopy	Elemental composition, size, size distribution, NP concentration
SIMS,ToF-SIMS,MALDI	Sputtering Ion Mass Spectroscopy	Chemical information on functional groups especially surface sensitive, molecular orientation and conformation, surface topography, MALDI for nanoparticle size
VSM	Vibrating Sample Magnetometer	Magnetic properties of nanomaterials
Contact Angle	Contact Angle	Determination of hydrophobic characters of thin films
FMR	Ferromagnetic Resonance Spectroscopy	Nanoparticle size and distribution, shape, crystallographic imperfections, surface composition, M value, magnetic anisotropic constant, demagnetization fields
XMCD	X-Ray Magnetic Circular Dichroism	Site symmetry and magnetic moments of transition metal ions in ferro and ferri magnetic materials element specific
CLSM	Confocal Laser Scanning Microscope	Imaging, ultrafine morphology
BAM	Brewster Angle Microscope	Gas-liquid interface imaging
APM	Atomic Probe Microscopy	Three-Dimensional Imaging

Abbreviation	Characterization Techniques	Main Information (Utility)
MFM	Magnetic Force Microscopy	Magnetic Material Analysis
Low Energy Electron Diffraction	Low Energy Electron Diffraction	Surface/Adsorbate bonding
AEM	Auger Electron Microscopy	Chemical Surface Analysis
CFM	Chemical Force Microscopy	Chemical/Surface Analysis
FIM	Field Ion Microscopy	Chemical Profile/ Atomic spacing
UPS	Ultraviolet Photoemission Spectroscopy	Surface Analysis
AAS	Atomic Absorption Spectroscopy	Chemical Analysis
ICM	Inductively Coupled Microscopy	Elemental Analysis
SANS	Small Angle Neutron Scattering	Surface Characterization
CL	Cathodoluminescence	Characteristic Emission
Nanocalorimetry	Nanocalorimetry	Latent Heat of Fusion
Sears Method	Sears Method	Colloidal size, specific surface area
FS	Fluorescent Spectroscopy	Elemental Analysis
LSPR	Localized Surface Plasmon Resonance	Nanosized particle Analysis
Rutherford Backscattering	Rutherford Backscattering	Quantitative Elemental Analysis
TEM	Transmission Electron Microscopy	NP size, size monodispersity shape, aggregation state, detect and localize quantify nanoparticles in matrices, study growth kinetics
HRTEM	High Resolution Transmission Electron Microscopy	All information by conventional TEM and also on crystal structure of single particle. It is used to distinguish between monocrystalline, polycrystalline and amorphous
Liquid TEM	Liquid Transmission Electron Microscopy	Depict nanoparticle growth in real time, study growth mechanism, single particle motion and superlattice formation
Cryo-TEM	Cryo Transmission Electron Microscopy	Study complex growth mechanism, aggregation pathways, good for molecular biology and colloidal chemistry to avoid the presence of artefacts or destroyed samples
ED	Electron Diffraction	Crystal structure, lattice parameter, study order and disorder transformation, long range order parameters
STEM	Scanning Transmission Electron Microscopy	Combined with HAADF, EDX for morphology study, crystal structure, elemental composition, Study the atomic structure of hetero-interface
Aberration- corrected (STEM, TEM)	Aberration corrected Scanning Transmission Electron Microscopy	Atomic structure of NP clusters, especially bimetallic ones, as a function of composition, alloy, homogeneity, phase segregation
EELS	Electron Energy Loss Spectroscopy	Type and quantity of atoms present, chemical states of atoms, collective interaction of atoms with neighbors, bulk plasma resonance
Electron tomography	Electron tomography	Realistic 3D particle visualization, snapshots, video, quantitative information down to atomic scale
SEM-HRSEM, T-SE-EDX	Scanning Electron Microscopy- High Resolution Scanning Electron Microscope	Morphology, dispersion of nanoparticles in cells and other matrices/ supports, precision in lateral dimension of nanoparticles, quick examination-elemental composition

Abbreviation	Characterization Techniques	Main Information (Utility)
EBSD	Electron Backscattered Diffraction Microscopy	Structure, crystal orientation and phase of matrices in SEM. Examine microstructure, reveal texture, defects, grain morphology, deformation
AFM	Atomic Force Microscope	Nanoparticle size and shape in 3D mode, evaluate degree of covering of a surface with nanoparticle morphology, dispersion of nanoparticles in cell and other matrices/supports, precision in lateral dimension of nanoparticles, quick examination- elemental composition
MFM	Magnetic Force Microscopy	Standard AFM imaging together with the information of magnetic moments of single NPs. Study magnetic NPs in the interior of cells. Discriminate from non-magnetic NPs

Table 4. Nanoscale parameters characterization techniques.

Entity Characterized	Possible Characterization Techniques
Size (structural properties)	TEM, XRD, DLS, NTA, SAXS, HRTEM, SEM, AFM, EXAFM, FMR, DCS, ICP-MS, UV-Vis, MALDI, NMR, TRPS, EPLS, magnetic susceptibility
Shape	TEM, HRTEM, AFM, EPLS, FMR, 3D-tomography
Elemental chemical composition	XRD, XPS, ICP-MS, ICP-OES, SEM-EDX, NMR, MFM, LEIS
Crystal structure	XRD, EXAFS, HRTEM, STEM, electron diffraction
Size distribution	DCS, DLS, SAXS, NTA, ICP-MS, FMR, DTA, TRPS, SEM, superparamagnetic relaxometry
Magnetic properties	SQUID, VSM, MFM, FMR, XMCD, magnetic susceptibility
Optical properties	UV-Visible spectroscopy, Photoluminescence spectroscopy, EELS-STEM
Detection of Nanoparticles	TEM, SEM, STEM, EBSD, magnetic susceptibility
Structural defects	HRTEM, EBSD
Dispersion of nanoparticles in matrices	SEM, AFM, TEM
3D visualization	3D topography, AFM, SEM
Single particle properties	Sp-ICP-MS, UV-Vis, RMM-MEMS, PTA, DCS, TRPS
Density	DCS, RMM-MEMS
Agglomeration state	Zeta potential, DLS, DCS, UV-Visible spectroscopy, SEM, Cryo-TEM, TEM
Concentration	ICP-MS, UV-Visible, RMM-MEMS, PTA, DCS, TRPS
Surface charges	Zeta potential, EPM
Surface area, specific surface area	BET, liquid NMR
Ligand binding/composition/density/arrangement/ mass, surface composition	XPS, FTIR, NMR, SIMS, FMR, TGA, SANS
Growth kinetics	SAXS, NMR, TEM, cryo-TEM, liquid-TEM
Chemical state –oxidation state	XAS, EELS, XPS, Mossbauer

1) UV-visible spectroscopy

UV-visible spectroscopy as shown in Fig. 3 is used for the measurement of the intensity of absorption in near ultraviolet and visible radiation by a sample. Ultraviolet and visible radiation ranges in wavelength from 200 to 800 nm and are energetic enough to promote outer electrons in an atom to higher energy levels. UV-visible spectroscopy is useful for qualitative and quantitative analysis of sample. Moreover,

UV-visible spectroscopy can also be used to determine the band gap of semiconductors. This band gap can be calculated by the Equation 2;

$$\Delta E_g = \frac{1240}{\lambda_{max}} \quad (2)$$

As UV radiations are associated with high energy, it produces a change in the electronic energy of the molecule. The relationship between the energy absorbed in an electron

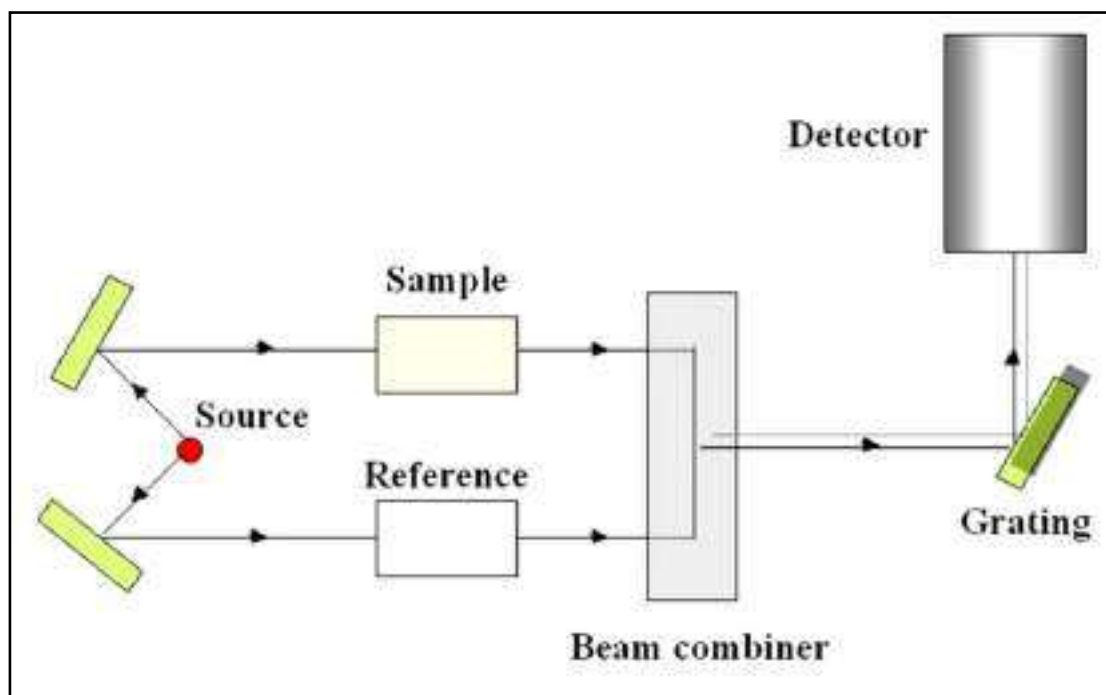


Fig. 3 A pictorial representation of the principle of UV-Vis Spectrophotometer.

transition and frequency (ν), wavelength (λ) and wave number ($\bar{\nu}$) of radiation producing the transition can be explained as Equation 3,

$$\Delta E = h\nu = \frac{hc}{\lambda} = hc\bar{\nu} \quad (3)$$

where, h is Planck's constant, c is velocity of light and ΔE is energy absorbed in electronic transition in a molecule from low of energy state (ground state) to a high energy state (excited state). Equation 3 gives the direct relationship between energy, frequency, and wavelength of radiation.

The amount of energy absorbed depends upon energy difference between the ground state and excited state; smaller the difference, the longer the wavelength of absorption. The principal characteristics of an absorption band are its position and intensity. The position of an absorption band corresponds to the wavelength of radiation whose energy is equal to the required for an electronic transition. The intensity of absorption highly depends on two factors viz. the probability of interaction between the radiation energy and the electronic system as well as the difference between ground state and excited state. The intensity of absorption can be derived from Beer – Lambert's law given as, "When a beam of monochromatic light is passed through homogeneous absorbing medium then the rate of decrease of intensity of radiation with the thickness of absorbing medium is directly proportional to the intensity of radiation as well as concentration of solution."

$$\begin{aligned} -\frac{dI}{dx} &= aIc \\ -\frac{dI}{dx} &= kIc \\ -\frac{dI}{I} &= kdx \end{aligned}$$

Integrating the above equation we get,

$$\begin{aligned} -\int_{I_0}^I \frac{dI}{I} &= kc \int_0^x dx \\ -\log_e \frac{I}{I_0} &= kcx \\ \log_e \frac{I}{I_0} &= -kcx \\ I &= I_0 e^{-kcx} \end{aligned} \quad (4)$$

Above Equation 4 is known as Beer – Lambert's equation.

The metallic nanomaterials are known to exhibit characteristic color. The absorption of electromagnetic radiation by metallic nanoparticles originates from coherent oscillation of valence band electrons induced by an interaction with electromagnetic field. These resonances are known as surface plasmon that occurs only with nanomaterials. The noble metal colloidal solutions are showing the phenomenon of surface plasmon resonance, thus UV-visible spectroscopy is a powerful tool for its characterization.

UV-visible spectroscopy is an important technique for chemical analysis of noble metallic nanomaterial's. In this research work, this technique has been used to get an idea about the formation of nanomaterial's. Also, this technique can be used to reveal rate of formation of nanoparticles.^[56]

2) X-Ray Diffraction (XRD)

X-rays were discovered in 1895 by German physicist Wilhelm Conrad Rontgen.^[72] They were called X-rays because their nature was unknown at that time. X-rays are invisible, highly penetrating electromagnetic radiations of much shorter wavelength than visible light. X-rays are electromagnetic radiations with wavelength of the order of 10^{-10} m. Van Lave demonstrated in 1912 that X-rays could be diffracted by

crystal. Later, in 1935, Le Galley first constructed X-ray powder diffractometer.^[73] After this invention, metallurgist and mineralogist use X-ray powder diffractometer primarily to study structural imperfections.

They are typically generated by bombarding a metal with high energy electrons. The high energy electrons must penetrate through the outer electron shells and interacts with inner shell. If more than a critical amount of energy is transferred to an inner-shell electron, that electron is ejected *i.e.* it escapes the attractive field of the nucleus, leaving the hole in the inner shell and generates ionized atom. The ionized atom can return almost to its lowest energy (ground state) by filling in the missing electron with one from the outer shells. It is this transmission which is accompanied by the emission of an X-ray or Auger electron.

English physicist Sir W. H. Braggs and his son W. L. Braggs developed a theory in 1913 to explain why cleavage faces of crystal appears to reflect X-ray only at certain angle of incident (θ). This equation is called Bragg's law and is given as Equation 5,

$$2d \sin \theta = n\lambda \quad (5)$$

where, d is the distance between the two atomic layers in crystal and λ is the wavelength of the incident X-ray beam, and n is an integer which indicates order of reflection. The Bragg's law is represented in Fig. 4.

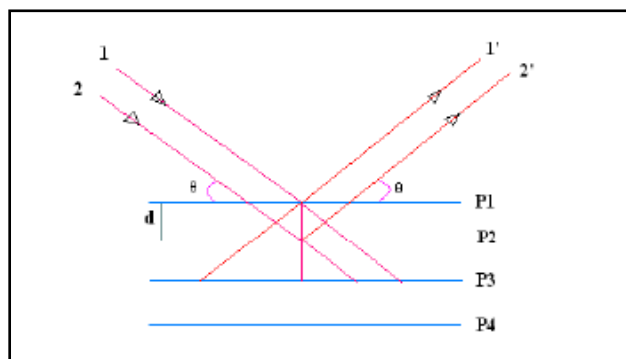


Fig. 4 Bragg's law for X-ray diffraction.

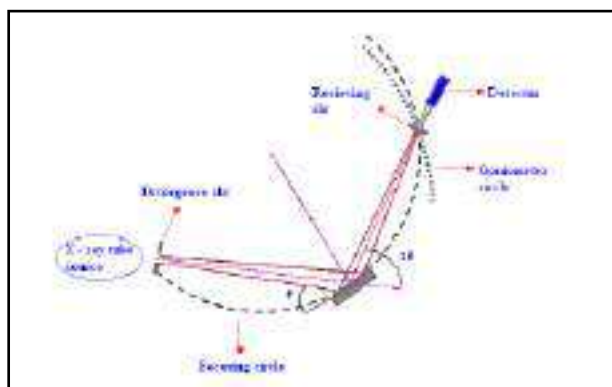


Fig. 5 Bragg-Brentano para-focusing geometry of XRD in reflection mode.

Powder XRD is an important characterization tool to determine the structure of nanomaterials. The work presented

in this thesis emphasizes on the synthesis of noble metallic nanomaterials. Their crystalline nature could be identified by XRD pattern. As shown in Fig. 5, the sample to be analyzed is generally in powder form, consisting of randomly oriented fine grains of crystalline material. The position and intensities of the peak are used to identify the underlying crystal structure of the sample. In powder X-ray diffraction method, we can get information from peak intensities and its position about the unit cell content, and point symmetry.

A perfect crystal would extend in all direction to infinity, but this is only the hypothetical concept and in fact no crystal is perfect due to its finite size. The deviation from perfect crystallinity leads to a broadening of the diffraction peaks. Due to presence of polycrystalline aggregates crystalline size is not generally the same as particle size. In 1918, Scherrer first observed that small crystalline sizes give rise to line broadening and based on this observation he derived the well-known equation called *Scherrer formula* which relates the crystalline size to the line broadening and that is given as Equation 6,^[74]

$$D = \frac{k\lambda}{\beta \cos \theta} \quad (6)$$

3) Fourier transform infrared spectroscopy

Infrared spectroscopy is a common spectroscopy technique used to identify the chemical functional groups present in the sample. It is an excellent tool to study the interactions and mechanism of reduction of metal ions. Spectroscopy in middle IR region is extremely useful for study of organic compounds. IR spectroscopy has been widely used for the identification of organic compounds because of the fact that their spectra are generally complex and provides numerous maxima and minima that can be used for comparison purposes. Modern spectrometers working in the infrared region generally use the Fourier transform technique for spectral detection and analysis. The atoms in a molecule do not remain in a fixed relative position and keep vibrating about their mean positions. Due to this vibrational motion if there is a periodic alternation in the dipole moment, such modes of vibration are IR active. The IR region of electromagnetic spectrum ranges from 1 to 100 μm wavelength. The vibrating molecules absorb energy only from those radiations with which it can coherently interact, *i.e.* radiations of its own oscillation frequency.

Thus each functional group has its own specific vibrational frequencies which are very sensitive to its chemical environment and neighboring species. The molecular structure of compound can be guessed from the appearance or non appearance of certain vibrational frequencies. The vibrational frequency is given as Equation 7,

$$\nu = \frac{1}{2\pi} \sqrt{\frac{k}{\mu}} \quad (7)$$

where, k is force constant and μ is reduced mass.

The key concept in FTIR is the use of mathematical operation called as Fourier transformation which converts a signal in time domain to frequency domain. The frequency

domain transformation speeds up the estimation of IR spectrum of the signal. The time required here is 1 sec or less vs 10-15 minutes for normal system. The reduction in time allows take number of sample scans and thereby improving the resolution and quality of the FTIR imaging. In FTIR spectroscopy, we are using the term wave-number which is reciprocal of wavelength.

The choice of capping agent may also affect FTIR image. When the capping molecules are adsorbed on nanoparticle surface, their vibration modes will change. Hence the vibrational frequencies characteristics of functional group will be either shifted and the extent of such shifting depends upon nature and strength of interactions.^[69]

FTIR Instrumentation: Infrared spectrometer has similar components to those of ultraviolet and visible instrument. The essential components of an infrared spectrometer are:

- 1) Light source
- 2) Monochromatic and optical material
- 3) Sample holder
- 4) Detector
- 5) Instrument for the measurement of response of the detector

Modern spectrometers working in the infrared region generally use the Fourier transform technique for spectral detection and analysis. The essential part of an FTIR instrument is the Michelson's interferometer, which consists of static and a movable mirror as shown in Fig. 6. The source is generally a Nernst filament consisting of a spindle of rare-earth oxides. The beam is then guided and made to pass through a beam splitter (a part of the interferometer, a component which reflects about half of the radiation that hits it and transmits the rest). The beam thus divided into 2 parts recombines again either constructively or destructively depending on the path difference created by the movable mirror. An actual signal thus consists of radiation spanning a large number of wave numbers and the total intensity is thus integration from the individual contributions.^[75]

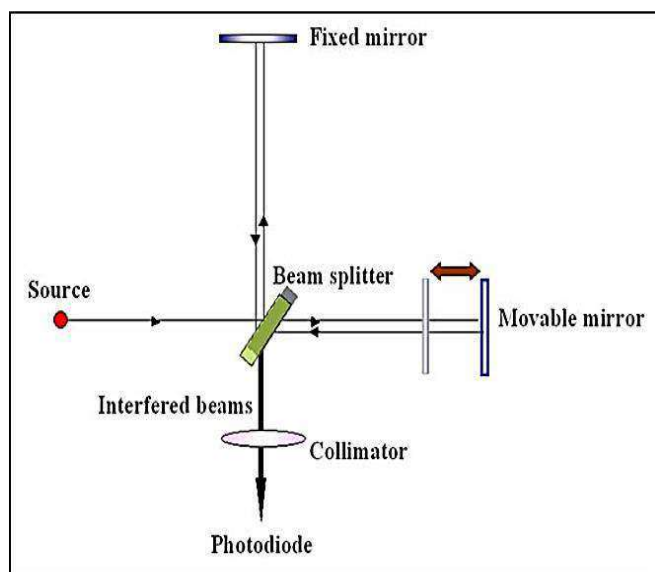


Fig. 6 Schematic showing the basic principle behind Michelson's interferometer.

Table 5. Chronological developmental scenario in microscopy.

167 BCE	The Chinese use water made of lens and a water filled tube to visualize the unseen
1000 AD	Reading stone. The first vision aid called reading stone was invented. It is glass sphere placed on the top of text which it magnifies readability.
1021	Book on optics: Muslim scholar Ibn al Hytham writes his book of optics.
1284	First eye glass was invented. Salvino D'Armate invented first wearable glass
14th century	Spectacles first made in Italy
1590	Dutch spectacle maker Hans Jansen and his son Zacharias Jansen claimed by later writers to have invented a compound microscope
1609	Galileo Galilei developed a compound microscope with a convex and a concave lens
1619	Cornelius Drebbel presents, in London a compound microscope with two convex lens
1620	Christian Huygens, another Dutchman developed a simple 2 lens ocular system that was chromatically corrected.
1665	Robert Hooke published Micrographia a collection of biological micrographs. He coins the word cell for the structures he discovers in cork bark
1674	Anton van Leeuwenhoek improved simple microscope for visualizing biological objects. He was the first person to visualize bacteria.
1830	Joseph Jackson Lister discovered that using weak lenses together at various distances provided clear magnification.
1878	Ernest Abbe developed a mathematical theory linking resolution to light wavelength.
1903	Richard Zsigmondy invented the ultramicroscope, which allows for observation of specimen below the wavelength of light.
1931	Ernest Ruska started to build first electron microscope. It is a Transmission Electron Microscope.
1932	Transparent biological materials were studied for first time using Frits Zernike's invention of phase contrast microscope.
1938	James Hillier built another TEM
1953	Zernike, professor of theoretical Physics was awarded Nobel prize for invention of phase contrast microscope
1955	George Nomarski, professor of microscopy published the basis of differential interference contrast microscopy
1981	Gerd Binnig, Quate and Gerber invented Atomic Force Microscopy
1988	Kinoshita invented the electrochemical scanning microscope
1991	Kelvin probe force microscope invented

Microscopic techniques: Microscopy is the technical field of using microscope to view samples and objects that cannot be seen with the unaided eye. There are three well known branches of microscopy; optical, electron and scanning probe microscopy. Optical and electron microscopy involve the diffraction, reflection and refraction of electromagnetic radiation/ electron beam interacting with the specimen and the subsequent collection of this scattered radiation or another signal in order to create an image. This process may be carried out by wide field irradiation of sample (*e.g.* TEM) or by scanning a fine beam over the sample (*e.g.* SEM). The developmental scenario in the microscopy can be summarized in Table 5.

Resolving power

The basic limitation of light microscope is its resolving power, *i.e.* the ability to distinguish two adjacent points as distinct and separate. Mere magnification of object without the ability to distinguish structural details is not beneficial. The largest magnification produced by a microscope may not be most useful because the image obtained may be unclear or fuzzy. Therefore, for better clarity high resolution image is desired. The resolving power of a microscope is a function of wavelength of light used and the numerical aperture (NA) of the lens system.

Numerical aperture: The numerical aperture of a microscope is a measure of its ability to gather light and resolve fine specimen detail at a fixed object distance. The numerical aperture of the microscope is given as Equation 8,

$$NA = n \sin \theta \quad (8)$$

where n is the refractive index and θ is the one half of the angular aperture A.

1) Electron microscopy

It has been discussed earlier that the structural features of nanomaterials can be revealed to some extent by spectroscopic techniques. But it is the only microscopic technique which allows direct imaging of the particles. Today scanning electron microscopy is a versatile technique used in many industry as well as for research and development laboratories. In the early 1930s, many scientists and engineers realized that they had reached the theoretical limit of resolving power of an optical microscope. In order to see the finer details of objects such as biological cells, scientists started to develop new types of microscopes that made use of fast moving electrons instead of light. Microscopes that make use of fast moving electrons are known as electron microscope.^[76]

The theory behind electron microscope is as given here. The increase in kinetic energy results in decrease in de Broglie wavelength of electrons. The idea is to direct a focused beam of electrons towards a small part of object in vacuum and detect signals generated due to interaction of electrons with respect to object. Image can be generated depending on contrast in the magnitude of signals obtained when a beam of focused electrons scans the object. Electron microscope can

achieve better resolution and greater depth of focus. Scanning electron microscope uses electron with energies of a few thousand electron volts (eV). The de Broglie wavelength of an electron is given by Equation 9,

$$\lambda = \frac{h}{p} \quad (9)$$

where, h is Planck's constant, and p is momentum of electron. Thus, electron microscopes would be able to achieve much better resolution than ordinary optical microscopes.

Fast moving electrons have very high kinetic energy and thus having very short wavelength. Therefore, they are capable of very high resolution if that wavelength can be used in an appropriately designed instrument such as electron microscope. Resolving power of an electron microscope is given by the following Equation 10,

$$d = \frac{0.61\lambda}{NA} \quad (10)$$

where, d is the smallest distance between two points that can be seen as distinguishable, λ is the wavelength and NA is numerical aperture.

In general, the resolving power of ordinary microscope is about 1 nm. This number is larger than de Broglie wavelength because instrument geometry and electron scattering in the specimen are factors that influence the resolving power. The electron microscope is generally classified as scanning electron microscope (SEM) and transmission electron microscopy (TEM). A comparison in terms of resolving power shows that scanning electron microscope is somewhat intermediate between optical microscope and transmission electron microscope. A significant advantage of using SEM compared to TEM is that the former can create an image of the surface of bulk samples with a large depth of focus. This large depth of focus also allows SEM to be used at low magnification instead of optical microscope.

When studying the bulk material, the material's surface or its interior is the target of the microscopic investigations. The surface can be studied directly with scanning electron microscopy (SEM) and atomic force microscopy (AFM) whereas indirectly with transmission electron microscopy. In addition to the conventional TEM, special equipments have been developed to achieve high resolutions and that is known as high voltage TEM (HVTEM).

Scanning electron microscopy (SEM) is currently the most popular of microscopic techniques. This is because of user friendliness of the apparatus, the ease of specimen preparation and the general simplicity of image interpretation. In the past, the central reason for using EM was structure and morphology determination, but currently it has acquired an important application in investigating different process, *i.e.* change in material caused by several factors; such as heat, electrical, magnetic fields and environmental liquids or gases. One more important application of EM is in the study of micromechanical process of deformation and fracture.

2) Scanning electron microscopy

SEM as shown in Fig. 7. This is a type of electron microscope that produces images of a sample by scanning it with a focused beam of electrons. The electrons interact with the atoms in the sample, producing various signals that can be detected and that contain information about the sample's surface topography and composition. The electron beam scans in a raster scan pattern, and the beam's position is combined with the detected signal to produce an image.

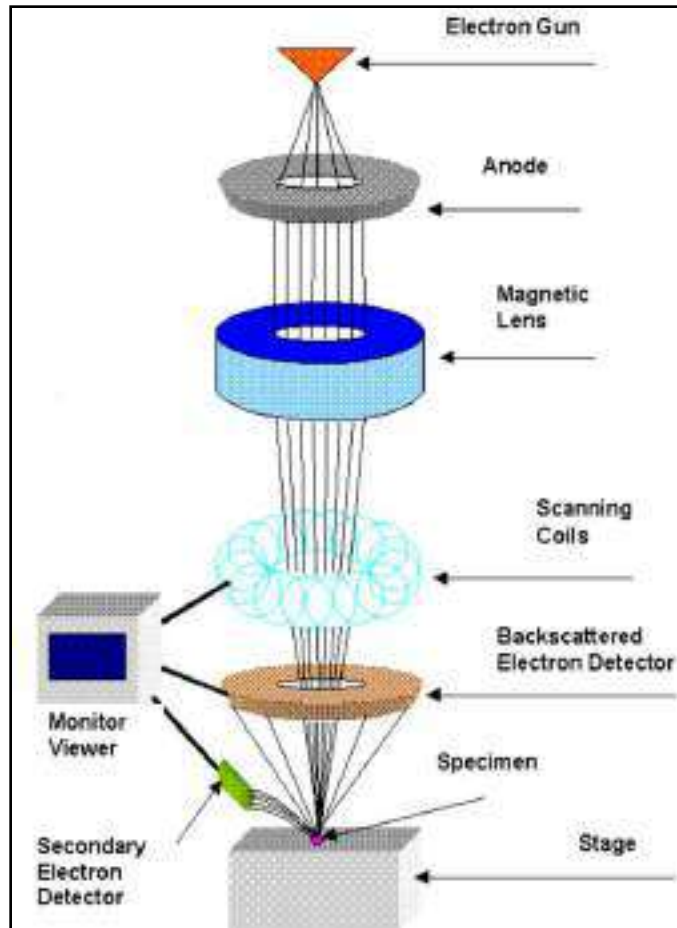


Fig. 7 Schematic showing the working of a Scanning Electron Microscope.

Scanning electron microscopy is extremely useful for direct observations of surface because they offer better resolution and depth of field than optical microscopes. The SEM shows very detailed 3-D images at much higher magnification than is possible with a light microscope. The image created without light waves are rendered black and white. In a very brief way SEM works under vacuum in a column where an electron gun emits a beam of high energy electrons. The two major components of SEM are the electron column and control console. The electron column consists of an electron gun and two or more electron lenses, which influences the path of electrons travelling down an evacuated tube.

Instrumentation: An SEM consists of an electron gun that produces the electrons, an anode at high voltage that

accelerates the electrons, a system of electromagnetic lenses that focuses the beam of electrons onto the samples, scanning coils that facilitate the scanning of electron beam over the sample surface, the sample chamber where the sample is located, and detectors that measures the signals generated due to the interaction of the electrons with sample and this is shown in Fig. 8. All these components are housed within the vacuum chamber.

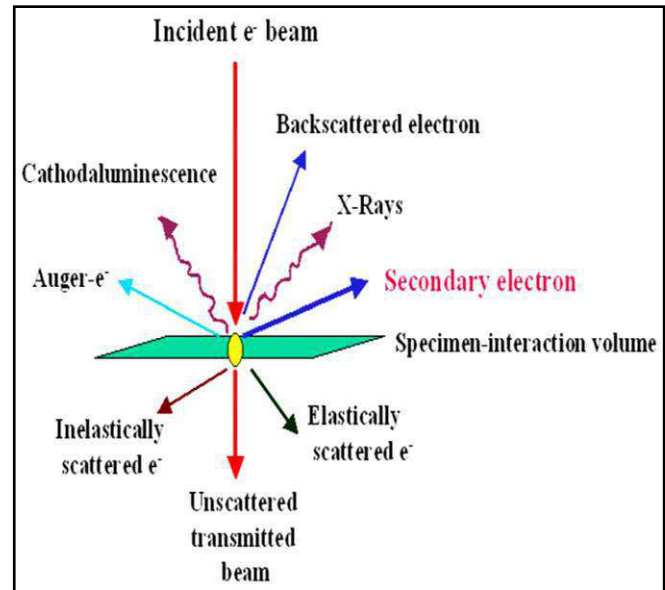


Fig. 8 An illustration showing the possible effects after sample-electron beam interaction.

There are two types of electron source or electron gun; the first thermionic and the second field emission guns. A thermionic electron relies on electrons emitted from heated wire or a filament. The filament is usually a bent tungsten wire that functions as a cathode. The bent portion is heated up when an electric current passes through the filament. The outer orbital electrons of the tungsten atoms are emitted when they gain sufficient thermal energy to overcome the energy barrier that prohibits the electrons from escaping. The higher the temperature more is the number of electrons emitted. Tungsten is usually chosen as filament because it can withstand high temperature without melting. However, thermionic electron guns have relatively low brightness. Whereas the field emission electron gun relies on electrons emitted from a sharp tip upon the application of a high electric field. It does not involve heating of a filament. Instead, when a high electric field is applied to the tip, quantum mechanical tunneling takes place. Typically, the field emission gun has two anodes. The first anode (at 0-5 KV) serves to extract the electrons from the tip while second anode (at 1-50 KV) serves to accelerate the electrons and this determines the energy of electrons travelling down the column of SEM. The field emission gun has higher brightness.

As electrons are streaming out of electron guns, they form a spray pattern. In order to control the profile of this electron beam into a finely adjusted focused beam, electromagnetic

lenses are used. When an electron with charge q and velocity v travels in a region with a magnetic field B it experiences a force given by Equation 11,

$$F = q.V \times B \quad (11)$$

here, it should be noted that since the direction of force acting is perpendicular to the direction of the velocity, therefore the Lorentz force acting on the electrons has no effect on the speed of electrons. The only effect the magnetic field has is on the electron which changes the direction of motion of electrons.

The magnetic profile generated by a typical electromagnet used in SEM is highly non-uniform. The magnetic field of electromagnetic lens can be considered to be made up of two independent components viz. the vertical axis component (Hz) and horizontal radial component (Hr). The radial component causes the electron travelling in 2-direction to move in a helical manner with respect to the central axis. The axial component causes the electron to move closer to the central axis, *i.e.* the effect of axial component is to reduce the diameter of the helical path of the electrons. As a result, the electron beam spirals down the column as it passes through the electromagnetic lens. The resultant effect is that the electron beam becomes finely focused and can be scanned over the sample for imaging purposes.

The scanning of the electron beam over surface of sample is achieved by deflecting the beam using an applied electrostatic or magnetic field. Typically, a deflection yoke consists of four radially oriented coils arranged so that the magnetic field is perpendicular to the axis of the system. The magnetic field generated by these coils can be controlled by the amount of electric current passing through these coils. By programming these coils, one can readily focus the electron beam over the sample surface.

The typical accelerating voltage used in SEM is of the order of a few thousand volts. With an energetic beam of electrons scanning over the sample surface, a number of phenomenon occur due to interactions between the electrons and sample atoms. For example; the incident electron can collide with the electron of the atoms or atomic nuclei. Energetic incident electrons can collide with the electrons of sample and knock them out of their usual orbits. These electrons are known as secondary electrons. During the process, the incident electron loses little energy and continues to generate more secondary electrons as it travels further into the sample. A single incident electron will generate a shower of thousands of secondary electrons until the secondary electron loses its energy. Since large number of secondary electrons is generated, the detection of secondary electron is the most common mode of operation for SEM sample imaging. Secondary electrons are having low energy so that secondary electrons generated deep in the sample are unable to travel to the surface and leave the sample. As a result, the secondary electrons detected are primarily from region close to the sample surface (< 10 nm). Thus, SEM imaging would produce good topographical information for the sample.

Sometimes, an incident electron collides with the nucleus

of a sample atom, causing the electron to bounce back. Such electrons are referred to as back scattered electrons. Since the atomic nucleus is more massive than electron, the back scattered electron has high velocity and are characterized by their high energy of a few KeV. High density samples will generally create more back scattered electrons, and hence back scattered electrons can be utilized to identify difference in the densities of the sample. The production of back scattered electrons is directly proportional to the atomic number of the atoms in the sample. Therefore, the regions with atoms of higher atomic number would appear brighter than regions with atoms of lower atomic number. Thus, besides providing the information of topography back scattered electrons provides valuable information on the density and elemental distribution in the sample.^[76]

3) Transmission electron microscope

Working principle: TEM is a microscopic technique in which a beam of electron is transmitted through an ultra-thin specimen, interacting with the specimen as it passing through. An image is formed from the interaction of the electrons transmitted through the specimen; the image is magnified and focused onto the imaging device such as florescent screen. In TEM analysis, a thin specimen is illuminated with electrons in which the electron intensity is uniform over the illuminated area. As the electrons travel through the specimen, they are either scattered by a variety of processes or they may remain unaffected by the specimen. The end result is that a non-uniform distribution of electrons emerging from the surface of the specimen contains all the structural and chemical information about the specimen. Electron microscope is constructed to display this non-uniform distribution of electrons in two different ways viz. angular distribution of scattering that can be viewed in the form of scattering patterns, and spatial distribution of scattering that can be observed as contrast in images of the specimen. The advantages of this arrangement are the possibility of directly viewing the area from which the diffraction pattern arises. The basic components of the transmission electron microscope are shown in Fig. 9.^[77]

A technical explanation of a typical TEM working is as follows:

- i. The vital source, *i.e.* an electron gun produces a stream of monochromatic electrons.
- ii. The stream is focused to a small, thin coherent beam by the use of condenser lenses 1 and 2. The first lens is usually controlled by a spot size knob that largely determines the spot size and the second lens is usually controlled by the intensity or brightness knob that actually changes the size of the spot on the sample.
- iii. The beam is restricted by the condenser aperture, knocking out high angle electrons.
- iv. The beam strikes the specimen and part of it is transmitted.

- v. The transmitted portion is focused by the objective lens.
- vi. Optical objective and selected area metal apertures can restrict the beam, the objective aperture enhancing contrast by blocking out high-angle diffracted electrons, the selected area aperture enabling the user to examine the periodic diffraction of electrons by ordered arrangement of atoms in the sample.
- vii. The image is passed down the column through the intermediate and projector lenses.

The image strikes the phosphorus image screen and light is generated, allowing the user to see the image. The darker area of the image represents those areas of the sample that fewer electrons are transmitted through.^[77]

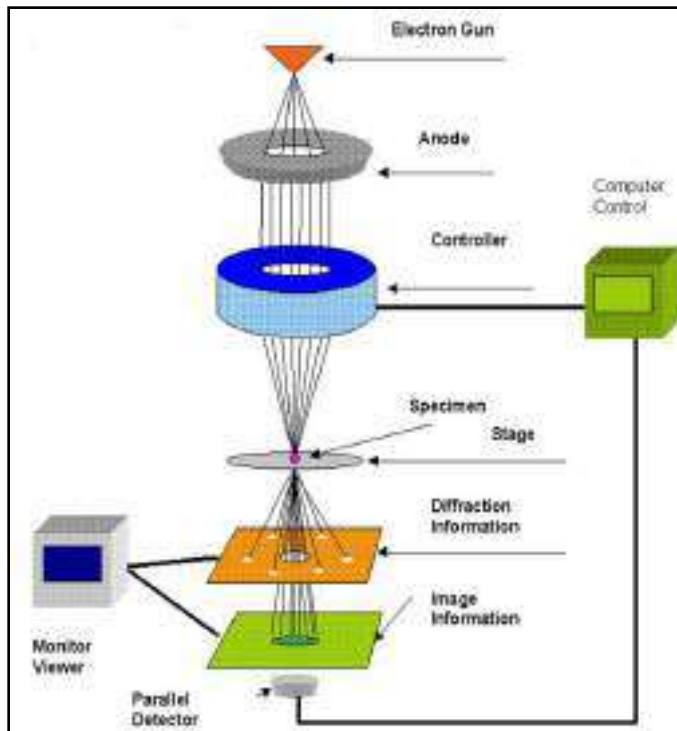


Fig. 9 A pictorial representation of the Transmission Electron Microscope.

5. Introduction of nanotechnology in food science and technology

Nanotechnology is the evolving new branch of technology which has applications in almost every branch of science. Like another area of science and technology it has wide applications in food science and technology also. If we try to see the application of nanotechnology in food science, we realize Indian sweets covered by silver Burk can be first application of nanotechnology in food science. Silver is a noble metal that can not be directly consumed, but many Indian sweets especially Bengali and Bihari sweets are covered with silver Burk and then they can be easily consumed. Thus, this can be considered as first application of nanotechnology in food industry. Moreover theoretically we can say all food contains nanoparticles. If we consider the example of natural food milk

secreted by mammalian animals, it contains caseins, a form of milk protein present at the nanoscale. The organization and change to structures of these affects the texture and properties of milk. Lateron, with the development of horizon of nanotechnology this concept is being widely used in different sectors of food science and technology like production, processing, packaging and suppliments. Nanotechnologies are being developed all the time, for instance nanocarrier system for delivery of nutrients and suppliments, organic nanosized additives for food suppliments and animal feeds, nanocoatings on food contact surfaces for better antimicrobial properties or nanosensors for food labellings. Nanoparticles are being used to deliver vitamins, minerals or other nutrients in food and drink without affecting the taste or appearance. These nanoparticles encapsulate the nutrients and carry them through stomach into the blood stream. Nanoparticle emulsions are being used in ice cream and various spreads to improve the texture and uniformity. The use of nanoparticles in food industries can be broadly classified as: production, processing, packaging and suppliments.

1) Nanotechnology in food industry

A few years ago food was a domestic issue. Then the food sector came out of home into hotels. But still there was no industrialization. But recently food sector has become an industrial sector. Today, food and beverage sector are global multi-trillion-dollar industry. All the major food companies are consistently looking for ways to improve production efficiency, food safety and food characteristics. Extensive research and development projects are ongoing with the ultimate goal of gaining competitive advantage and market share. For an industry where competition is intense and innovation is vital, nanotechnologies have emerged as a potential aid to advances in the production of improved quality of food with improved properties.

Nanoscience and technology imparts potential contribution to food science. The nanotechnological aspects in food sector includes a wide range of applications which includes alteration to the properties of food, *e.g.* nano additives and nano ingredients, improvement in the drug and food delivery quality, safety of food and packaging of food stuff. For example, scientists are creating food packages that contain nano-sized particles devised to warn consumers that a food product is unsafe to eat, and are inventing nano-encapsulated materials that can distribute nutrients to human or animal cells. Since last two decades researchers working in food sector are actively searching how nanoscience can be used to improve food and there are signs that the research and development of food nanotechnologies is likely to grow quickly in the coming years. Nanotechnology is expected to influence numerous areas of food science in ways that will benefit both the food industry and consumers. For example, nanotechnology is being used to improve the quality and safety of food. Nano sensors are being developed that can detect and signal the presence of spoilage microorganisms, and potentially even

differentiate the presence of pathogenic from benign microorganisms. Nanotechnology is also being used to create healthier foods that can deliver nutrients and medications to different parts of the human body and can alleviate allergenic.

