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Editor in Chief:

Dr. Gitanjali Singh
Department of French Studies
Banaras Hindu University, Varanasi
Pin-221005
Email : gitanjalifr@bhu.ac.in

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- **Prof. Devendra Kumar Singh**, Department of French Studies, Faculty of Arts, Banaras Hindu University, Varanasi-221005, India, E-mail: dksingh15@rediffmail.com, (M) +91-9336935545.
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Editorial Board

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- **Prof. Prayaas Chaturvedi**, Department of French Studies, Faculty of Arts, Banaras Hindu University Varanasi-221005, India, E-mail: prayas_bhu@rediffmail.com, (M) +91-9935940364.
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- **Dr. Nidhi Raisinghani**, Department of European Languages, Literature and Culture Studies, University of Rajasthan, Jaipur-302004, India, E-mail: nidhiraisinghani@gmail.com, (M) +91-9636381111.
- **Dr. Sawan Kumar Singh**, Department of Foreign Languages, Faculty of International Studies, Aligarh Muslim University, Aligarh- 202002, India, E-mail: sawansingh2@gmail.com, (M) +91-8318059607.

Sommaire

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- **Mr. Sanhang Mushahary**, Department of Bodo, Bodoland University, Kokrajhar-783370, Assam India.
- **Dr. Savitri Tripathi**, Department of English, Government J.P.Verma P.G. Arts and Commerce College, Bilaspur-495001, Chhattisgarh, India.
- **Ms. Shalini Pandey**, Department of English, Government T.C.L.P.G. College, Janjgir-495668, Chhattisgarh, India.
- **Dr. Shilpi Khandelwal**, Department of Management, JaganNath University, Jaipur-302022, India.
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Gender, Women and Partition in Bapsi Sidhwa's *Ice-Candy-Man*

Shalini Pandey & Savitri Tripathi

Abstract

Bapsi Sidhwa focuses on of partition and its repercussions on women in *Ice-Candy-Man*. It is a seminal work with powerful narratives to address the themes of women's horrible experiences. She has portrayed the traumatic picture of that time making us to feel the pain of humanity. This study will also show the various ways that patriarchy, the system by which men have power and authority over women, affect their lives. How the women are victims of patriarchal oppression, subjugation, marginalization and sexual exploitation in the novel. Sidhwa presents women in the novel as very interesting individuals, both as victims and saviors.

Keywords: Partition, Patriarchy, Suppression, Marginalization, Feminism, Exploitation of women.

Partition of colonial India in 1947, which resulted in the formation of two nation-states, India and Pakistan, at the moment of the country's independence from nearly two centuries of British colonialism, was a violent and gendered experience. Literature on partition gives women voices long before historiography records these experiences. For example, Rajendra Singh Bedi, Rahi Masum Raza, Ishmat Chughtai, Manto, Yashpal, Bhisham Sahni, and Amrita Pritam were documenting the experiences of trauma on unprecedented scales in their stories and novels. Eminent intellectuals like Urvashi Bhutalia, Ashish Nandi Veena Das, Kamla Bhasim, Ritu Menon, Gyanendra Pandey, and activists like Anis Rizvi later corroborated the stories. Both sides considered women as symbols of their race's honour, and their disgrace was seen as a betrayal of their faith and culture. Bapsi Sidhwa's novel *Ice-Candy-Man* is all about the changes in the lives of people before and after the partition. It depicts the horrible violence and brutality women endured during partition realistically and sensitively. *Ice-Candy-Man*, was published in USA as *Cracking India*. It is a brave endeavor on the part of a woman writer to tackle a topic that is distinct from the standard subjects that women writers typically examine – romantic relationships and sentimental matters.

The film 1947 Earth, directed by Indo-Canadian filmmaker Deepa Mehta, was based on Bapsi Sidhwa's novel *Ice-Candy-Man*. Through the eyes of a clever child named Lenny, Sidhwa portrays the fate of people in Lahore and the traumatic division of India in her novel. Lenny is an eight-year-old child who has polio. She is a member of the Parsee community. Lenny is, to a large extent, a representation of the author herself.