2) Food packaging: Nanotechnology and food packaging

Once the food is prepared but if it is not to be consumed immediately then safe packaging of food is important. The food should be stored safely to avoid spoilage. Food packaging is one of the most critical steps in terms of food safety. The purpose of food packaging is primarily to prevent spoilage and contamination, increase sensitivity by enabling enzyme activity, and reduce weight loss. Here the wonder of nanotechnology can effectively work. The spoilage of food generally takes place due to microbial growth. If during the packaging some antimicrobial materials are incorporated then the possibility of spoilage of food will be minimum. Taking this into consideration, the nanoparticles exhibiting antimicrobial properties are used in food packaging. Nanoparticles can also be used as active and intelligent food packaging materials. According to European regulations 1935/2004/EC and 450/2009/EC, active materials and articles are defined as “materials and articles that are intended to extend the shelf life or to maintain or improve the condition of packaged food.” On the other hand, intelligent food contact materials are defined as “materials and articles which monitor the condition of packaged food or the environment surrounding the food.”^[78]

Today in the food packaging sector silver nanoparticles and titanium dioxide nanoparticles are used which prevent microbial growth. Apart from this, it is better to prevent entry of micro-organisms or creation of unfavourable conditions for microbial growth. The introduction of clay nanoparticles in food packaging materials blocks oxygen and moisture from reaching the food, and also aids in preventing spoilage. We would like discuss here that in the north India particularly in Bihar and Uttar Pradesh clay-made pots are used for packaging and serving of food materials from centuries back. Such clay-made pots are called Kulhad or Chukada in local Bhopuri languages. Chemical giant Bayer produces a transparent plastic film called Durethan which contains nanoparticles of clay. Durethan 7 is an engineering plastic based on polyamide 6 and polyamide 66; these particles offer an excellent combination of properties which include high strength and toughness, abrasion resistance, chemical resistance, and resistance to cracking. Durethan is used in various industries and applications, including packaging film for the medical field and food packaging. The nanoparticles are spread throughout the plastic and are able to block oxygen and moisture from reaching fresh meats or other foods. The advantage of using nanoclay is it also makes the plastic lighter, stronger and more heat-resistant. Durethan film material with nanoparticles combines the advantages of polyamide 6 and ethylene vinyl alcohol (EVOH) to produce an inexpensive but still very airtight packaging material. The embedded

nanoparticles prevent gases from penetrating the film and also keeping moisture from escaping.

Packaging is the technique employed by using most appropriate containers and components to protect, carry identify and merchandise any product. In modern perspective packaging plays very an important role like consumer education, sales promotion It has wide applications in food science and technology. The application of nanotechnology in food packaging involves following major area of research.^[79]

- Polymer-clay nanocomposites
- Films with embedded enzymes
- Silver based nanocomposites
- Nanosensors

In functional foods bioactive component often gets degraded and inactivated due to the hostile environment and consequently the shelf life of the product is shortened. Now we are often using canned food such as jams, jellies, sauces and various types of beverages. The food entities are prepared long back and are consumed Lateron. Thus, there is every possibility of spoilages of food items packed. There are many reasons for spoilages of food. Numerous routes are developed and already in practice so as to preserve the food particles. The common traditional route to preserve food is salting, drying, frying and oiling the food materials. Whenever there is more water in the food items then the spoilage of food becomes very fast. So, one of the ways in food preservation is the minimization the use of water. With the advancement in nanoscience and technology, researchers try to look into the possibility of using nanoparticles as food preservatives. The use of nanostructured or nanomodified materials is a promising way to prolong and ensure the shelf life of a food product.^[43] Food packaging can be improved by usage of functional nanomaterials with physicochemical improvement, such as temperature and moisture stability, barrier properties, mechanical strength, durability, and flexibility (improved packaging). The packaging can be also improved using nanomaterials with active functions, *e.g.*, antimicrobial, antioxidative, UV protective *etc.* (active packaging), nanosensors with their smart or intelligent functions for the detection of gases and small organic molecules, active stage, and product identification (smart packaging). Bio-based improvement such as biodegradability, biocompatibility, low-waste and eco-friendly packaging (bio-based packaging) can also be achieved with incorporation of bionanomaterials.^[80] Non degradable plastic polymers which usually serve as actual packaging may be replaced by bio-based packaging, including biodegradable packaging and biocompatible packaging.^[81]

3) Improved food packaging

The basic goal of improved food packaging is by incorporation of functional nanomaterials into polymer material to increase the mechanical and physical properties of the packaging such as gas barrier properties, resistance to temperature and humidity, mechanical strength, and flexibility. Various nanocomposites or nanoparticles incorporated in polymers

and nanostructures are already manufactured for the purposes of the various beverages and oils industry, where the proportion of nanoparticles such as clay nanoparticle composites is up to 5% (w/w). These nanomaterials improve barrier properties of packaging such as reduction in oxygen and carbon dioxide permeation for up to 80–90%. Kim and Cha reported that excess clay loadings in ethylene-vinyl alcohol (EVOH) copolymer-based nanocomposite films lead to the reduction of tensile properties and optical transparency due to the formation of clay agglomerates.^[82] With the addition of only 3% (w/w) clay, the oxygen (by 59%) and water vapor barrier (by 90%) properties of the nanocomposite films were improved in comparison to the material without added montmorillonite clay nanoparticles.

Packaging systems are those products which are manufactured with any material in order to protect, contain, manipulate, distribute, transport and identify each article along its supply chain, from raw materials to end users. These functions are compulsory to define accurately any kind of packaging, however, according to the types of products which have to be packed and preserved, a wide range of requirements are also needed, such as mechanical, thermal and barrier properties. Due to the range of advanced functional properties of nanomaterials that can bring to packaging materials, therefore, nanomaterials are increasingly being used in the food packaging industry. It was reported that around 500 nanopackaging products are estimated to be in commercial use, while nanotechnology is predicted to be used in the manufacture of 25% of all food packaging within the next decade.^[83] In nano-packaging, it can also be designed to release antimicrobials, antioxidants, enzymes, flavors and nutraceuticals to extend shelf life.^[84] The new nanotechnology products for food packaging are in the pipeline and some antimicrobial films to improve the shelf life of food and dairy products, have already entered the market.^[85] Novel food packaging technology is by far the most promising benefit of nanotechnology in the food industry in the near future, as described by Dasgupta regarding application of nanotechnology in the agro-food sector, as one of the fastest growing fields in nano-research.^[86] Furthermore, it is shown by recent research trends in food processing, packaging, nutraceutical delivery, quality control and functional food. In this field many organizations, scientists, inventors as well as industries are coming up with new techniques, protocols and products that have a direct application of nanotechnology in agriculture and food products.^[86] In food packaging, by applying nanotechnology, companies are already producing packaging materials that are extending the life of food and drinks and improving food safety. Food packaging and monitoring are major focus of food industry-related nanotechnology research and development.^[87] The leading development in food packaging is active and smart packaging that promises to improve food safety and quality and optimizes product shelf life.^[88] In active and smart packaging, many companies and universities are developing packaging that

would be able to alert if the packaged food becomes contaminated, respond to a change in environmental conditions, and self-repair holes and tears. Currently in packaging industries, the largest part of materials used is nondegradable petroleum based plastic polymer materials. As a result, these nondegradable food packaging materials represent a serious problem on the global environmental.^[89] The use of bio-based packaging materials, such as edible and biodegradable films from renewable resources,^[90] could at least to some extent solve the waste problem by reducing packaging waste and also extend the shelf life, which in turn, enhance food quality. In this respect, by means of the correct selection of materials and packaging technologies, it is possible to keep the product quality and freshness during the time required for its commercialization and consumption.^[88-91] However, the use of bio-based materials for food packaging has been very limited currently. This is due to natural polymers have the poor barrier and weak mechanical properties. Therefore, these natural polymers are frequently blended with other synthetic polymers or chemically modified with the goal of extending their applications in packaging.^[92] In addition, like conventional packaging, bio-based packaging must serve a number of important functions, such as containment and protection of food, maintaining its sensory quality and safety, and communicating information to consumers.^[93] Other nanotechnology that could help to reduce waste of the packaging associated with processed foods is the application of nanocomposites in packaging. The application of nanocomposites promises to enhance the use of edible and biodegradable films in packaging^[94] and will support the preservation of fresh foods, which in turn, extending their shelf life.^[95] Nanotechnology is used to create tiny particles in the film, to improve the transportation of some gases through the plastic films to pump out unwanted carbon dioxide that would shorten the shelf life of the foods. In addition, they are also looking at whether the film could also provide barrier protection and prevent gases such as oxygen and ethylene from deteriorating foods.^[96]

4) Food additives (Nano inside)

Some of the food we eat are fresh. They are not processed. But most of the food we consume are processed. In food processing small amount of certain chemicals are added. These are called as food additives. Any substance that becomes part of food product either directly or indirectly during some phase of processing, storage or packing aging. Basically, a food additive is something that does not normally occur in the food we eat rather it has to be added. According to WHO Food Protection Committee of the national academy of science, It is a substance or mixture of substance, other than the basic food stuff, which is present in food as a result of any aspects of production, processing, storage or packaging. This term does not include chance contamination.^[97]

Food additives are substances added to food to improve its

- Storage properties

- Appearance
- Flavor and
- Nutritional values

Additives are very important for the processed food industry. Natural additives are derived from plants and animal sources whereas other type of additives are derived artificial and are various chemicals. Common types of additives are

- Preservatives
- Coloring
- Flavoring and
- Nutrients

Additives may be natural found in nature such as extracts from beetroot juice used as a coloring agents. Manmade versions are synthetic indential copies of substances found naturally such as benzoic acid used as preservative. Manmade additives may prove more efficient at preserving and some natural colors fade in some products. The artificial additives are produced synthetically and not found naturally. Such types are used as preservatives in many dairy products such as semolina and tapioca puddings. Some artificial colors have almost disappeared from food as producer companies have realized that many consumers prefer food products to contain natural colors. Manmade additives may prove more efficient at preserving and some natural color fade in some products.

Classification of food additives:

- I. Preservatives: These are substances that stop the growth of micro-organisms. Thus, they prevent the spoilage and poisoning of food stuff. They can extend shelf life of products, so that they can be distributed and sold to consumers with longer shelf-life. The common preservatives are as under
 1. Salt, sugar, vinegar and pepper
 - b. Sulfur dioxide or sulfide are used for inhibit for discoloration of cut fruits and serve as anti-browning agents.
 - c. Saltpeter or sodium nitrate are used for meat curing
 - d. Benzoic and sodium benzoate are used as preservative for fruit juice, jellies, margarine and catsup
 - e. Citric acid and tartaric acid provide the acid for flavor improvement in syrup, drinks and jellies
 - f. Alum and soaked lime are used for pickles and fruit preservers.
- II. Anti-oxidants: These are materials that prevent food containing fat or oil from becoming rancid due to oxidation, developing unpleasant odor or flavor. They prevent the browning of cut fruit, vegetables and fruit juices and thus increase shelf life and appearance. Vitamin C or ascorbic acid is the most commonly used anti-oxidant.
- III. Sequesterants: These are the chemicals which combine with a substance and set aside so they can be removed from the food. These are used to inactivate

a substance which interferes with the processing of a food. They are frequently used to keep the minerals from setting out of beverages and making them cloudy. Sorbitol and phosphoric acid are used as sequestrants.

- IV. Humectants: These are substances which prevent food from drying out. The commonly used humectants are glycerine, sorbitol and mannitol
- V. Bleaching and Maturing Agents, Starch, Modifiers: These are the chemicals used in bleaching and maturing agents for flour. The use of these materials reduces the time required for natural aging of flour and therefore is economically important. Bleaching agents are used in manufacturing of certain cheese to impart a white color. The common bleaching agents are benzoyl peroxide, hydrogen peroxide
- VI. Emulsifiers, Stabilizers, Gelling Agent and Thickeners: The emulsifiers help to mix ingredients together that would normally separate eg lecithins. The stabilizers prevents ingredients from separating again for example locust bean gum. The gelling agents are used to change the consistency of a food stuff, e.g. pectin which is used to make jam.
- VII. Surface Active Agents: These are the substances when added to baked food stuff, they facilitate in matching of dough and improve resulting bread appearances.
- VIII. Anti-caking Agents, Anti-foaming Agents: These are the substances that ensure free movement or flow of particles, e.g. in dried milk or table salts. Anti-foaming agents prevent or disperse frothing, e.g. in the production of fruit juice, calcium phosphate, silica gel in curing mixes and stearate are some anti-caking agents.
- IX. Colors: These are the materials which imparts coloring effect on the food stuff. These are also used to restore color lost during processing or storages e.g. marrowfat peas. These substances can reinforce color already in foods, e.g. enhances the yellowness of a custard. These are used to give color to food which is otherwise colorless for example soft drinks.

5) Association colloids

A colloid is a stable system of a substance containing small particles dispersed throughout. An association colloid is a colloid whose particles are made up of even smaller molecules. Surfactant micelles, vesicles, bilayers, reverse micelles, and liquid crystals are some examples of association colloids which have been used to encapsulate and deliver polar, nonpolar, and amphiphilic functional ingredients. Association colloids are thermodynamically favorable systems whose formation is normally driven by the hydrophobic effect - that is, the reduction of the contact area between the nonpolar groups of the surfactant that comprise the association colloid and water. The type of association colloid formed and the

nature of the resultant structures depend on the concentrations and molecular characteristics of the surfactant and cosurfactant used as well as the prevailing environmental conditions (for example, temperature, ionic strength, and pH). The dimensions of many association colloids are in the range of 5 to 100 nm, and these structures are therefore considered to be nanoparticles. The major advantages of association colloid systems are that they form spontaneously, are thermodynamically favorable, and are typically transparent solutions. Thus, the choice of surfactants and cosurfactants to form colloids is critical in ensuring their functionality over a wide range of environmental conditions.^[22]

6) Bio polymeric nanoparticles

The polymer nano technology is an industrial activity involving all the processes of producing polymeric materials filled with particles under 100 nm in size. Recently, the use of polymers has increased. Polymer materials with application of nanotechnology have very good properties such as permeability, flexibility, hardness.^[98]

In order to prevent the biodegradability of the packaging materials, inorganic particles such as clay are added to the biopolymer structures. Nanometer range particles can be produced using food grade biopolymers such as proteins or polysaccharides through self-association or aggregation or by inducing phase separation in mixed biopolymer systems. Polylactic acid (PLA), a common biodegradable nanoparticle, is often used to encapsulate and deliver drugs and micronutrients like iron, vitamin, protein. It has shown that the PLA needs an associative compound such as polyethylene glycol for successful results and the functional ingredients can be encapsulated in nanoparticles and released in response to specific environmental triggers.^[43]

7) Nano-emulsions

An emulsion is a mixture of two or more liquids (such as oil and water) that do not easily combine. Therefore, a nanoemulsion is an emulsion in which the diameters of the dispersed droplets measure 500 nm or less. They are thermodynamically unstable system consisting of at least two immiscible liquid phase, one of which is dispersed as a globule in the other liquid phase which is continuous phase. The emulsions can be categorized as below:

- Oil in water emulsion
- Water in oil emulsion
- Microemulsion
- Nanoemulsion

Emulsions are often referred to as “nanoemulsions,” when the use of high-pressure valve homogenizers or microfluidizers often causes emulsions with droplet diameters of less than 100 to 500 nm and functional food components can be incorporated within the droplets, the interfacial region, or the continuous phase.^[34] The nanoemulsions can be defined as an oil in water emulsion with mean droplet diameter ranging from 50 nm to 1000 nm. Normally the average droplet size lies in

the range of 100-500 nm. The nanoemulsions are also known as submicron emulsion, mini emulsion or ultrafine emulsion. The common emulsion and nanoemulsion differs in certain properties. The difference between common emulsion and nanoemulsion is as below in Table 6.

Table 6. Difference between an emulsion and a non emulsion

Emulsion	Nanoemulsion
These are thermodynamically unstable	These are thermodynamically stable
They appear milky in color	They are translucent in appearance
The droplets are up to few micrometers	The droplets are 0.1 to 0.5 micrometer in size

This interfacial engineering technology would utilize food-grade ingredients (such as proteins, polysaccharides, and phospholipids) and processing operations (such as homogenization and mixing) that are already widely used in the manufacture of food emulsions.^[22] Nano size emulsion-based ice cream with a lower fat content has been developed by Nestle and Unilever.^[99]

a. Advantages of Nanoemulsion:

- i. Reduction of globules as the potential to increase surface area, enhance stability, increase oral bioavailability, more rapid onset of therapeutic action.
- ii. They do not show the problems of inherent creaming, flocculation, coalescence and sedimentation.
- iii. They are non-toxic, non-irritant hence can be easily applied to skin and mucous membrane.
- iv. They can be taken by enteric route because they are formulated with surfactants which are approved for human consumption.
- v. Nanoemulsion can be formulated in variety of formulations such as foams, creams, lipids and sprays.
- vi. Nanoemulsion do not show the problems of inherent creaming, flocculation, coalescence and sedimentation which are commonly associated with macroemulsion.
- vii. Nanoemulsions do not damage human or animal cells, hence are suitable for human and veterinary therapeutic purposes.
- viii. Nanoemulsions are toxic and non-irritant.
- ix. Nanoemulsions can be administrated by various routes such as oral, topical, parenteral and transdermal.

b. Limitations of Nanoemulsion:

1. The manufacturing of nanoemulsion is an expensive process.
2. The stability of nanoemulsion is unacceptable and creates a big problem during storage of formulation for the longer period of time.
3. Less availability of surfactant and cosurfactant required for the manufacturing of nanoemulsion.

8) Nanoceuticals

Nanoceuticals are nutrients that have been manufactured into nanoparticles using nanotechnology. Dietary supplements manufacturers offer various claims concerning products made with nanoparticles, including transformation of fat soluble nutrients into water soluble ones. Nanoceuticals are nutrients that have been manufactured into nanoparticles using nanotechnology. The concept of “nanoceuticals” is gaining popularity and commercial dairy/food and food supplements containing nanoparticles are available. The examples of food-related nanoproducts are:^[100]

- i. Carotenoids nanoparticles can be dispersed in water, and can be added to fruit drinks;
- ii. improved bioavailability;
- iii. Canola oil-based nano sized micellar system is claimed to provide delivery of materials such as vitamins, minerals, or phytochemicals;
- iv. A wide range of nanoceutical products containing nanocages or nanoclusters;
- v. delivery vehicles, *e.g.* a chocolate drink claimed to be sufficiently sweet without added sugar or sweeteners;
- vi. Nanosilver or nanogold are available as mineral supplements;
- vii. To prevent the accumulation of cholesterol some of the nutraceuticals incorporated in the carriers include lycopene, beta-carotenes and phytosterols.

9) Nanoencapsulation

a. Nanoencapsulation of Edible Supplements

Nanoencapsulation is to produce coating materials at nanoscale, it provides final product functionality that comprises controlled release of the core. There are numerous advantages of encapsulated forms of ingredients, which include extending shelf life, better stability, regular delivery of multiple active ingredients, and pH-triggered controlled release. Nanoencapsulation is defined as a technology to pack substances in miniature making use of techniques such as nanocomposite, nano emulsification, and nano-structure and provides final product functionality that includes controlled release of the core. Nanoencapsulation is incorporation of ingredients in small vesicles or walled material with nano (or submicron) sizes. These nanomaterials offer several advantages such as delivery vehicle for lipid soluble ingredients, protection from degradation during processing or in GIT, controlled site specific release, compatible with other food constituents, greater residence time and greater absorption. The protection of bioactive compounds such as vitamins, antioxidants, proteins, and lipids as well as carbohydrates may be achieved using this technique for the production of functional foods with enhanced functionality and stability. Lipid-based nanoencapsulation systems enhance the performance of antioxidants by improving their solubility and bioavailability, *in vitro* and *in vivo* stability, and preventing their unwanted interactions with other food components. The main lipid-based nanoencapsulation systems that can be used for the protection and delivery of foods and

nutraceuticals are nanoliposomes, nanocochleates, and archaeosomes. Nanoliposome technology presents exciting opportunities for food technologists in areas such as encapsulation and controlled release of food materials, as well as the enhanced bioavailability, stability, and shelf-life of sensitive ingredients. Nanoencapsulation technologies have the potential to meet food industry challenges concerning the effective delivery of health functional ingredients and controlled release of flavor compounds. Zein, the prolamine in corn endosperm, binds and enrobes lipids, keeping them from deteriorative changes. Nanocochleates are nanocoiled particles that wrap around micronutrients and have the ability to stabilize and protect an extended range of micronutrients and the potential to increase the nutritional value of processed foods.^[101] Nanocochleates consists of a purified soy based phospholipid that contains at least about 75% by weight of lipid that can be phosphatidyl serine, dioleoylphosphatidylserine, phosphatidic acid, phosphatidylinositol, phosphatidyl glycerol and/or a mixture of one or more of these lipids with other lipids.

b. Nano-coatings

Edible nano-coatings are easy to apply by spraying, immersion, or rubbing. They usually consist of environmentally friendly materials and they do not need to be eliminated from food before consumption. Presently, these nano-coating films present nanostructures in which natural ingredients with antimicrobial and antioxidant activity can be incorporated to increase their beneficial effects on the fresh produce quality.^[102]

c. Edible nanocoatings

These nanocoating used in encapsulating different hydrophilic or amphiphilic materials, the nanolaminate consists of two or more layers of nanomaterial (usually 5 nm) bonded to each other physically or chemically. Waxy coating is used widely for some foods such as apples and cheeses. Recently, nanotechnology has enabled the development of nanoscale edible coatings as thin as 5 nm wide, which are invisible to the human eye. Edible coatings and films are currently used on a wide variety of foods, including fruits, vegetables, meats, chocolate, cheese, candies, bakery products, and French fries.^[103]

d. Nanolaminates

Nanotechnology provides food scientists with a number of ways to create novel laminate films suitable for use in the food and dairy industry. According to one of the most powerful methods is based on the LbL deposition technique, in which the charged surfaces are coated with interfacial films consisting of multiple nanolayers of different materials.^[22]

e. Nanosensors

Various types of nanosensors are used in food industries to increase shelf life of products. Similarly, several food

additives, including benzoate, sorbate, p-hydroxybenzoic acid esters and glutamate, to evaluate the performance of different types of electrophoresis methods within a chip-setup and found that, for different additives, different detection methods proved to be optimal. In the food-analysis market, devices produced with the so-called nanoelectromechanical systems (NEMS) technology are already in use and these systems contain moving parts ranging from nano- to milli-meter scale, which might serve as developing tools in food preservation. They can control the storage environment and act as active “sell by” devices. Nanocantilevers are pioneer in set of biosensors.^[38] Their detection principle is based on their ability to detect biological-binding interactions, such as between antigen and antibody, enzyme and substrate or cofactor and receptor and ligand, through physical and/or electromechanical signaling. Nanocantilever devices have already had tremendous success in studies of molecular interactions and in the detection of contaminant chemicals, toxins and antibiotic residues in food products. The silicon

surface of nanocantilevers can be modified to attach antibodies, resulting in a change of the resonant frequency depending on the attached mass able to detect *Escherichia coli*, which is an indicator of fecal pollution of water and food products, with the help of a cantilever coated with agarose. Currently, no regulations exist that specifically control or limit the production of nanosized particles and this is mainly owing to a lack of knowledge about the risks. Despite this lack of regulation and risk knowledge, a handful of food and nutrition products that contain nanoscale additives are already being sold, such as iron in nutritional drink mixes, micelles that carry vitamins, minerals and phytochemicals in oil and zinc oxide in breakfast cereals. The US Food and Drug Administration requires manufacturers to demonstrate that the food ingredients and food products are not harmful to health, yet this regulation does not “specifically” cover nanoparticles, which could become harmful only in nanosized applications. Public perception of nanotechnology is another important

Table 7. Various applications of NPs in animal nutrition.

Nature of Nanomaterials	Area of application in animal nutrition
Selenium	<p>It significantly decreases ruminant Ph and ammonia concentration, increases total VFA concentration linearly and quadratically.</p> <p>The urinary excretion of purine derivatives are also significantly changed by improving nano-Se supplementation.</p> <p>Selenium has a positive effect against peroxide damage in blood components.</p> <p>The selenium content increases final weight of an individual.</p> <p>Selenium nanoparticles blood, serum and tissue selenium concentration, serum anti-oxidant enzyme activity.</p> <p>Nano selenium shows favorable effects on fertility in male goats and shows positive effects on testicular microstructure, testicular spermatozoa, testicular glutathione peroxidases activity and semen quality.</p>
Chromium	<p>Nanochromium reduces serum levels of glucose, urea nitrogen, triglycerides, cholesterol and non-esterified fatty acids.</p> <p>Serum level protein, high density lipoprotein and lipase activity were significantly increased.</p> <p>Serum insulin increased.</p> <p>The nanoparticles of chromium picolinate significantly improved egg quality.</p>
Copper	<p>Nano-copper supplements improved growth performances in piglets.</p> <p>Significant improvement was observed in IgG, γ-globulin and total globulin protein level and in SOD activity.</p>
Silver	<p>Supplements enriched with nano-silver shows anti-microbial activity.</p> <p>Nano-silver is growth promoter too.</p> <p>The concentration of <i>Clostridium perfringens</i> and <i>Clostridium histolyticum</i> group were reduced in ilium.</p>
Zinc	<p>The nano zinc feed supplements show improved immune status and bio-availability in animals.</p> <p>The ZnO nanoparticles showed to inhibit mycotoxin fungus growth.</p>
Calcium	<p>Nano-calcium showed best feed and is better than control group.</p>
Liposomes	<p>The nano-vesicles are employed for the encapsulation and release of nutrients, enzymes, flavors, and anti-microbial compounds.</p>
Curcumin Nano-emulsion	<p>Used for anti-inflammatory activity using a mouse ear inflammation model</p>
Micelle	<p>Micelles are small spheres of oil coated with a thin layer of bipolar molecules of which one end is soluble in fat and other water.</p>

factor that will affect the realization of packaging equipped with nano-sensors is also designed to track either the internal or external conditions of food products, pellets and containers, throughout the supply chain. For example, such packaging can monitor temperature or humidity over time and then provide relevant information of these conditions, for example by changing color. A United States company, Oxonica Inc, has developed nano-barcodes to be used for individual items or pellets, which must be read with a modified microscope for anti-counterfeiting purposes. Another trend in the application of nanopackaging is the nano-biodegradable packaging. The use of nanomaterials to strengthen bioplastics (plant-based plastics) may enable bioplastics to be used instead of fossil-fuel based plastics for food packaging and carry.

10) Animal nutrition: Welcome nanotechnology

As we are aware, nanoscience and technology has widely touched almost every branch of science and technology. Animal nutrition is also not an exception. The application of nanoscience and technology in animal nutrition includes use of different nanoparticles in the administration of medications, nutrients, probiotics, supplements and other substances.^[105] In recent years feed additives such as trace minerals in nano

forms can be used. Application of nanomaterials are currently used for meat and food generally including the use of NPs and nanomaterials as food ingredients which are placed directly into food or as a part of packaging materials. Nanominerals are having a great potential as mineral feed supplements in animals even at very lower doses than the conventional organic and inorganic sources. Silver, copper, iron and manganese dioxide are metal nano-composites added to poultry feed. Various researchers have described the disease prevention properties of dietary supplements such as polyphenols. The biological activity of the nanomaterials may be anti-microbial, anti-oxidants and prevention and management of some chronic diseases. In recent years polyphenols have attracted attention of the researchers but the major challenge of polyphenol is the poor water solubility and oral bioavailability. Promoting any nanoparticle as feed additive requires a piece of concise information about the potential toxicity of particular compounds against host. Herein, we are trying to see applications of nanomaterials in various areas of animal nutrition. Table 7 shows the various applications of nanomaterials in animal nutrition. Table 8 depicts the disease caused by excess and deficiency of minerals.

Table 8. Nanominerals: Disease in deficiency and in excess.

Nature of Nanomaterials/ Minerals	Deficiency Disease	Disease in Excess intake
Selenium	<ul style="list-style-type: none"> • Suboptimal milk production • Suboptimal fertility in adult cattle • Retained foetal membrane • Mastitis • Premature, weak calves, perinatal death and abortion 	<ul style="list-style-type: none"> • Chronic selenosis • Liver cirrhosis • Hoof malformation • Loss of hair • emaciation
Chromium	<ul style="list-style-type: none"> • Animal experience stress • Affects pregnancy and lactation • Impaired glucose metabolism • Protein metabolism disorder, decreased appetite, apathy 	<ul style="list-style-type: none"> • Trivalent chromium is toxic • It contributes to necrosis
Copper	<ul style="list-style-type: none"> • Diarrhea, Unthirfty appearance, poor weight gains, light hair coats, swollen painful joints, broken bones, rear leg weakness or paralysis in calves, infertility 	<ul style="list-style-type: none"> • Hemolytc crisis. • Clinical and laboratory symptoms sighs in affected animals includes depression, lethargy, weakness. Recumbency, rumen stasis, anorexia, thirst, dyspepsia, pale mucus membrane, hemoglobinuria and jaundice.
Lead	<ul style="list-style-type: none"> • Can lead to anaemia in human 	<ul style="list-style-type: none"> • Chronic lead exposure causes inflammation in nervous systems, • Increased serum endothelin

Nature of Nanomaterials/ Minerals	Deficiency Disease	Disease in Excess intake
Zinc	<ul style="list-style-type: none"> • Adema disease • Number of clinical disorders are observed • Diarrhoea • Skin lesion • * Poliosis 	<ul style="list-style-type: none"> • Chronic overdosing of zinc in ruminants can lead to cellular degeneration for liver, pancreas and kidney • * Zinc overdose can decrease egg production • Decreased appetite • Weight loss
Calcium	<ul style="list-style-type: none"> • Rickets • Osteoporosis in adults makes them prone to fracture • Stunted growth • Reduced fertility • Fragile bones • Paralytic syndrome 	<ul style="list-style-type: none"> • Weakness in pets • Listenlessness • Increased drinking and urination • Loss of appetite
Mercury	<ul style="list-style-type: none"> • Eczema, skin keratinization, anuria, polydipsia, hematuria or malena 	<ul style="list-style-type: none"> • Brain and kidney gets affected • Disturbance in vision • Hearing and speech as well as tingling and numbness in toes
Sulfur	<ul style="list-style-type: none"> • Yellowing of young growth • Curling of young leaves 	<ul style="list-style-type: none"> • Leads to development of polio
Sodium	<ul style="list-style-type: none"> • Excessive vomiting, diarrhoea and sweating 	<ul style="list-style-type: none"> • High blood pressure

11) Applications of nanomaterials in veterinary medicine and animal science

As we observed nanomaterials are having a wide range of applications in every sector. Veterinary medicine and animal sciences also use different types of materials at the nanoscale. Table 9 depicts various types of nanoparticles and their applications in veterinary medicine.

Table 9. Various applications of NPs in veterinary medicine.

Types of Nanoparticles	Applications in Veterinary Medicine
Gold Nanoshell	Treatment of cancer, biological labelling and imaging
Quantum dots	Binds themselves with protein to cancer cells, kills cancer cells by exposure of UV radiations
Smart super paramagnet iron oxide	Used to locate tumor cells
Amphiphiles are tiny rod like nanofibers capped with amino acids	Spur the growth of neurons and prevent scar tissue formation

12) Threats related to food nanotechnology

Innovations in nano-related fields have several helpful applications in agriculture and food industry. Although food nanotechnology has enormous advantages and potential, public perceptions are generally negative. The health implications of food processing techniques that produce

nanoparticles are worth attention. Risk evaluation and consumer perception are significant topics in nanotechnology to be considered in analogous with the growth and application. Essential to risk evaluation of nanotechnologies is its applications in food products necessitating progressive research in the fields of classifying nanoparticles, dosage levels, impact and effects, regulation, consumer acquaintance.^[106] If novel productive processes lead to alter food composition, then detailed studies have to be carried out on the nutritional value, metabolism, and possible contaminants including allergens. The potential for novel nano-ingredients to pose health risks has to be deeply studied. There have been many debates on food safety that have been produced directly or indirectly from a nanomaterial. Recently, there have been warnings from scientists about possible health risks related to nanomaterials because, due to their size, they can enter the cells and accumulate, potentially causing various diseases. It has been shown that carbon nanotubes can damage the lungs, because their structure and size make it impossible to remove them from the body. It is assumed that the toxic effects of fullerenes result from the ability to capture electrons from neighboring particles and the formation of radicals that are suspected of carcinogenic traits. There are also reports on the toxic effects of nanoparticles, such as titanium, cobalt, iron, tungsten and even silver. Nanostructures are more reactive and mobile than larger molecules, therefore their toxicity to humans and the environment could be higher.^[107]

Initial scientific studies have shown that many types of

nanoparticles can lead to increased oxidative stress, which leads to the formation of free radicals capable of inducing cancer, DNA mutation and even cell death. Fullerene / carbon nanoparticles cause damage to the brain of the large grouper, which is adopted by the regulatory agencies as a benchmark for determining the degree of environmental poisoning. Great Britain also warns of the serious threat of nanotoxicity and recommends that nanoparticle components would have to be subjected to their full extent of innocuity assessment by the appropriate scientific institution before being approved for use in products.^[108] Despite this warning, there are still no rules governing the use of nanomaterials in consumer products that would determine their harmlessness to users, laborers or the environment to which waste nanoproducts are discharged. Many threats posed by the opponents of nanotechnology that may appear in the future mention the danger of cancer as possible result of incorrectly placed "nanorobots" in the human body and environment, or their malfunction, which may lead to self-replication or changing the tasks fulfilled.

In addition, the so-called "Green Goo scenario" warns of the risk of losing control over nanorobots with subsequent disastrous effects.^[45] To prevent such risks, research should be conducted. The application of nanomaterials in food packaging for traceability purposes will also create new problems related to the protection of privacy. Despite the release of nanotechnology foods and agricultural products to supermarkets and the environment, governments around the world have done nothing to create any rules that limit the risks of nanotechnology.^[109-110] studied crystal imperfections, such as lattice strains, degree of lattice distortion, internal stress and dislocation density of $\text{Bi}_x\text{Zn}^{1-x}\text{O}$ nanoparticles. Morphological assessment showed that increasing the Bi-content improved the crystallization process, increased the crystalline agglomerations and minimized the crystal imperfections.

Biological adverse effects due to nanomaterials used in food:

Nanomaterials are used in abundance in food technology. The processed food products have been infused with nanomaterials. These carry nanomaterials in the gastrointestinal tract of the consumers. These in turn undergo physiological changes. As a result, there is every possibility that these nanomaterials are likely to interact with the tissue, cellular organelles, and biomolecules. This interaction may be beneficial and/or adverse physiologically, biochemically, cytologically, histologically or genetically. Some of the nanomaterials like metal and metal-oxides nanoparticles, quantum dots, fullerenes, and fibrous nanomaterials have been found to cause adverse effects that include fragmentation of chromosome, breakage of strands of DNA, changes in gene precision.^[111] There are reports on clinical toxicity but major studies indicate that nanomaterials are able to initiate adverse biological interactions leading to untimely physiological disruption and toxicological outcome in due course of time. Silica nanoparticles cause oxidative stress and resulted in

cytotoxicity in vitro and in vivo; elevated lipid peroxidation, LPO, ROS, and declined level of cellular glutathione. There is every possibility of known and unknown varied hazards based on systemic investigation on cells treated with nanomaterials with respect cytotoxicity and inflammation. Au NPs and Ag NPs have potential to cause depolarization of α -tubulin-major component of microtubule, affecting adversely the cellular structure and associated cytoskeleton of the cell. The mechanism involved in the interaction between nanomaterials and living biosystems is still ambiguous. The efficacy of nanomaterials with which these interact with biological molecules in the ambient atmosphere and the formation of varied end products is a highly complex phenomenon. This complexity becomes more challenging with the slight changes brought about in the nanomaterials due to coating, charge, size, surface properties, dispersion, agglomeration, concentration and matrix. Nanomaterials have the potential to cause mutagenicity, clastogenicity, aneugenicity (causing the possession of abnormal chromosome numbers), apoptosis, autophagy and mitoptosis (death of mitochondria), *etc.* There is lot of toxicological data related to cytotoxicity, genotoxicity, repeated dose toxicity and biokinetics are available related to silica, titanium dioxide, and silver; there are limited records concerned with the use of nanomaterials in agriculture, food, feed applications. The resume of legislation and regulations in European and non-European countries have adopted EU legal acts and formulated the guide lines to be followed for the related industries. Mostly iron oxide nanoparticles enter mammalian cells via endocytosis, sometimes by pinocytosis, through reticuloendothelial system, while in blood circulation opsonization of nanoparticles to cell surface is also involved. Internalization of iron oxide nanoparticles is observed to be directly related to their size. Graphene induced toxicity and apoptosis in cell culture has been observed; this adverse response is found to be in relation to dose and duration dependent. Graphene (100-110 nm) also causes cytotoxic state and damage to mitochondria in case of neural cells. Carbon nanotubes cause varied toxic response depending on the type and the applications. The toxicity of dendrimers depended on their size and shape as these nanomaterials exhibit closeness/resemblance to the components of the cells like DNA and proteins. Their structural aspects are found to be very suitable to provide space for encapsulation of food ingredients and therapeutic drugs, imaging molecules and conveniently regulated the release. This specific feature is also able to reduce toxicity. However, these nanomaterials exhibit hemolytic and hematological toxic responses in a given biological system. Their features such as cationic surface charge and the negative charge on the biological membrane interact leading to the toxicity in vivo. To counteract this adverse effect these are engineered to be biocompatible and biodegradable. During the experimentation with quantum dots, the observation indicated oxidative stress; influencing signaling pathway between macrophages. The interaction of QDs is found to be dose dependent and exhibits adverse

effects on cell division and the growth of the cell. Engineered nanoparticles relevant to various industries like SiO₂, ZnO, Fe₂O₃, Ag, CeO₂ have exhibited dose dependent elevated cytotoxicity and damage of DNA, affected cell proliferation in human lymphoblastoid and adherent ovary cell culture. The metal oxide NPs, metallic NPs, quantum dots, SiO₂ NPs, CNT and other nanomaterials with respect to size, shape, surface charge, type of coating material, reactivity, dose, exposure, route of administration exhibit toxic behavior. Further, it is found that stable metal oxides mostly have not shown toxicity but metallic NPs bring a change in reduction potential which causes cytotoxicity and genotoxicity. Those NPs which are in soluble form are found to be toxic in comparison to non-soluble ones. C₆₀ is linked with the DNA at its minor grooves and initiated unwinding; when it is linked with RNA it inhibits replication of DNA. When C₆₀ is bound to nucleic acid, the range of energy involved varies within -56 to -10 kcal mol⁻¹ depending on the different genomic fragment. There are views with respect to optimization of immobilized enzymes, immune-diffusional limitations, maximum surface area per unit mass and high effective enzyme loading. Further, nanoparticles affect the behavior of the enzymes in transitional region/phase between heterogeneous (immobilized) enzymes and homogeneous (with soluble free enzyme) enzyme catalysis. These nanoparticles influenced the reaction particle mobility related to the particle size and solution viscosity. Polystyrene particles when used on an enzyme model α -chymotrypsin are attached to NPs covalently up to 6.6 wt%. Factors such as change in particle size, viscosity of the reaction medium affect the mobility of the enzyme catalyst; there is a change in the intrinsic activity of the said enzyme (the particle attached enzyme), Km, Kcat are found to be affected because of the particle size and viscosity. Structure and function of an enzyme can be changed by nanoparticles; the enzyme–nanomaterial interaction is governed by the key properties such as structure, size, shape, surface chemistry and charge. This is because of the electrostatic complementarities between carboxylate end group and cationic residues present around the periphery of the active site.^{[1][2]}

Biom mineralization in animals: Biom mineralization is the complete conversion of organic substances to inorganic derivatives by living organisms especially observed in micro-organisms. The animals produce minerals often to harden or stiffen existing tissues. In living animals skeletal biom mineralization from amorphous precursor correlates with a distinctive nanoparticulate texture that can be preserved in fossils, enabling us to probe mechanisms of skeletal formation in early animals. The basic principle behind biom mineralization is the composites composed of organic and inorganic compounds. The products are created and maintained during lifetime. The basic process in biom mineralization is the nucleation and crystal growth. The common example of biom mineralization in animals is teeth, bones, etc.

6. Conclusion

The prediction is that nanotechnology will transform the entire food industry in the near future. Nanotechnology has already entered into food and dairy industries, research facilities are established, potential applications are under study. Food nanotechnology advances offer important challenges for both government and industry. The food processing industry must ensure consumer confidence and acceptance of nanofoods. New approaches and standardized test procedures to study the impact of nanoparticles on living cells are urgently needed for the evaluation of potential hazards relating to human exposure to nanoparticles. It is widely expected that nanotechnology-derived food products will be available increasingly to consumers worldwide in the coming years. However, in these recent technological developments leading the way for manufactured nanoparticles to be added to food were discussed. As developments in nanotechnology continue to emerge, its applicability to the food industry will increase potentially.

Acknowledgement

The authors pay sincere tribute to Late Ms Deepika Rai Dhirendra Prasad who suddenly left this world and lived very short span of life, we all the authors remember her on this occasion and pray Almighty God for peace of her holy soul. Her sweet memories are in the heart of authors. The authors are thankful to various academicians and researchers for power points. We feel to acknowledge some academicians and researchers whose slideshare were very useful during preparation of manuscript. We would like to acknowledge Rodrigo Benedetti et, Shradha Jiswal, Aditya Bhardwaj, Bhambie Ann Malacas, Sagar Kishor Salve, S. Keerthana, Kunalit Ojah, M. Vamshi Krishna, Dr Anil Pethe,

Conflict of interest

There are no conflicts to declare.

Supporting information

Not applicable

References

- [1] M. Cushen, J. Kerry, M. Morris, M. Cruz-Romero and E. Cummins, *Trends Food Sci. Technol.*, 2012, **24**, 30-46, doi: 10.1016/j.tifs.2011.10.006.
- [2] J. Shi, A. R. Votruba, O. C. Farokhzad, and R. Langer, *Nano Lett.*, 2010, **10**, 3223-3230, doi: 10.1021/nl102184c.
- [3] F. Di Maria, F. Lodola, E. Zucchetti, F. Benfenati, and G. Lanzani, *Chem. Soc. Rev.*, 2018, **47**, 4757-4780, doi: 10.1039/C7CS00860K.
- [4] G. A. Sai-Halasz, M. R. Wordeman, D. P. Kern, S. A. Rishton, E. Ganin, T. H. P. Chang, and R. H. Dennard, *IBM J. Res Dev.*, 1990, **34**, 452-465, doi: 10.1147/rd.344.0452.
- [5] R. D. Prasad, N. Charmode, O. P. Shrivastav, S. R. Prasad, A. Moghe, A. Samant, P. D Sarvalkar and N. R. Prasad, *ES Food Agrof.*, 2021, **4**, 28-60, doi: 10.30919/esfaf481.

- [6] H. Rothe, R. Fautz, E. Gerber, L. Neumann, K. Rettinger, W. Schuh, and C. Gronewold, *Toxicol. Lett.*, 2011, **205**, 97-104, doi: 10.1016/j.toxlet.2011.05.1038.
- [7] Debjani Nath, and Pratyusha Banerjee, *Environ. Toxicol. Pharmacol.*, 2013, **36**, 997-1014, doi: 10.1016/j.etap.2013.09.002.
- [8] G. M. Nazeruddin, R. N. Prasad, Y. I. Shaikh and A. A. Shaikh, *Der Pharmacia Lett.*, 2014, **3**, 129-136, <http://scholarsresearchlibrary.com/archive.html>.
- [9] S. Khare, K. Williams, and K. Gokulan, *Encyclopedia of Food Microbiology (Second Edition)*, Academic Press, 2014, 893-900, doi: 10.1016/B978-0-12-384730-0.00406-7.
- [10] M. A. Gattoo, S. Naseem, M. Y. Arfat, A. M. Dar, K. Qasim, and S. Zubair, *Biomed Res. Int.*, 2014, **2014**, 498420, doi: 10.1155/2014/498420.
- [11] S. R. Prasad, S. B. Teli, J. Ghosh, N. R. Prasad, V. S. Shaikh, G. M. Nazeruddin, Abdullah G. Al-Sehemi, Imran Patel and Y. I. Shaikh, *Eng. Sci.*, 2021, **16**, 90-128, doi: 10.30919/es8d479.
- [12] A. Kumar, A. Nair, and A. Garg, *J. Radioanal. Nucl. Chem.*, 2006, **270**, 173-180, doi: 10.1007/s10967-006-0326-z.
- [13] G. M. Nazeruddin, S. Prasad, Y. Shaikh, and N. Prasad, *Int. J. Nanomater. Nanost.*, 2015, **1**, 16-32.
- [14] L. Persano, A. Camposeo, and D. Pisignano, *Prog. Polym. Sci.*, 2015, **43**, 48-95, doi: 10.1016/j.progpolymsci.2014.10.001.
- [15] R. Gupta, and H. Xie, *J. Environ. Pathol. Toxicol. Oncol.*, 2018, **37**, 209-230, doi: 10.1615/JEnvironPatholToxicolOncol.2018026009.
- [16] I. Freestone, N. Meeks, M. Sax, and C. Higgitt, *Gold Bulletin*, 2007, **40**, 270-277, doi: 10.1007/BF03215599.
- [17] P. Edwards, and J. Thomas, *Angew. Chem. Int. Ed.*, 2007, **46**, 5480-5486, doi: 10.1002/anie.200700428.
- [18] F. Papoff, and B. Hourahine, *Opt. Express*, 2011, **19**, 21432-21444, doi: 10.1364/OE.19.021432.
- [19] R. R. Arvizo, S. Bhattacharyya, R. A. Kudgus, K. Giri, R. Bhattacharya, and P. Mukherjee, *Chem. Soc. Rev.*, 2012, **41**, 2943-2970, doi: 10.1039/c2cs15355f.
- [20] Y. Zhao, Z. Xie, H. Gu, C. Zhu, and Z. Gu, *Chem. Soc. Rev.*, 2012, **41**, 3297-3317, doi: 10.1039/c2cs15267c.
- [21] P. Mulvaney, *Adv. Mater. Interfaces*, 1996, **8**, 788-800, doi: 10.1002/adma.19960080823.
- [22] J. Weiss, P. Takhistov and D. J. McClements, *J. Food Sci.*, 2006, **71**, 107-116, doi: 10.1111/j.1750-3841.2006.00195.x.
- [23] Y. Zhao, Z. Xie, H. Gu, C. Zhu, and Z. Gu, *Chem. Soc. Rev.*, 2012, **41**, 3297-3317, doi: 10.1039/c2cs15267c.
- [24] Y. Y. Yu, S. S. Chang, C. L. Lee, and C. C. Wang, *J. Phys. Chem. B*, 1997, **101**, 6661-6664, doi: 10.1021/jp971656q.
- [25] J. Kim, S. Park, J. E. Lee, S. M. Jin, J. H. Lee, I. S. Lee, I. Yang, J. S. Kim, S. K. Kim, M-H. Cho, and T. Hyeon, *Angew. Chem.*, 2006, **118**, 7918-7922, doi: 10.1002/ange.200602471.
- [26] T. S. Bhat, S. S. Mali, A. D. Sheikh, N. L. Tarwal, S. D. Korade, C. K. Hong, J. H. Kim, and P. S. Patil, *Mater. Today Commun.*, 2018, **16**, 186-193, doi: 10.1016/j.mtcomm.2018.06.008.
- [27] S. H. Nile, V. Baskar, D. Selvaraj, A. Nile, J. Xiao, and G. Kai, *Nano-Micro Lett.*, 2020, **12**, 1-34, doi: 10.1007/s40820-020-0383-9.
- [28] V. K. Bajpai, M. Kamle, S. Shukla, D. K. Mahato, P. Chandra, S. K. Hwang, P. Kumar, Y. S. Huh, and Y. K. Han, *J Food Drug Anal.*, 2018, **26**, 1201-1214, doi: 10.1016/j.jfda.2018.06.011.
- [29] C. C. B. Carabin, and K. Schroën, *Annu. Rev. Food Sci. T.*, 2015, **6**, 63-97, doi: 10.1146/annurev-food-081114-110822.
- [30] C. Bothiraja, B. D. Yojana, A. P. Pawar, K. S. Shaikh, and U. H. Thorat, *Expert. Opin. Drug Del.*, 2014, **11**, 17-29, doi: 10.1517/17425247.2013.860131.
- [31] E. Kiss, *Acta Aliment.*, 2020, **49**, 460-474, doi: 10.1556/066.2020.49.4.12.
- [32] C.-C. Chen, and G. Wagner, *Chem. Eng. Res. Des.*, 2004, **82**, 1432, doi: 10.1205/cerd.82.11.1432.52034.
- [33] F. Leal-Calderon, F. Thivilliers, and V. Schmitt, *Curr. Opin. Colloid In.*, 2007, **12**, 206-212, doi: 10.1016/j.cocis.2007.07.003.
- [34] D. J. McClements, *Food Emulsions: Principles, Practices, and Techniques*, Second Edition (2nd ed.). CRC Press, 2004, doi: 10.1201/9781420039436.
- [35] S. Burt, *Int. J. Food Microbiol.*, 2004, **94**, 223-253, doi: 10.1016/j.ijfoodmicro.2004.03.022.
- [36] L. Battaglia, and E. Ugazio, *J. Nanomater.*, 2019, **2834941**, doi: 10.1155/2019/2834941.
- [37] B. S. Murray, *Curr. Opin. Food Sci.*, 2019, **27**, 57-63, doi: 10.1016/j.cofs.2019.05.004.
- [38] R. Ravichandran, *Int. J. Green Nanotechnol.*, 2010, **1**, 72-96, doi: 10.1080/19430871003684440.
- [39] S. R. Prasad, M. N. Padvi, S. S. Suryawanshi, Y. I. Shaikh, L. S. Chaudhary, A. P. Samant and Neeraj R. Prasad, *SN Appl. Sci.*, 2020, **2**, 1-12, doi: 10.1007/s42452-020-2382-3.
- [40] G. M. Nazeruddin, and Y. I. Shaikh, *Int. J. Appl. Nanotechnol.*, 2015, **1**, doi: 10.37628/ijan.v1i1-2.19.
- [41] R. Thiruvengadathan, V. Korampally, A. Ghosh, N. Chanda, K. Gangopadhyay, and S. Gangopadhyay, *Rep. Prog. Phys.*, 2013, **76**, 066501, doi: 10.1088/0034-4885/76/6/066501.
- [42] P. K. Singh, G. Jairath, and S. S. Ahlawat, *J. Food Sci. Tech.*, 2016, **53**, 1739-1749, doi: 10.1007/s13197-015-2090-y.
- [43] B. S. Sekhon, *Nanotechnol. Sci. Appl.*, 2014, **7**, 31-53, doi: 10.2147/NSA.S39406.
- [44] A. Ghasemzadeh, *Agrotechnol*, 2012, **1**, 1-2, doi: 10.4172/2168-9881.1000e102.
- [45] U. Krishnan, S. Barbara, M. Arifullah, N. N. A. Nabi, and P. Antonella, *Int. J. Agric. Sci.*, 2018, ISSN: 0975- 3710.
- [46] G. Guisbiers, S. M. Rosales, and F. L. Deepak, *J. Nanomater.*, 2012, **180976**, doi: 10.1155/2012/180976.
- [47] C. Q. Sun, *Prog. Solid. State Ch*, 2007, **35**, 1-159, doi: 10.1016/j.progsolidstchem.2006.03.001.
- [48] B. Issa, I. M. Obaidat, B. A. Albiss, and Y. Haik, *Int. J. Mol. Sci.*, 2013, **14**, 21266-21305, doi:10.3390/ijms141121266.
- [49] V. Selvamani, *Characterization and biology of nanomaterials for drug delivery (Elsevier)*, 2019, 113-135.
- [50] R. Acharya, *Satellite Signal Propagation, Impairments and Mitigation. Ahmedabad: Matthew Deans*, 2017, 57-86, doi: 10.1016/B978-0-12-809732-8.00003-X.
- [51] S. Link and M. A. El-Sayed, *J. Phys. Chem. B*, 1999, **103**, 4212-4217, doi: 10.1021/jp984796o
- [52] S. Mourdikoudis, Roger M. Pallares, and Nguyen T. K. Thanh, *Nanoscale*, 2018, **10**, 12871-12934, doi: 10.1039/C8NR02278J.

- [53] X. Huang, and M. A. El-Sayed, *J. Adv. Res.*, 2010, **1**, 13-28, doi: 10.1016/j.jare.2010.02.002.
- [54] N. Zohar, L. Chuntunov, and G. Haran, *J. Photoch. Photobio. C*, 2014, **21**, 26-39, doi: 10.1016/j.jphotochemrev.2014.10.002.
- [55] P. R. Sajanlal, T. S. Sreepasad, A. K. Samal, and T. Pradeep, *Nano Rev.*, 2011, **2**, 5883 doi: 10.3402/nano.v2i0.5883.
- [56] I. Khan, K. Saeed, and I. Khan, *Arab. J. Chem.*, 2019, **12**, 908-931, doi: 10.1016/j.arabjc.2017.05.011.
- [57] O. Portmann, A. Vaterlaus, C. Stamm, and D. Pescia, Magnetic Domains, *Encyclopedia of Condensed Matter Physics*, Elsevier, 2005, 191-197, doi: 10.1016/B0-12-369401-9/00525-8.
- [58] V. Marghussian, Magnetic Properties of Nano-Glass Ceramics, *Nano-Glass Ceramics*, 2015, 181, doi: 10.1016/B978-0-323-35386-1.00004-9.
- [59] S. Mornet, S. Vasseur, F. Grasset, P. Veverka, G. Goglio, A. Demourgues, J. Portier, E. Pollert, and E. Duguet, *Prog. Solid. State. Ch.*, 2006, **34**, 237-247, doi: 10.1016/j.progsolidstchem.2005.11.010.
- [60] J. Han, D. Zhao, D. Li, X. Wang, Z. Jin, and K. Zhao, *Polymers*, 2018, **10**, 31, doi: 10.3390/polym10010031.
- [61] O. Salata, *J. Nanobiotechnol.*, 2004, **2**, 116-120. doi: 10.1186/1477-3155-2-3.
- [62] J. K. Patra, G. Das, L. F. Fraceto, E. Campos, M. Rodriguez-Torres, L. S. Acosta-Torres, L. A. Diaz-Torres, R. Grillo, M. K. Swamy, S. Sharma, S. Habtemariam, and H. S. Shin, *J. nanobiotechnol.*, 2018, **16**, 71, doi: 10.1186/s12951-018-0392-8.
- [63] W. Zhang, S. H. Brongersma, O. Richard, B. Brijs, R. Palmans, L. Froyen, and K. Maex, *Microelectron. Eng.*, 2004, **76**, 146-152, doi: 10.1016/j.mee.2004.07.041.
- [64] N. T. Hung, E. H. Hasdeo, A. R. T. Nugraha, M. S. Dresselhaus, and R. Saito, *Phys. Rev. Lett.*, 2016, **117**, 036602, doi: 10.1103/PhysRevLett.117.036602.
- [65] F. Rossi, R. Brunetti, and C. Jacoboni, Quantum Transport, *Academic Press*, 1992, 153-188, doi: 10.1016/B978-0-08-092570-7.50011-8.
- [66] P. Poncharal, C. Berger, Y. Yi, Z. L. Wang, and W. A. de Heer, *J. Phys. Chem. B*, 2002, **106**, 12104-12118, doi: 10.1021/jp021271u.
- [67] D. J. Paul, Nanoelectronics, *Encyclopedia of Physical Science and Technology (Third Edition)*, Academic Press, 2003, 285-301, doi: 10.1016/B0-12-227410-5/00469-5.
- [68] I. M. Alarifi, *J. Mater. Res. Technol.*, 2019, **8**, 4863-4893, doi: 10.1016/j.jmrt.2019.08.019
- [69] D. R. Baer, M. H. Engelhard, G. E. Johnson, J. Laskin, J. Lai, K. Mueller, P. Munusamy, S. Thevuthasan, H. Wang, N. Washton, A. Elder, B. L. Baisch, A. Karakoti, S. V. Kuchibhatla, and D. Moon, *J. Vac. Sci. Technol.*, 2013, **31**, 50820, doi: 10.1116/1.4818423.
- [70] S. R. Bare, and G. A. Somorjai, Surface Chemistry, *Encyclopedia of Physical Science and Technology (Third Edition)*, Surface Chemistry, 2003, 373-421, doi: 10.1016/B0-12-227410-5/00757-2.
- [71] I. Capek, Chapter 1 Nanotechnology and nanomaterials, *Stud Interface Sci.*, 2006, **23**, 1-69, doi: 10.1016/S1383-7303(06)80002-5.
- [72] M. Tubiana, Wilhelm Conrad Röntgen et la découverte des rayons X, *Bulletin de L'Académie Nationale de Médecine*, 1996, **180**, 97-108.
- [73] M. Eckert, *Annalen der Physik*, 2012, **524**, A83-A85, doi: 10.1002/andp.201200724.
- [74] V. Andrey, *Nanosyst. Phys. Chem. Mathem.*, 2018, 364-369, doi: 10.17586/2220-8054-2018-9-3-364-369.
- [75] P. R. Griffiths, *Science*, 1983, **222**, 297-302, doi: 10.1126/science.6623077.
- [76] A. Venkateshaiah, V. Padil, M. Nagalakshmaiah, S. Waclawek, M. Černik, and R. S. Varma, *Polymers*, 2020, **12**, 512, doi: 10.3390/polym12030512.
- [77] Ph. Sciau, Chapter Two - Transmission Electron Microscopy: Emerging Investigations for Cultural Heritage Materials, *Elsevier*, 2016, **198**, 43-67, doi: 10.1016/bs.aiep.2016.09.002.
- [78] A. Störmer, J. Bott, D. Kemmer, and R. Franz, *Trends Food Sci. Technol.*, 2017, **63**, 39-50, doi: 10.1016/j.tifs.2017.01.011.
- [79] K. Marsh, and B. Bugusu, *J. Food Sci.*, 2007, **72**, R39-R55, doi: 10.1111/j.1750-3841.2007.00301.x.
- [80] M. Primožič, Ž. Knez, and M. Leitgeb, *J. Nanomater.*, 2021, **11**, 292, doi: 10.3390/nano11020292.
- [81] C. L. Reichert, E. Bugnicourt, M.-B. Coltelli, P. Cinelli, A. Lazzeri, I. Canesi, F. Braca, B.M. Martinez, R. Alonso, L. Agostinis, S. Verstichel, L. Six, S.D. Mets, E.C. Gómez, C. Ißbrücker, R. Geerinck, D.F. Nettleton, I. Campos, E. Sauter, P. Pieczyk, and M. Schmid, *Polymers*, 2020, **12**, 1558, doi: 10.3390/polym12071558.
- [82] S. W. Kim, and S. H. Cha, *J. Appl. Polym. Sci.*, 2014, **131**, 1-8, doi: 10.1002/APP.40289
- [83] G. Reynolds, FDA recommends nanotechnology research, but not labeled. *Food Production Daily.com News*, July 26, 2007.
- [84] D. S. Cha, and M. S. Chinnan, *Crit. Rev. Food Sci.*, 2004, **44**, 223-237, doi: 10.1080/10408690490464276.
- [85] El Amin A (2005) Consumers and regulators push food packaging innovation. Available at: <http://foodproductiondaily.com/news/ng.asp?n=63704>.
- [86] N. Dasgupta, S. Ranjan, D. Mundekkad, C. Ramalingam, R. Shanker, and A. Kumar, *Int. Food Res. J.*, 2015, **69**, 381-400, doi: 10.1016/j.foodres.2015.01.005.
- [87] A. L. Brody, *Food Technol.*, 2003, **57**, 52-54.
- [88] B. Kuswandi, Y. Wicaksono, Jayus, A. Abdullah, L. Y. Heng, and M. Ahmad, *Sens. Instrumen. Food Qual.*, 2011, **5**, 137-146, doi: 10.1007/s11694-011-9120-x.
- [89] M. J. Kirwan, and J. W. Strawbridge, *Food package. Technol.*, 2003, **1**, 174-240.
- [90] R. N. Tharanathan, *Trends Food Sci. Tech.*, 2003, **14**, 71-78, doi: 10.1016/S0924-2244(02)00280-7.
- [91] C. M. Stewart, and R. B. Tompkin, and M. B. Cole, *Innov. Food Sci. Emerg.*, 2002, **3**, 105-112.
- [92] L. Petersson and K. Oksman, *Preparation and properties of biopolymer-based nanocomposite films using microcrystalline cellulose*, 2006, 132-150, doi: 10.1021/bk-2006-0938.ch010.
- [93] G. L. Robertson, *Food packaging: Principles and practice*. New York: Marcel Dekker, 1993.
- [94] J. M. Lagarón, L. Cabedo, D. Cava, J. L. Feijoo, R. Gavara, and E. Gimenez, *Food Addit Contam.*, 2005, **22**, 994-998, doi: 10.1080/02652030500239656.

- [95] L. Vermeiren, F. Devlieghere, M. van Beest, N. de Kruijf, and J. Debevere, *Trends Food Sci. Technol.*, 1999, **10**, 77-86, doi: 10.1016/S0924-2244(99)00032-1.
- [96] C. Silvestre, D. Duraccio, and C. Sossio, *Prog. Polym. Sci.*, 2011, **36**, 1766–1782, doi: 10.1016/j.progpolymsci.2011.02.003.
- [97] B. Magnuson, I. Munro, P. Abbot, N. Baldwin, R. Lopez-Garcia, K. Ly, L. McGirr, A. Roberts, and S. Socolovsky, *Food additives & contaminants. Part A, Chemistry, analysis, control, exposure & risk assessment*, 2013, **30**, 1147–1220, doi: 10.1080/19440049.2013.795293.
- [98] D. R. Paul, and L. M. Robeson, *Polymer*, 2008, **49**, 3187-3204, doi: 10.1016/j.polymer.2008.04.017.
- [99] A. Renton, Welcome to the world of nanofoods. Guardian Unlimited UK 12, 2006, Available at: <http://observer.guardian.co.uk/foodmonthly/futureoffood/story/>
- [100] R. Arshad, L. Gulshad, I. U. Haq, M. A. Farooq, A. A. Farga, R. Siddique, M. F. Manzoor, and E. Karrar, *Food Sci. Nutr.*, 2021, **9**, 3354–3361, doi: 10.1002/fsn3.2311.
- [101] O. Bayraktar, İ. Erdoğan, M. D. Köse, and G. Kalmaz, Chapter 17 - Nanocarriers for Plant-Derived Natural Compounds, *Elsevier*, 2017, 395-412, doi: 10.1016/B978-0-323-46152-8.00017-2.
- [102] M. L. Zambrano-Zaragoza, R. González-Reza, N. Mendoza-Muñoz, V. Miranda-Linares, T. F. Bernal-Couoh, S. Mendoza-Elvira, and D. Quintanar-Guerrero, *Int. J. Mol. Sci.*, 2018, **19**, 705, doi: 10.3390/ijms19030705.
- [103] B. Yousuf, O. S. Qadri, and A. K. Srivastava, *LWT*, 2018, **89**, 198-209, doi: 10.1016/j.lwt.2017.10.051.
- [104] S. Sujithra, and T. R. Manikkandan, *Int. J. Chem. Tech. Res.*, 2019, **12**, 7-14, doi: 10.20902/IJCTR.2019.120402.
- [105] A. Durazzo, A. Nazhand, M. Lucarini, A. G. Atanasov, E. B. Souto, E. Novellino, R. Capasso, and A. Santini, *Int. J. Mol. Sci.*, 2020, **21**, 2285 doi: 10.3390/ijms21072285. PMID: 32225036.
- [106] X. He, H. Deng, and H. M. Hwang, *J. Food Drug. Anal.*, 2019, **27**, 1-21, doi: 10.1016/j.jfda.2018.12.002.
- [107] Z. Ferdous, and A. Nemmar, *Int. J. Mol. Sci.*, 2020, **21**, 2375, doi: 10.3390/ijms21072375.
- [108] T. Yadav, A. A. Mungray, and A. K. Mungray, *Rev. Environ. Contam. T.*, 2014, **230**, 83-110, doi: 10.1007/978-3-319-04411-8_4.
- [109] B. Patwardhan, and A. Partwardhan, *Traditional Medicine: Modern Approach for affordable global health*, World Health Organization. 2005.
- [110] D. M. Nathan, J. B. Buse, M. B. Davidson, E. Ferrannini, R. R. Holman, R. Sherwin, and B. Zinman, *Diabetes Care*, 2009, **32**, 193-203, doi: 10.2337/diaclin.27.1.4.
- [111] L. Y. Kumar, *J. Toxicol. Health*, 2015, **2**, 2, doi: 10.7243/2056-3779-2-2.
- [112] H. Jia, G. Zhu, and P. Wang, *Biotechnol. Bioeng.*, 2003, **84**, 406-414, doi: 10.1002/bit.10781.

Author Information



Dr. Rai Dharendra Prasad, he has completed degree in Veterinary science and Animal Husbandry from Bihar Veterinary College, Patna, India which is one of the oldest veterinary college of India. This is the 5th college established in undivided India. After completion of the educational program Dr. Prasad joined department of Animal Husbandry government of Maharashtra where he served on various posts at different places. He rendered his services for several years in tribal area of Maharashtra, India. He is having high expertise in technical subjects like animal anatomy, animal nutrition and animal biochemistry. He is having vast direct clinical exposure where he treated various animal diseases. He is having expertise in treating trypanosomiasis. Then, he tried to study effect of Homeopathic medicines for critical animal diseases.



Dr. Naresh Charmode, he joined as Veterinary Doctor in Department of Animal Husbandry in Government of India after completion of his bachelor's degree from Nagpur Veterinary College, Nagpur, India. He is Reli & Shekim Master Teacher & Practitioner. He is also a Ariculotherapist, Magnetotherapist and Naturopath. He is a Director of Global Healing Centre and also Director of Gangotri Pyramid Dhyana Mandir, Bhandara, India.



Dr. Om Prakash Shrivastav, he has completed master's degree and doctoral degree from Gorkhapur, University, Uttar Pradesh, India. He served as senior scientist in IARI, Pusa, Bihar, India. He is interested in plant genetics.



Dr. Saurabh R Prasad, he is working as Assistant Professor at DKTE Society's Textile and Engineering Institute, Ichalkaranji and also research scholar of Shivaji University, Kolhapur. He has qualified M.E. in Electronics and Telecommunication from KIT College of Engineering, PhD from Shivaji University Kolhapur. He has published several papers in journal of repute. He has also worked as reviewer for various international journals. He has about 16 years of teaching experience. He has expertise in the field of microwave engineering, audio and video engineering and digital signal processing.



Prashant Sarvalkar, he is working as Research scholar at School of Nanoscience and Technology, Shivaji University, Kolhapur under the guidance of Dr. K. K. Sharma. He has qualified M.Sc. in Nanoscience and Technology from Shivaji University Kolhapur. He has published several papers in journal of repute. His research interests include designing and synthesis of nanocomposite materials with multifunctional properties, synthesis metal oxide nanoparticles, polymer composite Nanocoatings and Aerogels.



Neeraj R Prasad, he has completed master's degree in chemistry from Shivaji University, Kolhapur. Then, he completed PhD in chemistry under the guidance of Dr G.M. Nazeruddin from SPPU, Pune. He has written several research papers in the journal of inter-national repute. Presently, he is trying to implement concept of nanotechnology in veterinary medicine and human medicine. He is interested in paranormal phenomenon and trying to connect to modern science.

Publisher's Note: Engineered Science Publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Bharati Vidyapeeth's
Dr. Patangrao Kadam Mahavidyalaya, Sangli

Fourth National Conference on
Recent Trends In Pure And Applied Sciences (RTPAS-2022)

21st and 22nd January 2022



ISSN: 2454 6348

Doi: 10.26479/2022.0802.05

Special Issue

**Research Journal of Life Sciences, Bioinformatics,
Pharmaceutical and Chemical Sciences**

डॉ. पतंगराव कदम महाविद्यालय, सांगली



Chief Editor
Prin. Dr. D. G. Kanase

Associate Editors

- Dr. V. B. Awale
- Dr. A. R. Supale
- Dr. D. P. Nade
- Dr. M. J. Dhanavade

Index

Sr. No.	Title of the paper	Author	Page No.
1	Oxidation of benz and <i>m</i> -toluic acid hydrazides by thallium(iii) in acidic medium	Amit S. Varale	4-13
2	Liquid assisted grinding as environmentally benign protocol for synthesis of 6-amino-3-methyl-4-phenyl-1,4-dihydropyrano[2,3- <i>c</i>]pyrazole-5 carbonitrile derivatives as cystinyl amino peptidase inhibitors and antihypertensive agents.	P. R. Kharade	14-20
3	Studies on use of yttrium sulphide as the storage electrode in photoelectrochemical (pec) storage cell	U.K. Mohite	21-26
4	Study to understand the major stress related responses during the period of Covid -19 Pandemic lockdown by Student Stress Survey	Sheetal Bhopinder Singh Juneja	27-35
5	Phytochemical Potential of Medicinal Plants –Influential Immunity Boostersfor the Pandemic of Covid-19	A. P. Patil	36-49
6	Design, synthesis, characterization and biological evaluation of some new aryl-pyrazole based chalcones as anticancer agents.	U. B. Chougale	50-62
7	Review of Ethnofloristic diversity of Kharepatan village, Sindhudurg.	Prajyot S. Nalawade	67-78
8	Occurrence of Arbuscular Mycorrhizal Fungi and qualitative analysis of <i>Crozophora plicata</i> (Vahl)	N. B. Mane	79-84
9	Estimation of Phytoconstituents, Soil characterization and Isolation of	N. B. Mane	85-91

	Arbuscular Mycorrhizal fungi from <i>Curcuma longa</i> L.		
10	Diversity of marginal plants of some water bodies in Gadhinglaj Tahsil and their ecological significance	Sawant R. S	92-100
11	Phytoallelopathic effect of different concentration of <i>Vitex negundo</i> L leaf leachates on germination and growth of <i>Trigonella foenum-graecum</i> L c.v. Lam selection-1 and <i>Eleusine coracana</i> (L). c.v. Dapoli – 1	Vikram P. Masal	101-106
12	Giant african snail - <i>achatina fulica</i> (bowdich, 1822), a nursery pest from kolhapur district (m.s.)	Suryakant V. Maske	107-116

GIANT AFRICAN SNAIL - *ACHATINA FULICA* (BOWDICH, 1822), A NURSERY PEST FROM KOLHAPUR DISTRICT (M.S.)

Mrunalini N. Desai¹ and Suryakant V. Maske²

¹Department of Botany, Dr. Tanajirao Chorage Arts, Commerce and Science Senior College, Nandwal (Jaital Phata), Kolhapur - 416001.

²Department of Zoology, Shri Vijaysinha Yadav College, Peth Vadgaon, Kolhapur-416112

Corresponding Author: Dr. Suryakant V. Mask, Email – drsuryakant27vym@gmail.com

ABSTRACT: *Achatina fulica* is invasive terrestrial snail can cause serious economic damage to different agricultural crops as well as nursery and garden plants. The extensive rasping, defoliation, slime trails, or ribbon like excrement is signs of infestation. The study was carried out in different nurseries from Kolhapur district. In recent times, severe outbreak of this pest has been noticed due to some desirable agricultural and gardening practices like minimum tillage practices and straw retention techniques which help in survival of snails and make seedlings more susceptible to damage. Present investigation aims to enlighten on taxonomy, appearance, behavior and habitat, dispersal, diet, reproduction pattern, nature of damage and to suggest management strategies.

KEY WORDS: Giant African Snail, *Achatina fulica*, Nursery plants, Management practices.

1. INTRODUCTION

Phylum *mollusca* is the second largest phylum of the animal kingdom [1]. Several species of snails and slugs are considered as notorious pests in agro-ecosystem in different parts of the world due to their rasping feeding behaviors [2]. The Giant African Snail (GAS) *Achatina fulica* (Bowdich, 1822) belongs to the Phylum Mollusca, Class Gastropoda, subclass– Pulmonata, and family– Achatinidae of order–Stylommatophora. This is the biggest and most damaging land snail pests having a protective shell, measuring about 19 cm. in length.

It is an exotic invasive pest introduced from East Africa to India in 1847. Now it is reported from all continents [3]. The World Conservation Union (IUCN) has listed *A. fulica* as one of the world's 100 most invasive species [4]. According to Nelson [5] it is very active during monsoon, nocturnal in behavior and damage 500 different crops like papaya, banana,

brinjal, beans, okra, cucumber, cabbage, cauliflower, pumpkin, ground nut, melon, areca nut, rubber buds, coffee seedlings, orchids, marigold etc.

In India, Reddy and Sreedharan [6] recorded *A. fulica* on coffee in Andhra Pradesh. Sridhar *et. al.*, [7]; Ravikumara *et. al.*, [8] and Mallappa and Patil [9] reported severe occurrence of the GAS in various districts of Karnataka. Badal *et. al.*, [10] focused on Bio ecology and management of GAS *A. fulica*. Avhad *et. al.*, [11] and Jadhav *et. al.*, [12] reported GAS as mulberry pest in Aurngabhad district and Kolhapur district of Maharashtra respectively. More recently Pinku and Rafee [13] surveyed molluscan pests in Karnataka. Lenin and Ummer [14] enlightened GAS menace in crops and management in Kerala. Bishal *et. al.*, [15] studied population density and damage in organic farm in east Sikkim. Pradeep Kumar [16] suggested some management strategies for control of GAS in Uttar Pradesh.

GAS is now widely distributed and no longer limited to their region of origin due to several factors viz., high reproductive capacity, voracious feeding habit, inadequate quarantine management and human aided dispersal. It is known for its destructive nature on cultivated crops and garden plants wherever it occurs. The information regarding incidence of molluscan pests in nurseries are lacking. There is little information available on the management of the Giant African Snail at Kolhapur district. The present investigation will help to take steps to eradicate or control snail infestations from Kolhapur district as early as possible.

2. MATERIAL AND METHODS

Survey was carried out for the collection and observation on infestation of *Achatina fulica* in nurseries. Several visits were made to 22 nurseries viz Sajiv Nursery (Kolhapur City), Shinde Nursery (Kolhapur City), Sai Prasad Biotech (Karvir Tahsil), Rushi & Kunal Nursery, Kasaba Bawda (Karvir Tahsil), Kamddhenu Ropvatika , Kothali (Karvir Tahsil), Om Agro Services (Karvir Tahsil), Green Earth Services (Karvir Tahsil), Yashraj Nursery (Karvir Tahsil), Akshay Nursery, Kagal (Kagal Tahsil)Plant library Nursery, Kagal (Kagal Tahsil), Palavi Nursery, Shiye (Hatkanagle Tahsil), Shetkari Nursery, Minache (Hatkanagle Tahsil), Shri Ambika Nursery, Kondigre (Shirol Tahsil), Warana Nursery, Warananagar (Panhala Tahsil) and Ankur Nursery (Radhanagari Tahsil).

Distribution and abundance of *Achatina fulica* were recorded in various nurseries from in and around Kolhapur city. On the basis of infestation four categories of nursery plants like

Ornamental, Flowering, Vegetable and Fruit were made. The data obtained and management strategies are discussed in detail in result.

3. RESULTS AND DISCUSSION

The occurrence and infestation of GAS *Achatina fulica* was observed in various nurseries in Kolhapur district. The infestation was observed on total 22 plants from all four categories of nursery plants like Ornamental, Flowering, Vegetable and Fruit. The list of plants is provided in Table no. 1. In ornamental category maximum infestation was observed on *Syngonium*, *Spathyphyllum* and *Diefenbachia*; in Flowering plants Hibiscus was infested mostly, in Vegetable category infestation was observed on 6 plants out of these Cabbage and Cauliflower were infested badly. In fruit plant category Banana and Papaya were infested mostly. Nature of infestation, feeding nature, excrement pattern, clinging behavior is as shown in Plate 1.

GAS feeds on leaves, stems, fruits, flowers of the host plants and leafy vegetables causing severe damage especially in nurseries as well as plants of horticultural and medicinal value [17], [18], [13]. It affects the aesthetic value of kitchen garden and roof gardens and nurseries too. Snails and slugs (molluscs) are hermaphrodites, but there is reciprocal exchange of spermatozoa as they mature before development of eggs [19]. Due to the high reproductive potential, a single snail can multiply in the field and it is very difficult to control their population.

a. Appearance: Adults usually around 7-8 cm tall, but may reach 20 cm or more. Shell has rounded conical shape, being about twice as high as it is broad. Shell is generally brown in color with irregular darker streaks running transversely across the whorls [20]. Adult size is reached in 4 months, but may continue slowly up to 1 ½ years. It is cross-fertilizing, egg-laying hermaphrodite [17]. Number of eggs per clutch averages around 200 with 5-6 clutches per year. Hatching viability is about 90%. Locally, the eggs and snails are readily transported in garden waste.

b. Behavior & Habitat: The giant African snail commonly is found in warm, humid climates. They can be found in coastal areas, shrub lands, plantation habitats and forests. The snail prefers temperatures that are well above freezing [21], [22]. It is nocturnal and spends most of

the day underground. These snails produce a slime that reduces friction and allows them to move along many ground surfaces.

c. Diet: GASs are herbivores. They typically feed on leaves, wood, bark, seeds, grains and nuts. Older snails can become carnivorous, however, also feed on living plants or other snails, fungi or animal matter. Their tongue having radula that allows to scrape or cut food.

d. Reproduction: The typical life span of the GAS is 3-5 years, but they have been known to live as long as 9 years. They are hermaphrodites. Young African snails only produce sperm, but adults are able to produce both sperm and eggs. Even though they have both male and female reproductive parts, they still have to mate with another snail because their sperm cannot fertilize their own eggs.

When two snails mate, they exchange sperm. The sperm may immediately fertilize the eggs, or it can be stored inside the body for up to two years before fertilizing any eggs. Once fertilized, the snail does not lay the eggs for 8 to 20 days. They typically hatch 11 to 15 days later. The snail can lay up to 100 eggs in its first year and up to 500 in the second year. After six months, the young reach adult size.

MANAGEMENT STRATEGIES:

Eradication of GAS is difficult and costly. It is literally impossible for well established populations in agricultural field. The effective control of pests involves a combination of measures, including physical, cultural, biological and chemical methods so it is best not to rely on just one method. The different management practices are discussed below:

a. Physical Method: Hand picking of snails and eggs on daily basis after sunset and destroy or incinerate them with a flame proves best eradication practice in heavily infested areas. Food baits (over-ripe papaya fruit pieces) can be used for easy collection and removal of snails from any field. International quarantine and surveillance practices are necessary to avoid their entry in any new geographical area.

b. Cultural control: One can reduce the infestation and population of GAS by practicing good field sanitation. Good hygiene, weed control and removal of refuges can reduce the problem over time. Regular Monitoring is essential for the pest in the nursery or in garden. Abundant ground cover and vegetation growth provide favorable conditions like ideal moisture levels,

shelter and harborage where snails thrive and can be a problem. Avoidant of minimum tillage and straw-retention techniques in *A. fulica* endemic areas are effective since these practices not only help the snails to survive but also make the seedlings more susceptible to damage. Soils with more organic matter content are more attractive to the snails.

Unnecessary growing of plants between trees and vines can also act as shelter belt for the snails. Sprinkling of table salt around the crop-base in dry season is one of the best preventive measures. Prasad *et.al.*, [3] suggested and experimentally proved *Annona glabra* softwood cutting fence is a feasible and practical alternative to protect nursery beds from *Achatina fulica*.

c. Biological control: Since *A. fulica* is an alien pest therefore there are limited natural enemies that control this pest. Some predatory beetles, lizards, birds and rats can feed on them. Ducks and chickens can provide effective, long-term control in orchards and vineyards, if an appropriate breed is chosen and properly cared for. Khaki Campbell or Indian runner ducks are best breed to be used in snail control [23], [24], [25] and [26].

Use of predatory snails and worms in *A. fulica* management has also been implicated in the decline of native snails in many countries. Some of the predatory snails which can predate and feed on *A. fulica* include *Euglandina rosea*, *Gonaxis kibweziensis*, *Gonaxis quadrilateralis*, *Edentulina ovoidea* and *Edentulina affinis*. *Platydemus manokwari*, a *turbellarian* flat worm, has also been used to control the GAS in Guam, Philippines and Maldives.

d. Chemical control: Some of the chemicals are effective to control this species. However, it should be advisable to use the chemicals judiciously. Lime or bleaching powder may be sprinkled in the infested area was effective. Common salt may also be spread on the snail infested area.

Few chemicals which are effective to control the snails are methiocarb, metaldehyde and EDTA. The bait materials such as dicholorvos bait (Wheat flour- 1kg + Jaggery- 0.2 kg + Dicholorvos 76EC- 250ml) and methomyl bait (Rice bran 1kg + Jaggery 0.2 kg + Methomyl 40 SP- 100 g) are suitable to control the infestation of the species. The bait preparation should be carried out prior to application of molluscicides. The bait should be prepared by heating the

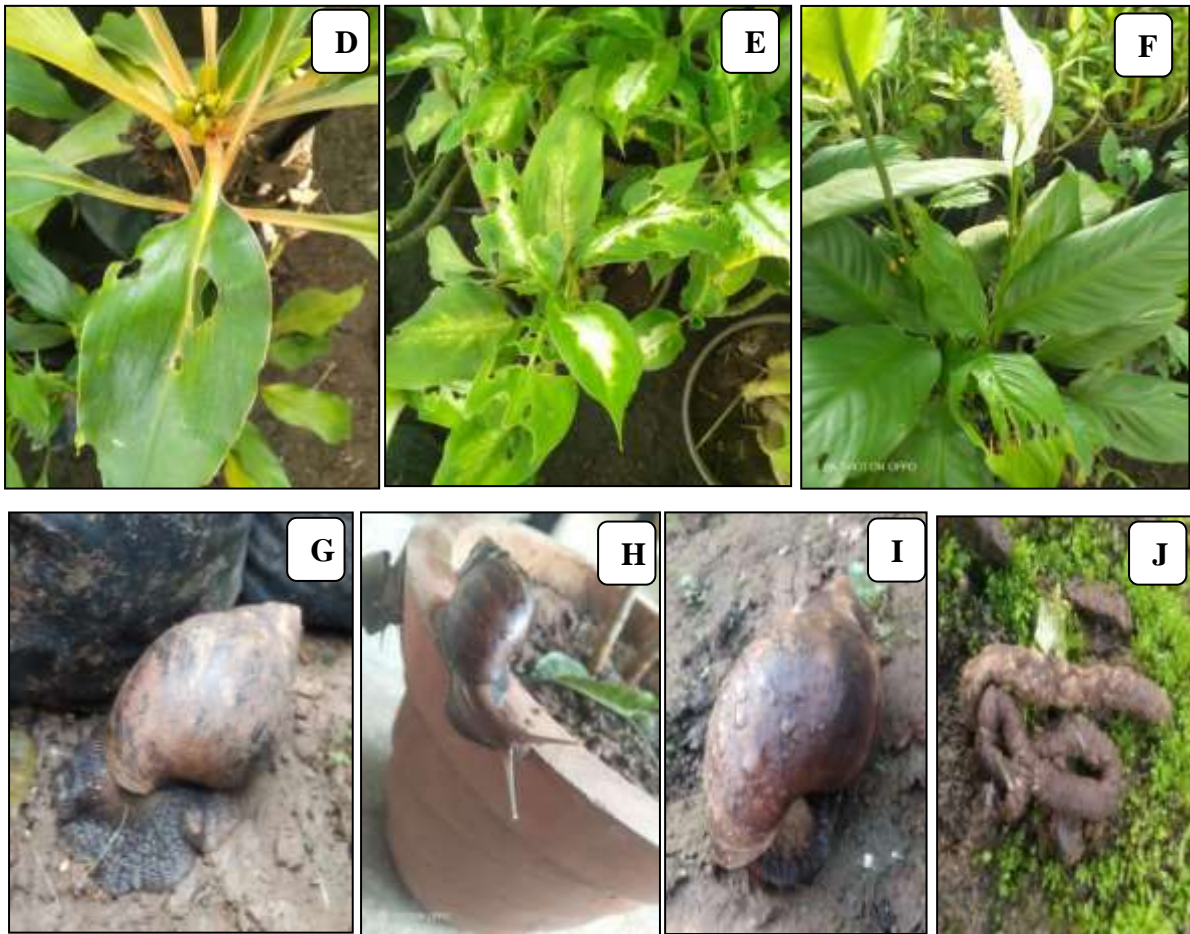
jaggery with wheat flour/ rice bran along with the poison. Hand gloves should be used to make small balls and keep it in 10 places in the field.