Afreen Faiyaz writes "The central consciousness of the fictional world of *Ice-Candy-Man* is represented by a young girl, Lenny, who is lame. The lameness of the narrator becomes suggestive of the handicap a woman creative writer faces, when she decides to wield the pen, because writing, being an intellectual exercise, is considered a male bastion, outside the routine of a woman's submissive domesticity. Her recuperation symbolizes the overcoming

of the constraint on the intellectual activity of writing by Bapsi Sidhwa. By making Lenny the narrator of the novel, the novelist lends weight and validity to the feminine perspective on the nature of surrounding reality.” (Faizaz 35)

The novel depicts a large cross-section of Lahore society prior to and after the city’s incorporation into Pakistan. Lenny the novel’s narrator and protagonist, is ostracized because of her gender. At the very outset of the narrative Lenny admits, “My world is compressed.” (Sidhwa 1988, p.1). These words reflect her marginalized and constrained status. In a male-dominated society, her lameness becomes a symbol of her weakness and passivity. But her spirit is unwavering, and she shows no remorse for her disability. Instead, she grows as a brave and fearless young adolescent who sees herself as normal as everyone else, on the other hand she receives some special benefits because of her handicap. The narrative emphasizes women’s awareness because they are the ones who are most affected due to partition. It also highlights their distinct personalities and experiences. Each woman character is a personification of a way of life. The novel’s main female characters are Lenny, her mother, her godmother, Shanta, and the Ayah. The novel’s female protagonists serve as the moral centre, whereas the majority of the male characters are either apathetic or violent. Women pulsate with their own will and life.

Ayah is Lenny’s 18-year-old nanny. Her real name is Shanta which means “peace”. She takes care of Lenny with utmost love and devotion. Lenny spends most of her time with Ayah and her throng of admirers. She is portrayed as a strong lady with complete control over her life and multi – ethnic group of suitors. Lenny observes, “The group around Ayah remains unchanged. Hindu, Muslim, Sikh, Parsee are always unified around her” (Sidhwa 97)

Ice candy man named Dilnawaz is a happy go lucky person. He loves Shanta but she loves Masseur. One day Dilnawaz gets a news that “A train from Gurudaspur has just come in, everyman in it is dead, Butchered. They are no young women among the dead! Only two gunny-bags full of women’s breasts!” (36). He lost his sisters in this incident. After that his entire psyche gets changed. Ice candy man Dilnawaz ends up kidnapping Ayah, who was formerly his object of passion. A fundamentalist mob led by the him finds her at Lenny’s house one day and take her with them. Dilnawaz pushes her into prostitution and then marries her. She was forced to convert to Islam and take the name Mumtaz. Moreover, the very men who once admired and almost worshipped her are now violators of her chastity. She is reduced to the level of a prostitute and a prisoner of the Ice candy man Dilnawaz. According to Godmother, Ayah is “used like a sewer” by “drunk, pedlars, sahib and cut-throats,” with the involvement of Dilnawaz. After her kidnapping, Ayah Shanta’s life was ruined, but her spirit was unbreakable. She desired to berid of Dilnawaz’s grasp. Sidhwa is attempting to express the individual’s helplessness in the aftermath of such a terrible situation in a variety of ways. Various religious factions seek vengeance against one another during partition by rapping or abducting women from the opposite community in order to settle scores. According to Muhammad Ayub Jajja “partition reduces both men and women to perfect binaries: rapists and raped; protectors and protected; villains and victims; buyers and bought; sellers and sold” (Jajja 69)

Butalia and other feminist have shown why women, like the fictitious character Ayah, were so routinely the victims of violence during Partition. Many women were abducted and raped by individuals of different religions before and after Partition. This was carried out not just

by organised violent gangs, but also by commonmen who had previously lived peacefully with their Hindu, Muslim or Sikh neighbours. Butalia claims that these crimes were utilised as a symbol of the new states of India and Pakistan's establishment. As a means of insulting the other side, women were raped. Converting women's religion was, similarly, a technique of degrading and shaming the opposing religious group.⁽¹⁾ Women, according to Kamla Bhasin and Ritu Menon, became "symbolic of crossing borders, of violating social, cultural, and political boundaries." If women represent the purity of a nation, then their "violation" is a threat to that purity. In this way, rape became highly politicised during Partition. The savage treatment to women and children in a fit of communal rage essentially shows the gender gap, which is more absolute and hostile than racial fundamentalism. Lenny says "One man's religion is another man's poison."⁽¹¹⁷⁾ Women frequently committed suicide as a result of their shame. Other times, they ended their own lives out of concern that their own male family members would kill them to "purify" their honour if they were found. Ayah is kidnapped and gang raped. She refuses to think, however, that this makes her any less "pure." She decides to cross over to India after being liberated from Dilnawaz, despite the fact that her family may not accept her. She refuses to think that women's bodies represent the nation or religious community in this way. She insists that she is merely a person, not a symbol. She says: "whether they want me or not, I will go." (Sidhwa, 267) Ayah's self-awareness and willingness to return to her hometown give her optimism that she would be embraced by her family.