Table No. 1. List of Nursery Plants infested by *A. fulica*.

	Ornamental		Flowering		Vegetable		Fruit
1.	<i>Aglonema</i>	1.	Hibiscus	1.	Brinjal	1.	Banana
2.	<i>Syngonium</i>	2.	Marigold	2.	Tomato	2.	Jamun
3.	<i>Spathiphyllum</i>	3.	Aster	3.	Cauliflower	3.	Papaya
4.	<i>Dieffenbachia</i>	4.	Petunia	4.	Cabbage	4.	Mango
5.	<i>Chlorophytum</i>			5.	Capsicum	5.	Moringa
6.	Bird Cherry			6.	Curry Leaf	6.	Pumpkin

Plate 1. Giant African Snail *Achatina fulica* and its infestation on various nursery plants





- A- GAS on Bird cherry plant B- Infestation on Hibiscus C- GAS clinging to host plant**
D- Infestation on *Chlorophytum* E- Infestation on *Dieffenbachia* F- Infestation on *Spathiphyllum*
G- GAS hiding under bags H- GAS on Nursery Pots I- GAS in moist places
J- Excrement of GAS

4. CONCLUSION

Invasive species are one of the top threats to biodiversity. Once an invasive species establishes its population in a new vulnerable area, it is very difficult to check its growth, spread and damages. In case of Giant African Snails, several eradication measures have already been found unsuccessful. Some of the management options also have lots of indirect issues related to environment, biodiversity and health hazards. Biological control in the form of introducing the rosy wolf snail proved disastrous and caused even more damage, razing of an entire ecosystem in the pursuit of eradicating only one species. Use of toxic baits targeted for *A. fulica* also victimized indigenous as well as other invasive snails. As regards to chemical control,

various molluscicides like metaldehyde are non-selective, thus their use has a chance of endangering the survival of non-target organisms.

However, some easy techniques like collection and destruction of the snails and their eggs are recommended as a form of physical control. Guarding pathways through which Giant African Snails can pass is much cheaper than pursuing them through biological or chemical control. Moreover, to be effective, the molluscicides should be such that it may not get dissolved and washed away by rain because snails are normally active during the rainy season. Therefore, an effective eco-friendly management strategy is needed to keep the pest below economic injury level. Holistic efforts in and around Kolhapur city at the regional level are not only needed to prevent further spread of *A. fulica* but also required to formulate an effective and environmentally sustainable management strategy.

REFERENCES:

1. Zala, M. B., Sipai, S. A., Bharpoda, T. M., and Patel, B. N. Molluscan pests and their management: A review. *An International e. Journal*, 2018; 7(2): 126-132.
2. Das, P. P. G., Bhattacharyya, B., Bhagawnti, S., Dev, E. B., Manpoong, N. S., and Bhairavi, K. S. Slug: A menace in agriculture: A review. *Journal of Entomology and Zoology Studies*; 2020; 8(4): 01-06.
3. Prasad, G.S., Singh, D.R., Senani, S. and Medhi, R.P. Eco-friendly way to keep away pestiferous giant African snail, *Achatina fulica* Bowdich from nursery beds. *Curr. Sci.*, 2004; 87: 1657– 1659.
4. Invasive Species Specialist Group. Global Invasive Species Database. Version 2012. 2. *Achatina fulica* (mollusc). <http://www.issg.org/database/species/ecology.asp?si=64&fr=1&sts=&lang=EN>. 2012
5. Nelson Scot. Injuries Caused by the Giant African Snail to Papaya Miscellaneous Pests Published by Department of Plant and Environmental Protection Sciences, Hawaii University, 2012: 1-7.
6. Reddy KB and Sreedharan K. Record of giant African snail, *Achatina fulica* Bowdich on coffee in Visakha agency areas, Andhra Pradesh. *Indian Coffee*. 2006; 70: 17-19.

7. Sridhar V, Jayashankar M, Vinesh LS and Verghese. A Severe occurrence of the giant African snail, *Achatina fulica* (Bowdich) (Stylommatophora: Achatinidae) in Kolar district, Karnataka. *Pest Management in Horticultural Ecosystem*. 2013; 18: 228-230.
8. Ravikumara, N. M. I., Manjunath, M., and Pradeep, S. Seasonal incidence of giant African snail, *Achatina fulica* Bowdich (Gastropoda: Achatinidae) in areca ecosystem. *Karnataka Journal of Agricultural Science*. 2007; 20(1):157-158.
9. Mallappa, C., and Patil, R. K. Population dynamics of giant African snail, *Achatina fulica* Ferussac (Stylommatophora: Achatinidae) in betelvine ecosystem. *Journal of Experimental Zoology*. 2014; 17(1):285-288.
10. Badal Bhattacharyya, Mrinmoy Das, Himangshu Mishra, D.J. Nath and Sudhansu Bhagawati. Bioecology and management of giant African snail, *Achatina fulica* (Bowdich) *International Journal of Plant Protection*. 2014; 7 (2) : 476-481.
11. Avhad S.B., Shinde K. S. and C. J. Hiware. Record of molluscan pest in mulberry Aurangabad District of Maharashtra. *Indian J. Seric*. 2013; 52 (1): 29 - 33.
12. Jadhav, A. D., Dubal, R.S., Bagade R. P., Sanadi Reshma A., Kamble, P.L. Belgumpe S. and Sathe, T.V. Giant African Snail, *Achatina fulica* Bowdich a destructive pest of V1 mulberry (*Morus alba* L.) by - A new report and control strategies from Kolhapur, Maharashtra, India. 2016.
13. Pinku Paul and C.M. Rafee. A Survey on Molluscs Pests in Karnataka, India *Int.J.Curr.Microbiol.App.Sci*. 2017; 6(9): 3123-3132
14. Lenin Neena and Ummer Najitha. Giant african snail menace in crops and its Management. Ph. D. Thesis submitted to Kerala Agricultural University, Thiruvananthapuram, Kerala, India. 2018.
15. Bishal Thakuri, Bhoj Kumar Acharya and Ghanashyam Sharma. Population Density and Damage of Invasive Giant African Snail *Achatina fulica* in Organic Farm in East Sikkim, India *Indian journal of Ecology*. 2016; 46(3):631-635
16. Pradeep Kumar. A Review- On Molluscs as an Agricultural Pest and Their Control. *International Journal of Food Science and Agriculture*. 2020; 4(4).
17. Mead, A.R. *The Giant African Snail: A problem in economic malacology*. University of Chicago Press, Chigo, 1961: 257.

18. Muniappan, R., Duhamel, G., Santiago, R.M. and Acay, D.R. Giant African snail control in Bugsuk Island, Philippines, by *Platydemus manokwari*. *Oleagineux*, 1986; 41:183-186.
19. Routray, S. and Dey, D. Snails and slugs as crop pests. *Rashtriya Krishi*, 2016; 11(1): 40-41.
20. Skelley, P.E. Dixon, W.N. and Hodges, G. Giant African land snail and giant South American snails: field recognition. Florida Department of Agriculture and Consumer Services. Gainesville, Florida (U.S.A.). 2011.
21. Raut, S.K. and Barker, G.M. *Achatina fulica* Bowdich and other Achatinidae as pests in tropical agriculture. In: G.M. Barker (ed.), *Molluscs as crop pests*. CABI Publishing, Hamilton, New Zealand, 2002 : 55-114.
22. Smith, J.W. and Fowler, G. Pathway risk assessment for Achatinidae with emphasis on the giant African land snail, *Achatina fulica* (Bowdich) and *Limicolaria aurora* (Jay) from the Caribbean and Brazil, with comments on related taxa *Achatina achatina* (Linne) and *Archachatina marginata* (Swainson) intercepted by PPQ. USDA, APHIS, *Center for Plant Health Science and Technology* (Internal Report), Raleigh (N.C.). 2003.
23. Howlett, S. A. Terrestrial slug problems: Classical biological control and beyond. *CAB Review*, 2012; 7(051): 1-10.
24. Peter, D., Widmer, M. and Craven, T. Control of pest snail and slugs. Western Australian Agriculture Authority, *Garden note*, 2012; 12: 530.
25. Sallam, A. and Wakeil, N. E. Biological and Ecological Studies on Land Snails and Their Control. In: *Integrated management and pest control-Current and Future Tactics*, (Eds. Larramendy, ML. and Soloneski, S. Published online web.org. pp. 2009; 413-444.
26. Schuder, I. Integrated control of slug and snail pest in hardy nursery stock (Ph.D. thesis). Newcastle upon Ty and Wear, U.K. 2004.

**International Journal of Advanced Research in Science,
Communication and Technology (IJARSCT)**



TABLE OF CONTENTS

Amphibian Survey from Mahad Tahsil Western Ghats, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	1-5
Survey of Dung Beetles in Mahad Tehsil Western Ghats, Raigad District, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	6-9
Impact of COVID-19 on Agriculture, Livestock, and Biodiversity: A Review <i>Parinita Kumari and Dr. Vinod R. Ragade</i>	10-15
Impact of Botanical Extracts on Histopathology of Midgut of CSR2 Race of Mulberry Silkworm (<i>Bombyx Mori L.</i>) Inoculated by <i>Staphylococcus Aureus</i> <i>S. J. Patil, S. S. Patil, G. P. Bhawane</i>	16-20
Impact of Climatic Conditions on Rice Crop of Pune Division: A Geographical Analysis <i>B. S. Jadhav and M. B. Hande</i>	21-31
The Study of Phytoplankton and Zooplankton in Freshwater Tulsi Lake, Mandangad, Ratnagiri, Maharashtra, India <i>S. S. Bhaisare</i>	32-37

Study of Avifaunal Diversity from Shendri Reservoir Gadhinglaj, Dist. Kolhapur (M.S.)

K. J. Adate and V. V. Ajagekar

38-44

Development in Pesticides for Control and Prevention of African Giant Snails, Achatina Fulica in Jalgaon, Dapoli Dist. Ratnagiri (M.S.)

Janhavi Vidya Patil and Nanda Bhupal Jagtap

45-51

The Influence of Boron on Some Plant Nutrients in Sweet Sorghum (Sorghum bicolor L.)

Jadhav Sujeet S.

52-57

A Study of Butterfly Diversity in Nandgaon Village and Gulmohar Park in Khed Tehsil District of Ratnagiri (M.S.) India

Ayesha A. Rauf Murudkar and Nanda Bhupal Jagtap

58-68

Impact of COVID-19 Pandemic Lockdown on Fishery Potential of Uran Tehsil, M. S., India

Shital S. Taware, Vishwajeet M. Lagade, Mansi K. Gurav, Ayush D. Koli

69-75

Avifauna of Zambre Reservoir, Chandgad, Dist- Kolhapur (Maharashtra)

Dr. K. N. Nikam

76-81

The Floristic Studies on Narande Sacred Grove Narande, Dist. Kolhapur, Maharashtra

Patil Aparna A and Minchekar Rahul

82-87

Impact of COVID-19 Pandemic on Rivers: A Review

Aishwarya S. Pawar, Sachin J. Pawar, Rutuja A Chavan

88-92

Impact of Disinfectant and Sanitizer on Human and Environment during COVID-19 Pandemic

V. M. Lagade, S. S. Taware, S. V. Lagade, P. S. Pawar, B. S. Wali

93-106

Estimation of the Population Size of Crocodile *Crocodylus palustris* (Lesson, 1831) from Two Incomplete Survey Methods-Daylight Ground Counts and Night Counts

Atigre R. H., S. R. Patil, R. J. Patil, M. G. Babare

107-113

Diversity and Distribution of Agricultural Insect Pest in Some Selected Areas of Indapur (Pune) and Phaltan (Satara) Tehsil, Maharashtra, India

Rupesh B. Yadav, Prajakta D. Khaire, Suryakant V. Maske

114-121

Impact of the COVID-19 Pandemic on the Dairy Farming

Ingavale Dipali Rajaram

122-125

Plant Diversity at Katyayani Temple Area, Kolhapur

P. A. Sonar, V. B. Nalawade, M. N. Desai

126-129

Impact of Social Background on Learning English as a Second Language

Dr. Prashant P. Yadav

130-133

Relation of Physical Fitness Index with Body Mass Index: Study Among Female Students of Balwant College Vita, Dist. Sangli, (M.S.), India

Rahul Patil, Satyawan Patil, Yogita Patil, Rajaram Atigre

134-137

Impact of the Corona Virus Pandemic on Wetland Avifauna Diversity of JAT Region

Dr. S. B. Deshmukh and Dr. M.Y. Kulkarni

138-140

Identification of Some Genera of Family Cucurbitaceae based on Characters of Seeds

S. S. Bhosale, D. G. Jagtap, R. S. Bhosale, S. M. Khandare, A. S. Dhabe

141-145

Seasonal Variation of Phytoplankton Diversity in the Fresh Water Body of Atpadi Lake, Maharashtra

Shivaji M. Vibhute

146-150

Diversity and Distribution of Agricultural Insect Pest in Some Selected Areas of Indapur (Pune) and Phaltan (Satara) Tehsil, Maharashtra, India

Rupesh B. Yadav¹, Prajakta D. Khaire², Suryakant V. Maske³

Thakur College of Science & Commerce, Kandivali East, Mumbai, Maharashtra, India¹

Tuljaram Chaturchand College Arts, Commerce & Science, Baramati, Maharashtra, India²

Shri Vijaysinha Yadav Arts & Science College, Peth Vadgaon, Kolhapur, Maharashtra, India³

Abstract: A survey was conducted to investigate the agricultural insect pest diversity in Indapur and Phaltan Tehsil. The actual survey was carried out during 15 Sep. 2020 to 15 March 2021. Throughout study period, total 25 species of agricultural insect pests were collected & identified from 29 different sampling sites of 7 villages. They are belonging to 4 orders that is Orthoptera, Hemiptera, Coleoptera and Lepidoptera, while included in 12 families that is Gryllidae, Gryllotalpidae, Acrididae, Tettigoniidae, Pyrgomorphidae, Pentatomidae, Pseudococcidae, Coreidae, Chrysomelidae, Scarabaeidae, Cupedidae, and Sphingidae. The reported species were recorded from different habitat like Agricultural field, Residential area, Water Reservoirs, Woodland & Forest, Thorny Scrub and Grassland area. According to IUCN Red list, 1 species is critically Endangered, 2 species are Endangered, 1 species is Vulnerable, 5 species are Near Threatened, 14 species are Data deficient, and 2 species are Least Concern. The insect pest cause on an average 15–20% yield losses in food and cash crops. Due to heavy of Insecticides use in agricultural field, the natural biocontrol agent's numbers are drastically declined in study area. Suggestions for future improvement include, Integrated Pest Management (IPM) program through the ecological pest management practices.

Keywords: Diversity, Distribution, Agricultural Insect Pest, Indapur, Phaltan, etc.

I. INTRODUCTION

India is the world's largest popular agriculture countries in the glob and the largest producer of crop wheat, rice, sugarcane, vegetables, groundnut, fruits and cotton. Food plants of the world are damaged by more than 10,000 species of insects, 100,000 diseases, 30,000 species of weeds and 1000 species of nematodes (Hall, 1995; Dhaliwal et al., 2007). Insect cause damage to plants either directly or indirectly in their attemptsto source food, and almost all the portions, viz. Roots, bark, shoots, stem, leaves, buds, flowers and fruits of plant are attacked and injured by insects (Atwal and Dhaliwal, 2015). Many of the insect pests such as aphids, caterpillar, grasshopper, locusts, whiteflies, leafhopper, mole cricket, thrips and some bugs etc. are damage the crop. There are many different types of insect pest included in different orders.

Losses because of the insect pest in Indian agriculture have been assessed from time to time (Singh et al., 2014; Dhaliwal & Arora, 2015). Extensive surveys carried out during early 1960s revealed that fruit, cotton, rice, and sugarcane suffered 25, 18, 10 and 10% yield losses, respectively (Pradhan, 1964). The number of insect pest damage the crop and loss of the yield. The agriculture field of India is presently suffering an annual loss of about Rs. 8, 63,884 million due to insect pest (Dhaliwal et al., 2010). The heavy crops are loss from insect pests, the farmers practice large amounts of pesticides (Aktar et al., 2009). But, both the quantity of food loss due to pests and the cost of pest control in terms of money and human health are significant (Pimentel and Greiner, 1997). Sucking insect pests and defoliators like mirid bug, whitefly, aphids, mealy bug, plant hoppers, shoot fly, and the defoliating tobacco caterpillar, leaf miner and leaf folder *Cnaphalocnisis medinalis* (Guenee) have emerged as major pests (Chakra- barty, 2015).

Insects have a directly influence on agricultural food production by sucking out plant juices, chewing the leaves of crop

plants, stems or leaves and spreading plant pathogens, boring within the roots. They feed on natural fibers, destroy wooden building materials, ruin stored grain and accelerate the process of decay. (Yang et al. 2014) Pest control is the best achieved with an integrated pest management plan using a range of biological, chemical, physical, mechanical or cultural control methods. Selective insecticides can be employed with fewer effects on natural enemies. Common predators of insect pest include praying mantis, ladybird beetles, spiders, true bugs, earwigs, ground beetles, hoverfly larvae and lacewings (Cork, A., Dobson, et al., 2009).

Considering the above importance of the study, the present investigation was undertaken to know the diversity and distribution of agricultural insect pest in some selected areas of Indapur (Pune) and Phaltan (Satara) Tehsil.

II. MATERIALS AND METHODS

A. Study Area-

Indapur is located at 18.1187° N, 75.0234° E. It has an average elevation of 527 meters. and Phaltan is located at 17.9935° N, 74.4304° E. It has an average elevation of 558 meters. The climate of Indapur is quiet hot place as it receives scanty rainfall an inland climate of Maharashtra. The Phaltan climate is an inland of Maharashtra. The temperature is relatively high range between 12°C to 45°C. The observation of agricultural insect pest was carried out in twice a day (morning and evening) from two places of sampling site of Indapur and Phaltan Tehsil. The total study period 15 Sep. 2020 to 15 March 2021. The places include Dalaj no. 1, Dalaj no.2, Dalaj no. 3, Kalewadi, Bhadalwadi, Pilewadi, Bhigwan, Takalwade, Pimprad, Nimblak, area of Indapur and Phaltan city.

B. Sampling Site-

Throughout the Indapur and Phaltan Tehsil, extensive survey was carried out to cover maximum study area, actual collection sites shown in table No. 1- collection site along with their GPS location and elevation of Indapur and Phaltan city.

C. Collection of the Insect-

The regular collection of agricultural insects made during period of 15 Nov 2020 to 15 March 2021 using hand picking and insect net. The photography of the specimen was carried out by using DSLR camera Canon 760 D with 18-55 lance. The insects were anesthetized using jar containing cotton wad dipped chloroform. The insects then sun-dry & preserved and entomological pins were used for spread of the insect on entomological board.

D. Taxonomic Identification-

Agricultural insect pest identification was done by using the available literature, Research article and identification keys.

III. RESULT AND DISCUSSION

During present study, a total 25 species of agricultural insect pest belonging to 4 order and 12 family were collected and identified (Table No. 2). Out of 25 species specimen, 1 species belonging to family Gryllidae. In order Orthoptera, 15 species from family Gryllotalpidae, 3 species from family Acrididae, 7 species from family Tettigoniidae, and 2 species from family Pyrgomorphidae, 3 species from family Pentatomidae.

Table No. 1- Agricultural insect pests sampling sites along with GPS location and elevation.

Sr. No.	Name of Village	Habitat	Latitude	Longitude	Elevation (In Meters)
1	Dalaj No. 3	Residential area	18°13'33.9"N	74°49'29.1"E	510
2	Dalaj No. 3	Grassland area	18°13'43.6"N	74°49'34.1"E	505
3	Dalaj No. 3	Residential area	18°13'45.6"N	74°49'39.2"E	503
4	Dalaj No. 3	Agricultural area	18°13'53.3"N	74°49'40.0"E	500
5	Dalaj No. 3	Agricultural area	18°13'37.6"N	74°49'42.7"E	503
6	Dalaj No. 3	Agricultural area	18°13'28.3"N	74°49'31.1"E	509
7	Dalaj No. 1	Grassland area	18°14'00.9"N	74°48'54.4"E	507

8	Dalaj No.1	Grassland area	18°14'24.0"N	74°48'48.1"E	502
9	Dalaj No. 1	Residential area	18°14'03.1"N	74°49'12.4"E	502
10	Dalaj No. 2	Agricultural area	18°14'04.0"N	74°48'11.6"E	505
11	Dalaj No. 2	Agricultural area	18°13'27.8"N	74°47'59.7"E	529
12	Dalaj No. 2	Grassland area	18°13'59.4"N	74°48'15.8"E	508
13	Kalewadi	Residential area	18°24'27.8"N	74°41'00.3"E	515
14	Pilewadi	Agricultural area	18°12'20.2"N	74°47'20.5"E	558
15	Bhadalwadi	Agricultural area	18°13'39.0"N	74°46'13.5"E	526
16	Bhadalwadi	Grassland area	18°13'45.8"N	74°46'27.3"E	522
17	Bhadalwadi	Agricultural area	18°13'45.8"N	74°46'21.3"E	521
18	Bhadalwadi	Residential area	18°13'40.1"N	74°46'28.0"E	521
19	Bhigwan	Residential area	18°18'06.9"N	74°45'18.0"E	507
20	Takalwade	Residential area	17°59'35.3"N	74°33'10.2"E	547
21	Takalwade	Agricultural area	17°59'29.1"N	74°33'06.6"E	547
22	Takalwade	Residential area	17°59'41.9"N	74°33'12.2"E	545
23	Takalwade	Grassland area	17°59'39.2"N	74°33'21.2"E	546
24	Nimblak	Agricultural area	19°09'15.0"N	74°40'16.7"E	654
25	Nimblak	Grassland area	19°09'16.0"N	74°40'34.1"E	646
26	Nimblak	Agricultural area	19°09'17.1"N	74°40'42.8"E	644
27	Pimprad	Agricultural area	17°58'59.8"N	74°31'47.0"E	558
28	Pimprad	Agricultural area	17°58'40.5"N	74°32'00.1"E	559
29	Pimprad	Residential area	17°58'43.0"N	74°31'53.3"E	559

In order Hemiptera, 2 species from family Pseudococcidae, 1 species from family Coreidae. 1 species from family Chrysomelidae. In order Coleoptera, 2 species from family Scarabidae, 1 species from family Cupedidae. 1 species from family Spingidae. In order Lepidoptera were collected. The photographs of the observed agricultural insect pest are given in plate.

In Order Orthoptera, *Telegrillus emma* commonly known as a field cricket is black to dark brown insect, about 25mm long. They have large heads and wings that are folded flat against the black. They have long antennae and two hairy prongs sticking out of the end of the abdomen. In family Gryllotalpidae, *Neocurtilla hexadactyla* are called northern mole cricket. The northern mole cricket has yellowish brown with a dark prothorax. 3 or 4 claws, short wings, long tail like extension and brawny legs. In family Acrididae, *Phaulacridium marginale* are called New Zealand grasshopper. Wings are small, size were often unfortunately small. They are colored to match background vegetation and three pairs of leg. *Schistocerca americana* is also called as American grasshopper. The body of this pest generally yellow brown in color. The wings are pale with large brown spot. They are slender grasshopper with long wings. White strips on the tegmina, pronotum and head are distinct. Another grasshopper *Oedaleus infernalis* shows cylinder body shape. This pest usually has a light brown body with dark brown stripes and small size. In family Tettigoniidae, *Microcentrum rhombifolium* shows pale green color. Veins on the wings look like the veins on a leaf. The wings are longer than the body and overlap each other when closed. The tip of the wings comes to a point much like a willow leaf. *Pterophylla camellifolia* are leaf green in color, length from 1.5 to 2.5 inches, long antennae and their veins on their oval shaped.



The *Tettigonia viridissima* commonly known as Great green bush cricket are green with orangey brown stripes running the length of the body, long wings. It can be up to 3-4 cm long. Antennae are very long and thin. The *Letana intermedia* shows green color with or without dark, medium sized, slender, antennae and 3 pairs of leg are present. *Conocephalus maculatus* are smaller size, slanting shaped head, antennae are long, tegmina and wings are white in color and without any spots.

In family Pyrgomorphidae, *Chrotogonus oxypterus* are brown pale, ventrally with black spots on thorax and metasoma. Antennae darker towards tip, hind femur with black spots. Head is sub conical, straight, cerci short, conical, stumpy. *Tagasta apludi* shows yellowish brown in color and brown spots in body. Antennae are short, 3 pairs of leg and head is pointed.

The survey was conducted to check the abundance of agricultural insect pest in Indapur and Phaltan Tehsil. The present study indicates the agricultural insect pests are increase in number as compared to biological agents. In order Orthoptera species was highly observed as compared to order Hemiptera, Coleoptera, Lepidoptera. The most of the order Hemiptera in green stink bug are found in maize plant. The order Coleoptera in different species found in different areas. Some caterpillars are found in plants and vegetables.

In farmer's point of view agricultural insect pest like grasshopper, leafhopper, army worm, locusts, beetles, bugs, some caterpillar damages the agricultural crops and forestry causing significant losses to farmers. Examples of agricultural insect pest like brown marmorated stink bug can cause widespread damage to fruit and vegetable crops. Aphids are damaging crops by the direct action of sucking sap, but also harming them. Insects are responsible for two major forms of damage to crops. First, there is the direct injury they cause to the plants as they feed on tissues. Second, there is the indirect damage in which the insect itself does little or no harm but transmits a bacterial viral, fungal infection into a crop. So, pesticides and herbicides are applied to agricultural land to control pests that disrupt crop production. Pesticide can be toxic to a host of other organisms like beneficial insects and non-target plants and also damage soil biomass. They are best for the agricultural use of vermicompost organic fertilizer production and also the conservation of biocontrol agents.

IV. SUMMARY AND CONCLUSION

A survey was conducted to investigate the diversity and distribution of Agricultural insect pest in Indapur and Phaltan Tehsil. The actual survey was carried out during 15 Sep. 2020 to 15 March 2021. Throughout study period, total 25 species of agricultural insect pests were collected & identified from 29 different sampling sites of 7 villages. They are belonging to 4 orders and 12 families. The reported species were assessed on IUCN Red list to know the status. The insect pest cause on an average 15–20% yield losses in food and cash crops. Due to heavy of Insecticides use in agricultural field, the natural biocontrol agent's numbers are drastically declined in study area.

Suggestions for future improvement include, Integrated Pest Management (IPM) program through the ecological pest management practices.

Table 2: Checklist of Agricultural Insect Pests in Indapur and Phaltan Tehsil.

Sr. No.	English Name	Scientific Name	IUCN Status	Habitat
	Order – 1 Orthoptera			
	Family – 1 Gryllidae			
1	Emma field cricket	<i>Teleogryllus emma</i>	EN	GA & RA
	Family - 2 Gryllotalpidae			
2	Northern mole cricket	<i>Neocurtilla hexadactyla</i>	DD	WR & RA
	Family – 3 Acrididae			
3	New Zealand grasshopper	<i>Phaulacridium marginale</i>	DD	GA
4	American grasshopper	<i>Schistocerca americana</i>	DD	GA & WF
5	Grasshopper	<i>Oedaleus infernalis</i>	EN	GA
	Family – 3 Tettigoniidae			

6	Broadwinged katydid	<i>Microcentrumrhombifolium</i>	DD	TS & WF
7	Great green bush cricket	<i>Tettigonia viridissima</i>	LC	GA& AF
8	Bush cricket	<i>Letana intermedia</i>	DD	GA
9	Spotted meadow katydid	<i>Conocephalus maculatus</i>	LC	GA & RA
10	True katydid	<i>Pterophylla camellifolia</i>	CR	TS & WF
	Family – 4 Pyrgomorphidae			
11	Deccan grasshopper	<i>Chrotogonus oxypterus</i>	DD	WF
12	Grasshopper	<i>Tagasta apludi</i>	DD	GS & RA
	Order – 2 Hemiptera			
	Family – 5 Pentatomidae			
13	Brown marmorated stink bug	<i>Halyomorpha halys</i>	DD	AF & RA
14	Green stink bug	<i>Chinavia hilaris</i>	NT	AF, WF & RA
15	Spined soldier bug	<i>Podisus maculiventris</i>	NT	AF & RA
	Family – 6 Pseudococcidae			
16	Cotton mealy bug	<i>Phenacoccus solenopsis</i>	DD	AF
17	Red cotton stainer	<i>Dysdercus cingulatus</i>	DD	AF & RA
	Family – 7 Coreidae			
18	Western conifer seed bug	<i>Leptoglossus occidentalis</i>	NT	
19	Squash bug	<i>Anasa tristis</i>	DD	AF
	Order -3 Coleoptera			
	Family – 8 Chrysomelidae			
20	Leaf beetle	<i>Monolepta signata</i>	NT	AF
	Family – 9 Scarabaeidae			
21	Southern masked chafer	<i>Cyclocephala lurida</i>	DD	AF & WF
22	African black beetle	<i>Heteronychus arator</i>	DD	AF & GA
23	Coconut rhinoceros beetle	<i>Oryctes rhinoceros</i>	VL	AF, WF & RA
	Family – 10 Cupedidae			
24	Beetle	<i>Tenomerga cinerea</i>	DD	AF
	Order – 4 Lepidoptera			
	Family – 11 Sphingidae			
25	Oleander hawk moth	<i>Daphnis nerii</i>	NT	AF & WF

Abbreviations

LC – Least Concern

VL – Vulnerable

RA – Residential area

TS – Thorny Scrub

CR – Critically Endangered

EN – Endangered

WR – Water Reservoirs

GA – Grassland area

NT – Near Threatened

DD – Data Deficient

WF – Woodland and Forest

AF – Agricultural field

REFERENCES

- [1] Agarwala B K (1979), "Some aspects of aphid (Homoptera: Insecta), studies in Sikkim and Bhutan," Ph. D. thesis University of Calcutta, India, P.383.
- [2] Ambrose, E (1984) Research and development in banana crop protection (excluding sigatoka in the English-speaking Caribbean). *Fruits* 39, 234- 47.
- [3] Arora, R. and Dhawan, A K. 2013 Climate change and insect pest management Dhawan,
- [4] K., Singh, B., Bullar, M. B. and Arora, R. (eds). *Insect Pest Management*. Scientific publishers, Jodhpur. PP. 44-60.
- [5] Bana J K, Sharma H, Kumar Sushil, Singh P. Impact of weather parameters on population dynamics of oriental fruit fly, *Bactrocera dorsalis* (Hendel) (Diptera: Tephritidae) under South Gujarat mango ecosystem. *Journal of Agrometeorology*. 2017; 19: 78- 80.
- [6] Chakrabarty, P.K. 2015. Pest Management for sustainable agriculture. Sharma, D. R., Kumar, S. and Singh, (Eds). *Entomology for sustainable agriculture. Invited papers—Fourth congress on Insect science*. April, 16- 27, INSAIS, PAU, Ludhiana. P.1.
- [7] Cork, A., Dobson, H., Grzywacz, D., Hodges, R., Orr, A. and Stevenson, P. (2009) Review of pre- and post- Harvest Pest Management for pulses with special References to East and Southern Africa. Natural Resources Institute, University Extension, East Lansing.
- [8] CPCRT, 2015. CPCRT „Red Alert“ against Invasive pests of coconut. *The New Indian Express*, 6 January, Kerala, 2015. PP. 1- 3.
- [9] DAE (Department of Agricultural Extension). 2011. *Krishi Dairy 2011*. Published by Agriculture Information Service, Kharmarbari, Dhaka. PP. 214.
- [10] Dhaliwal, G.S., Arora, R. and Dhawan, A. K. (2004) crop losses due to insect pests in Indian agricultural: An update. *Indian j. Ecol.* 31(1): 1- 7.
- [11] Dillon, M.E., Wang, G. and Huey, R.B. 2010. Global metabolic impacts of recent climate warming. *Nature*, 467: 704 – 707.
- [12] Fletcher TB. *Some South Indian Insects*. Superintendent Government Press, Madras. 1914, 565.
- [13] Lanjar, A.G., Talpur, M.A., Khuhro, R.D. and Qureshi, K.H. 2002. Occurrence and abundance of grasshopper species on rice. *Pakistan Jour of Applied Sci.* 2 (7): 763 – 767.
- [14] Lee, J.C.T. and Landis, D.A. (2001) *Natural Enemies in field crops: A Guide to biological control*. Michigan State University Extension, East Lansing.
- [15] Nagrare VS, Kranthi S, Biradar VK, Zade NN, Sangode V, Kakde G. *Phenacoccus solenopsis* Tinsley (Hemiptera: Pseudococcidae), on cotton in India. *Bulletin of Entomological Research*. 2009; 99:537- 541.
- [16] Nair, M.R.G.K. 1970. *Insects and mites of crops in India*. New Jack printing works private Limited, Bombay. PP.32.
- [17] Palaniswami, MS, Pillai KS, Nair RR, Mohandas C. A new cassava pest in India. *Cassava Newsletter*. 1995; 19:6-7.
- [18] Patel KB, Saxena SP, Patel KM. Fluctuation of fruit fly-oriented damage in mango in relation to major abiotic factors. *Hort Flora Research Spectrum*. 2013; 2: 197- 201.
- [19] Pimentel D. In: Pimentel, D. (Ed.), *Biological invasions economic and environmental costs of alien plant, animal and microbe species*, second ed. CRC Press, Boca Raton, Florida, 2011, 463.
- [20] Pradhan, S. (1964) Assessment of losses caused by insect pests of crops and estimation of insect population. In: N.C. Pant (ed.) *Entomology in India*, Entomological Society of India, New Delhi, PP.17- 58.
- [21] Prasanna BM, Joseph Huesing E, Regina Eddy, Virginia M.P. *Fall armyworm in Africa: A Guide for Integrated Pest Management*, First Edition. Mexico, 2018.
- [22] Rejmanek M, Richardson DM. What makes some conifers more invasive? *Proceedings of the Fourth International conifer conference*, 2000.
- [23] Usmani M.K., Nayeem M.R. and Akhtar M.H., 2012. Field observations on the incidence of Grasshopper fauna as a pest of paddy and pulses. *European Journal of Experimental Biology*, 2 (5): 1912- 1917.
- [24] Varghese Devi. Seasonality and sampling of the mango shoot borer, *Chlumetia transversa* Walker (Lepidoptera: Noctuidae) pest Management in horticultural Ecosystems 1998; 4:16-20.



Photodegradation of Dye Pollutants on Nanocrystalline Co Doped $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ under UV-Visible Light Irradiation

Arjun S. Chavan, Bhagvan V. Jadhav, Mohan R. Kadam, Akush V. Mali, C. B. Mane, and Rajendra P. Patil*

The Co doped $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ ferrites are successfully prepared by using sol-gel synthetic process. The resulting nanosample is characterized by using XRD and SEM technique. The x-ray diffraction (XRD) analysis studies clearly suggest the formation of single phase nanomaterials. The SEM analysis indicates the formation of uniform and fine grains like morphology in mixed-metal oxides. The results of combustion synthesis elucidate that the fuel to oxidizer ratio is the most effective factor for the formation and surface morphology of mixed-metal oxides. The synthesized Co doped $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ ferrite is used for the adsorption studies of methyl orange dye by batch experiments. It is found from the adsorption studies that the removal percentage of Methyl orange is much better. $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ particles are good adsorbent materials for removal of methyl orange dyes as compare to the Co doped $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ nanopowder. However, the adsorption capacity of $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ can be lower by doping with cobalt.

1. Introduction

Environmental pollution on a global scale is expected to be the greatest problem that chemical scientists will face in the 21st century, and an increasing number of these scientists are looking to new photocatalytic systems for the solution. In order to overcome these difficulties, synthesis of solids possessing desired structures, composition and properties continues to be a challenge to chemists, materials scientists and engineers. In this regards, mixed-metal oxides have attracted tremendous attention due to their potential applications in biomedical, catalytic, separation, chemical sensing, fuel cell, capacitor, micro-fabrication, tribological, resonant coupling, and high flux gas transport. It consists of materials with small dimensions, remarkable properties, and

great application potential.^[1-5] It is well known that the sol-gel method synthesis has been proved to be one of the most effective routes to realize the low temperature sintering of ferrites. However, properties of these ferrite materials are also very sensitive to the starting materials that are used for the composition, method of preparation, the preparation conditions, such as calcining temperature, soaking time, etc.^[6]

In our previous research work, $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ is an inverse spinel ferrite in which Li^+ ions occupies the octahedral (B sites) and Fe^{3+} occupies the tetrahedral (A sites) of the spinel lattice.^[7] Lithium and substituted lithium ferrites are useful for microwave devices such as isolators, circulars, gyrators, phase shifters, cathode materials and memory cores owing to their high Curie temperature, high resistivity, low eddy current losses, high saturation magnetization and hysteresis loop properties, which offer performance advantage over other spinel structures.^[8,9] Due to various applications our research group^[10-12] studied the structural, electrical and magnetic properties of chromium, cobalt and manganese substituted Li-ferrites synthesized by the sol-gel method. Mazen et al.^[13] studied infrared and dielectric properties of Li-Cu ferrite. Laishram et al. studied magnetic properties of chromium substituted Li-Sb ferrites.^[14]

Now a day, lithium rechargeable cells are constructed usually by coupling a graphite anode and any one of the cathodes among lithium cobaltate in an air tight pouch or in a metal container.^[15] However, no reports have been found in the literature on structural and photocatalytic properties of Co substituted lithium ferrites. In present work, we report the synthesis of $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$

A. S. Chavan
Department of Chemistry
Thakur College of Science and Commerce
Kandivali (E), Mumbai, MH 400101, India

B. V. Jadhav
Department of Chemistry, Changu Kana Thakur Arts
Commerce and Science College
New Panvel, MH 400035, India

M. R. Kadam
Department of Chemistry
Balasaheb Desai College
Patan, MH 415206, India

A. V. Mali
Department of Chemistry
Yashwantrao Chavan College of Science
Karad, MH 415124, India

C. B. Mane
Department of Chemistry
Shri Vijaysinha Yadav College of Arts and Science
Peth Vadgaon, MH, India

R. P. Patil
Department of Chemistry
M.H. Shinde Mahavidyalaya (Affiliated to Shivaji University, Kolhapur)
Tisangi, MH 416206, India
E-mail: raj_rbm_raj@yahoo.co.in

The ORCID identification number(s) for the author(s) of this article can be found under <https://doi.org/10.1002/masy.202100201>

DOI: 10.1002/masy.202100201

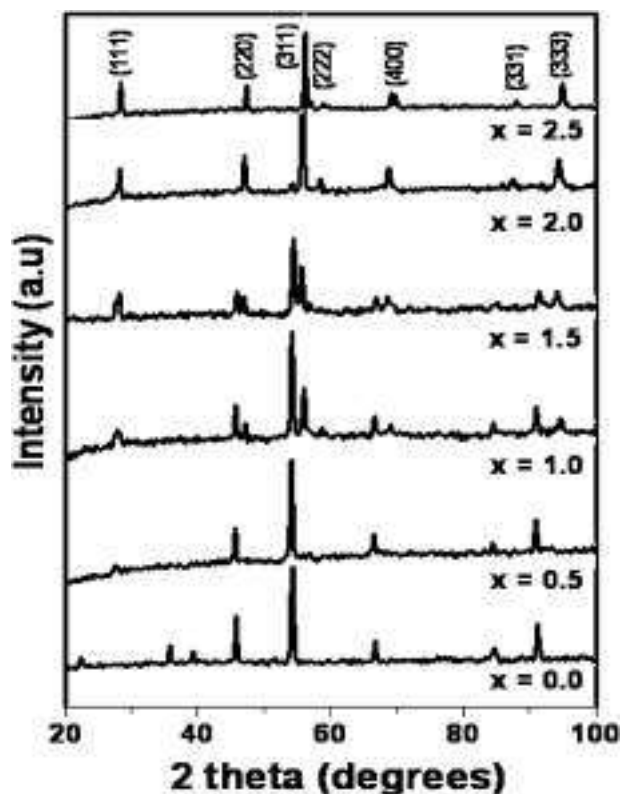


Figure 1. X-ray diffraction pattern of $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$ system.

(where $x = 0.0, 0.5, 1.0, 1.5, 2.0,$ and 2.5) system by sol-gel method and their structural and photocatalytic properties have been investigated.

2. Results and Discussion

2.1. X-Ray Diffraction Studies

Figure 1 illustrates the x-ray diffraction patterns of cobalt substituted lithium ferrites samples. The diffraction patterns indicate

that the samples have cubic spinel crystal structure for all samples. The values of lattice parameter “a” calculated for different samples having $x = 0.0, 0.5, 1.0, 1.5, 2.0,$ and 2.5 were found to be 8.30, 8.28, 8.27, 8.26, 8.23, and 8.19 Å, respectively. As the Co substitution increases, the lattice constant decreases as shown in Figure 2a. It may be noticed that the lattice parameter (a) decreases almost linearly with the increase in Co^{3+} content. This is understandable, as the radius of Co^{3+} (0.545 Å) is smaller than that of Li^{1+} (0.74 Å) and Fe^{3+} (0.645 Å).^[16] From the x-ray diffraction peaks, average particle size was estimated using Scherrer’s formula.

$$t = 0.9\lambda / \beta \cos\theta \quad (1)$$

where 0.9 is the Scherrer’s constant (k), λ is the x-ray wavelength corresponding to $\text{CrK}\alpha$, β denotes the full-width at half-maximum of the peak and θ is the Bragg angle. The crystallite size decreases with increase in cobalt concentration as shown in Figure 2b. The crystallite size was found to be in the range of 20–30 nm. The x-ray density (d_x) was calculated using the relation,

$$d_x = 8 M / N a^3 \quad (2)$$

Where,

N = Avagadros number (6.023×10^{23} atom/mole)

M = Molecular weight

a = Lattice constant

The slow decreasing trend of unit cell parameter and a gradual increase in the x-ray density with increase in cobalt content is observed. The data on lattice constant (a), crystallite size (t) and x-ray density (d_x) is given in Table 1.

2.2. Scanning Electron Micrographs

Figure 3a–e depicts scanning electron micrographs (SEM) of $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$ system, where $x = 0.0, 0.5, 1.0, 1.5, 2.0$ and 2.5 , respectively. It is evident from these micrographs that all the synthesized samples are uniform and homogenous grains with size ranging from 0.1 to 0.5 μm .

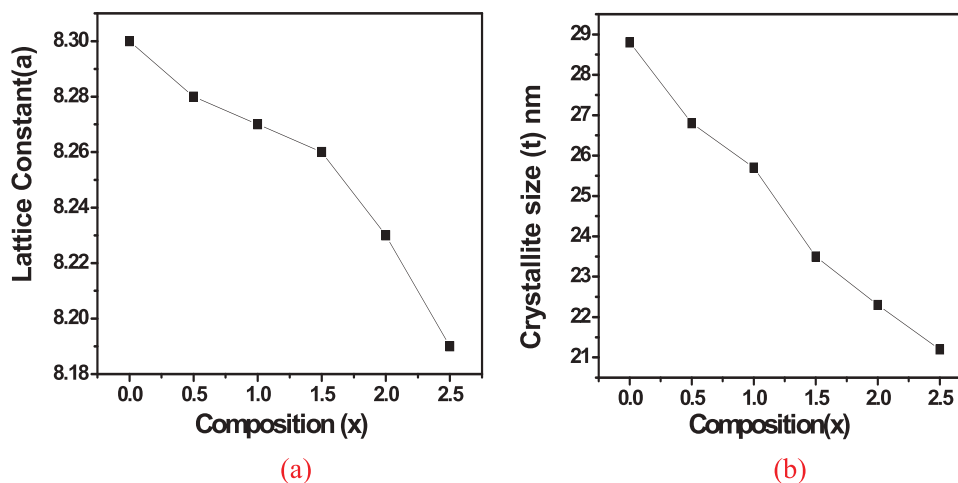


Figure 2. Variation of lattice constant and crystallite size as a function of x in $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$.

Table 1. Lattice constant, crystallite size, and x-ray density for $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$ system.

Composition x	Lattice constant (a) [Å]	Crystallite size (t) [nm]	X-ray density(dx) [gm cm^{-3}]
0.0	8.30	28.8	4.3
0.5	8.28	26.8	4.5
1.0	8.27	25.7	4.6
1.5	8.26	23.5	4.8
2.0	8.23	22.3	4.9
2.5	8.19	21.2	5.1

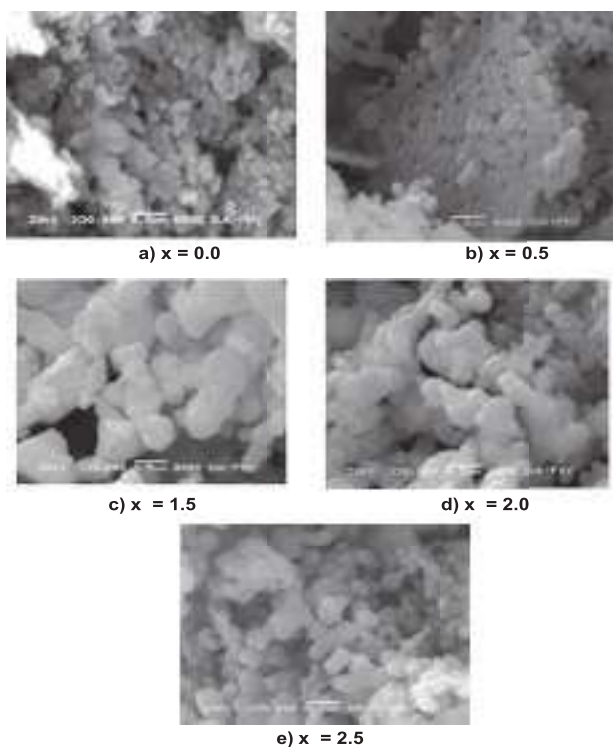


Figure 3. SEM Micrographs of $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$ system.

2.3. Photocatalytic Study

Heterogeneous photocatalysis process is eco-friendly way to reduce the pollution load of wastewater. This process has proved its superiority to other conventional methods of wastewater treatment. It leads to complete destruction of hazardous contaminants and avoids transfer of pollutants from one phase to another. With this aim photocatalytic activity of $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$ system, where $x = 0.0, 0.5, 1.0, 1.5, 2.0,$ and 2.5 tested towards degradation of methyl orange under UV-Visible type irradiation and degradation activity is shown in **Figure 4**. There is hardly any change in the concentration of the dye when the solution is irradiated in the absence of catalyst. Under dark conditions, a slight change in the concentration of the dye is observed over a period of 7 h due to its adsorption on the catalyst's surface. It can be seen from the figure that the photocatalytic activity increases

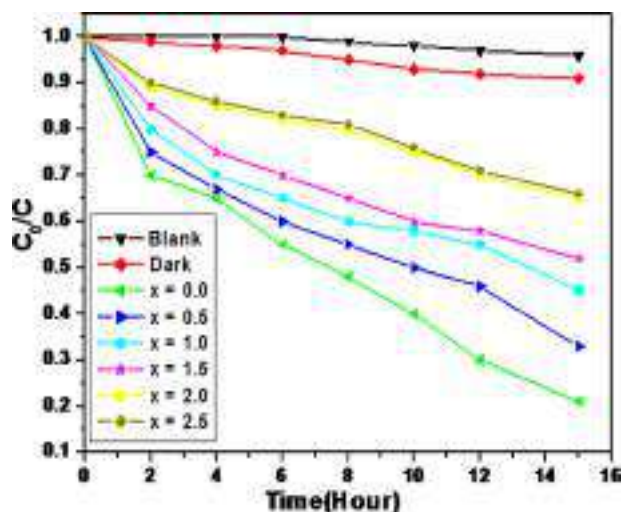


Figure 4. Photocatalytic study for $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$ system.

in lithium ferrite as compared to Co-doped lithium ferrites and the catalyst degrades the dye almost completely in 7 h. The enhanced photocatalytic activity of the lithium ferrite can be attributed to a combination of factors such as increased optical absorption and increased adsorption of the dyes on the surface of the catalyst. When the lithium ferrite sample is exposed to UV-Visible type irradiation and lithium ferrite can get excited leading to enhanced photocatalytic activity. The enhanced adsorption of the dye on the lithium ferrite sample can be attributed to the increased surface acidity. As methyl orange is a basic dye,^[17] an enhanced adsorption of the dyes takes place on the acidic surface of the lithium ferrite.^[18] Particle size is a crucial factor affecting the performance of nano-photocatalytic materials. The size and shape of the catalyst influence its surface structure and then resulting in various catalytic performances. Lithium ferrite showed the higher photocatalytic activity and dye adsorption due to small grain size and active surface area which promotes a high photocatalytic activity. Another reason for the UV-visible light activity of the lithium ferrite catalyst can be due to the photobleaching process.^[19–21] The photocatalytic degradation of methyl orange indicates that lithium ferrite powders can effectively photodegrade methyl orange under ultraviolet plus visible light irradiation. However, the photoactivity of all Co-substituted ferrites powders was lower than the lithium ferrite.

3. Conclusion

Cobalt substituted lithium ferrites were synthesized by sol-gel method. The system shows single phase cubic in nature. The ferros spinels synthesized by autocombustion method were in homogenous and uniform grain size. Photocatalytic activity increases in lithium ferrite as compared to Co-doped lithium ferrites and the catalyst degrades the dye almost completely in 7 h. It is found that in the investigated range, degradation rate of methyl orange increases with the increase in lithium ferrite concentration and exposure area of solution. This study will provide valuable information in the photocatalytic mechanism of Cobalt substituted lithium ferrites photocatalyst at different conditions.

4. Experimental Section

Materials: Cobalt nitrate, lithium nitrate, iron nitrate, citric acid and ammonia.

Synthesis: Polycrystalline sample having the general formula, $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Co}_x\text{O}_4$ (where $x = 0.0, 0.5, 1.0, 1.5, 2.0,$ and 2.5) were synthesized by sol-gel method. The cobalt nitrate, lithium nitrate, iron nitrate and citric acid were mixed in the required stoichiometric ratios in distilled water. The pH of the solution was maintained between 9 and 9.5 using ammonia solution. The solution mixture was slowly heated around 373 K with constant stirring to obtain a fluffy mass. This precursor powder was sintered at 973 K for 8 h. The sintered powders were granulated using 2% polyvinyl alcohol as a binder and were uniaxially pressed at a pressure of 8 ton cm^{-2} to form pellets. These pellets were gradually heated to about 773 K to remove out the binder material.

Characterizations: The phase formation of the samples was confirmed by x-ray diffraction studies using Philips PW-1710 x-ray diffractometer with $\text{CrK}\alpha$ radiation ($\lambda = 2.2897 \text{ \AA}$). The surface morphology and average grain size of the ferrite sample were studied by using scanning electron microscopy technique (Model JEOL-JSM 6360). Photocatalytic reaction was conducted in a 100 mL Pyrex glass vessel containing 50 mL of the aqueous disperse red dye solution (concentration: 50 ppm) having 50 mg of catalyst suspended in it. The UV-Visible type radiation was used. After every 1 h of irradiation, 2 mL of the aliquot was withdrawn, centrifuged and quantitative determination was carried out using a spectrophotometer by measuring its absorbance at $\lambda = 592, 411,$ and 330 nm .

Acknowledgements

Rajendra P. Patil is thankful to Shivaji University, Kolhapur for financial assistance through research project no. SU/C & U. D. Section/Prop. No. 8/1403 Dated 24th March 2021 under Research Initiation Scheme.

Conflict of Interest

The authors declare no conflict of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Keywords

photodegradation, SEM, sol-gel Chemistry, XRD


Received: April 22, 2021

Revised: June 26, 2021

- [1] M. L. S. Teo, L. B. Kong, Z. W. Li, G. Q. Lin, Y. B. Gan, *J. Alloys Compd.* **2007**, 459, 557.
- [2] G. Blasse, *Philips Res. Rept.* **1965**, 20, 528.
- [3] J. B. Goodenough, *Mag. and Chem. Bond*, John Wiley, New York **1966**.
- [4] P. P. Hankare, R. P. Patil, U. B. Sankpal, K. M. Garadkar, R. Sasikala, A. K. Tripathi, *J. Magn. Magn. Mater.* **2010**, 322, 2629.
- [5] P. P. Hankare, R. P. Patil, U. B. Sankpal, S. D. Jadhav, P. D. Lokhande, K. M. Jadhav, R. Sasikala, *J. Solid State Chem.* **2009**, 182, 3217.
- [6] R. S. Pandav, R. P. Patil, S. S. Chavan, I. S. Mulla, P. P. Hankare, *J. Magn. Magn. Mater.* **2016**, 417, 407.
- [7] R. P. Patil, P. P. Hankare, K. M. Garadkar, R. Sasikala, *J. Alloys Compd.* **2012**, 523, 66.
- [8] J. S. Baijal, S. Phanjobam, D. Kothari, C. Prakash, P. Kishan, *Solid State Commun.* **1992**, 83, 679.
- [9] Y. P. Fu, C. S. Hsu, *Solid State Commun.* **2005**, 134, 201.
- [10] P. P. Hankare, R. P. Patil, U. B. Sankpal, S. D. Jadhav, I. S. Mulla, K. M. Jadhav, B. K. Chougule, *J. Magn. Magn. Mater.* **2009**, 321, 3270.
- [11] R. P. Patil, B. V. Jadhav, P. P. Hankare, *Results Phys.* **2013**, 3, 214.
- [12] R. P. Patil, S. B. Patil, B. V. Jadhav, S. D. Delekar, P. P. Hankare, *J. Magn. Magn. Mater.* **2016**, 401, 870.
- [13] S. A. Mazen, *Mater. Chem. Phys.* **2000**, 62, 139.
- [14] R. Laishram, C. Prakash, *J. Magn. Magn. Mater.* **2006**, 305, 35.
- [15] J. Dahn, G. Ehrlich, in *Linden's Handbook of Batteries*, 4th ed., McGraw-Hill, New York **2011**. Chapter 26.
- [16] R. D. Shannon, *Acta Crystallogr.* **1976**, A32, 751.
- [17] A. K. Gupta, A. Pal, C. Sahoo, *Dyes Pigm.* **2006**, 69, 224.
- [18] F. Guzel, *Sep. Sci. Technol.* **1996**, 31, 283.
- [19] G. J. de, A. A. Soler-Illia, R. J. Candel, A. E. Regazzoni, M. A. Blesa, *Chem. Mater.* **1997**, 9, 184.
- [20] P. P. Hankare, R. P. Patil, A. V. Jadhav, K. M. Garadkar, R. Sasikala, *Appl. Catal. B* **2011**, 107, 333.
- [21] C. B. Mane, R. V. Khobare, R. P. Patil, R. P. Pawar, *Int. J. Appl. Eng. Res.* **2018**, 13, 14372.



Photoelectrochemical and photocatalytic activity of nanocrystalline TiO₂ thin films deposited by chemical bath deposition method

R. A. Pawar^{1,4}, D. P. Dubal², S. V. Kite³, K. M. Garadkar^{3,*} , and V. M. Bhuse^{4,*}

¹Shri Vijaysinha Yadav College, Peth Vadgaon, M.S., India

²School of Chemical Engineering, University of Adelaide, Adelaide, Australia

³Nanomaterials Research Laboratory, Department of Chemistry, Shivaji University, Kolhapur, M.S., India

⁴Rajaram College, Kolhapur, M.S., India

Received: 27 March 2021

Accepted: 22 June 2021

Published online:

30 June 2021

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2021

ABSTRACT

The thin films of nanocrystalline TiO₂ were synthesized using titanium isopropoxide as a source of Ti on fluorine-doped tin oxide (FTO) and commercial glass substrates by chemical bath deposition method. The resultant films were annealed at different temperatures (300, 400 and 500 °C) for 3 h. The annealed nanocrystalline thin films were thoroughly characterized by XRD, SEM, UV–Vis. DRS, PL, FT-IR, Raman and TEM. The XRD study shows the average crystallite size of TiO₂ is 15 nm having anatase phase, while as temperature increases crystallite size increases. SEM and TEM results show elongated spherical shape of TiO₂ nanocrystals. Optical absorption spectra show the band gap energy decreases from 3.2 to 3.1 eV as annealing temperature increases. From the PL spectra, an emission peak observed at 600 nm is due to the indirect band gap and defects present in the material. The FT-IR spectrum of TiO₂ thin film annealed at 400 °C shows the band at 532 cm⁻¹ due to O–Ti–O stretching vibrations confirms the formation of anatase TiO₂. The Raman spectrum shows an intense peak at 149 cm⁻¹ and four weaker peaks are characteristics of anatase phase of TiO₂. The photodegradation efficiency of methyl orange (MO) was observed to be 92% by using TiO₂ thin film within 90 min under UV–Vis. light. It shows enhanced photoconversion efficiency of 1.02% under UV light.

Address correspondence to E-mail: kmg_chem@unishivaji.ac.in; vijaykbhuse13@gmail.com

1 Introduction

TiO₂ is low cost, less toxic, more abundant inorganic semiconductor material with good chemical and thermal stability [1]. It is being used since ancient time as an additive and whitening agent. The research regarding TiO₂ has, however, boosted by 25% during the last 15 years due to its cost effective role in photocatalysis and solar harvesting purpose [2]. Commonly, TiO₂ exists in three main crystalline forms; anatase, rutile and brookite. The TiO₂ being thermodynamically more stable and having an extremely positive valence band potential and shows poor oxidation selectivity [3]. Additionally, TiO₂ in thin film form find multifunctional applications in hydrophobic material, electrochromic devices, gas sensors, corrosion inhibitors, bactericides, purifier of environmental pollutants, photovoltaic, photoelectrochemical (PEC) water splitting and photocatalytic degradation of organic dyes [4–14].

A number of preparation methods such as magnetron sputtering, pulsed laser deposition (PLD), spin coating, chemical bath deposition (CBD) chemical vapor deposition (CVD), sol-gel, screen printing, electrochemical anodization, hydrothermal are available to deposit TiO₂ films [15–23]. The physical deposition methods are quite expensive as compared to chemical due to shortcomings like deposition of limited area, requirement of sophisticated instrument, high working cost, extreme cleaning of system after each deposition. On the other hand, chemical methods are low cost, giving films of comparable quality to those obtained by physical methods. It is capable of producing oxide films at relatively low temperature. Among the various deposition techniques, chemical bath deposition produces stable, adherent and uniform films with good reproducibility. The researchers have attracted towards the CBD method for the synthesis of TiO₂ thin films due to its simplicity, low cost and capability to achieve large area coating [24].

In this communication, the attempt is made to deposit TiO₂ thin films on FTO and commercial glass substrates by chemical bath deposition method and also studied the effect of annealing temperature on the structural, morphological and optical properties of TiO₂ thin films. The prepared TiO₂ thin films played a very important role in the photodegradation of MO dye under UV-Vis. light and PEC performance.

2 Experimental section

2.1 Materials and methods

TiO₂ thin films have been prepared by chemical bath deposition method on FTO and commercial glass substrates (75 × 25 × 2 mm). Initially, 16 mL isopropanol (Merck) was added in 4 mL titanium tetraisopropoxide (Sigma-Aldrich Chemie, India) with constant stirring. The solution was stirred for 10 min to get clear and homogeneous mixture. Before deposition, the glass substrates were cleaned with chromic acid, laboline, double distilled water and finally dried to get contamination free glass surface. The glass substrates were immersed vertically in the above solution for 5 min at room temperature; afterwards it is removed and air-dried. In this way three cycles were carried out for thin film deposition. The substrates were removed from the bath and washed repeatedly with double distilled water and dried in the oven at 100 °C for 2 h. At the end, formation of white, uniform, stable, hard and adherent thin film of TiO₂ on the substrates. TiO₂ thin film deposited on glass substrates was annealed at 300, 400 and 500 °C in muffle furnace for about 3 h.

2.2 Characterization techniques

The annealed TiO₂ thin films were thoroughly characterized by different techniques. The structural analysis of TiO₂ thin films obtained by using X-ray diffractometer (Ultima IV of Rigaku Corporation, Japan) with Cu (K α) ($\lambda = 1.54056 \text{ \AA}$). UV-Vis. DRS spectra of annealed TiO₂ thin films were obtained by using UV-Vis. DRS-NIR Spectrophotometer (V-770, JASCO, Japan) in the wavelength range from 300 to 500 nm. The PL spectra were scanned at 340 nm as an excitation wavelength and the signal was recorded using Spectrofluorometer (FP-8200, JASCO, Japan). The structural analysis was carried out by Raman Spectroscopy in the range 0 to 800 cm⁻¹. The FT-IR spectrum was recorded (FT-IR JASCO-4600) in the range of 4000 to 400 cm⁻¹ with % transmittance mode. The morphological study was stemmed from SEM instrument (JEOL, JSM- 6360). The shape and size of the thin films were investigated using TEM (JEOL JEM 2100F). The PEC efficiency was determined by irradiating TiO₂ photoanode with UV light (5 mW/cm²) in NaOH electrolyte using

electrochemical workstation (Autolab PGSTAT 100 Potentiostat).

2.3 Photocatalytic activity of TiO₂ thin films

The organic dyes which are the sources of pollution released by dye and textile industries into water. It is widely used as a test pollutant for photocatalytic activity [25]. In this work, the photocatalytic activity of nanocrystalline TiO₂ thin film was tested for the photodegradation of MO by using UV–Vis. light (high pressure mercury lamp, Philips HPL-N, 250 W, 365 nm) in the photoreactor at room temperature. The unit of photoreactor for MO by TiO₂ thin film is shown in Fig. 1. In the process of determination of photocatalytic activity of TiO₂, glass substrate coated on two sides is placed in the photoreactor. To get a sufficient amount of oxygen, photoreactor was kept open in air for photo-oxidation reaction. 100 mL MO solution was taken into the photoreactor and TiO₂ film (with surface area of 12.50 cm² two sides) placed in it [26, 27]. Water is circulated around the photoreactor to avoid the heating of sample by light radiations. This solution was exposed to UV–Vis. light and the several experiments were performed. The process of photodegradation was carried at ambient temperature. After a particular time interval aliquots were taken from photoreactor and the clear solution was used to observe the change in concentration of MO by recording the absorbance using UV–Vis. Spectrophotometer (Shimadzu, Model-UV-3600).

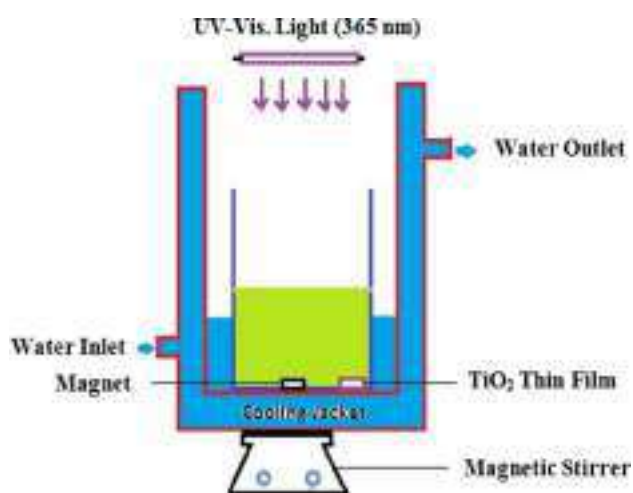


Fig. 1 Unit of photoreactor for degradation of MO by TiO₂ thin film

3 Result and discussion

3.1 Structural analysis of TiO₂ thin films

The XRD gives information about the presence of number of phases present in the deposited thin films of TiO₂. The XRD patterns of TiO₂ thin film annealed at 300, 400 and 500 °C for 3 h are shown in Fig. 2. The XRD pattern of TiO₂ thin film annealed at 300 °C shows only one hump at about 25.33°, which suggests the nature of the material is amorphous. The XRD pattern of TiO₂ thin film annealed at 400 °C shows presence of peaks at 25.29°, 37.84°, 48.21°, 53.98°, 55.38°, 62.75°, 65.94°, 70.32°, 75.11° are assigned to (101), (004), (200), (105), (211), (204), (116), (221), (215) (*hkl*) planes, respectively [28]. Similarly, TiO₂ thin film annealed at 500 °C shows peaks at 25.26°, 36.97°, 37.83°, 38.58°, 48.07°, 53.97°, 55.05°, 62.65°, 68.79°, 70.28°, 75.09° are assigned to (101), (103), (004), (112), (200), (105), (211), (204), (116), (220), (215) (*hkl*) planes, respectively. These peaks are corresponding to the crystal structure of tetragonal anatase phase and it is matched very well with the standard JCPDS Card No.21-1272. The XRD patterns do not show any peak corresponding to the brookite and rutile phases, which confirms the purity of anatase phase of the film. The TiO₂ thin film annealed at 500 °C shows more intense and prominent peaks than film annealed at 400 °C. Thus, the crystallinity increases with increase in the annealing temperature.

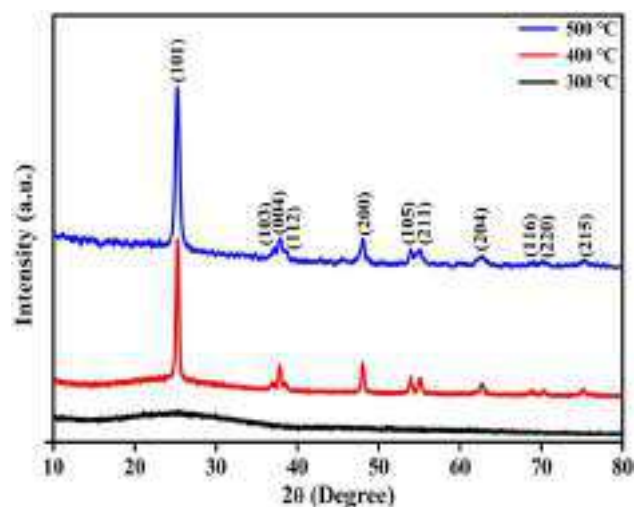


Fig. 2 X-ray diffraction patterns of TiO₂ thin film annealed at different temperatures

The microstructural properties of prepared TiO₂ thin films annealed at 400 & 500 °C were determined and are summarized in Tables 1 and 2.

3.1.1 Crystallite size (*D*)

The crystallite size of TiO₂ thin films annealed at 400 and 500 °C is calculated by using Debye–Scherrer’s equation and given in Table 2 [29, 30].

$$D = \frac{k\lambda}{\beta \cos\theta} \tag{1}$$

where *D* is the crystallite size in nm, *k* is the Scherrer’s constant (0.89), λ is the X-ray wavelength [Cu (K α) 1.5406 Å], β is the full width at half maximum (FWHM) of diffraction peak in radian, θ is the Bragg’s angle in degree. The average crystallite size of TiO₂ thin films annealed at 400 and 500 °C are found to be 15 and 22 nm, respectively. The crystallite size of TiO₂ thin film increases with increase in annealing temperature due to recrystallization of the film [30]. The activity of the photocatalyst is dependent on its physicochemical properties such as crystallite size, crystal structure and crystallinity [31].

3.1.2 Interplanar distance (*d*-spacing)

From XRD intensity, the interplanar distance between atoms (*d*-spacing) of TiO₂ thin films annealed at 400 and 500 °C is calculated by using Bragg’s equation.

$$n\lambda = 2d \sin \theta \tag{2}$$

where *n* is the order of diffraction and *d* is the interplanar distance. The obtained values of *d*-spacing for TiO₂ thin films annealed at different temperatures are matched with JCPDS Card No. 21-1272, which is good evidence for the formation of tetragonal anatase phase of TiO₂ [30].

3.1.3 Lattice constants (*a*, *b* and *c*) and unit cell volume (*V*)

The lattice constants (*a*, *b* and *c*) and unit cell volume (*V*) of tetragonal TiO₂ thin film are calculated by using Eqs. (3) and (4).

$$\frac{1}{d^2} = \frac{h^2 + k^2}{a^2} + \frac{l^2}{c^2} \tag{3}$$

$$V = a^2c \tag{4}$$

The lattice constants for TiO₂ thin film annealed at 400 °C are found to be *a* = *b* = 3.771 Å, *c* = 9.388 Å

Table 1 Crystallographic data of TiO₂ thin films annealed at different temperatures

TiO ₂ thin films	2θ (°)		(hkl) Planes	d-spacing (Å)	
	Observed	Standard		Observed	Standard
Annealed at 400 °C	25.29	25.27	(101)	3.52	3.52
	37.84	37.78	(004)	2.64	3.38
	48.21	48.03	(200)	1.88	1.89
	53.98	53.86	(105)	1.69	1.69
	55.38	55.03	(211)	1.66	1.66
	62.75	62.66	(204)	1.48	1.48
	65.94	68.73	(116)	1.41	1.36
	70.32	70.28	(220)	1.34	1.33
	75.11	74.10	(215)	1.26	1.26
	Annealed at 500 °C	25.26	25.27	(101)	3.52
36.97		36.93	(103)	2.42	2.43
37.83		37.79	(004)	2.37	2.37
38.58		38.56	(112)	2.33	2.33
48.07		48.03	(200)	1.89	1.89
53.97		53.87	(105)	1.69	1.69
55.05		55.04	(211)	1.67	1.66
62.65		62.66	(204)	1.48	1.48
68.79		68.73	(116)	1.36	1.36
70.28		70.28	(220)	1.34	1.33
75.09	74.99	(215)	1.26	1.26	

Table 2 Microstructural properties of TiO₂ thin films annealed at different temperatures

TiO ₂ thin films	2θ (°)	(<i>hkl</i>) Planes	FWHM (radian) (10 ⁻³)	Crystallite size (D) (nm)	Lattice strain (ϵ) (10 ⁻³)	Dislocation density (δ) (Line/m ²) (10 ¹⁵)	Stacking fault (α) (10 ⁻³)
Annealed at 400 °C	25.29	(101)	5.4	16	2.29	4.03	2.88
	37.84	(004)	4.9	20	2.02	2.40	2.11
	48.21	(200)	5.0	18	1.99	3.0	1.89
	55.38	(211)	9.8	10	3.78	1.09	3.43
	62.75	(204)	10.6	9	3.94	1.18	3.44
Annealed at 500 °C	25.26	(101)	3.8	22	1.62	2.00	2.03
	37.83	(004)	3.5	25	1.45	1.60	1.30
	48.07	(200)	4.0	23	1.59	1.93	1.51
	55.05	(211)	4.6	20	1.70	2.44	1.62
	62.65	(204)	4.7	21	1.79	2.39	1.52

and unit cell volume = 133.52 Å³ as well as for 500 °C $a = b = 3.616$ Å, $c = 9.503$ Å and unit cell volume is 124.26 Å³. Thus, as the annealing temperature increases, the unit cell volume decreases due to perfect arrangement of lattice points at higher temperature.

3.1.4 Dislocation density (δ)

The XRD analysis is used to determine the intrinsic stress and dislocation density. The dislocation density is the length of dislocation lines per unit volume of the crystal. A dislocation is a crystallographic irregularity within a crystal structure. The dislocation density (δ) is determined by using following equation [29, 32].

$$\delta = \frac{n}{D^2} \quad (5)$$

where δ is the dislocation density in Line/m². From the tabulated details, it is observed that dislocation density of the material is indirectly proportional to the crystallite size. As the annealing temperature increases, crystallite size increases and dislocation density decreases due to the decrease in the irregularities within crystal structure (Table 3). The crystal lattice of anatase TiO₂ has higher photocatalytic activity due to presence of defects and dislocations. Such types of crystal lattices have more oxygen vacancies for capturing photogenerated electrons. It lowers the recombination ratio between holes and photogenerated electrons and improves the catalytic efficiency of anatase structure [33].

3.1.5 Lattice strain (ϵ)

Crystal imperfections like lattice dislocation, sintering stresses, stacking faults, etc., are the sources of lattice strain. The lattice strain and crystallite size are responsible for broadening of X-ray diffraction peak. The lattice strain is estimated by using following equation [32].

$$\epsilon = \frac{\beta \cos \theta}{4} \quad (6)$$

From Table 3, the lattice strain of TiO₂ thin films are decreases from 2.81 to 1.63 with increase in annealing temperature from 400 to 500 °C. As increase in annealing temperature, the crystallite size of TiO₂ thin films increases and automatically lattice strain decreases.

3.1.6 Stacking fault (α)

In XRD analysis, the observed values were deviated from the standard values due to the stacking fault. The stacking fault is calculated from Eq. 7.

$$\alpha = \left[\frac{2\pi^2}{45\sqrt{3} \tan \theta} \right] \times \beta \quad (7)$$

The stacking fault probability is the fraction of layers that undergo sequential stacking faults in crystal. As summarized in Table 2, the stacking fault decreases from 2.75 to 1.91 with increase in annealing temperature of TiO₂ thin film.

Table 3 Average microstructural properties of TiO₂ thin films annealed at different temperatures

Microstructural properties	Annealed at 400 °C	Annealed at 500 °C
Lattice constants (Å)		
<i>a</i> = <i>b</i>	3.77	3.61
<i>c</i>	9.39	9.39
Unit cell volume (Å ³)	133.52	124.26
Crystallite size (<i>D</i>) (nm)	15	22
Dislocation density (<i>δ</i>) (10 ¹⁵) (Line/m ²)	2.34	2.07
Lattice strain (<i>ε</i>) (10 ⁻³)	2.81	1.63
Stacking fault (<i>α</i>) (10 ⁻³)	2.75	1.91

3.2 Optical absorption study of TiO₂ thin film

The optical absorption spectra of TiO₂ thin films annealed at 300, 400 and 500 °C are shown in Figs. 3 and Fig. 4. In TiO₂ thin film, absorption is observed in the range 320 to 350 nm regions due to excitation of electrons from valence band to conduction band (Fig. 2). The energy band gap (*E_g*) is calculated by using the following equation:

$$E_g = \frac{1240}{\lambda} \tag{8}$$

where *λ* is the wavelength at the absorption edge in the nm. The values of band gap energy are calculated from Kubelkamunk theory and it decreases with increase in annealing temperature [34]. The band gap energies are found to be 3.20, 3.15 and 3.10 eV for TiO₂ thin film annealed at 300, 400 and 500 °C, respectively. Also, the optical absorption decreases with increase in annealing temperature. The spectra reveal that TiO₂ thin film shows absorbance in the UV

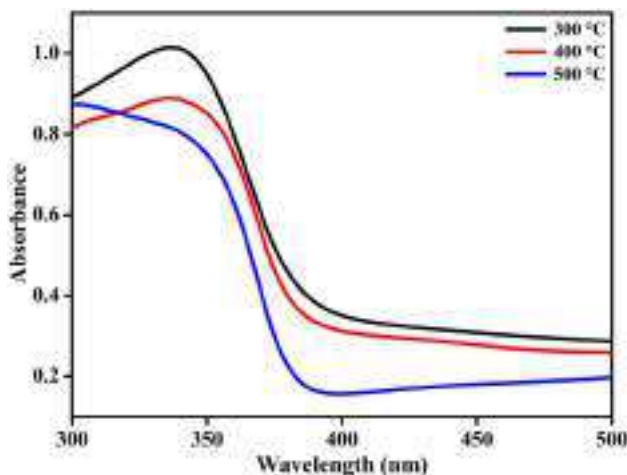


Fig. 3 Optical absorption spectra of TiO₂ thin film annealed at different temperatures

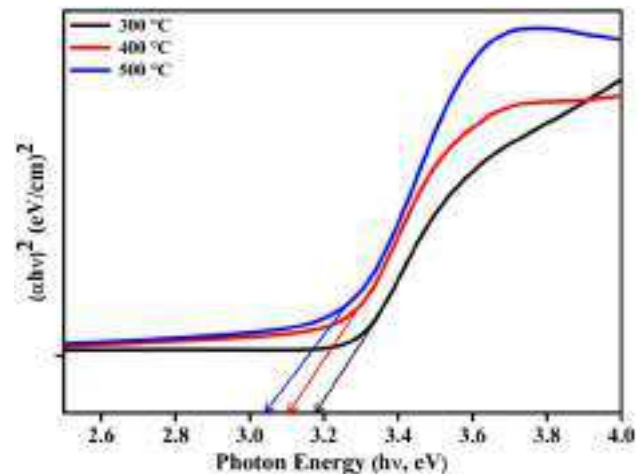


Fig. 4 Determination of band gap energy of TiO₂ thin film annealed at different temperatures

region which is a characteristic of TiO₂. Additionally, the band gap energy was estimated from a plot of (*αhv*)² versus photon energy (*hv*). The intercept of tangent of plot gave a good approximation to the band gap energy for this direct band gap material. Figure 3 shows that optical band gap energy is 3.20, 3.15 and 3.10 for TiO₂ thin films annealed at 300, 400 and 500 °C, respectively. The band gap decreases with increasing grain size and the absorption edge shifted towards lower energy [35, 36].

3.3 Photoluminescence (PL) spectrum of TiO₂ thin film

The PL spectrum is used to study for different energy states available between valence band and conduction band which are responsible for radiative recombination [38]. The PL spectrum of TiO₂ thin film annealed at 400 °C is obtained in the range 400–800 nm with an excitation wavelength 340 nm using Xe lamp (Fig. 5). One emission peak observed

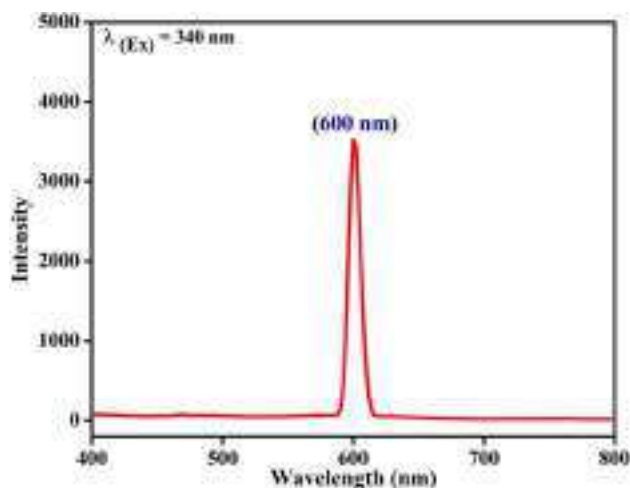


Fig. 5 Photoluminescence spectrum of TiO₂ thin film annealed at 400 °C

at 600 nm (visible emission) is due to indirect band gap and defect-related emissions [37, 38].

3.4 Raman spectrum TiO₂ thin film

The structural characterization of TiO₂ thin film annealed at 400 °C was investigated with the help of Raman spectroscopy. From Fig. 6, an intense peak observed at 149 cm⁻¹ (E_g) is related to symmetric stretching vibration of O–Ti–O in TiO₂. The peak observed at 399 cm⁻¹ (B_{1g}) is assigned to symmetric bending vibration of O–Ti–O. The peak located at 512 cm⁻¹ (A_{1g}) is related to asymmetric bending vibration of O–Ti–O [39]. The peak at 638 cm⁻¹ (E_g) denoting formation of only the anatase phase of TiO₂ as observed in XRD analysis [40, 41].

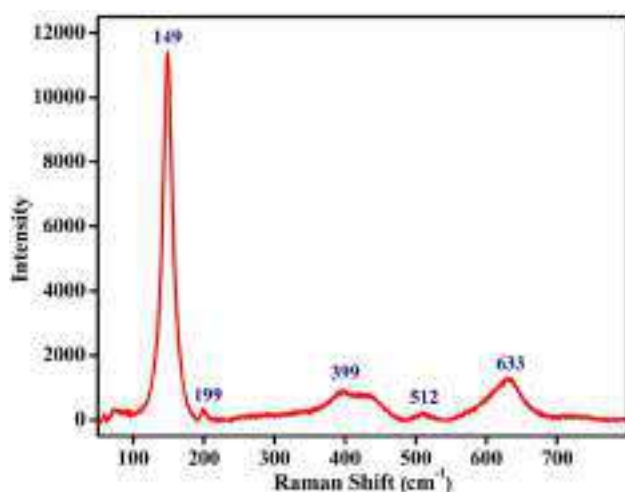


Fig. 6 Raman shift for TiO₂ thin film annealed at 400 °C

3.5 Fourier transform-infrared (FT-IR) spectroscopy study of TiO₂ thin film

Figure 7 shows FT-IR spectrum of TiO₂ thin film annealed at 400 °C. The strong band at 532 cm⁻¹ is a result of the Ti–O stretching mode in the anatase phase of TiO₂. The broad band at 3433 cm⁻¹ is attributed to the stretching vibration of O–H group. The band at 1633 cm⁻¹ is related to the bending vibration in H–OH of adsorbed water. The band at 1390 cm⁻¹ was showing presence of organic residue [37].

3.6 Scanning electron microscopy (SEM) of TiO₂ thin film

The surface morphology of TiO₂ thin film annealed at 400 °C is studied with SEM analysis and it is shown in Fig. 8. From the SEM micrographs, the total coverage of the substrate with the nano-sized clusters of TiO₂ is observed. The TiO₂ film shows the formation of nano-sized spherical elongated grains with larger surface-to-volume ratio. Such type of surface morphology enhances absorption of UV light [37].

3.7 Transmission electron microscopy (TEM) of TiO₂ thin film

The TEM micrographs of TiO₂ annealed at 400 °C are shown in Fig. 9. Monodispersed elongated spherical nanoparticles of TiO₂ with size 10–15 nm are seen. HR-TEM image of TiO₂ nanoparticles clearly reveals well defined lattice fringes that prove it has nanocrystalline with anatase phase.