Through the character of Ayah, Sidhwa depicts the impact of partition on women's lives and bodies, particularly the double impact of British colonialism. Ayah had a lot of suitors before division, Muslim and non-Muslim men, including Masseur. However, she is just a devastated and abused woman post-partition. Ayah is not just one lady; she is a symbol for thousands of other women who have survived the chaos of 1947 in India, which can be considered the biggest religious riot in human history. She is eventually liberated from Dilnawaz through Godmother's efforts, and she travels to India in search of her relatives. Her visit to India to see her family isn't a return to safety because she's not sure how she'll be received there. But, because of her fortitude, dedication and Godmother's assistance, she survives and dares to set herself free, eventually returning to India to rejoin with her family in Amritsar, the novel finishes on a hopeful note.

S.T. Waughmode says that "women strive to come out of their plight and finally move forward from their degraded and tormented state to start their lives afresh" (Waughmode 5).

Ice-Candy-Man is a significant testament of a true picture of the society where women are oppressed and marginalized by the men. Sidhwa presents feminine psyche and experiences in a unique style through various female characters who are aware and very confident of their individuality. Picture of violence targeted at women is unprecedented. Sidhwa describes the events leading up to the partition in a harsh and ferocious manner. The novel also includes certain Iconic images of partition such as burning houses, train coaches full of dead bodies, the horrible screams and wails of women being raped, and gunny sacks full of chopped-off breasts. Another image occurred when Rana viewed in semi-conscious state the rioters rapping his sister after killing all of the family's men.

Sidhwa also discusses the forced marriage of children to old and morally defective males, as well as the gender bias that female children face even from their own families. The novel

depicts how patriarchy, the system in which men wield power and control over women, impacts women's lives in numerous ways. This is demonstrated to be a more universal and older form of violence than Partition, along with element of how religious groups' intercommunal tensions are expressed. Papoo, for example, is married off to a considerably older man. She is forced into marriage and is drugged by her family to prevent her from objecting.

Sidhwa expresses her feminine sensitivity and concerns about women's issues, notably persecution and subjugation in patriarchal societies. The primary characters in this work are largely women and each of them represents a way of life that either colludes with patriarchal ideas, such as Lenny's mother, Mucho and the Slave sisters or fights patriarchal repression in the most modest manner. However, as the narrative progresses, they change significantly. Lenny's mother is a humanitarian crusader who works behind Lenny's back to reconcile abducted women with their families. The 'woman as victim' theme has been a prominent element in Partition literature. Bapsi Sidhwa has made major contributions to partition literature. Subhash Chandra observes about Sidhwa's *Ice-Candy-Man* that "novel becomes a significant testament of gynocentric view of reality in which the feminine psyche and experiences are presented with unique freshness and aplomb."

During Partition, many religious parties sought vengeance by rapping or kidnapping the women of the opposing communities. Women who had been rescued were frequently taken to these camps in the hopes of being reunited with their family, but instead ended up in shelter homes since their relatives refused to accept them. What the most heart rendering fact was that women, once they fall prey to men's violence like Lenny's two Ayahs Shanta and Hamida cannot hope for their restitution to their own families as they did not want them back as if they are responsible for crime against themselves. They were called 'Fallen women'. The following conversation between Lenny and her Godmother is pathetic one in the whole novel: "What a fallen woman?" I ask godmother... "Hamida (the second Ayah) was kidnapped by the Sikhs", Says godmother seriously... When that happens sometimes, the husband – or his family won't take her back." "Why? It isn't her fault she was kidnapped." "Some folk feel that way – they can't stand their woman being touched by other men." (Page, 215). Women are treated as property. When Ice-candy-man kidnaps Ayah, Lenny is also confronted with the reality of how society governs women. As the people around her refer to it as "fate," Lenny ponders. "I've seen Ayah carried away – and it had less to do with 'fate' than with the will of men." (214)