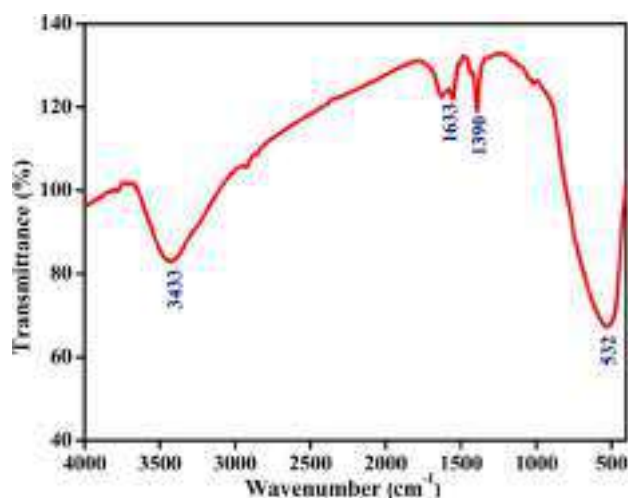


Fig. 7 FT-IR Spectrum of TiO₂ thin film annealed at 400 °C

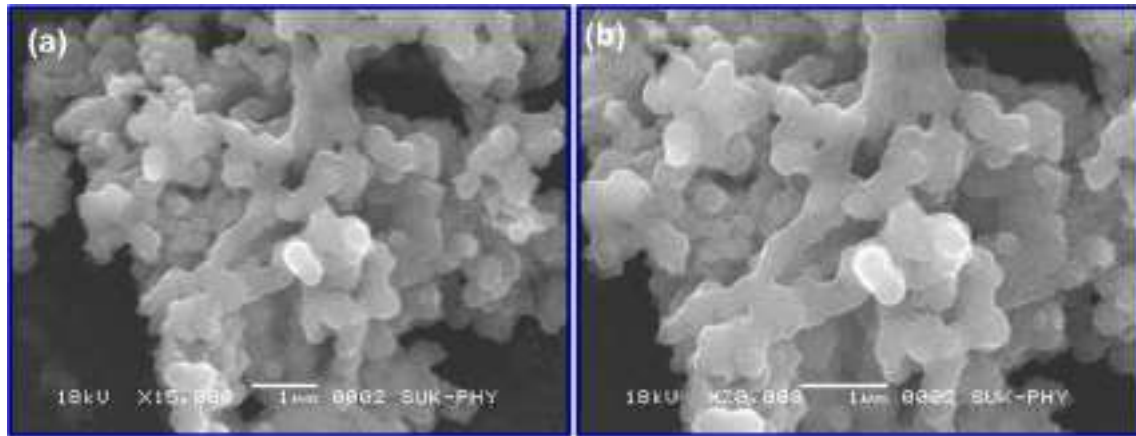


Fig. 8 SEM images of TiO₂ thin film annealed at 400 °C with different magnifications

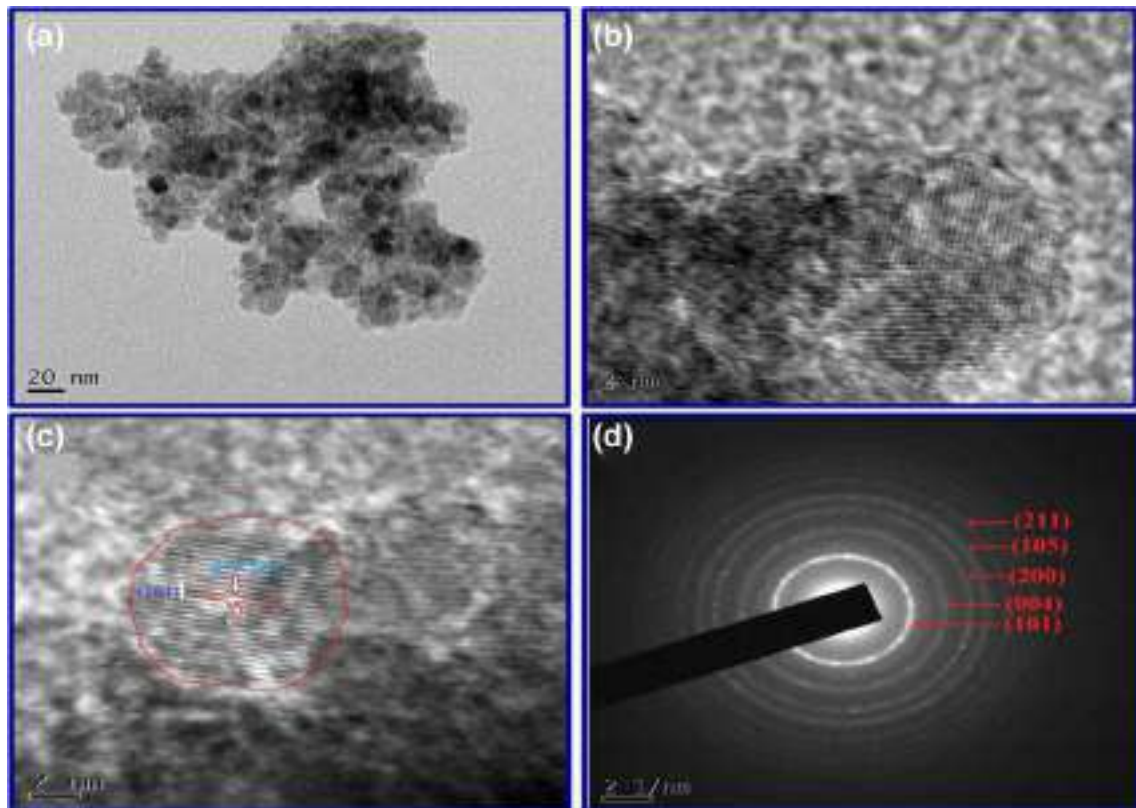


Fig. 9 TEM images (a, b), HR-TEM image (c) and SAED pattern (d) of TiO₂ thin film annealed at 400 °C

3.8 Photocatalytic activity of TiO₂ thin films

The photodegradation of MO by using nanocrystalline TiO₂ annealed at 400 °C is shown in Fig. 10. For the experimental purpose, 100 mL of MO solution was taken in photoreactor and TiO₂ film (with surface area of 12.50 cm² two sides) placed in it. The

photodegradation efficiency (η %) of the MO is calculated by using the following equation

$$\eta(\%) = \frac{C_0 - C_t}{C_0} \times 100 \quad (9)$$

where C_0 is the initial concentration and C_t is the concentration after MO degradation at a certain time interval [42]. After addition of film of photocatalyst, the concentration of MO dye decreases under UV-

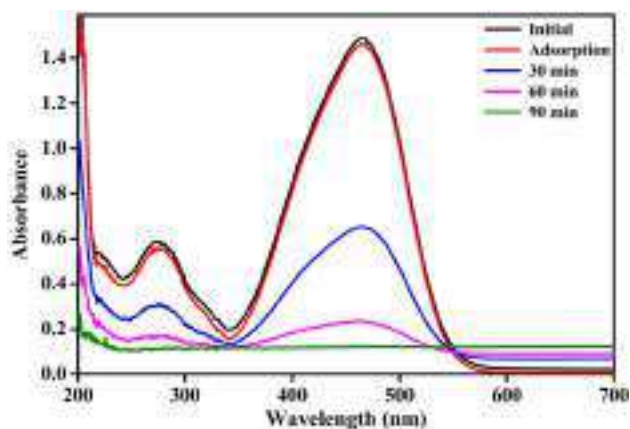


Fig. 10 UV–Vis. absorption spectra of degradation of MO under UV–Vis. light

Vis. light. The degradation efficiencies of MO are found to be 55, 84 and 92% after irradiation for 30, 60 and 90 min, respectively. The few advantages of immobilized photocatalyst over powder form are recycled many times, easy separation by reaction container and no loss of activity. This degradation efficiency reveals more active centers of photocatalyst showing more absorption of the photons. The comparison of photodegradation efficiency with different photocatalysts is shown in Table 4. The TiO₂ thin film annealed at 400 °C shows better performance than reported [27, 43–49].

3.9 Kinetic study of photodegradation of MO

The kinetic study of the photodegradation of MO by TiO₂ photocatalyst in UV–Vis. light irradiation is demonstrated in Fig. 11. The kinetics of this reaction followed pseudo-first-order reaction model. The

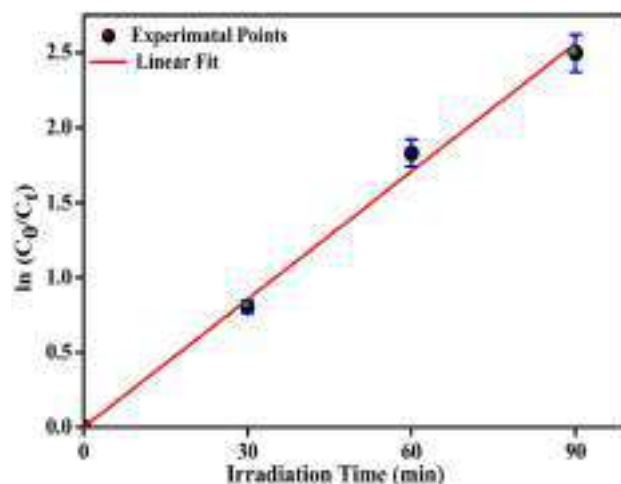


Fig. 11 Plot of $\ln C_0/C_t$ versus time for kinetic study of photodegradation of MO over TiO₂ photocatalyst

kinetic rate constant (k) and half-life time ($t_{1/2}$) of the pseudo-first-order reaction are determined from Eqs. (10) and (11), respectively.

$$\ln \frac{C_0}{C_t} = kt \quad (10)$$

$$t_{1/2} = \frac{0.693}{k} \quad (11)$$

The kinetic rate constant is derived from the slope obtained by the plot of $\ln C_0/C_t$ as a function of time. The observed values of rate constant and half-life time for degradation of MO are 0.02847 min⁻¹ and 24.50 min.

Table 4 Comparison of degradation of different dyes over pristine and doped TiO₂ photocatalysts

Sr. no.	Name of the catalyst	Name of the dye	Time (min)	Degradation efficiency (%)	References
1	TiO ₂ thin film	MB	90	79	[27]
2	TiO ₂ thin film	MB	120	77	[43]
3	MnTiO ₃ /TiO ₂ thin film	MB	240	75	[44]
4	TiO ₂ :Pd nanoparticles	MO	120	85	[45]
5	TiO ₂ powder	MB	120	96	[46]
6	Ag-doped TiO ₂	MO	120	65	[47]
7	TiO ₂ powder	MO	180	87	[48]
8	Sm-doped TiO ₂	MO	120	96	[49]
9	TiO ₂ thin film	MO	90	92	Present work

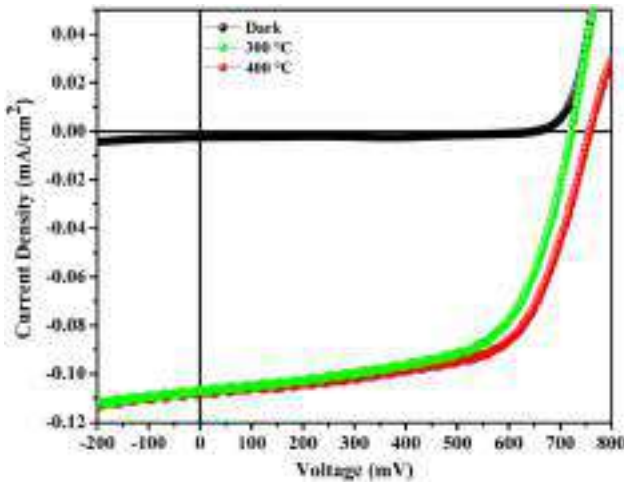


Fig. 12 *I*–*V* curves of TiO₂ thin films annealed at 300 and 400 °C prepared by chemical bath deposition method

3.10 Photoelectrochemical cell studies of TiO₂ thin films

Photoelectrochemical cell was made-up using the TiO₂ thin film deposited on FTO by CBD as the photoelectrode. For PEC measurements, a two-electrode configuration was used which containing TiO₂ thin film (annealed at 300 and 400 °C) as the photoelectrodes, graphite as a counter electrode and NaOH (0.1 M) redox electrolyte. The photoelectrode zone unprotected to light was 1 cm². The measurements for the power output characteristics and *I*–*V* plots were made at fixed intervals after waiting for sufficient time to equilibrium the system (both dark as well as under illumination). Figure 12 shows the *I*–*V* characteristics of annealed TiO₂ thin films under UV light illumination of 5 mW/cm². The fill factor and photoconversion efficiency for TiO₂ thin film annealed at 300 and 400 °C are calculated by using Eqs. 12 and 13 [37].

$$\text{FillFactor(FF)} = \frac{I_{\text{max}} \times V_{\text{max}}}{I_{\text{sc}} \times V_{\text{oc}}} \times 100 \tag{12}$$

$$\begin{aligned} \text{PhotoconversionEfficiency}(\eta\%) \\ = \frac{V_{\text{oc}} \times I_{\text{sc}} \times \text{FF}}{P_{\text{input}}} \times 100 \end{aligned} \tag{13}$$

where P_{input} is the incident light intensity, I_{max} and V_{max} are the values of maximum current and voltage, respectively, that can be obtained from graph. The all calculated parameters are given in Table 5. The PEC efficiencies of TiO₂ thin films annealed at 300 and 400 °C are found to be 0.92 and 1.02%, respectively. The obtained values are better due to high absorption of light, uniform size and pinhole free thin films. Amorphous TiO₂ could achieve less current profile than crystalline sample because of better efficient light absorption, fast carrier transport and less unwanted recombination losses in crystalline form [50].

4 Conclusions

The thin films of nanocrystalline TiO₂ were prepared using the precursor titanium isopropoxide by chemical bath deposition method. The XRD analysis reveals the average crystallite size of TiO₂ is 15 nm with tetragonal anatase structure. The dislocation density, lattice strain and stacking fault decreases with increase in annealing temperature. The band gap energy decreases from 3.2 to 3.1 eV as annealing temperature increases. The PL spectrum shows defect-related emissions. The FT-IR and Raman spectrums confirm the formation of anatase TiO₂. The SEM and TEM images denote formation of elongated spherical nanoparticles with size 10–15 nm. Such type of surface morphology enhances absorption of UV light. The photodegradation efficiency of MO by using TiO₂ thin film annealed at 400 °C was observed to be 92% within 90 min under UV–Vis. light. Also, the PEC efficiency and fill factor for TiO₂ thin film annealed at 400 °C are found to be 1.02% and 61.42%, respectively. The observed high photocatalytic and photoelectrochemical activities allow us to believe

Table 5 Fill factor and power conversion efficiency of annealed (300 and 400 °C) TiO₂ thin films prepared by chemical bath deposition method

Calcination temp	I_{sc} (mA/cm ²)	V_{oc} (mV/cm ²)	I_{max} (mA/cm ²)	V_{max} (mV/cm ²)	FF (%)	η (%)
300 °C	0.106	721	0.088	523	60.22	0.92
400 °C	0.110	758	0.933	549	61.42	1.02

that TiO₂ is a very good photocatalyst as well as photo converter.

Acknowledgements

One of the authors KMG acknowledges to the Shivaji University, Kolhapur, for funding the research assistance under Research Strengthening Scheme (File No. SU/C & U.D. Section/87/1385 dated 28/03/2019).

References

- J. Deng, Q. Huo, X. Lv, *J. Electroanal. Chem.* **835**, 287–292 (2019)
- D.B. Salunkhe, D.P. Dubal, J.V. Sali, B.R. Sankpal, *Mater. Sci. Semicond. Process.* **30**, 335–342 (2015)
- H. Wu, T.H. Tan, R. Liu, H.Y. Hsu, Y.H. Ng, *Sol. RRL* **5**, 2000423 (2021)
- P. Chen, B. Wei, X. Zhu, D. Gao, J. Cheng, Y. Liu, *Ceram. Int.* **45**, 6111–6118 (2019)
- A. Danine, L. Mancieru, A. Fargues, A. Rougier, *Electrochim. Acta* **258**, 200–207 (2017)
- W. Maziarz, *Appl. Surf. Sci.* **480**, 361–370 (2019)
- M. Hermann, F.L. Toma, L.M. Berger, G. Kaiser, C.C. Stahr, *J. Eur. Ceram. Soc.* **34**, 493–504 (2014)
- H. Wu, Z. Zheng, C.Y. Toe, X. Wen, J.N. Hart, R. Amal, Y.H. Ng, *J. Mater. Chem. A* **8**, 5638–5646 (2020)
- H. Chen, C. Su, J. Chen, T. Yang, N. Hsu, W. Li, *J. Nanomater.* **2011**, 1–8 (2011)
- G. Lusivardi, C. Barani, F. Giubertoni, G. Paganelli, *Materials* **10**, 1208 (2017)
- L. Li, J. Yan, T. Wang, Z. Zhao, J. Zhang, J. Gong, N. Guan, *Nat. Commun.* **6**, 5881 (2015)
- A. Cerdan-Pasaran, T. Lopez-Luke, D. Esparza, I. Zarazua, E. Rosa, R. Fuentes-Ramirez, A. Alatorre-Ordaz, A. Sanchez-Solis, A. Torres-Castro, J.Z. Zhang, *Phys. Chem. Chem. Phys.* **17**, 18590–18599 (2015)
- J. Lee, C. Cho, D.C. Lee, J.H. Moon, *RSC Adv.* **6**, 8756–8762 (2016)
- D. Dodoo-Arhin, F.P. Buabeng, J.M. Mwabora, P.N. Amaniampong, H. Agbe, E. Nyankson, D.O. Obada, N.Y. Asiedu, *Heliyon* **4**, e00681 (2018)
- T. Miyagi, M. Kamei, T. Ogawa, T. Mitsushashi, A. Yamazaki, T. Sato, *Thin Solid Films* **442**, 32–35 (2003)
- Y. Suda, H. Kawasaki, T. Ueda, T. Ohshima, *Thin Solid Films* **453–454**, 162–166 (2004)
- B.R. Sankpal, D.B. Salunkhe, S. Majumder, D.P. Dubal, *RSC Adv.* **6**, 83175–83184 (2016)
- H. Sun, C. Wang, S. Pang, X. Li, Y. Tao, H. Tang, M. Liu, *J. Non-Cryst. Solids* **354**, 1440–1443 (2008)
- C. Garzella, E. Comini, E. Tempesti, C. Frigeri, G. Sberveglieri, *Sens. Actuators B* **68**, 189–196 (2000)
- H.Z. Abdullah, C.C. Sorrell, *Mater. Sci. Forum* **561–565**, 2167–2170 (2007)
- I. Seigo, P. Chen, P. Comte, M.K. Nazeeruddin, P. Liska, P. Pechy, M. Gratzel, *Prog. Photovolt.: Res. Appl.* **15**, 603–609 (2007)
- M.M. Momeni, Y. Ghayeb, F. Ezati, *J. Colloid Interface Sci.* **514**, 70–82 (2018)
- L. Yao, W. Wang, Y. Liang, J. Fu, H. Shi, *Appl. Surf. Sci.* **469**, 829–840 (2019)
- R.S. Mane, Y.H. Hwang, C.D. Lokhande, S.D. Sartale, S.H. Han, *Appl. Surf. Sci.* **246**, 271–278 (2005)
- M. Rochkand, S. Pasternak, Y. Paz, *Molecules* **20**, 88–110 (2014)
- H. Khatibnezhad, F. Ambriz-Vargas, F.B. Ettouil, C. Moreau, *J. Eur. Ceram. Soc.* **41**, 544–556 (2021)
- P.B. Nair, V.B. Justinictor, G.P. Daniel, K. Joy, V. Ramkrishnan, D.D. Kumar, P.V. Thomas, *Thin Solid Films* **550**, 121–127 (2014)
- K.G. Rao, C. Ashok, K.V. Rao, C.S. Chakra, P. Tambur, *Int. J. Adv. Res. Phys. Sci.* **2**, 28–34 (2015)
- S.V. Kite, P.A. Chate, K.M. Garadkar, D.J. Sathe, *J. Mater. Sci.: Mater. Electron.* **28**, 16148–16154 (2017)
- U. Tipparach, P. Wongwanwatthana, T. Sompan, T. Saipin, P. Krongkitsiri, *CMU. J. Nat. Sci.* **7**, 129–136 (2008)
- H.L. Tan, X. Wen, R. Amal, Y.H. Ng, *J. Phys. Chem. Lett.* **7**, 1400–1405 (2016)
- S. Shanmugan, D. Mutharasu, I.A. Razak, *Digest J. Nanomater. Biostruct.* **9**, 1125–1135 (2014)
- Z. Hu, T. Xu, P. Liu, M. Oeser, *Environ. Res.* **193**, 110560 (2021)
- K. Atamnia, H. Satha, M. Bououdina, *IJNP* **10**, 225–243 (2018)
- A.M. More, J.L. Gunjakar, C.D. Lokhande, O.S. Joo, *Appl. Surf. Sci.* **255**, 6067–6072 (2009)
- C.D. Lokhande, S.K. Min, K.D. Jung, O.S. Joo, *J. Mater. Sci.* **39**, 6607–6610 (2004)
- S.V. Kite, D.J. Sathe, S.S. Patil, P.N. Bhosale, K.M. Garadkar, *Mater. Res. Express* **6**, 026411 (2019)
- P. Kumar, N. Saxena, R. Chandra, V. Gupta, A. Agarwal, D. Kanjilal, *Nanoscale Res. Lett.* **7**, 584 (2012)
- A. Hamdi, D.P. Ferreira, A.M. Ferraria, D.S. Conceicao, L.F.V. Ferreira, A.P. Carapeto, S. Boufi, S. Bouattour, A.M. Rego, *J. Nanomater.* **2016**, 1–11 (2016)
- P. Falaras, A.H. Goff, M.C. Bernard, A. Xagas, *Sol. Energy Mater. Sol. Cells* **64**, 167–184 (2000)

41. T. Lopez-Luke, A. Wolcott, L. Xu, S. Chen, Z. Wen, J. Li, E. Rosa, J.Z. Zhang, *J. Phys. Chem. C* **112**, 1282–1292 (2008)
42. M.B. Suwarnkar, A.N. Kadam, G.V. Khade, N.L. Gavade, K.M. Garadkar, *J. Mater. Sci.: Mater. Electron.* **27**, 843–851 (2016)
43. A. Pimentel, D. Nunes, S. Pereira, R. Martins, E. Fortunato, *Semicond. Photocatal. Mater. Mech. Appl.* (2016). <https://doi.org/10.5772/63237>
44. S. Alkaykh, A. Mbarek, E. Ali-Shattle, *Heliyon* **6**, e03663 (2020)
45. A.N. Banerjee, N. Hamnabard, S.W. Joo, *Ceram. Int.* **42**, 12010–12026 (2016)
46. S. Abbada, K. Guergouria, S. Gazaouta, M. Zaabata, J. *Environ. Chem. Eng.* **8**, 10371 (2020)
47. X. Zheng, D. Zhang, Y. Gao, X. Zhu, *Inorg. Chem. Commun.* **110**, 107589 (2019)
48. M. Hamadaniyan, A.S. Sarabi, A.M. Mehra, V. Jabbari, *Appl. Surf. Sci.* **257**, 10639–10644 (2011)
49. G.V. Khade, M.B. Suwarnkar, N.L. Gavade, K.M. Garadkar, *J. Mater. Sci.: Mater. Electron.* **27**, 6425–6432 (2016)
50. C. Cuevas-Arteaga, O.D.E. Cuevas, I. Rosales, *Chem. Phys. Lett.* **721**, 129–140 (2019)

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



APPLICATION OF ICT IN LIBRARY SERVICES: WITH SPECIAL REFERENCE TO MEDICAL LIBRARIES IN KOLHAPUR

Mr. Chavan R. R.¹ Dr. Kumbhar K. N.²

¹Librarian, Shri Vijaysinha Yadav Arts and Science College Peth Vadgaon Dist: Kolhapur

²Research Guide., Librarian, Badrinarayan Barwale College, Jalana

Corresponding Author- Mr. Chavan R. R.

Email: raghunath.chavan@yahoo.com

Email : kumbharkn@gmail.com

Abstract:

This paper describes the use of Information Communication Technology (ICT) in health science libraries with special reference to Kolhapur region. The survey has particularly conducted to know the use of e-resources and ICT in health science library system. The analysis of data covers Automation of library, Digitization of documents, Internet facility, RFID technology, Consortia, E-resources. This study has also shown the preferences and importance given to ICT in medical College libraries in Kolhapur.

Key Words: *ICT, Medical Library, Automation, Digitization, E-resources.*

Introduction.

The digital technology is affecting library services in revolutionary ways and the momentum toward these changes is irreversible. Many countries around the world are investing in digital technology to improve and up-date the knowledge they provide their younger generation they are also consistently promoting research on technology use inside the library for different services. The main force that has brought revolutionary changes in recent years, the impact of technology has been tremendous on library systems. In health science environment, library is deemed as a place of intellectual stimulation and epicenter of knowledge. In 1970 to 1990 the information seekers are depending on printed resources and libraries were unique places for providing such seen a great deal of change due to information communication technologies (ICT) resulting in a demand for new patterns of scholarly information. These technology advancements have made significant impact on the froth of knowledge and in unlocking the human potential.

What is ICT?

The term ICT describes the use of computer based technology and the internet to make information and communication services available to a wide range of users. The term is used broadly to address a range of technology devices. Central to these is the internet which provides the mechanism for transporting data in a number of formats including text, images, sounds and videos. Information and communication Technology is used in the

various departments in Medical Library services in Kolhapur these are.

1. Automation
2. Digitization
3. Internet
4. Consortia
5. RFID technology
6. E – resources

Automation.

Automation may be defined as the application of computers to perform traditional library housekeeping activities such as acquisition, circulation, cataloguing, reference and serial control. Automation is used to reduce the amount of staff time devoted to repetitive activities that must be done in any properly functioning library.

Need for automation

1. Increasing technical processing efficiency over manual system
2. Improvement of library services as well as administration and management
3. Saving of time staff and users
4. Provide wide access to resources within the libraries and elsewhere.

Application of Information and Communication Technology in academic library as follows.

Acquisition, Cataloguing, Serial control, Circulation, Management support, Information Services and Stock Verification

Digitization.

It is necessary to preserve the intellectual assets of any institute for long time use. The old libraries have rare collection and unique documents, which is necessary to digitization.

Digitization are requires tools as follows

Hardware - Computer system, Scanner, Digital Camera

Software – Supporting software

File compression software

Optical Character Recognition (OCR) software.
Manpower - Trained manpower is required to run the equipment and manage the digitization project

Digital Conversion process

Document → Data capture → Data Processing → Storage → Indexing and processing → Retrieval and Display.

Internet: Internet is a communications protocol, a language which computers use to talk to each other, called TCP/IP. This language is designed to enable computers to exchange data reliably and efficiently, though not necessarily quickly. More generally, the term is used to signify the network of computers connected using TCP/IP: the connecting wires and the equipment used to route the information (the network infrastructure), and the computers themselves. Even more generally, the Internet is often used to indicate the community of users and computers collectively. Requirements of internet. The essential requirements for the connectivity to the internet are computer, Telephone line / Internet service provider and modem.

Advantages of internet services.

1. The librarian can serve even the remote user setting at his reference desk.
2. The users can launch a reference query through e-mail.
3. The users can browse the particular side for his need.
4. The user's time can be saved to a great extent.
5. Current and up to date information can be provided.

Consortia

Library consortium is a community (co-operative) of two or more information agencies which have formally agreed to coordinate, co-operative or consolidate certain function to achieve mutual objectives. It is an association of group of library to achieve mutually the joint benefits'. It provide a way for its member to conduct business in a cooperative manner. Several library consortia have been set up over last few years to obtain licenses and to enable desktop internet access to scholarly electronic resources like e-journals and databases. Some of the major consortia formed in India over the years are.

1. Bosla – Consortia
2. Forsa – Consortia
3. Csir – Consortia
4. Indest
5. Ugc Info Net

Benefits of consortia

1. To support to needs of users through co-operation resources sharing and enhance access to electronic information.
2. To develop suitable collection development and acquisition policy.
3. To make use of the available latest information technology.
4. To eliminate the different problems faced by the librarian in order to provide various services to users.

RFID Technology.

RFID is the latest technology to be used in library for book identification for self check out and for sorting and conveying of library books and also for theft detection. Using RFID technology is to increase the efficiency. Reduce data entry errors and free up staff to perform more value added functions.

Components of RFID

1. RFID tags that are electronically programmed with unique information.
2. Readers or sensors to interrogate the tags.
3. Antenna.
4. A server or docking station on which the software that interface with the automated library system is loaded. It is also possible to distribute the software among the readers and sensors.

System of RFID work An RFID system consists of a tag, which is made up of a microchip with an antenna and an interrogator or reader. The reader sends out electromagnetic waves. The tag antenna is tuned to receive these waves. A passive RFID tag draws power from field created by the reader and uses it to power the microchips circuits. The chip then modulates the waves that the tag sends back to the reader and the reader converts the new waves in to digital data.

Web Designing for Libraries

A website is a collection of web pages, images, videos and other digital assets hosted on a particular domain and sub-domain on the World Wide Web (WWW). All publicly accessible website are seen collectively as constituting the World Wide Web accessible. Website in our digital era has become a publicizing media to serve information to the users from different parts of the world. The growth rate of information technology is very fast compared to other developing technology and knowledge.

Advantages of WWW

Libraries and information centers are being transferred to the internet for fast access and retrieval of information. The internet has become the world's window to information and web pages serve as the information carrying

documents. Libraries keep their own web pages as it is a media of publicizing the library functions. Activities, programs resources and services. Thus each library and information center needs to establish its own website.

Need for designing website

1. To access to the shared library online catalogue
2. To provide online index and databases
3. To provide access to online reference materials
4. To provide access to web resources and web search engines
5. To offer information about the library and its services and policies
6. To provide support through tutorials, context sensitive help and e-mail

E-resources

An electronic resource is defined as a resource which requires computer access or any electronic product that delivers a collection of data, be it text referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based. These may be delivered on CD ROM, on tape, via internet and so on. Over the past few years, a numbers of techniques and related standards have been developed which allow documents to be created and distributed in electric form. Hence to cope with the present situation, libraries are shifting towards new media, namely electronic resources for their collection developments that the demands of users are better fulfilled. The e-resources on magnetic and optical media have a vast impact on the collections of academic libraries. These are more useful due to inherent capabilities for manipulation and searching, providing information access is cheaper to acquiring information resources, savings in storage and maintenance etc. and sometimes the electronic form is the only alternative.

E – Learning

E learning can be defined as learning anywhere and anytime through the internet. It is delivery of information training is education programs via electronic media. E – learning includes a wide range of electronic communication like the internet, Intranet, Satellite broadcast, interactive television, CD ROM, DVD, audio and Video tapes etc. effective e-learning depends on the web usability communication, relationship and knowledge management tools.

Conclusion

Medical College libraries are facing the challenging tasks of satisfying the increasing complex and diverse information needs of the

students and practitioners. These libraries can use today a wide variety of technology options that exist now. Fruitful results can, however, be obtained only when we make the best use of the technologies. In Medical library services effective use of Information Communication Technology (ICT) has assumed greater relevance in the context of forth law of library science.

References:

1. Kaur amritpal, use OF e-RESOURCES BY teachers AND researchers OF THE science AND engineering & technology faculties IN guru nanak dev university: a survey. In: naclin 2006, P267-285.
2. Kaur baljinder & verma rama, use OF electronic resources AT tiet library patiala: a case study. Ila bulletin, vol. 42, no. 3, 2006, P 18-20.
3. Kennedy, p (2004), “dynamic web PAGES AND THE LIBRARY CATALOGUE”, the electronic library, vol. 22 no. 6. PP. 480-6.
4. Naidu ghs, rajput prabhat & motiyani kavita, use OF electronic resources AND services IN university libraries: a study OF davv central library, indore. In: naclin 2007, P309-319.
5. Naqvi shehbaz husain, use OF electronic resources AT jamia millia islamia (a central university): a case study, in: naclin 2007, P320-324.
6. Navjyoti, a snapshot OF e-journals’ adopters (research scholars) OF guru nanak dev university, in: naclin 2007, P432-442.
7. Renwick shamin, knowledge AND use OF electronic resources BY medical science faculty AT THE university OF THE west indies. Libri, vol. 43, no. 3, 2004, P58-64.



शिवाजी विद्यापीठ मराठी शिक्षक संघाचे विद्वत्संघालित

शिविम संशोधन पत्रिका

(Peer Reviewed Refereed Research Journal) ISSN No. 2319-6025

(विद्यापीठ अनुदान आयोग नवी दिल्ली मान्यता अ. क्र. ६४१७५)

वर्ष अकरावे : अंक एकोणतिसावा । जानेवारी-फेब्रुवारी-मार्च २०२२



महाराष्ट्र शासन आदर्श शिक्षण संस्था पुरस्कार प्राप्त
श्री प्रिन्स शिवाजी मराठा बोर्डिंग हाऊस, कोल्हापूर संचलित

न्यू कॉलेज, कोल्हापूर

Reaccredited By NAAC Grade 'A+'

१९९० नंतरची मराठी कादंबरी





शिवाजी विद्यापीठ मराठी शिक्षक संघाचे विद्वत्प्रमाणित

शिविम संशोधन पत्रिका

(Peer Reviewed Referred Research Journal) ISSN No. 2319-6025

(विद्यापीठ अनुदान आयोग नवी दिल्ली मान्यता अ. क्र. ६४१७५)

वर्ष अकरावे : अंक एकोणतिसावा

जानेवारी-फेब्रुवारी-मार्च २०२२

१९९० नंतरची मराठी कादंबरी

● संपादक ●

नंदकुमार मोरे

● संपादक मंडळ ●

एकनाथ पाटील । शामसुंदर मिरजकर । गोमटेश्वर पाटील । मांतेश हिरेमठ

● अतिथी संपादक ●

डॉ. व्ही. एम. पाटील

प्राचार्य, न्यू कॉलेज, कोल्हापूर

गुंडोपंत पाटील

मराठी विभाग प्रमुख, न्यू कॉलेज, कोल्हापूर

● अतिथी संपादक मंडळ ●

अरुण शिंदे । दीपककुमार वळवी । सुजय पाटील । गोमटेश्वर पाटील । मांतेश हिरेमठ

● प्रकाशक ●

प्रकाश दुकळे

अध्यक्ष, शिवाजी विद्यापीठ मराठी शिक्षक संघ, कोल्हापूर

द्वारा : 'शब्दगंध', प्लॉट नं. ३/ब, नृसिंह कॉलनी,

फुलेवाडी रिंगरोड, कोल्हापूर-४१६०१०

● मुद्रक ●

भारती मुद्रणालय

८३२, ई बॉर्ड, शाहूपुरी ४थी गल्ली, कोल्हापूर. फोन नं.: ०२३१-२६५४३२९

मूल्य : ३००/-

ही संशोधन पत्रिका प्रकाशक डॉ. प्रकाश दुकळे, यांनी शिवाजी विद्यापीठ मराठी शिक्षक संघ, कोल्हापूर यासाठी भारती मुद्रणालय, कोल्हापूर येथे छापून 'शब्दगंध', प्लॉट नं. ३/ब, नृसिंह कॉलनी, फुलेवाडी रिंगरोड, कोल्हापूर-४१६०१० येथे प्रकाशित केली. या पत्रिकेत प्रकट झालेल्या मतांशी संपादक, प्रकाशक व मुद्रक सहमत असतीलच असे नाही.

व्यक्ती स्वातंत्र्याचा मुक्त आविष्कार	स्मिता अधिकराव राजमाने १७७
३०. १९९० च्या नंतरच्या मराठी कादंबरीमधील समाजजीवनाचे चित्रण	प्रा. डॉ. मुजय बाबुराव पाटील .. १८२
३१. १९९० नंतरची मराठी दलित कादंबरी स्वरूप आणि विचार	प्रा. सुनील चंदनशिवे १८५
३२. आदिवासी कादंबरीवरील जागतिकीकरणाचा प्रभाव	डॉ. तानाजी जानदेव पाटील १८९
३३. १९९० नंतरची विज्ञान कादंबरी : वैज्ञानिक जाणीवा आणि मानवी संवेदना यांच्यातील सहसंबंध	डॉ. विद्या विजय नावडकर १९२
३४. महानुभाव संप्रदायाचा कादंबरीवरील प्रभाव	प्रा. डॉ. कोमल कन्हैया कुंदन ... १९८
३५. १९९० नंतरच्या स्त्रियांच्या कादंबरीतील स्त्री संवेदना	प्रा. लता पांडुरंग मोरे २०२
३६. १९९० नंतरच्या ग्रामीण कादंबरीवर जागतिकीकरणाचा प्रभाव	प्रा. डॉ. विद्यास शं. पाटील २०९
३७. संत चरित्रात्मक कादंबरी : वैश्विक मूल्यात्मकता	प्रा. धनंजय महादेव होनमाने २१२
३८. २०२० मधील मराठी कादंबरी : समाजशास्त्रीय दृष्टिकोन	डॉ. विनोद दे. राठोड २१७
३९. १९९० नंतरची मराठी ग्रामीण कादंबरी	श्री. विलास सखाराम सुर्वे २२३
४०. नव्वदोत्तर कादंबरीतील ग्रामसंवेदनाच्या पडझडीचे प्रतिबिंब	डॉ. विजयेंद्र विश्वनाथ पाटील २३१
४१. १९९० नंतरचे स्त्रियांचे कादंबरी लेखन	सौ. सविता प्रशांत रोटे २३६
४२. १९९० नंतरची मराठी ग्रामीण कादंबरी	डॉ. सर्जेराव जाधव २४१
४३. १९९० नंतरचे स्त्रियांचे कादंबरी लेखन	डॉ. शरद पवार २४६
४४. १९९० नंतरची मराठी कादंबरी : समाज आणि संस्कृती	प्रा. श्रीरंग अरविंद तराळ २५०
४५. मराठी लेखिकांच्या कादंबरीतील सामाजिक जाणिवा	प्रा. डॉ. रेश्मा रमेश दिवेकर २५६
४६. नव्वदोत्तरी मराठी कादंबरीतील गोंड जमातीचे समाजजीवन	प्रा. विनायक शरदचंद्र राऊत २६१
४७. १९९० नंतरची महानगरीय मराठी कादंबरी	डॉ. शर्मिला बाळासाहेब घाटगे .. २६६
४८. नव्वदोत्तरी कादंबरीतील स्त्रीत्व भान	डॉ. रचना माने २७१
४९. जागतिकीकरण आणि १९९० नंतरच्या मराठी कादंबरीतील बदलते समाजजीवन	प्रा. रणजीत एकनाथ हासूरकर ... २७७
५०. १९९० नंतरच्या ग्रामीण कादंबरीचे स्वरूप	डॉ. मनमोहन राजे २८०
५१. आदिवासी कादंबरी : शैक्षणिक पर्यावरण	डॉ. दीपककुमार वळवी २८७
५२. 'चैत' कादंबरीतील ग्रामीण समाजवास्तवाचे दर्शन	डॉ. चंद्रकांत पोतदार २९०
५३. मराठी कादंबरीतील स्त्रीवादी दृष्टीकोन	प्रा. डॉ. अतुल नारायण चौरे २९५
५४. १९९० नंतरची महानगरीय कादंबरी	प्रा. आशालता नारायण खोत ३०१
५५. १९९० नंतरच्या दलित कादंबरीतील जाणिवांचे बदलते स्वरूप	प्रा. डॉ. प्रशांत गायकवाड ३०४
५६. १९९० नंतरच्या मराठवाड्यातील निवडक ग्रामीण कादंबरीतील समाजजीवन	प्रा. ललिता मानसिंग गोपाळ ३०९
५७. १९९० नंतरच्या स्त्रीलिखित कादंबरीतील स्त्रीवादी जाणिवा	डॉ. प्रियांका कुंभार ३१३
५८. १९९० नंतरची आदिवासी कादंबरीकारांची मराठी कादंबरी	प्रा. दनू रावजी भेंगाळ ३१७
५९. नवदोत्तर कादंबरी : बदलते सामाजिक, सांस्कृतिक परिप्रेक्ष्य	डॉ. लक्ष्मण सर्जेराव शिंदे ३२४

१९९० नंतरच्या दलित कादंबरीतील जाणिवांचे बदलते स्वरूप

प्रा.डॉ.प्रशांत गायकवाड

पेठ वडगाव, जि.कोल्हापूर ४१६११२

ई मेल : drprashantgaikwad76gmail.com.

प्रस्तावना:

दलित साहित्य हा साठोतरी मराठी साहित्यातील एक महत्त्वाचा वाङ्मय प्रवाह आहे. हा साहित्यप्रवाह परिवर्तनाच्या चळवळीतून उदयाला आलेला आहे. मराठी साहित्य विश्वाला एक आगळी वेगळी दिशा देण्याचे महत्त्वाचे कार्य या सहित्य प्रवाहाने, साहित्यिकांनी व चळवळीने केलेले आहे. हे साहित्य दलितांच्या जीवनातील व्यथा, वेदना, आशा-आकांक्षा, विद्रोह, प्रक्षोभ, नकार इ.चे चित्रण साहित्यातून आविष्कृत करते. उपेक्षितांचे जीवन समोर आणून दलितांच्या मुक्तीचा मार्ग शोधण्याचा प्रयत्न करते. आपल्या वाट्याला आलेले जीवन हे या समाज व्यवस्थेचाच परिपाक आहे. याचे विश्लेषण, कारणमीमांसा करून समाजाची पुनर्रचना हे साहित्य करू पाहते. व्यापक अर्थाने दलित साहित्य हे जीवनवादी साहित्य आहे. या साहित्यामागील असलेल्या जीवनवाद्याला प्रामुख्याने फुले-शाहू-आंबेडकर यांच्या विचारांचे अधिष्ठान आहे. थोडक्यात माणूस हाच या साहित्याचा केंद्रबिंदू असून त्याची सर्वप्रकारच्या दास्यातून मुक्ती करणे हाच याचा जाहिरनामा आहे. दलित जाणीव हा या साहित्याचा महत्त्वाचा केंद्रबिंदू आहे. १९९० नंतर दलित जाणिवांचे स्वरूप हे बदलत गेलेले दिसून येते. त्याचे स्वरूप पुढील प्रमाणे पाहू.

उद्दिष्टे :

दलित जाणिवांचे स्वरूप समजाऊन घेणे

दलित जाणिवेचे वेगळेपण व त्यामागील प्रेरणांचा शोध घेणे

दलित कादंबरीमध्ये दलित जाणिवांचे स्वरूप कसे बदलत गेले आहे, त्याचा आढावा घेणे

दलित जाणीव: मराठी दलित साहित्याचा विचार करताना आपणास दलित जाणीव नाकारून या साहित्याचा विचारच करता येत नाही कोणताही साहित्यिक कोणत्या वाङ्मयीन निष्ठा स्वीकारतो यावर मात्र वाङ्मयाचे स्वरूप फार अवलंबून आहे हे नोंदवून डॉ.भालचंद्र फडके म्हणतात, "बौद्ध, अबौद्ध, महार, चांभार, पूर्वास्पृश्य, भटक्या जमाती, आदिवासी, गुन्हेगार जमाती इ.विविध समूह म्हणजे सामाजिक अन्याय, दारिद्र्य, अज्ञान इत्यादींनी ग्रस्त असा दलित वर्ग! या वर्गाला रानटी, दुष्ट परंपरा, अंधश्रद्धा, दैववाद, भोळेपणा, गुलामगिरी याविरुद्ध बंडाला, लढ्याला उधुक्त करणारी जाणीव ही दलित जाणीव! या जाणिवेतून दलित जीवनाचे भेदक दर्शन घडविणारे साहित्य ते दलित साहित्य! ते साहित्य केवळ दलितांसाठी अवतरलेले नाही तर ते सर्वांसाठी आहे, जे माणूस मोठा मानतात त्या सर्वांसाठी." १ भालचंद्र फडके हे लेखकाच्या जात व स्तरापेक्षा जाणिवेला अधिक महत्त्व देतात. जाणिवेचे दलित साहित्यातील स्थान अधोरेखित करतात. तर दलित साहित्यातील जाणिवेचे अन्य लेखकांच्या जाणिवेपेक्षा वेगळेपण आहे हे अधोरेखित करताना डॉ.शरणकुमार

लिंबाळे म्हणतात, " दलित साहित्यातील 'दलित जाणीव' ही संघर्षाशी नाते असणारी क्रांतिकारी मानसिकता आहे. विषम व्यवस्थेखाली चिरडलेला माणूस केंद्र मानून जातिव्यवस्थेविरुद्ध विद्रोह करणारी ही जाणीव आहे. त्या जाणिवेची प्रेरणा आंबेडकरी विचार आहे. दलित जाणीव ही गुलामाला गुलामीची जाणीव करून देते. दलित जाणीव ही दलित साहित्यातील महत्त्वाचे जननीज आहे. ही जाणीव अन्य लेखकांच्या जाणिवेपेक्षा वेगळी आणि वैशिष्ट्यपूर्ण आहे. ह्या जाणिवेमुळेच दलित साहित्याचे वेगळेपण अधोरेखित होते." २ दलित जाणीव ही अधिक व्यापक असल्याकडे लक्ष वेधताना डॉ.कृष्णा किरवले म्हणतात, " दलित जाणीव ही मानवी अवहेलना, गुलामाची स्थिती, अज्ञानमूलता, अभौतिक अथवा अवैज्ञानिकता, असमानता, अस्पृश्यता, विषमता यासारख्या अमानवी व्यवहारांना नाकारणारी सचेतन अवस्था आहे. तद्वतच रचनात्मक निसर्ग प्रकियेला अनुसरून मानवतावादी मूल्ये, तत्त्वप्रणाली मातृभावाद्वारे विश्वमानव्याचा ध्यास हा या जाणिवेच्या केंद्रस्थानी आहे. त्यामुळे ' दलित जाणिवेचे ' आकलन करून घेण्यासाठी मानव्य विध्याशाखातील सर्व सामाजिक शास्त्रे, कला, साहित्य, मानसनीती व मानसशास्त्र सर्व भौतिकशास्त्रातून साकार होणारी सर्वस्पर्शी तत्त्वप्रणाली, संरचना आणि कृती विचारात अधिग्रहित केल्याशिवाय ज्ञात करून घेणे अशक्य आहे." ३ दलित जाणीव अधिक व्यापक असल्याचे सांगून डॉ. किरवले दलित जाणिवेच्या सर्वस्पर्शी संरचनेची प्रथमतः डॉ. बाबासाहेब आंबेडकर यांनी मांडणी केल्याचा निर्देश करतात. तो अतिशय महत्त्वाचा आहे.

दलित साहित्यिक माणसाकडे एक मूल्य म्हणून पाहतात. माणसाच्या स्वातंत्र्याचा संकोच करणारी परंपरा असो, की धर्माच्या नावाने चाललेले शोषणा असो, माणसाला 'माणूस' म्हणून प्रतिष्ठा नाकारणा-या सर्वांविरुद्ध दलित साहित्यिक बंड करून उठताना दिसतात. डॉ. बाबासाहेब आंबेडकरांच्या तत्त्वज्ञानाला आणि त्यांनी मानवमुक्तीसाठी चालवलेल्या चळवळीला दलित साहित्यिक मोठ्या प्रमाणात प्रेरणास्थान मानताना दिसतात. डॉ. बाबासाहेब आंबेडकरांच्या चळवळीतून व तत्त्वज्ञानातून निर्माण झालेले स्वभान हे दलित साहित्यिकांच्या मध्ये मोठ्या प्रमाणात आत्मविश्वास निर्माण करताना दिसते.

दलित कादंबरी: इतर वाङ्मय प्रकारांप्रमाणे दलित कादंबरीची वाटचाल जोरदारपणे सुरू झालेली दिसत नाही. किंवा ती मोठ्या प्रमाणात प्रभावी ठरलेली दिसून येत नाही. अण्णाभाऊ साठे, बाबुराव बागूल, शंकरराव खरात, केशव मेश्राम यांच्या कादंब-या लक्ष वेधून घेत असल्या तरी इतर दलित कादंबरीकारांनी अपवाद वगळता फारसे कादंबरी लेखन केलेले दिसत नाही. दलित कादंबरीविषयी डॉ. भालचंद्र फडके म्हणतात, "दलितांची कविता, दलितांची कथा लक्ष वेधून घेते पण, दलितांची कादंबरी फारशी विचार करण्यासारखी नाही. सूड (बाबुराव बागूल), हकिकत आणि जटायू (केशव मेश्राम), फकिरा

(अण्णा भाऊ साठे) इ. थोडे अपवाद वगळले तर दलित लेखकांचे लेखनादर्श फडके-खांडेकर प्रणीत कादंबरीचे आहेत, असे वाटते." ४ अण्णाभाऊ साठे, शंकरराव खरात, बाबुराव बागूल, केशव मेश्राम, हरिभाऊ पगारे, हिं. गो. बनसोडे, भीमसेन देठे, मि. शि. शिंदे, प्रभाकर गायकवाड, अशोक व्हटकर, डॉ. यशवंत मनोहर, कचरु भालेराव, शरणकुमार लिंबाळे, उत्तम बंडू तुपे, जे. जी. माने, अशोक गजभिये, प्रज्ञावंत गौतम, लक्ष्मण गायकवाड, विजय सिरसाट, प्रेमानंद गज्जी, बी. रंगराव, बळवंत कांबळे, अनिल सपकाळ, इत्यादिंनी कादंबरी या वाङ्मय प्रकारात लेखन करून कादंबरी हा वाङ्मय प्रवाह आपापल्या परिने समृद्ध केला. यातील १९९० नंतरचे महत्त्वाचे कादंबरीकार व

त्यांच्या निवडक कादंब-यांचा पुढील प्रमाणे थोडक्यात आढावा घेऊ.

नामदेव कांबळे : 'राघववेळ' (१९९३), 'उनसावली', (१९९३) व साजरंग (१९९३) या तीन कादंब-या नामदेव कांबळे यांनी लिहिल्या असून यातील 'राघववेळ' या कादंबरीस साहित्य अकादमी पुरस्कारही प्राप्त झाला आहे. याबरोबरच 'अस्पर्श' (१९९०), 'मोराचे पान' (१९९७), 'सेलसाडा' (२००१), व 'कृष्णार्पण' (२००८) ह्या त्यांच्या अन्य कादंब-या होत. नामदेव कांबळे यांनी आपल्या सर्व कादंब-यातून विदर्भातील ग्रामीण व दलित जीवन समर्थपणे चित्रित केले आहे. 'राघववेळ' या कादंबरीत मातंग समाजात जन्मलेल्या, विधवेचे जीवन जगू पाहणा-या स्त्रीची कहाणी आणि तिची वेदना चित्रित केली आहे. या कादंबरीतून व्यापक दुखा:चे चित्रण करते. वालंबी ही रघूची आई. कौटुंबिक परिस्थिती मुळे गावकीची कामे तिला करावी लागतात. आपला मुलगा रघू याला शिक्षणाची अनावर ओढ असल्याचे तिला जाणवते. यासाठी तिची ओढाताण होते हे रघूला तीव्रतेने जाणवते. या कादंबरीविषयी डॉ. चिंतामण कांबळे म्हणतात, "राघववेळ या कादंबरीवर डॉ. बाबासाहेब आंबेडकरांच्या कुठल्याच तत्वाचा, चळवळीचा कुठलाच परिणाम दिसत नाही. म्हणून या कादंबरीची दलित साहित्यामध्ये फारशी चर्चा केली जात नाही." ५ या कादंबरीतील पायरु, रघु, या व्यक्तिरेखा संघर्ष न करता लाचारीकडे झुकल्यामुळे डॉ. कांबळे यांनी चरील प्रमाणे आपला अभिप्राय नोंदवला आहे. रघूपेक्षा वालंबीचे पात्र मोठे उठावदार झाले आहे. आपल्या मुलीला ती वाईट मार्गापासून परावृत्त करते. वालंबी निरक्षर असून सुसंस्कारित आहे. दहावीच्या वर्गात शिकत असताना कोणत्याही मुलीची छेड काढली नसताना, रघूला हेडमास्तरांनी केलेली शिक्षा त्याच्या मनावर जबरदस्त आघात करते. एकुणच या कादंबरीत दुखाचे व्यापक दर्शन घडते.

माधव कोंडविलकर : माधव कोंडविलकर यांची 'आता उजाडेल'

(२००१) ही कादंबरी आहे. या बरोबरच 'वेध', 'कळा त्या काळाच्या', 'एक होती कातळवाडी' इ. कादंब-या प्रकाशित आहेत. सुशिक्षित पुरोगामी विचाराने तयार झालेली पिढी आणि अशिक्षित असणारी प्रतिगामी विचारांची पिढी यांच्यातील संघर्ष चित्रित केला आहे. महार नायक आणि चांभार जातीतील नायिका यांच्या माध्यमातून दोन जातीतील तेढ कमी करण्याचा कादंबरीकाराचा प्रयत्न आहे.

ना.म.शिंदे: ना.म.शिंदे यांनी 'जातीला जात वैरी' (१९९०) या कादंबरीच्या माध्यमातून ढोर आणि चांभार यांच्यातील उच्चनीचता प्रखरपणे अधोरेखित केली आहे. आज यांच्यामध्ये रोटी-बेटी व्यवहार होत नाही, यावर चांगला प्रकाश टाकला आहे.

पांडुरंग कदम : 'कृष्णपक्ष' या कादंबरीतून पांडुरंग कदम यांनी बुद्ध धम्म स्वीकारलेल्या दलित तरुणांच्या शोकाकूल आयुष्याची कहाणी चितारलेली आहे.

सदा क-हाडे : 'तप्तमुद्रा' ही सदा क-हाडे यांची कादंबरी वास्तवाचा अचुक वेध घेणारी आहे. यामधील एक प्रसंग संघर्षाचे चित्रण करणारा आहे. यातील हरिश्चंद्र आणि क्लार्क यांच्यामध्ये जातीचा रकाना भरण्यावरून संघर्ष होतो. "क्लार्कने विचारले की, " फॉर्म पूर्ण का भरला नाही? " हरिश्चंद्रने त्वरित उत्तर दिले, " प्रवेशपत्रात धर्म आणि जाती याविषयी माहिती विचारली आहे. मी नवबौद्ध असं लिहिलं. आणखी काय लिहायला हवं? " क्लार्क गुरगुरतच म्हणाला, " काय? तुला वाचता येतं ना? का नाही? तिथं लिहिलं आहे ना एस.सी., एस.टी., ए.टी मगं या पैकी हव ते सोडून बाकी खोड. सरळ एस.सी. ठेव ना? लाज वाटते का? नवबौद्ध म्हणून घेतलं तरी मुळचा

महारच ना,..... मग तिथं लिही हिंदू-महार." "मी हिंदूही नाही अन महारही नाही.मी नवबौद्ध आहे तेवढं लिहिलं" "हे बंध, उगीच वाद घालत बसू नकोस.मला दुस-यांचे फॉर्मस बघायचे आहेत.तिथं हिंदू-महार लिहिणं आवश्यक आहे."

"मग अपूर्ण भरलेला फॉर्म मी घेणार नाही." क्लार्कने सांगितले."६

या प्रसंगातून सुशिक्षित तरुणाच्या मनातील शिक्षणभान आपल्याला विचार करायला प्रवृत्त करते. ही जाणीव सुन्न करणारी आहे.जात आजही जात नाही,हे वास्तव आहे.

शरणकुमार लिंबाळे : शरणकुमार लिंबाळे यांच्या 'भिन्नलिंगी', 'उपल्या', 'हिंदू', 'बहुजन', 'झुंड' 'ओ', 'सनातन' या कादंब-या प्रकाशित झाल्या आहेत.या पैकी सनातन या कादंबरीची तुलनेनी अधिक चर्चा झाली.या मधील व्यापक पट भारताच्या सांस्कृतिक इतिहासाला अधिक उजागर करतो.त्या निमित्ताने चर्चिली गेलीली समाजरचना वास्तवाला अधोरेखित करते.विषमतेचा इतिहास आज ही मनाला विषन्न करतो.

जी.के.ऐनापुरे : 'अभिसरण' ही जी.के. ऐनापुरे यांची कादंबरी.'अभिसरण' ही रुढ अर्थाने कादंबरी नाही.पँथर मधून उदयाला आलेले चांगदेव,राजाराम आणि रामचंद्र हे नेतृत्व त्यांच्या बरोबर जयप्रकाश आणि निलू हे या कादंबरीच्या केंद्रस्थानी आहेत. ही दलितांच्या नेतृत्वाच्या अंतरंगाचे दर्शन घडविणारी कादंबरी आहे. कादंबरीकार म्हणून ऐनापुरे यांच्या मांडणीला अनुभवाच्या मर्यादा आहेत,निवेदनाच्या माध्यमाएवजी कलेच्या पातळीवर हा चळवळीचा इतिहास नाही याविषयीची खंत डॉ.मोतीराम कटारे नोंदवतात आणि या कादंबरीचा गौरव करताना पुढे लिहितात," आंबेडकरी चळवळीतील जो जो कुणी अभिसरण वाचील तो या भुंढ्या नेतृत्वाच्या मानसिक गुलामगिरीतून मुक्त होईल एवढी ताकत अभिसरण मध्ये निश्चित आहे."७ नेतृत्वाची चिकित्सा करावी,ते आंधळेपणाने स्वीकारू नये,स्वार्थी नेतृत्व कसे खुजे असते हे लेखकाने दाखवून देण्याचा प्रामाणिक प्रयत्न केला आहे.तो खूप महत्वाचा आहे.

यशवंत मनोहर : यशवंत मनोहर यांच्या 'सावित्री', 'रमाई', आणि 'यशोधरा', या कादंब-या प्रकाशित झाल्या आहेत.या तिन्ही महत्वाच्या कर्तबगार स्त्रियांना भारताच्या सांस्कृतिक इतिहासात खुप मोलाचे स्थान आहे.त्यावर यशवंत मनोहर यांनी चांगला प्रकाश टाकला आहे.वाचकाला अंतर्मुख होऊन विचार करायला लावणा-या या तीन ही कादंब-या आहेत.त्या वाचकाच्या मनावर दीर्घकाळ रेंगाळत राहतात.

याबरोबरच उत्तम कांबळे यांची 'श्राद्ध'ही कादंबरी दलितांच्या अंतर्गत कलहावर आधारित आहे. प्रेमानंद गज्वी यांची जागर,सुधाकर गायकवाड यांची शुद्र',योगेंद्र मेश्राम यांची माझं गाव कुठाय?' जे.बी.माने यांची 'मुक्ती', विजय सिरसाट यांची 'काळगर्भ', ना.ब.जाधव यांची 'डॉ.अंजना', निशिकांत शेंडे यांची 'कलंकमुक्ती' भि.शि.शिंदे यांची 'अमृतनाग', कचरु भालेराव यांची 'स्मशानभूमी' तसेच अलीकडच्या लेखनात दि.रा.वाघमारे यांची 'कल्लोळ', विजय काळे यांची 'जागृती', एकनाथ साळवे यांची 'एन्काऊंटर', बाबाराव मडावी यांची 'टाहो' इत्यादी दलित कादंब-यांनी मराठी वाचकांचे लक्ष वेधले आहे.अनेक कादंबरीकारांनी एखाद - दुसरी दर्जेदार कादंबरी लिहिल्यानंतर ते पुन्हा कादंबरी लेखनाकडे वळालेले दिसत नाहीत.कथेच्या तुलनेत अनेक कादंबरीकारांना आपली कादंबरी सामर्थ्यशाली बनविता आलेली नाही.,हे वास्तव नाकारता येणार नाही.

निष्कर्ष:

१. दलित जाणिवेचे अन्य लेखकांच्या तुलनेत वेगळे स्वरूप असल्याचे दिसते.
२. दलित जाणिवे संघर्षाशी नाते सांगताना दिसते. माणूस हा या जाणिवेचा केंद्रबिंदू आहे.
३. या जाणिवेची प्रेरणा प्रामुख्याने आंबेडकरी विचार आहे.
४. साहित्य हे समाज परिवर्तनाचे माध्यम आहे ही भूमिका अनेक दलित कादंबरीकारांना महत्त्वाची वाटली आहे.

५. दलित साहित्य निर्मितीच्या मूळाशी लेखकांच्या बांधिलकीचे सूत्र आहे. बुद्ध, कबीर, मार्क्स, फुले शाहू, डॉ बाबासाहेब आंबेडकर यांच्या विचारांशी निगडित बांधिलकी आहे.

६. मनुस्मृती प्रणित चातुर्वर्ण्य, अस्पृश्यता, विषमता, शोषण, यांना नकार देवून कादंबरीकारांनी स्वातंत्र्य, समता, बंधुता, न्याय इत्यादी जीवनमूल्यांचा पुरस्कार केला आहे.

७. प्रस्थापित साहित्याचे सौंदर्यशास्त्र हे आपल्या साहित्याचे योग्य मूल्यमापन करू शकत नाही. ही भूमिका घेऊन काही दलित साहित्यिकांनी वेगळ्या, नव्या सौंदर्यशास्त्राची मागणी केली आहे.

८. दलित कादंबरीकारांनी आपल्या कादंबरीत आशय-अभिव्यक्ती, भाषा इत्यादी बाबत नवी मांडणी करून मराठी कादंबरीची कक्षा विस्तारली आहे.

९. मराठी दलित कादंबरीमध्ये अस्पृश्यातील विविध जातीजमाती मधील संघर्ष, जातीय अनुभव, शोषण विषमता, माणुसकी नाकारल्याची अन्यायाची जाणीव चित्रित झाली असून भारतीय संस्कृतीमधील दलित तरुणांची होणारी होरपळ, मानसिक संघर्ष, राजकीय ताणतणावाचे चित्रण होणे अभिप्रेत आहे.

संदर्भसूची -

फडके भालचंद्र, दलित साहित्य वेदना व विद्रोह, श्रीविध्या प्रकाशन, पुणे, तिसरी आवृत्ती- नोव्हेंबर २०००, पृ. ३३

लिंबाळे : शरणकुमार, दलित साहित्याचे सौंदर्यशास्त्र, कांता प्रकाशन, बार्शी, प्रथमावृत्ती, ऑगस्ट, १९९६, पृ. १५

अस्मितादर्श, एमेजू, २०१९, पृ. क्र. १२

फडके भालचंद्र, दलित साहित्य वेदना व विद्रोह उनि.पृ. २०८

अस्मितादर्श, ऑनोडि २०११, वर्ष ४४, अंक ४, पृ. ११.८

कहाडे सदा, 'तममुद्रा', स्वरूप प्रकाशन औरंगाबाद, आवृत्ती, जून २००१, पृ. ६६-६७

कटारे मोतिराम, फुले आंबेडकरी साहित्य: आकलन आणि कैलाश पब्लिकेशन, औरंगाबाद, प्रथमावृत्ती, जुलै, २००६ पृ. २२१



**International Journal of Advanced Research in Science,
Communication and Technology (IJARSCT)**



TABLE OF CONTENTS

Amphibian Survey from Mahad Tahsil Western Ghats, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	1-5
Survey of Dung Beetles in Mahad Tehsil Western Ghats, Raigad District, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	6-9
Impact of COVID-19 on Agriculture, Livestock, and Biodiversity: A Review <i>Parinita Kumari and Dr. Vinod R. Ragade</i>	10-15
Impact of Botanical Extracts on Histopathology of Midgut of CSR2 Race of Mulberry Silkworm (<i>Bombyx Mori L.</i>) Inoculated by <i>Staphylococcus Aureus</i> <i>S. J. Patil, S. S. Patil, G. P. Bhawane</i>	16-20
Impact of Climatic Conditions on Rice Crop of Pune Division: A Geographical Analysis <i>B. S. Jadhav and M. B. Hande</i>	21-31
The Study of Phytoplankton and Zooplankton in Freshwater Tulsi Lake, Mandangad, Ratnagiri, Maharashtra, India <i>S. S. Bhaisare</i>	32-37

Study of Avifaunal Diversity from Shendri Reservoir Gadhinglaj, Dist. Kolhapur (M.S.)

K. J. Adate and V. V. Ajagekar

38-44

Development in Pesticides for Control and Prevention of African Giant Snails, Achatina Fulica in Jalgaon, Dapoli Dist. Ratnagiri (M.S.)

Janhavi Vidya Patil and Nanda Bhupal Jagtap

45-51

The Influence of Boron on Some Plant Nutrients in Sweet Sorghum (Sorghum bicolor L.)

Jadhav Sujeet S.

52-57

A Study of Butterfly Diversity in Nandgaon Village and Gulmohar Park in Khed Tehsil District of Ratnagiri (M.S.) India

Ayesha A. Rauf Murudkar and Nanda Bhupal Jagtap

58-68

Impact of COVID-19 Pandemic Lockdown on Fishery Potential of Uran Tehsil, M. S., India

Shital S. Taware, Vishwajeet M. Lagade, Mansi K. Gurav, Ayush D. Koli

69-75

Avifauna of Zambre Reservoir, Chandgad, Dist- Kolhapur (Maharashtra)

Dr. K. N. Nikam

76-81

The Floristic Studies on Narande Sacred Grove Narande, Dist. Kolhapur, Maharashtra

Patil Aparna A and Minchekar Rahul

82-87

Impact of COVID-19 Pandemic on Rivers: A Review

Aishwarya S. Pawar, Sachin J. Pawar, Rutuja A Chavan

88-92

Impact of Disinfectant and Sanitizer on Human and Environment during COVID-19 Pandemic

V. M. Lagade, S. S. Taware, S. V. Lagade, P. S. Pawar, B. S. Wali

93-106

Estimation of the Population Size of Crocodile *Crocodylus palustris* (Lesson, 1831) from Two Incomplete Survey Methods-Daylight Ground Counts and Night Counts

Atigre R. H., S. R. Patil, R. J. Patil, M. G. Babare

107-113

Diversity and Distribution of Agricultural Insect Pest in Some Selected Areas of Indapur (Pune) and Phaltan (Satara) Tehsil, Maharashtra, India

Rupesh B. Yadav, Prajakta D. Khaire, Suryakant V. Maske

114-121

Impact of the COVID-19 Pandemic on the Dairy Farming

Ingavale Dipali Rajaram

122-125

Plant Diversity at Katyayani Temple Area, Kolhapur

P. A. Sonar, V. B. Nalawade, M. N. Desai

126-129

Impact of Social Background on Learning English as a Second Language

Dr. Prashant P. Yadav

130-133

Relation of Physical Fitness Index with Body Mass Index: Study Among Female Students of Balwant College Vita, Dist. Sangli, (M.S.), India

Rahul Patil, Satyawant Patil, Yogita Patil, Rajaram Atigre

134-137

Impact of the Corona Virus Pandemic on Wetland Avifauna Diversity of JAT Region

Dr. S. B. Deshmukh and Dr. M.Y. Kulkarni

138-140

Identification of Some Genera of Family Cucurbitaceae based on Characters of Seeds

S. S. Bhosale, D. G. Jagtap, R. S. Bhosale, S. M. Khandare, A. S. Dhabe

141-145

Seasonal Variation of Phytoplankton Diversity in the Fresh Water Body of Atpadi Lake, Maharashtra

Shivaji M. Vibhute

146-150

- Ichthyofaunal Diversity of Atpadi Lake, Tal- Atpadi, Dist-Sangli (MS) India**
Shivaji M. Vibhute 151-154
- Seasonal Variation of Physicochemical Parameters in Perennial Tank of Atpadi, Maharashtra**
Shivaji M. Vibhute 155-161
- Biology of Apanteles Baoris Wilkinson (Hymenoptera: Braconide) A Larval Parasitoid of Chapra Maathas Fab**
T. M. Chougale 162-166
- Diversity of Braconid Parasitoids (Hymenoptera: Braconide) of Horticultural Insect Pests from Kolhapur, Maharashtra**
T. R. Patil and T. M. Chougale 167-171
- Total Lipid Alteration Gill and Muscle of Fingerlings of Freshwater Fish Labeo Rohita Fed on Formulated Feed**
V.B. Nalawade, M.P. Bhilave, M. N. Desai 172-176
- Impact of COVID-19 Pandemic on Animal Husbandry: A Review**
S. G. Patil and N. A. Patel 177-186
- Influence of Ipomoea muricata (L)Jacq. Weed Manure on The Aerial Biomass of Maize Crop**
Sangita Anandrao Ghadge 187-193

Impact of Climatic Conditions on Rice Crop of Pune Division: A Geographical Analysis

B. S. Jadhav¹, M. B. Hande²

Associate Professor and Head, Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon, Kolhapur¹
Assistant Professor, Dept. of Geography, D. P. Bhosale College, Koregaon, Satara²

Abstract: *The climate can thus be viewed as a mixture or aggregate of weather. Weather describes conditions of the atmosphere over a short period of time, and climate is how the atmosphere behaves over relatively long periods of time. The World Meteorological Organization (WMO), 30 years is the classical period for performing the statistics used to define climate. As a consequence, the 30-year period proposed by the WMO should be considered more as an indicator than a norm that must be followed in all cases. Climate is thus now more and more frequently defined in a wider sense as the statistical description of the climate system. This includes atmosphere, hydrosphere, lithosphere and biosphere of the interactions between them (IPCC, 2007). Climatic conditions help to shape various ecosystems and habitat around the globe. The climatic factors are impact on physical features as well as human life. It is a major role play in human environment and they also effects on his food, clothing, dwellings, and their occupations. Agriculture, our primary source of food, is critical for human survival, but its importance for the environmental climate. The agriculture system are depends on the climatic conditions and that's view presence agriculture is an uncertain. The plants and animals are affected by atmospheric conditions; it is not unreasonable that we should expect man to show effects of a similar (Robert, 1907). Agriculture and climate are two broad factors effect on crop and livestock. Climatic conditions effects on the distribution of crops, livestock and their productivity (Madhuri S., 2003). The crop growth and its productivity are declining due to increase in temperature, declining organic matter of soil and increase rate of evapotranspiration. The temperature and humidity increase in summer and winter season to increase pests, diseases and weeds. Changes in precipitation pattern increase the likelihood of short run crop failure and long run production declines (Crosson, 1997).*

Keywords: Climate, Climate Change, Crop, Productivity, Precipitation, Distribution etc.

I. INTRODUCTION

The phenomenon like climate change and its study begins German metrologist Alfred Wegener through his continental drift theory. In those circumstances, due to continental drift climate of concern continents were changed but World climatic regions are remained in their original state. But now days, considerable changes have been taken place in the present climatic conditions from their original climatic behavior. The impacts of climate change have been seen from second half of twentieth century. The global biosphere is become a sufferer directly or indirectly less or more by climate change.

The earth is a complex system continually, evolving and changing. The climate is changing and these changes are affecting the world around us. The climate system consists of several subsystems the Atmosphere, Hydrosphere, Lithosphere and Biosphere which interact to one another through both positive and negative feedback process. A change in any one of the sub-systems will turn affect the other and result in modification and changes to global climate (Talwar and Juneja, 2009). Temperature is a measure of how hot or cold the air is near earth's surface. Weather is a condition or the atmosphere at a given time and place. Crudely you can think of climate as average weather (Hussain, 2005). It will be help to clear about exactly what we mean by climate change. 'Any significant change in the pattern of climate on earth over a period of time is termed as climate change (Oxford Dictionary, 2010).

Rice is a cereal crop cultivated in wide ecological and climatic condition. The rice crop needs high humidity, prolonged sunshine and high amount of rainfall. The last three decades shows that rice production level has increased in higher

latitudes while some losses have arisen in warmer areas, with temperature playing a bigger role than rainfall (Lobell, 2011). It grows in areas having tropical climate with high rainfall. The rice is a sensitive crop that depends highly on weather condition. Among the non-biotic stresses, weather plays the dominant role in influencing the growth and yield of rice. Water is not only single limiting factor but also the most important than the other weather parameters i.e., temperature and solar radiation. These factors are deeply concern to the overall growing period of rice crop in the study area.

In Pune division, rice is grown under different climatic conditions at different altitude. Rice cultivation in the study area extended from narrow strip from north to south along the crest and eastern slope of Sahyadri Ghats (fig. 5.15). It includes hilly terrain of Pune, Satara, Sangli, and Kolhapur districts were an average altitude from 1000-2000 m. About 90 per cent rice of the study area is grown in 'Kharif' season. Recently it is observed that the frequency of severe drought and flood effects on rice production in Pune division.

II. STUDY REGION

The Pune division is located in south-west part of Maharashtra state. It lies between 15° 45' N to 19° 0' N latitude and 73° 32' E to 76° 15' E longitudes. The area under study comprises of five districts namely Pune, Sangli, Satara, Solapur, Kolhapur and the whole division has 58 tehsils. The Pune division is bounded by the Aurangabad district to the north and NE, Thane district encircled by north and NW. The west boundary of study area delimited by Raigad, and Ratnagiri district, Sindhudurg district enclosed in south and south-west part. The south and eastern boundary surrounded by Karnataka state and eastern boundary delimited by Osmanabad district.

Physiographical this region can be divided in to three parts hilly, plateau and lowlands. Sahyadri ranges passes through Pune division; its slope decreases from west to east. In this region temperature varies in the different parts, the average temperature of the study area is 25.62° C. An average annual rainfall in the Pune division was recorded 1239.09 mm. There is major two river basins; it includes Krishna and Bhima basins. Maximum portion of the Pune division has been occupied by these soils such as medium black, deep black and red soil where both 'Kharif' and 'Rabbi' crops are cultivating in the study area.

III. OBJECTIVE

To assess an impact of climatic condition on rice crop in Pune Division

IV. DATABASE

An essential data was collected through the primary and secondary sources. Primary data was collected according to the certain research design, which includes respondents and formulation of questionnaire, schedules, interviews, field observations and photographs. Secondary data was collected from different sources such as district gazetteers, district census handbook, socio economic abstract and toposheets (SOI). The metrological data (station-wise data of temperature and rainfall) was collected from Indian Metrological Department, Pune for the period of 1901 to 2013. The India yearly Temperature, Rainfall, Relative Humidity, Wind and Solar Radiation etc. data had been taken through the website such as www.indiawaterportal.in, www.tropomet.res.in (1901 to 2011). The drought data had taken from <http://agri.gujarat.gov.in>.

The agricultural data was collected from Zilla Parishad office of concern district's as well agricultural offices, tahsil offices, Socio- economic abstract for District Statistical Department (1981 to 2011). The current decadal data was collected from www.agriculturecensus.in in 2011. The livestock data was collected from Livestock Census during 1961 to 2012 through www.livestockcensus.in. The daily milk data was achieved from www.dairy.in of the period from 2010 to 2016 of Pune Division. The 0.25° X 0.25° gridded climatic data of Pune Division had been taken from Global Weather Data website of the period of 1979 to 2013.

V. METHODOLOGY

The collected primary and secondary data were processed by using different statistical and quantitative techniques for getting correct results. During the investigation various methods were used for satisfaction of the objective.

The climatic parameters are temperature, rainfall, relative humidity, solar radiation, wind speed, crop evapotranspiration, frost, cloud condition, wet day frequency, water vapor frequency trend processed by using MS-Excel Windows office 2010.

The Potential Evapotranspiration calculated with the help of Thornwait's method (1948) as follows:

$$PE = 1.6 (10 t / I)^a$$

Where, e = monthly unadjusted (PE) in cm/month.

t = mean monthly temp in $^{\circ}$ C

I = annual heat index (\sum I)

I = monthly heat index is equal to $(t/5)^{1.514}$

a = non-linear function of heat index, approximated expression,

$$a = (0.00000675 * I^3 - 0.0000771 * I^2 + 1.7921 * I + 0.49239)$$

Unadjusted PE (e) – obtained is for average 12 hours sunshine and 30-day month.

The Moisture Index studies were carried out with the help of Thornwait and Marther (1955) formula. This is as following:

$$\text{Humidity Index (Ih)} = WS / PE * 100$$

$$\text{Aridity index (Ia)} = WD / PE * 100$$

$$\text{Moisture Index (Im)} = Ih - Ia$$

Whereas, PE = Potential Evapotranspiration

AE = Actual Evapotranspiration

WS = Water Surplus

WD = Water Deficient

Water Surplus = the sum of the monthly difference between precipitation (P) and ETp for those months;

When P exceeds PE (cm)

Water Deficiency = the sum of the monthly difference between ETp and precipitation (P) for those months;

When PE exceeds P (cm)

An aridity of a region is measured with applying the method of De Martone Aridity Index (1925) method:

$$I_{DM} = P / T + 10$$

Whereas, P = Average annual rainfall.

T = Average annual temperature in $^{\circ}$ C

The Nath and Deka (2002): For normal deviation estimation and analyzing the year as drought, normal and excessive following formula was used:

$$ND = (x - m) / m$$

Whereas, ND = Normal deviation.

x = is the total rainfall for each year.

m = is the average rainfall.

The yearly rainfall is also classified as drought, excessive and normal rainfall years when particular year receives rainfall less than $Xy-S$, more than $Xy+S$ and between $Xy-S$ and $Sy+5$ respectively where, Sy is the mean rainfall of year and 3 represents the standard deviation of yearly rainfall.

VI. CLIMATE CONDITION OF RICE PRODUCING AREAS IN PUNE DIVISION

The Table No. 1.1 shows the weather calendar of rice crop, which helps to knowing the growing period of rice (June to October) in Pune division. It is observed that the rice crop is totally dependent on monsoonal climatic condition of the study area.

Rainfall

There is need of ample rainfall for rice crop. The Pune division has average 2000 mm per annum. The results of Table No. 1.1 showed that the rainfall with standard deviation was found to be more during July (598.12 ± 114.66) and it was followed by August, June, September and October (169.07 ± 57.40) months. The coefficient of variation of rainfall ranges from 19.00 to 57.40 per cent during the rice crop growing season. An average rainfall during the June to October is more than 2500 mm especially in rice producing areas in Pune division. The maximum amount of rainfall is in the months of June and July and it decreases after September month.

Temperature

The maximum temperature was found to be with standard deviation from the month of October (29.31 ± 1.45), followed by June, September, July and lowest maximum temperature in month of August (23.54 ± 0.97). The coefficient of variation of maximum temperature ranges from 2.54 to 6.84 for rice growing season. The minimum temperature was found to be with standard deviation from the month of June (21.93 ± 0.34), it was followed by July to September and lowest minimum temperature is observed in October (18.58 ± 0.73). The coefficient of variation of minimum temperature ranges from 1.49 to 3.91 for rice growing period. During the growing period of rice temperature ranges from 18°C to 30°C which is ideal for the growth of it.



Figure 1.1

Relative Humidity

During the period 1979 to 2013, mean relative humidity was observed 88.60 per cent for this crop in its growing period. Relative humidity was observed to be more during August (95.69 ± 1.16) followed by July, September, June and October has (75.51 ± 7.00) per cent relative humidity. The coefficient of variation of relative humidity ranges from 1.21 to 9.27 per cent over the months. The proportion of relative humidity in the atmosphere remains more than 70 per cent in all months (June to September) of growing period of rice.

Solar Radiation

The average solar radiation 12.76 MJ/M² was found during the considered period in Pune division. The results of Table No. 1.1 indicate that the frequency of solar radiation was found to be more during October (18.19 ± 1.31), and it was followed by June, September, August and July have lowest solar radiation (8.05 ± 1.93). The coefficient of variation of solar radiation ranges from 7.21 to 20.94 per cent over the months. The cloud covers are remains high during the June to August. Due to this condition at same time solar radiation observed in less amount. However, the proportion of solar radiation increases during the months of September and October which ultimately affects grain filling and maturity of rice crop.

Table 1.1: Mean and Variability of Climatic Parameters for the Rice Producing Areas of Pune Division (1979-2013)

Sr. No.	Climatic Parameters	June			July			August			September			October		
		Mean	S. D.	C.V.	Mean	S. D.	C.V.	Mean	S. D.	C.V.	Mean	S. D.	C.V.	Mean	S. D.	C.V.
1	Rainfall (mm.)	481.81	122.90	25.51	598.12	144.66	24.19	507.37	96.42	19.00	349.58	128.64	36.80	169.07	97.04	57.40
2	Maximum Temperature(°C)	27.56	1.88	6.84	23.67	0.60	2.52	23.54	0.94	3.98	26.18	1.12	4.28	29.31	1.45	4.94
3	Minimum Temperature(°C)	21.93	0.34	1.56	21.22	0.32	1.49	20.72	0.35	1.68	19.73	0.66	3.33	18.58	0.73	3.91
4	Mean Temperature(°C)	24.75	1.06	4.29	22.45	0.39	1.74	22.13	0.53	2.40	22.96	0.54	2.35	23.92	0.79	3.30
5	Relative Humidity (%)	84.94	4.73	5.57	94.94	1.35	1.42	95.69	1.16	1.21	91.43	2.77	3.03	75.51	7.00	9.27
6	Solar Radiation (MJ/M ²)	14.26	2.60	18.20	8.05	1.93	23.94	8.11	1.94	23.90	15.20	2.59	17.04	18.19	1.31	7.21

Source: Based on the Global Weather Data (1979 to 2013)

VII. REGRESSION ANALYSIS OF RICE

The regression statistics are shows that Table No. 1.2, ‘R’ value is 0.980 and it revealed that rice productivity has very highly positive relationship with climatic factors i.e., rainfall, temperature, relative humidity and solar radiations. The ‘R’ square value is 0.960, which is 96 per cent and adjusted ‘R’ Square 0.952 of the variation in rice productivity. The standard error among 35 observations is 0.181 in the regression analysis. The output for Total 34 is the sum of the information for Regression is 6 and Residual is 28. The significance value here is the probability of getting P-Value of 122.924. For factor one the significance value is 0.000 which is less than the mean value of 0.05. It is found that the rice productivity is more reliable.

The regression coefficient table no. 1.2 shows that the rice productivity is enriched by rainfall, temperature (maximum, minimum and mean), relative humidity and solar radiations. The regression equation for the above data is rice productivity = 7.781 + 0.394 (Rainfall) – 18.139 (Maximum temperature) -16.221 (Minimum temp.) + 33.236 (Mean temp.) + 0.002 (Relative Humidity) + 0.056 (Solar Radiation).

The above equation is the calculated contribution for the tested elements to attain rice productivity effectively. From the regression equation, it is observed that maximum and minimum temperature have make negative impact on crop productivity and rainfall, mean temperature relative humidity and solar radiation have shown positive impact on rice productivity. Moreover, the significance value (P-Value) which is 0.000<0.05 and it confirms the acceptance of hypothesis undertaken which means that there is direct relationship between climatic parameters and rice productivity.

While analyzing regression analysis it is found that Multiple ‘R’, ‘R²’ and adjusted ‘R²’ values are more than 0.95, hence, the productivity of rice is dependent on rainfall, temperature, relative humidity and solar radiation. Apart from this obtained significance ‘F’ value is 0.000 which is less than 0.05. It was reported that there is more than 0.95 per cent regression.