Women's relationships to their families, communities, the nation, and the state were all shaped by gendered dynamics during partition. Bapsi Sidhwa, an international acclaimed novelist continues to be a powerful voice among modern feminist writers who examines the role of women in patriarchal societies on a regular basis. Shashi Tharoor says applauding Sidhwa "In reducing partition to the perceptions of a polio-ridden child, a girl who tries to wrench out her tongue because it is unable to lie, Bapsi Sidhwa has given us in "Cracking India" a memorable book, one that confirms her reputation as Pakistan's finest English-language novelist."

In *Ice-Candy-Man* Bapsi Sidhwa reveals oppressive societal norms that have stifled women's growth and development, as well as women's psychology that has been shaped by generations of training. She shows women not only as victims, but also as rescuers

and survivors. *Ice-Candy-Man* becomes a feminist text in the genuine sense of the word, underlining concerns about women's struggles, including victimization and oppression in patriarchal culture. It may be claimed that Sidhwa has represented them in two ways. Despite the fact that they are victims of patriarchal tyranny, they are able to oppose the patriarchal system when necessary. They defy traditional gender stereotypes and take a step towards gaining power. As a result, the female characters demonstrate their female autonomy while maintaining their independence. Sidhwa's work presents a unique perspective in which women are not completely submissive to patriarchy, but rather demonstrate and establish their character strength and struggle to fight for their rights.

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Spatial Manifestation of Inter and Intra-Gender Struggle for Power Analyzing Ambai's *A Kitchen in the Corner of the House*

Rama Hirawat

Kitchen mirrors more effectively than any other room in the house the great social changes that have taken place in the last hundred years.¹

— Terence Conran

The hum of the kitchen reverberates across women time-past, time-present, and time-future: the source of comfort and potential site of contestation. (217)

— Sandra Buckley

Food is the essential need of living things and the invention of cooking is human's point of distinction from the other organisms and our four-legged ancestors. As anthropologist Levi-Strauss in his *The Raw and The Cooked* holds:

Cooking establishes the difference between animals and people ... not only does cooking marks the transition from nature to culture but through it and by means of it the human state can be defined with all its attributes. (164)

Cooking not only marks the transition from savage to civilized and successively towards cultured identities but also is fundamental to the naissance of the institute of family and, in extension, of the social set up itself. Though there aren't any evolutionary arguments about the division of labor in the family but anthropologists and sociologists like Richard Wrangham argues that cooking somehow leads to a lopsided division of labour. In his *Catching Fire: How Cooking Made Us Human*, Wrangham writes, "... it (cooking) also trapped women into a newly subservient role enforced by male-dominated culture. It is not a pretty picture. (177)".

With the expansion of society and its continuously annexed norms, the simple act of cooking became decisive in demarcating roles and places in a family and its house respectively. The understanding of this essential household chore (who is cooking and where) leads to an exploration of various theories pertaining to power and space. Cooking creates spatial segregations within the four walls, inking the blue print of the power and knowledge stratification in the house. The understanding of various aspects of domestic foodwork and spatial dynamics of kitchen is subjective and contextualized; as such there has been a constant shift in their meaning with the changing times and social milieu. For instance, during Second Wave Feminism, in 1967, America, thousands of housewives dumped apron, 'made a trash pile of that detested emblem of domesticity' (59), as an act of rebellion against the traditional symbol of oppression and servitude in front of White House². While in contemporary times, many a diasporic writers and post-colonial writers look at kitchen as a location - of solidarity, of enlivening the culture, revisiting the glorified past, as a channel

1. Terence Conran was a British Designer. The lines are originally taken from his book *The Kitchen Book* (1977), here cited from Angela Meah's article 'Kitchens: Queering the Man's' Kitchen' (64-78). See Gorman-Murray, Andrew and Matt Cook.

for identity construction and thus kitchen has transformed into a space which exudes parallel power structure. But this transition is limited, as still there are societies that rigidly adhere to the patriarchal set up, households where the economy is held by the male or should we say stereotype middle class families.