Table 1.2: Variability of Climatic Parameters in the Rice Producing Area of Pune Division (1979-2013)

Months	Climatic Parameters	Rainfall (in mm)	Max. Temp. (in °C)	Mini. Temp. (in °C)	Mean Temp. (in °C)	Relative Humidity (in %)	Solar Radiation (MJ/M ²)
June	Mean	481.81	27.56	21.93	24.75	84.94	14.26
	S. D.	122.90	1.88	0.34	1.06	4.73	2.60
	C.V.	25.51	6.84	1.56	4.29	5.57	18.20
July	Mean	598.12	23.67	21.22	22.45	94.94	8.05
	S. D.	144.66	0.60	0.32	0.39	1.35	1.93
	C.V.	24.19	2.52	1.49	1.74	1.42	23.94
August	Mean	507.37	23.54	20.72	22.13	95.69	8.11
	S. D.	96.42	0.94	0.35	0.53	1.16	1.94
	C.V.	19.00	3.98	1.68	2.40	1.21	23.90
September	Mean	349.58	26.18	19.73	22.96	91.43	15.20
	S. D.	128.64	1.12	0.66	0.54	2.77	2.59
	C.V.	36.80	4.28	3.33	2.35	3.03	17.04
October	Mean	169.07	29.31	18.58	23.92	75.51	18.19
	S. D.	97.04	1.45	0.73	0.79	7.00	1.31
	C.V.	57.40	4.94	3.91	3.30	9.27	7.21
Average	Mean	2105.95	26.05	20.44	23.24	88.51	12.76
	S. D.	117.93	1.20	0.48	0.66	3.40	2.07
	C.V.	32.58	4.51	2.39	2.82	4.10	18.06

Source: The Global Weather Data (1979 to 2013)

Table 1.3: Regression Statistics of Rice

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.980
R Square	0.960
Adjusted R Square	0.952
Standard Error	0.181
Observations	35

ANOVA

	Difference	Sum of Square	Mean of Square	Frequency	Significance Frequency
Regression	6	24.113	4.019	122.924	0.000
Residual	28	1.014	0.033		
Total	34	25.127			

Source: The researcher computation through Microsoft Excel 2010

	Coefficients	Standard Error	t Stat	P-Value	Lower 95%	Upper 95%
Intercept	7.781	3.431	2.268	0.030	0.783	14.778
Rainfall (mm)	0.394	0.233	1.690	0.101	-0.081	0.869
Maximum Temp.(0C)	-18.139	8.630	-2.102	0.044	-35.741	-0.537
Minimum Temp.(0C)	-16.221	5.409	-2.999	0.005	-27.254	-5.188
Mean Temp.(0C)	33.236	13.119	2.534	0.017	6.481	59.992
Relative Humidity (%)	0.002	0.040	0.051	0.959	-0.079	0.083

Solar Radiation (MJ/MJ ²)	0.056	0.543	0.102	0.919	-1.052	1.164
---------------------------------------	-------	-------	-------	-------	--------	-------

VIII. MATRIX CORRELATION ANALYSIS OF RICE

The rice productivity is in kg/ha and its matrix co-relation with rainfall (mm), temperature (°C), relative humidity (%) and solar radiation (MJ/MJ²). The co-efficient of co-relation showed in the Table No. 1.4, it is observed in relation of rainfall and rice productivity was 0.969. It clearly designates the very high perfect positive correlation with high significance.

Table 1.4: Correlation Matrix of Climatic Indicators Influencing Rice Productivity

Sr. No.	Matrix Correlation	Productivity kg/ha	Rainfall (mm)	Maximum Temp. (°C)	Minimum Temp. (°C)	Mean Temp. (°C)	Relative Humidity	Solar Radiation (MJ/MJ ²)
1	Productivity kg/ha	1						
2	Rainfall (mm.)	0.969	1					
3	Maximum Temp.(°C)	0.786	0.769	1				
4	Minimum Temp.(°C)	0.776	0.762	0.999	1			
5	Mean Temp.(°C)	0.788	0.773	1.000	1.000	1		
6	Relative Humidity	-0.203	-0.199	-0.212	-0.210	-0.212	1	
7	Solar Radiation (MJ/MJ ²)	0.436	0.387	0.879	0.880	0.875	-0.158	1

Source: The researcher computed with the help Microsoft Excel 2010

The co-relation of temperature with rice productivity is highly positive and it is observed 0.786 with maximum temperature, 0.776 with minimum temperature and 0.788 with mean temperature. The co-relation matrix between rice and relative humidity was -0.203 moderate negative values of co-efficient of correlation. The solar radiation was 0.436 and it is moderately correlated with rice productivity.

The Table No. 1.4 showed correlation matrix of climatic indicators, which influences directly on the productivity of rice. It is observed that the productivity of rice is highly affected by rainfall and it is followed by temperature and solar radiation. It is observed that relative humidity is negatively very low correlated with rice yield.

IX. IMPACT OF CLIMATE CONDITION ON RICE YIELD

The results of changes in rainfall, maximum and minimum temperature, humidity and solar radiation and its impact on rice productivity have given below:

a. Annual Change

The climatic changes may directly affect rice plant growth through changes in air temperature, precipitation, relative humidity and solar radiation (Subrahmanyam, 2014). The researcher has attempted to assess the change in rainfall, maximum and minimum temperature and humidity on rice yield for 35 years 1979 to 2013. The results of rice productivity have discussed in relation to rainfall, maximum and minimum temperature, humidity and solar radiation for the period June to October of ‘Kharif’ season. The mean monsoonal rainfall was recorded 2105.94 mm, in 2011, the maximum rainfall was observed 2707.04 mm, whereas minimum rainfall was observed 1596.18 mm in 1992. The coefficient of variation is 16.15 and standard deviation is 340.13 mm. The average temperature for 35 years was found to be 26.05°C as a maximum temperature, 20.44°C minimum temperature and 23.24°C mean temperature. The data shows that among the considered years the highest average maximum temperature was 27.33°C observed in 1992 and the minimum temperature (19.43°C) in 1985. As far as mean temperature is concerned, higher value (23.88°C) was found in 2002 and lower value (22.2°C) in 1990. The overall coefficient of variability was found as maximum temperature (2.60%), minimum temperature (1.74%) and mean temperature (1.83 %) with standard deviation was 0.68, 0.36, and 1.75 respectively. During 1979 to 2013, the mean relative humidity was found 88.50 per cent. The analysis of data showed that maximum 93 per cent humidity in 1990 and minimum relative humidity 85 per cent was found in the years 1985 and 2002. The overall coefficient of variability in relative humidity was 1.83 per cent with standard deviation 2.02. The mean solar radiation was observed 12.76 MJ/MJ². The maximum solar radiation 14.90 MJ/MJ² was reported in 2000 and in 1990, minimum solar radiation was 9.85/MJ². The overall coefficient of variability of solar radiation was 9.74 per cent and standard deviation was 1.24. The average production of rice was 1674.3

kg/ha in the last 35 years. The maximum rice production (2707.04 kg/ha) was observed in 2011 and minimum production (1596.18 kg/ha) in 1992. The overall coefficient of variability of rice production was 15.34 per cent with its 256.87 standard deviation.

b. Five Year Change

Researcher has attempts to study the climatic condition of 1979 to 2013 (35 years) and rice production. For this purpose, researcher has been considered rainfall, maximum temperature, minimum temperature, humidity and solar radiation parameters and how these parameters influencing on rice production with the help of correlation.

Table 1.5: Climatic Condition and Rice Yield

Years	Productivity kg. /Ha	Rainfall mm	Mini. Temp. °C	Maxi. Temp. °C	Mean Temp. °C	Humidity (%)	Solar MJ/MJ ²
A	10.00	-351.51	-0.58	-0.17	-0.35	0.00	0.66
B	180.60	419.26	0.35	-0.16	0.10	1.20	-1.17
C	97.60	153.25	0.24	0.26	0.25	0.40	0.89
D	-14.80	-655.87	-0.09	0.54	0.23	-2.00	1.13
E	205.60	219.71	0.04	-0.09	-0.03	-0.40	-1.01
F	57.00	308.42	-0.09	-0.15	-0.12	2.80	-0.47
Coefficient of Correlation (R ²)		0.80	0.66	-0.46	0.15	0.26	-0.82

Source: Based on the Global Weather Data and Socio- Economic Abstract (1979-2013)

(Note: Years: A 1979-83 to 1984-88, B 1984-88 to 1989-93, C 1989-93 to 1994-98
D 1994-98 to 1999-03, E 1999-03 to 2004-08, F 2004-08 to 2009-13)

Rainfall

The correlation between rice production and monsoon rainfall showed that there is a high positive correlation between rice yield and rainfall during June to September (Tanaka, 1976). Extreme rainfall variability triggers environmental problems such as flood, gully erosion, drought and desertification, which have serious effect on the yield of rice (Ogbuene, 2010). The impact of five years average variations of rainfall on rice yield is shown in the Table No. 1.5 and fig 1.2. It is observed from the analysis that there are maximum positive increases in rice yield (205.60 kg/ha) during the year 1999-03 to 2004-08 (E), significant decrease has been observed in rice yield (-14.80 kg/ha) in the period 1994-98 to 1999-03 (D).

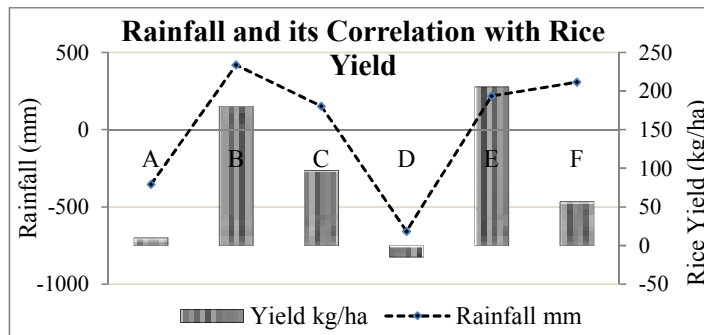


Figure 1.2

Figure 1.2 shows that the rainfall and its correlation with yield of rice. The production of rice was decreased during A and D period because rainfall was decreased by 3000 mm to 6000 mm than average. During the period B and E reported increase in rainfall by 2000 mm to 4000 mm and it is naturally support to increase in rice production nearly 170 to 200 Kg/he. This fact and figures indicate that rainfall is an essential climatic element for the growth and production of rice.

Temperature

Rice plants are more sensitive with high temperature during critical stage i.e., seed development and flowering. High temperature makes better plant growth rate and could reduce growth duration leading to shorter grain filling period which varies from 25 days in the tropics to 35 days in the temperate zone (Swaminathan, 1984). The increase in daily maximum temperature averaged over flowering period above 36°C, rice yield is decreases because of spikelet sterility induced by high temperatures. An increase in temperature will decrease the life span, grain yield, maximum leaf area index, biomass, and straw of the rice. This critical temperature differs according to variety, duration of critical temperature, diurnal changes and physiological changes of plant (Sridevi and Chellamuthu, 2015). The rice crop is adversely affected by high temperature in the lower elevation of the tropics and by lower temperature in the temperate regions.

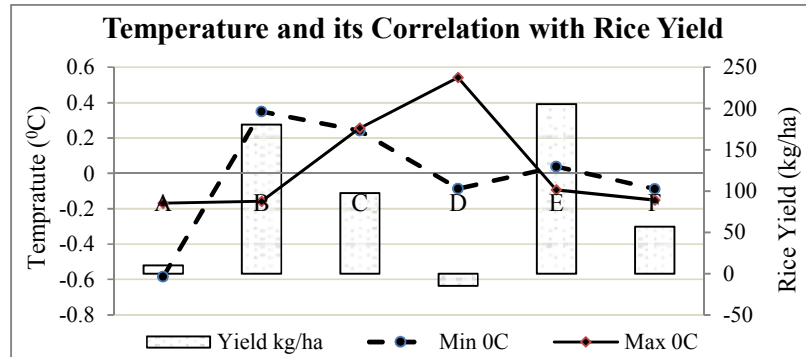


Figure 1.3

Due to the changes in maximum and minimum temperature yield of rice also changed and it is shown through the Table No. 1.5 and figure 1.3. The highest maximum temperature (0.54 °C) was observed during the period 1994-98 to 1999-03 (D) and it resulted to decreases rice yield (-14.80 kg/ha). The lowest maximum temperature (-0.09 °C) was observed during 1999-03 to 2004-08 (E) and it was fevered to increases rice yield (205.60 kg/ha). The highest minimum temperature (0.35 °C) was observed during 1984-88 to 1989-93 (B) and it helps to increases rice yield (180.60 kg/ha). The lowest minimum temperature (-0.04 °C) was observed during the period 1999-03 to 2004-08 (E) which was showed an increase in rice yield (205.60 kg/ha). It is observed that the temperature has deep correlation with yield of rice. Maximum and minimum temperature effects on the productivity of rice. It is observed that when maximum temperature increases by 0.3°C and minimum temperature decreases by -0.15°C from average temperature which result decrease in productivity of rice.

Relative Humidity

Optimum relative humidity for rice cultivation lies between 60 to 80 per cent (Nguyen, 2016). The Table No. 1.5 and fig.1.4 showed the changes in humidity and rice yield. Maximum decreases in humidity (-2 %) was observed during 1994-98 to 199-03 (D) and it decreased the rice yield (180.60 kg/ha). The maximum increase in relative humidity (2.80 %) was observed during 2004 -08 to 2009-13 (F) and it helps to increases rice yield (57 kg/ha).

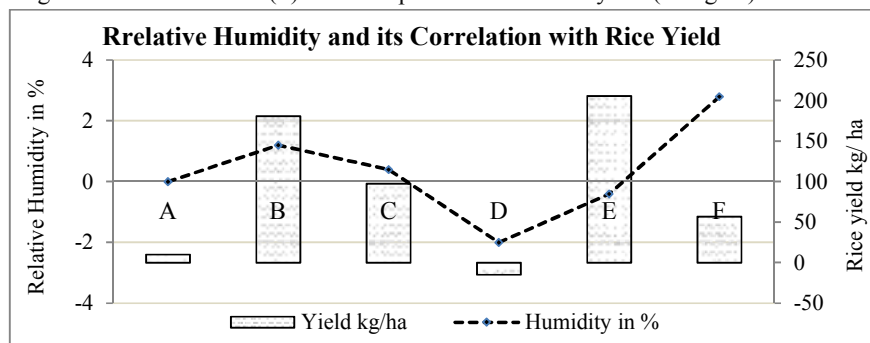


Figure 1.4

It is clear from the figure 1.4, the amount of relative humidity was increased during the period A and F and it effect on productivity of rice which showed decrease in rice yield. In D period, relative humidity was remarkably coming down

up to -0.2 per cent from average relative humidity and its result was seen in drop off rice yield. It was also observed during the period B, C and E, the relative humidity has depletion (1.0 to 0.2 %) from average relative humidity doesn't effect on productivity of rice but it fever to increase the productivity of rice. In the same period (B, C, and E) rice production reported 100 to 200 kg/ha. If fluctuation in humidity is increases then it affects rice crop significantly.

Solar Radiation

Solar radiation intercepted in rice canopy plays a major role in determining biomass and grain yield. The requirement of solar radiation is differed according to rice crop with the phytophases (Yoshida, 1981). The Table No. 1.5 and fig. 1.5 revealed the changes in solar radiation and rice yield. The highest decrease from average in solar radiation (-1.17 MJ/MJ²) was observed during 1984-88 to 1989-93 (B) to decreases rice yield (-54.5 kg/ha). The maximum increase in solar radiation was 1.13MJ/MJ² observed during 1994-98 to 1999-03 (D) and due to this happen rice yield was decreased by -14.80 kg/ha. It was showed that if solar radiation increases from average by 0.5 MJ/MJ² to 1 MJ/MJ² then rice yield is decreased and when solar radiation was decreased by 1 MJ/MJ² then the yield of rice has increased by 150 Kg/hectare.

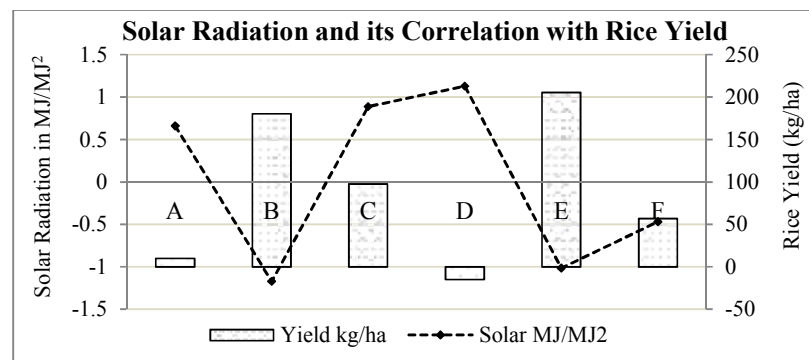


Figure 1.5

The coefficient of correlation of rice yield with climatic factors is depicted in the Table No. 1.5. The co-efficient of correlation of rainfall and rice yield was $R^2=0.80$, which is highly perfect positive correlation. The maximum temperature (-0.46) moderate negative correlation and minimum temperature (0.66) are moderate positive correlation. Relative humidity and rice have (0.26) insignificant correlation and solar radiation is (-0.82) highly negative correlation with rice crop.

X. CONCLUSION

The Rice is cultivated in Kharif season in the study area and hence rainfall plays dominant role particularly the growth and production of rice. The amount of rainfall and its variability highly affects the production of rice. It is observed that the productivity of rice is deeply concern with temperature. If temperature is increases from average maximum temperature, then average production of rice is also decreases. Relative humidity remains more than 70 per cent in monsoon but it doesn't affect this crop but when intensity of solar radiation increases then productivity of rice decreases. Climate plays the major role in the growth and yield of rice on one side and on the other side weather elements (rainfall, temperature and solar radiation) are also influences on the growth, development and yield of rice. Relative humidity and wind velocity influence the crop growth to certain level. The direct effects of rainfall and temperature on rice development especially at flowering stage leading to spikelet sterility. Therefore, yield loss. The rainfall has shifted with an increasing trend during monsoon and almost stationary during other seasons. The rainfall variability has adverse effect on the yield of rice in the Pune division. The Rice cultivation continues to be a risky initiative, in spite of advances made in modern technologies in front of climatic changes.

REFERENCES

- [1] Ogbuene E. B., (2010): Impact of meteorological parameters on rice yield: An approach for environmental resource sustainability in Ebonyi rice farmland, Nigeria. Journal of Environmental Issues and Agriculture in Developing Countries, pp. 103-116

- [2] Food and Agriculture Organization, (2017): Pulses and Climatic condition. Available online. ICAR (Indian Council of Agricultural Research), (2000): Handbook of Agriculture, 5th ed., New Delhi.
- [3] IPCC, (2001): Climatic condition 2001: Impacts, Adaptation, and Vulnerability. The contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climatic condition Cambridge University Press, Cambridge and New York, pp.1032
- [4] Nguyen, T. T., (2016): Genetics of phosphine resistance in the rice weevil *Sitophilus oryzae* (L.) (Coleoptera: Curculionidae), pp. 568.
- [5] Sridevi, V., and Chellamuthu, V., (2015): Impact of weather on rice – A review, International Journal of Applied Research, New Delhi, India pp. 825-831.
- [6] Subrahmanyam, D., (2014): Climatic condition and its Impact on Rice, Rice Knowledge Management, Portal (RKMP) Directorate of Rice Research, Rajendranagar, Hyderabad p.20.
- [7] Tanaka, M., (1976): A Synoptic study on the recent climatic change in Monsoon Asia and its influence on agricultural production. University of Tokyo Press, Tokyo, p 81–100.
- [8] Virmani, S. M., (1982): The physical environment; in Jowar in the Eighties. International Crops Research Institute for the Semi-Arid Tropics, Patancheru, India, pp 83-100

Website:

- [1] <http://www.academicjournals.org>
- [2] http://www.fao.org/fileadmin/user_upload/pulses2016
- [3] <http://www.sugarcane crops.com>.
- [4] <http://www.rice crops.com>.
- [5] <http://www.jowar crops.com>.
- [6] <http://www.ragi crops.com>.
- [7] <http://www.groundnut crops.com>.
- [8] <http://www.pulses crops.com>.
- [9] <http://www.wheat crops.com>.

**International Journal of Advanced Research in Science,
Communication and Technology (IJARSCT)**



TABLE OF CONTENTS

Amphibian Survey from Mahad Tahsil Western Ghats, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	1-5
Survey of Dung Beetles in Mahad Tehsil Western Ghats, Raigad District, Maharashtra, India <i>Tingare Babasaheb Pralhad</i>	6-9
Impact of COVID-19 on Agriculture, Livestock, and Biodiversity: A Review <i>Parinita Kumari and Dr. Vinod R. Ragade</i>	10-15
Impact of Botanical Extracts on Histopathology of Midgut of CSR2 Race of Mulberry Silkworm (<i>Bombyx Mori L.</i>) Inoculated by <i>Staphylococcus Aureus</i> <i>S. J. Patil, S. S. Patil, G. P. Bhawane</i>	16-20
Impact of Climatic Conditions on Rice Crop of Pune Division: A Geographical Analysis <i>B. S. Jadhav and M. B. Hande</i>	21-31
The Study of Phytoplankton and Zooplankton in Freshwater Tulsi Lake, Mandangad, Ratnagiri, Maharashtra, India <i>S. S. Bhaisare</i>	32-37

Study of Avifaunal Diversity from Shendri Reservoir Gadhinglaj, Dist. Kolhapur (M.S.)

K. J. Adate and V. V. Ajagekar

38-44

Development in Pesticides for Control and Prevention of African Giant Snails, Achatina Fulica in Jalgaon, Dapoli Dist. Ratnagiri (M.S.)

Janhavi Vidya Patil and Nanda Bhupal Jagtap

45-51

The Influence of Boron on Some Plant Nutrients in Sweet Sorghum (Sorghum bicolor L.)

Jadhav Sujeet S.

52-57

A Study of Butterfly Diversity in Nandgaon Village and Gulmohar Park in Khed Tehsil District of Ratnagiri (M.S.) India

Ayesha A. Rauf Murudkar and Nanda Bhupal Jagtap

58-68

Impact of COVID-19 Pandemic Lockdown on Fishery Potential of Uran Tehsil, M. S., India

Shital S. Taware, Vishwajeet M. Lagade, Mansi K. Gurav, Ayush D. Koli

69-75

Avifauna of Zambre Reservoir, Chandgad, Dist- Kolhapur (Maharashtra)

Dr. K. N. Nikam

76-81

The Floristic Studies on Narande Sacred Grove Narande, Dist. Kolhapur, Maharashtra

Patil Aparna A and Minchekar Rahul

82-87

Impact of COVID-19 Pandemic on Rivers: A Review

Aishwarya S. Pawar, Sachin J. Pawar, Rutuja A Chavan

88-92

Impact of Disinfectant and Sanitizer on Human and Environment during COVID-19 Pandemic

V. M. Lagade, S. S. Taware, S. V. Lagade, P. S. Pawar, B. S. Wali

93-106

Estimation of the Population Size of Crocodile *Crocodylus palustris* (Lesson, 1831) from Two Incomplete Survey Methods-Daylight Ground Counts and Night Counts

Atigre R. H., S. R. Patil, R. J. Patil, M. G. Babare

107-113

Diversity and Distribution of Agricultural Insect Pest in Some Selected Areas of Indapur (Pune) and Phaltan (Satara) Tehsil, Maharashtra, India

Rupesh B. Yadav, Prajakta D. Khaire, Suryakant V. Maske

114-121

Impact of the COVID-19 Pandemic on the Dairy Farming

Ingavale Dipali Rajaram

122-125

Plant Diversity at Katyayani Temple Area, Kolhapur

P. A. Sonar, V. B. Nalawade, M. N. Desai

126-129

Impact of Social Background on Learning English as a Second Language

Dr. Prashant P. Yadav

130-133

Relation of Physical Fitness Index with Body Mass Index: Study Among Female Students of Balwant College Vita, Dist. Sangli, (M.S.), India

Rahul Patil, Satyawan Patil, Yogita Patil, Rajaram Atigre

134-137

Impact of the Corona Virus Pandemic on Wetland Avifauna Diversity of JAT Region

Dr. S. B. Deshmukh and Dr. M.Y. Kulkarni

138-140

Identification of Some Genera of Family Cucurbitaceae based on Characters of Seeds

S. S. Bhosale, D. G. Jagtap, R. S. Bhosale, S. M. Khandare, A. S. Dhabe

141-145

Seasonal Variation of Phytoplankton Diversity in the Fresh Water Body of Atpadi Lake, Maharashtra

Shivaji M. Vibhute

146-150

- Ichthyofaunal Diversity of Atpadi Lake, Tal- Atpadi, Dist-Sangli (MS) India**
Shivaji M. Vibhute 151-154
- Seasonal Variation of Physicochemical Parameters in Perennial Tank of Atpadi, Maharashtra**
Shivaji M. Vibhute 155-161
- Biology of Apanteles Baoris Wilkinson (Hymenoptera: Braconide) A Larval Parasitoid of Chapra Maathas Fab**
T. M. Chougale 162-166
- Diversity of Braconid Parasitoids (Hymenoptera: Braconide) of Horticultural Insect Pests from Kolhapur, Maharashtra**
T. R. Patil and T. M. Chougale 167-171
- Total Lipid Alteration Gill and Muscle of Fingerlings of Freshwater Fish Labeo Rohita Fed on Formulated Feed**
V.B. Nalawade, M.P. Bhilave, M. N. Desai 172-176
- Impact of COVID-19 Pandemic on Animal Husbandry: A Review**
S. G. Patil and N. A. Patel 177-186
- Influence of Ipomoea muricata (L)Jacq. Weed Manure on The Aerial Biomass of Maize Crop**
Sangita Anandrao Ghadge 187-193

Impact of COVID-19 Pandemic on Rivers: A Review

Aishwarya S. Pawar¹, Sachin J. Pawar², Rutuja A Chavan³

Department of Zoology, Shri. Vijaysinha Yadav College, Peth Vadgaon, Kolhapur (MS)¹

Department of Physics, Shri. Vijaysinha Yadav College, Peth Vadgaon, Kolhapur (MS)²

Green Nanotechnology Laboratory, Department of Chemistry, Shivaji University, Kolhapur³

Abstract: *The COVID-19 pandemic had a significant impact on several environmental aspects as well as human life. Due to the severity of the pandemic, the whole planet went into absolute lockdown, limiting human mobility in order to stop the corona virus from spreading. As all forms of industrial, commercial, and social activity ceased, environmental conditions such as air quality and water quality, which had been gravely harmed by pollution, greatly improved. Nature was able to cure itself as a result of this. The indicators of environmental improvement might be seen in different elements of nature. The influence of COVID-19 on rivers is highlighted in this review. Rivers are vital to the survival of life on Earth, contributing to agriculture and biodiversity. Despite the world's socio-cultural and economic progress being restricted, the environment's health, particularly water, has greatly improved. During the lockdown, companies near the river's catchment region were shut down, resulting in a dramatic improvement in water quality. Because of the lockdown and travel limitations, anthropogenic activities on the river ecology were kept to a minimum, preventing contamination. The purpose of this review is to discuss the influence of the COVID-19 Pandemic on rivers, and the conclusion is that "Although corona virus vaccine is accessible for people, corona virus is itself Earth's vaccine."*

Keywords: COVID-19, Pandemic, Lockdown, Corona virus, Rivers, etc.

I. INTRODUCTION

The first case of COVID-19 was recorded in India on January 30th, and due to an increase in the number of positive cases, a state-wide 14-hour voluntary curfew was imposed on March 22nd. The curfew was initially extended for another 21 days, from March 25th to April 14th. This lockdown forced people to stay at home by closing schools, industries, companies, marketplaces, and religious and social events. It halted all types of travel, except for emergencies, and closed national and international borders. The lockdown was prolonged in stages until June 8, 2020, with a total of 75 days of lockdown completed under very stringent constraints, and the country came to a halt during this timeframe. [1] The World Health Organization (WHO) recommended keeping social distance in this hazardous situation, and people were required to wear face masks. The majority of countries declared a 'lockdown' to prevent public transmission and break the infection cycle. Almost all sectors have been momentarily congested as a result of the lockout. The Indian blackout lowered all human activity, resulting in lower emissions and a reduction in the creation of industrial waste and other pollutants in metropolitan areas. Water is one of the most vital life-sustaining components of the environment, providing energy to all biotic and abiotic elements of the ecosphere while also maintaining environmental balance.

In normal times, different human activities such as industrialization, urbanization, agricultural practice, and overexploitation have severely degraded this natural resource. However, because of the lack of mixing of industrial effluent, solid waste, heavy metals, and other pollutants in the aquatic environment during the lockdown time, the contamination level in the aquatic ecosystem has been significantly reduced. [2] In developing nations like India and Bangladesh, where residential and industrial wastes are discharged into rivers without treatment, water pollution is a typical occurrence. During this closure, the primary industrial sources of pollutants shrank or ceased entirely, helping to lower pollution levels [3-4]. Most rivers and streams have been contaminated to a critical degree for the sake of economic progress, making treatment impossible. Every day, about 40 million liters of wastewater are projected to reach rivers and other aquatic bodies, with just 37% being fully cleaned. The review highlights the influence of COVID-19 on rivers.

II. METHODOLOGY

This research was carried out by studying the literature, case studies, and material from various government and non-government organizations' papers and official websites. The facts and information pertinent to the consequences of the COVID-19 pandemic on waterways are compiled and presented in this paper.

Effect of Covid Pandemic on some rivers

Anthropogenic activities are known to be one of the primary drivers of pollution within various spheres of the environment. Researchers have emphasized that the lockdown period has drastically reduced industrial waste generation, industrial pollution, and the addition of heavy metals and plastic to the hydrosphere through different sources[5-7]. Thus, at the time when COVID-19 crippled Italy, the Grand Canal in Italy became much clear and some aquatic species reappeared [4]. These findings are similar to the case of the rivers in India, which were found to be cleaner during the lockdown period in India [8]. The following are some findings on rivers Godavari Krishna Tapi and Narmada of Maharashtra.

1. River Godavari

The river Godavari is the second largest river in the Indian Union. The Godavari rises in the Western Ghats at Triambak near Nasik, about 113 km northeast of Bombay and only 80 km from the Arabian Sea. After descending the Western Ghats, it takes a south-easterly course across the southern part of the Indian peninsula and flows through 1,230 km, and falls into the Bay of Bengal about 80 km east of Rajahmundry. The total catchment area drained by the river is 312,812 km² or nearly one-tenth of India. The catchment in Maharashtra is about 152,199 km². The average annual flow (50% dependable flow) of the Godavari basin has been estimated as 110.5 km³, whereas the utilizable flow (75% dependable flow) is about 76.3 km³. The present utilization is only about 39 km³, which is hardly 50% (Carg 1999). The Godavari River passes through the industrially developed Maharashtran city of Nashik.

In addition, 125 large and 350 medium scale units and about 2,500 small scale units are also presently working in the industrial estate and are located in the upper part of the city and on the banks of the river. This industrial development has resulted in the massive growth of some other industries like laundry, hotels, restaurants, pathological laboratories, nursing homes, etc. The river water is presently being used for domestic purposes such as drinking, bathing, cleaning, cooling, and others, and untreated sewage and industrial effluents together with solid wastes are finding their way directly into the river [9]. Therefore, Godavari River is highly polluted but the lock-down period was a detoxification period which ultimately resulted in an improvement in water quality. Researchers analyzed the water quality by employing various parameters like pH, Dissolved Oxygen (DO), Biological oxygen demand (BOD), and faecal coliform (FC).

The results obtained were comparatively studied before and after lockdown. Thus, pre-lockdown pH ranged from 7.1 to 8.1, while DO range from 3.1 to 6.9 (mg/L), BOD was between 2.2 to 8.8 (mg/L) and FC was between 2 to 70 MPN/100mL. The extreme change was observed during the lockdown in DO which ranged between 5 to 6.8 (mg/L), while BOD was in the range of 2.4 to 6.2 (mg/L) and FC was reduced within the range of 2 to 47 MPN/100mL. No major change was observed in pH. The improvement in the water quality was due to the closure of industrial units, various domestic activities, etc

2. River Krishna

Krishna River is the second largest river in the southern part of India in terms of water inflows and basin area, after the Godavari. Fig. 1 represents the location map of the study area. Lakshman Kumar et.al. The length of the Krishna River is about 1,400 kilometers (870 miles) and has a catchment area of 76252 (sq.km.) in both Andhra Pradesh and Telangana. The Krishna River is one of the prime sources of irrigation for Maharashtra, Karnataka, Telangana, and Andhra Pradesh.

The main tributaries of the Krishna River are the Ghataprabha River, Malaprabha River, Bhima River, Tungabhadra River, and Musi River. The major dams/ reservoirs/ weirs across the main river course are Sunkeshula, Srisailam, Nagarjuna Sagar, and Prakasam barrage. It causes heavy soil erosion during the monsoon

periods. During its 810 miles large flow it provides valuable freshwater, that is found as a major source of drinking, irrigation, and industrial activities for the nearby situated villages and cities. However, in return rivers get a large amount of domestic and agricultural sewage along with industrial effluents. So, now the river is facing the serious problem of water pollution which further causes severe health impairments to humans along with the aquatic flora and fauna of the river. [10] Based on the analytical results of the samples collected from river Godavari, the observations made before lockdown were, pH 7.0 to 8.3, DO 6 to 6.7 mg/L, BOD 1.8 to 6.3mg/L and FC 7- 200 MPN/100mL, and during the lockdown, the river was clearer and showed a change in the parameters as pH 7.2 to 8.2, DO was between 6.6 to 6.7 mg/L, BOD was between 1.5 to 1.6 mg/L and FC was 17 MPN/L. This indicates the improvement of the quality of water during the lockdown.

3. River Tapi

Tapi is one of Peninsular India's major rivers, running from east to west for 724 kilometres. The Tapi river begins at a height of approximately 752 metres near Multai in Madhya Pradesh's Betul district and runs for about 724 kilometres before emptying into the Arabian Sea through the Gulf of Cambay. The Tapi is the second-largest westward draining inter-state river basin. It covers a large area in the State of Maharashtra. The Tapi River drains an area of 65145 sq km out of which nearly 80 percent lies in Maharashtra. The Tapi Basin is situated in the northern part of the Deccan Plateau and extends over an area of 65145 sqkm which is nearly 2% of the total geographical area of the country. Nearly 80% of the basin lies in the State of Maharashtra.

The dumping of untreated water and garbage into Tapi by more than 150 industrial units under the control of the Surat Urban Development Authority (SUDA) is a major cause of contamination of river water. Around 87 settlements in the SUDA boundaries, both upstream and downstream of the river, discharge sewage into it. The main source of pollution in the Tapi river is the discharge of trash and effluents. The parameters before and after the lockdown on the Tapi river were compared during the pollution assessment to see how the lockout affected the river's water quality.

Tapi During Prelockdown, the pH was 7.8, the DO was 5.8 to 6 mg/L, the BOD was 3.2 to 4.0, and the FC was 14-17 MPN/100ml. Due to the closure of major enterprises and institutes, as well as the cessation of human activity and absolute lockdown, most industries and institutes have been closed. During lockdown the pH was between 7.7 to 7.8 which did not show any significant change, the DO measured was in the range of 6.2 to 6.7 mg/L, BOD was between 2.8 to 4 mg/L and FC was between 11 to 13MPN/100ml.

4. River Narmada

The Narmada is Peninsular India's greatest west-flowing river. It rises at an elevation of roughly 1057 metres from the Maikala range near Amarkantak in Madhya Pradesh's Anuppur district. The river runs in Madhya Pradesh for the first 1079 kilometres before forming the common border between Madhya Pradesh and Maharashtra for 35 kilometres and Maharashtra and Gujarat for 39 kilometres. It is 159 kilometres long in Gujarat State. Through the Gulf of Khambhat, the Narmada empties into the Arabian Sea. The major part of the basin is covered by agriculture accounting for 56.90%. Water bodies cover 2.95% of the total basin area. It flows 1,312 km west through the states of Madhya Pradesh, Maharashtra, and Gujarat, of which 1,077 km is within Madhya Pradesh [11] The Narmada is bordered by lush woodland in its higher reaches, around Amarkantak.

It goes from Amarkantak's hills to Dindori, Mandala, Jabalpur, Narsinghpur, and Hoshangabad, meeting the water needs of the region's enormous population (Census of India, 2011). The Narmada, like other important rivers in India, such as the Ganges and the Yamuna, is being harmed by pollution sources between Amarkantak and Hoshangabad. Religious activities, public gatherings, swimming, and home effluent discharges are all possible sources of threats (see Table 2).

Farming practices in the Narmada watershed are intense, around 100 kilometres from its source, and may contribute to pollution through surface runoff. Small drains on the riverbanks also discharge sewage into the river from industrial activity, restaurants, and resorts. Along the river, major towns/cities like as Dindori, Mandala, and Narsinghpur lack sewage treatment systems, exposing the river to sewage contamination.

[12] The assessment of the water of Narmada before lockdown and during lockdown revealed improvement in the water quality. The samples analyzed showed pH 8 before lockdown and pH 7.6 during the lockdown, the DO value prelockdown was 5.38mg/L and during lockdown was 7.6 mg/L, and the BOD values were 1.09 mg/L before lockdown and 1mg/L during the lockdown. This data indicates that the lockdown period was the recovery period.

Table 1: Summarise changes in river pre- lockdown and during lockdown (Source: Assessment of Impact of Lockdown on Water Quality of Major Rivers. CENTRAL POLLUTION CONTROL BOARD, Ministry of Environment, Forest & Climate Change, Parivesh Bhawan, East Arjun Nagar, DELHI-110032, September 23, 2020)

Rivers	Durations	pH	DO (mg/L)	BOD (mg/L)	FC (MPN/100mL)
Godavari River	Pre- lockdown	7.1 - 8.1	3.1 - 6.9	2.2 - 8.8	2 - 70
	During lockdown	7.0 - 8.1	5.0 - 6.8	2.4 - 6.2	2 - 47
Krishna River	Pre- lockdown	7.0 - 8.3	6.0-6.7	1.8 - 6.3	7 - 200
	During lockdown	7.2 - 8.2	6.6-6.7	1.5 -1.6	17
Tapi River	Pre- lockdown	7.8 - 7.8	5.8 - 6	3.2 - 4.0	14 - 17
	During lockdown	7.7 - 7.8	6.2-6.7	2.8 - 4.0	11- 13
Narmada River	Pre- lockdown	8.0	5.38	1.09	-
	During lockdown	7.6	7.6	1	-

III. CONCLUSION

After analysing the different reports stated earlier, it can be concluded that while COVID-19 has surely provided humans with a terrifying experience, it has also shown to be a boon for the natural world, giving it with a "healing time." Although corona virus vaccine is accessible for people, corona virus is itself Earth's vaccine" this statement is bit proved by above findings. "Recovery in the water" has been documented in just 1–2 months. This is a signal for us to recognise and respond to. However, because the rivers are surrounded by large urban or rural populations, the contaminants may eventually start degrading the water quality again, and the improvement obtained during the lockdown would not last for long. As a result, policymakers should take note of the improved water quality conditions as a result of the cessation of human activities and organise awareness campaigns and future actions appropriately.

REFERENCES

- [1] S. Singh, D. Roy, K. Sinha, S. Parveen, G. Sharma, G. Joshi, Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations, *Psychiatry Research*, 293 (2020) 113429.
- [2] D.-P. Häder, A.T. Banaszak, V.E. Villafañe, M.A. Narvarte, R.A. González, E.W. Helbling, Anthropogenic pollution of aquatic ecosystems: Emerging problems with global implications, *Science of The Total Environment*, 713 (2020) 136586.
- [3] T. Rume, S.M.D.-U. Islam, Environmental effects of COVID-19 pandemic and potential strategies of sustainability, *Heliyon*, 6 (2020) e04965-e04965.
- [4] A.P. Yunus, Y. Masago, Y. Hijioka, COVID-19 and surface water quality: Improved lake water quality during the lockdown, *Science of The Total Environment*, 731 (2020) 139012.
- [5] H. Akimoto, *Global Air Quality and Pollution*, Sci., 302 (2003) 1716-1719.
- [6] R. Volkamer, J.L. Jimenez, F. San Martini, K. Dzepina, Q. Zhang, D. Salcedo, L.T. Molina, D.R. Worsnop, M.J. Molina, Secondary organic aerosol formation from anthropogenic air pollution: Rapid and higher than expected, *Geophysical Research Letters*, 33 (2006).

- [7] T.A. Schlacher, S. Lucrezi, R.M. Connolly, C.H. Peterson, B.L. Gilby, B. Maslo, A.D. Olds, S.J. Walker, J.X. Leon, C.M. Huijbers, Human threats to sandy beaches: A meta-analysis of ghost crabs illustrates global anthropogenic impacts, *Estuarine, Coastal and Shelf Science*, 169 (2016) 56-73.
- [8] S. Sharma, A. Gupta, Impact of COVID-19 on Water Quality Index of river Yamuna in Himalayan and upper segment: analysis of monsoon and post-monsoon season, *Applied Water Science*, 12 (2022) 1-8.
- [9] A.D. Chavan, M.P. Sharma, R. Bhargava, Water Quality Assessment of the Godavari River, *Hydro Nepal: Journal of Water, Energy and Environment*, 5 (2010) 31-34.
- [10] S.S. Gaikwad, P.P. Chavan, N.A. Kamble, Surface water quality of the River Krishna, Sangli District, Maharashtra, India, *Octa J Environ Res*, 4 (2016) 167-177.
- [11] H. Gupta, G.J. Chakrapani, K. Selvaraj, S.-J. Kao, The fluvial geochemistry, contributions of silicate, carbonate and saline-alkaline components to chemical weathering flux and controlling parameters: Narmada River (Deccan Traps), India, *Geochimica et Cosmochimica Acta*, 75 (2011) 800-824.
- [12] D. Gupta, R. Shukla, M.P. Barya, G. Singh, V.K. Mishra, Water quality assessment of Narmada River along the different topographical regions of the central India, *Water Science*, 34 (2020) 202-212.