The circumstances and concerns of women across the globe are diverse and defy any homogenized articulation of struggle for power and privileges. In Indian subcontinent, by and large the structure of family and social customs promotes cooking as an activity relegated to women and kitchen as a woman's dutiful and obvious place to the extent that she becomes an extended reflection of kitchen, cooking and, feeding. In point of fact, a woman who can't or doesn't cook is more than often seen either as a pitiable being or as a westernized bold female and that too, many a times by their counterparts who have imbibed the patriarchal definition of their existence and identity and have become a tool to reinforce patriarchy, an instance where the psyche of the marginalized and the oppressed accepts and propagates the prejudiced perspectives of the oppressors. The social and psychological enforcement to adhere to the accepted roles and duties have transformed kitchen and cooking into a metaphor for domesticated subjugated females. This gives rise to the conflict within gender between the conventional brigade and the career-oriented, identity-conscious generation, and also between the genders claiming their authority over the household by challenging the patriarchal power structure in the family. This dual conflict for power is evident in Ambai's short story *A Kitchen in the Corner of the House*.

Ambai is the pen name of C.S. Lakshmi. She was born in 1944 in Coimbatore, Tamil Nadu and brought up in Mumbai and Bangalore. Ambai's stories have been translated from Tamil to English and published in several collections, *A Purple Sea* (1992), *In a Forest*, *A Deer* (2000) to name some. Her style of writing is characterized by minute and realistic description of details and a prevailing sense of irony. Ambai's fiction writing mirrors her feminist concerns in context of Indian society as she tries to explore the construction of gender and predicament of women and her quest for identity.

The paper is an attempt to deconstruct the understanding of power equation within and amongst genders as reflected in the location of domestic kitchen and by foregrounding the experiences of Minakshi, a working girl from the tech-city Bengaluru, who has been married into a Rajput family of Rajasthan. The story unfolds the complexities arising out of the spatial perceptions of kitchen as a place relegated to women and unrecognized chores and how that generates and complicates the question of authority in the domestic households. The understanding of the various connotations of kitchen in the story necessitates an epigrammatic overview of space. According to *Routledge Encyclopedia of Philosophy*, space stands for,

a boundless extension which supposedly contains everything or everything of a certain sort [...] it does not refer to anything that can be exhibited in sense-perception. (983)

Space is an intrinsic concept. It is both: an all encompassing extent in which everything exists and also our understanding of a physical place. It is in the latter sense that it invites multiple negotiations. Space is the subjective paraphrasing of the corporeal locales into our psyche. The perception of a place into a space is shaped by subjectivities that are embodied by various decisive factors of one's identity (biological, socio-cultural, historical, among others) that are crucial in forming the paradigm of power. As eminent scholar, Gillian Rose

held, 'the discursive meaning of places and spaces is central to configurations of power' (395, 1990). Different architectural spaces construct categorical correspondences of power.

To study the story for distinct connotations of space, it is crucial to grasp the meaning of various spaces and how they are subverted in the course of narrative. The two words of substance in the title itself are 'house' and 'corner'. The kitchen is located in a 'corner' of the 'house'. Now, house is a primitive place constructed to create a periphery along the hearth. This primeval structure and its each nook and corner are significant circuits for exhaustive topo-analytic studies. Its edifice shelters the first unit of society-family, where the power associations are not just experienced but also persistently reinforced, channelizing the process of constructing gendered identity, transforming home into the first school of propagating gender discrimination or equality. The French philosopher Gaston Bachelard in his *Poetics of Space* held that house is generally conceived in verticality and its images give 'a proof or illusion of stability' and simultaneously 'a prevailing sense of history' (17), that is important for one to feel rooted and without which man would be a 'dispersed being'. In *A Kitchen in the Corner of the House*, this basic description of a house is challenged in Ambai's work. The house which is the setting of the story is structured as a train which is a horizontal image of movement and its compartmentalized existence suggests categorized identities for the dwellers. The linear construction of a house restricts privacy and individuality. This inference is limited and opens up newer debates: horizontality of a house suggests many things (especially in context of Rajputs where the acres of land one owns is the decisive factor in social reputation) – ancestral property, landowners, feudal system, and certainly the economic strength of a family and also hints at the resistance towards any form of modernity. At the same time when we talk about restricting privacy, we are implored to argue – is the notion of privacy exuded by structures and thereby working on the psyche, alien to those who live in a single room and strive incessantly in an economically tangential existence? Does 'class' permeates definitions of existence, gender equality, freedom, and the psychological needs of privacy and personal space? Certainly, the frame of identity has a socio-economic grounding, and the concerns of one might not be that of the other. Ambai's kitchen is a canopied metaphor only for the struggles of a particular group of females and shatters the façade of power for the overbearing patriarchally molded set of individuals.

In the story, the linearity of the house ends with the kitchen in one corner. In Indian Vaastu Shastra the south-west corner is considered ideal for a kitchen. A corner is an indispensable and significant recess in terms of architectural structure as it marks the perimeters of a room. It is, in lexis of Bachelard, 'a negation of universe', but he further adds that a corner which is 'lived in' inclines to reject, restrict and even hide life (136). Indeed each individual wishes for his or her own corner in the vast cosmos, but then who wants to be cornered, to live a marginalized and neglected life? It is in this psychological sense that kitchen is used in Ambai's narrative and it is heightened by the dreary conditions of the kitchen.

One of the most explicit spaces of patriarchy in a household is Kitchen, a place where elements of nurturing and fostering a family's wellbeing are prepared. Perhaps since its origin kitchen has been seen as a symbol of subservience, as a stereotypical ideal zone for women. The physical space of kitchen is considered to be a women's place, a gendered space. Kitchen is one of those places that, as bell hooks holds, "can tell stories and unfold histories" (152). Though over the years it has been realized as not just an emblem of oppression and passivity but a creative and precinct where the patriarchal norms can be modified and subverted, yet this is feasible only when the labor of cooking is not imposed or segregated.

In Ambai's story as the title suggests the central concern is the cornered location of the kitchen and what this signifies about the balance between the two genders on the power scale and simultaneously between the mother-in-law and the daughter-in-law in the house. The story is told from the perspective of Minakshi, the second daughter-in-law, and begins with an explanation about the position of the kitchen.

Right at the end, the kitchen, stuck on in a careless manner. Two windows. Underneath one, the tap and basin. The latter was too small to place even a single plate in it. Underneath that, the drainage area, without any ledge. As soon as the taps above are opened, the feet standing beneath would begin to tingle. Within ten minutes there would be a small flood underfoot. Soles and heels would start cracking from that constant wetness. Kishan's mother - called Jiji by everyone - would present a soothing ointment for chapped heels on the very first day one entered the kitchen, cooked a meal and was given the traditional gold bangle. (177)

The realistic narrative is deprived of any ornate language and sets the tone of the story. The straight short sentences draw attention to the congested area of the kitchen and its dull and cornered positioning. The 'tingling feet' and 'the ointment' hints, respectively, at the condition of the females and the punitive solace offered in return. Ambai further says that this dreariness of the kitchen could be partially lessened by the picturesque mountains outside the kitchen window, "the green mountains might have made one forget one's chapped heels" (177) but the view was obscured by the clothes (the way Ambai specifies clothes - trousers, shirts, pajamas, saris and petticoats proposes that the gendering of the kitchen runs deep right up to the beginnings of the civilization) hanged on the line. The physical place of the kitchen here becomes a metaphor for the tedious and tamed life of females encumbered by the monotony of household work and the mountains suggest the possibilities that lie beyond the threshold of the kitchen. This crammed up spatial location of kitchen resonates the idea of confinement bringing to our mind the image of a cell in a penitentiary, transforming females into what sociologist Hannah Gavron calls 'captive wives' and 'housebound mothers'.

The wretchedness of the state of affairs is heightened, Minakshi realizes, by the fact that 'nobody seemed to object to this' (177) and that,

... the concrete facts of the kitchen and its space didn't seem to matter to them. It was almost as if such things didn't actually exist (179).

Here, writer brings reader's attention to the convolutions inherent in the marginalization of women. The incessant summons of the patriarchal society vis-à-vis women's position and duties has resulted in the internalization of the oppressive status and the sidelined existence by females themselves. This creates as poet Mahapatra in the poem 'The Election' says elsewhere 'an anguish of choice' (143) in face of the oppressive dominant value system that relegates women to the chore of cooking and establishes kitchen as the locus of their daily routine. Ambai observes that "their style of life indeed encompasses the kitchen and was woven around the concept of kitchen" (177). The tradition of *Manuhar*, Rajasthan's conventions of offering and insisting food to not just formal guests but even chance visitors, adds to make the women of a house, especially the daughter-in-law, living hearse of customs and patriarchy, of which they unknowingly become, professed ambassadors.

In the story the women of the house continue to live and work in the dysfunctional kitchen, materializing 'like shadows', 'melting into the darkness of the room' under its 'zero watt light bulb' (179), stating how the identity of women merges ind. The paradoxical aspect inherent

in the space of kitchen transforms it into an ideology, as Ambai notes, 'The kitchen was not a place; it was essentially a set of beliefs' (179) that was perceived differently by both the genders and this made the kitchen emerge as a site of resistance, realized only by Minakshi.

A silent conflict surfaces when Minakshi, supported by husband Kishan, suggests to her father-in-law that kitchen should be renovated so that it becomes a favorable place to work in. This opinion is taken as an 'assault of words' by Papaji, Kishan's father, the patriarch of the family, a conservative male who believes that it's a woman's duty to cook and serve but she mustn't interfere in the household matters. He makes fun of Kishan for listening to his wife. To make Minakshi realize that she has crossed limits by such suggestions, Papaji acted arbitrarily he got the new rooms constructed but 'the state of the kitchen remained unchanged' (180) and to demonstrate his retort he added two more clothes lines to block the comforting vision of nature through the kitchen window. Papaji as a representative of patriarchal system makes it obvious that in household matters the real authority vests with the males. Kitchen and house manifests capitalist patriarchy at its worst where women does the labour and is made to believe that her labour is a form of enjoyment, relaxation, fame. Ambai reinforces this through another incident, that of a family picnic, for which the women woke up early even before their usual time and started preparations for the whole day, 'By the time eight o'clock struck, all necks and underarms were raining sweat' and 'their eyelids were heavy from lack of sleep.' (187); but when Papaji sees this he comments that they are up so early because they are enthusiastic about the picnic. This is ridiculous, as women are made to believe that their drudgeries are a reflection of their pleasure. Even at the site the men are simply ordering food and the women is busy either serving them or taking after the kids. These incidents reveals the contradiction inherent in the division of roles in family which results in complexities that needs to be addressed through serious debates. Ambai brings out the paradoxical nature of social structure that though it is continuously acknowledged that woman is the absolute mistress or queen of the house which is her fortress, yet in reality the concrete power vests with the man.

The situation is worsened as most of the females themselves don't realize the incongruity that defines their identity. Rather they feel euphoric about their false reality and this is so deeply imbibed in the marginalized consciousness of women that they gladly impart the secret to acquire power within the periphery of house as an implicit gendered knowledge. In the story, Jiji's mother as a '*bidai*' gift tells her daughter, "Take control over the kitchen. Never forget to make yourself attractive." (192)

Both these explicit suggestions hold the implication that the ultimate criteria, against which woman and her illusory authority will be recognized and appreciated, are contextualized by the pleasures and satisfaction of the male, and this has been internalized by the oppressed psyche of women. Man stands as the axis on which a good woman's world must rotate. Simone de Beauvoir, explains this through theory of "self" and "other". In her feminist treatise *The Second Sex*, she held that women's realization of self is in terms with her men's definition of her as the Other. In the introductory chapter, 'Woman as Other' she exhorts,

She is defined and differentiated with reference to man and not he with reference to her; she is the incidental, the inessential as opposed to the essential. He is the Subject, he is the Absolute – she is the Other.

This understanding and analysis of women's position was attempted even prior to Beauvoir, by John Stuart Mill in *The Subjection of Women*, where he alleged that a woman's status

was more of a slave and marriage a potential weapon to subjugate her. In the story the mother's advice to the daughter to keep herself attractive to husband and to take charge of kitchen is ironically a part of the well conserved feminine consciousness, passed on from generation to generation, it is kind of embedded in our genes. It is a well stipulated notion that a woman can have influence over man either through beauty (historical narratives are a witness to that) or through her culinary skills. Moreover these have become a standard measure of feminine and created to give a false sense of power as in actuality it reinforces female objectification and enslavement and eulogizes a stereotypical notion of womanhood, which mostly suffocates the identity idea of women like Radha in the story. Derisively, within the territorial limitation of the house, women engage in negotiations concerning this unsubstantiated configuration of power that has been given to them in accordance with the phallo-centric structure of society; unconcerned and irrespective of the fact that power is not a booty that can be given, it needs to be realized and asserted. Here the attempt to claim some kind of intra-gender power within the four walls of a house, appears to be futile and begins to disintegrate.

As a complement to this, Ambai sardonically looks at the inter-gender play of power through the characters of Bari Jiji and Jiji. On becoming widow, Bari Jiji lost her rights to - the presumed authority over the household matters, pleasures of meat and spirits and was subsequently relegated to a cornered existence like the kitchen itself. But Jiji countered these restrictions in her own way, by pretending that she was possessed by Amba, the goddess who asked for all the forbidden edibles and relished them throughout the night. To these maneuverings, Jiji reluctantly gave in as she 'did not have the courage to question Amba' (183). The relation between Jiji and Bari Jiji is based on the façade of power and creates groundless politics giving each party assumption that it has the power. As Sarika Goyal asserts, "It is noteworthy that Indian kitchen turns out to be the hub of family politics" (109). The story examines the mother-in-law's illusory authority in the kitchen and the establishment of hierarchy within it.

As a successor, Jiji asserted herself happily but did not realize that it was not she who was controlling rather it was the hackneyed belief system that was controlling her. Ambai metaphorically describes this:

From that dimly lit, narrow winded kitchen, there were hands reaching out to control, like the eight tentacles of the octopus which lives in the sea. They reached out to bind them, tightly, tightly; and the women accepted their bonds with joy ... They made earth shaking decisions: today we'll have mutton pulao; tomorrow let it be puri-masala. (184)

So much for the power, Jiji thinks that she rightfully deserves the 'keys onto my silver waist hook'. When in a delirious state, post heart attack, Jiji shared her sense of pride at her commanding status in the family. Paradoxically, the three main incidents that Jiji relates, also traces the process of making a woman believe in the patriarchy : kitchen is a site that gives control, cooking is the only activity that can get a woman applause of which she should be really proud, and finally that the key to kitchen is the key to Power for which women should contest. Minakshi instigates her mother-in-law to think beyond the hypothetical dominance in the domestic sphere. Minakshi coerces Jiji to think of an existence where she can be a free individual rather than confining herself within the relational roles and conjugal home. She tells her that authority cannot come from the confines of kitchen and it is a mere tangent of power. The strength comes from identifying the self beyond the gendered social

constructs and realizing the hidden potentials, ‘not trapped by nor diminished by gender, but freed’ (194). Ambai’s characters are not merely depicted within the confines of domestic existence. Rather, they are women with tremendous will and potential to carve out a more satisfying space and existence for themselves. Ambai observes that “their style of life indeed encompasses the kitchen and was woven around the concept of kitchen” (27).

Through *A Kitchen in the Corner of the House* Ambai explores the locus of kitchen which emerges as a crucial space in the gendered experiences. She attempts to deconstruct the kitchen as a symbol of power which is deceptive. The story re-evaluates the preset paradigms of femininity in society and implores women to realize their individuality as distinct entity, beyond the periphery of the kitchen. The understanding will lead the women to grasp their real potential and they might be able to assert their authority irrespective of the space. They will define the space and not vice-versa, as Noel Arnaud says, ‘I am the space where I am’²

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2. From Bachelard’s *Poetics of Space*.

“The Use of Hybrid Words in the Sentences of the Bodo Language: A Brief Discussion”

Sanhang Mushahary & Indira Boro

Abstract

Hybrid is not the original word of a language. It cannot be formed with only an original word of a language. It is formed by adding the two meaningful words of two different languages. There can see the use of some hybrid words in the Bodo Languages. All hybrid words of Bodo are formed by combining a meaningful word of another language and an origin word of Bodo. Hybrid words can create a new meaning word in Bodo. It can be used as a subject, predicate and Phrase in the meaningful simple, complex, and compound sentences of Bodo.

Keywords: Bodo, Hybrid Word, Type, Sentence, Uses.

Introduction

Bodo is one of the languages of Bodo-Garo groups under the Tibeto-Burman branch of the Sino-Tibetan family which has the second highest speaker person in the world. Till now, there can be seen some similar character of Tibeto-Burman languages in the formation of various words of Bodo. For example, the use of various monosyllabic words could be mentioned. Because there can be seen to date various monosyllabic nouns, verbs, adjectives and other words in Bodo. The examples of monosyllabic words are given below.

1. Monosyllabic Nouns: dau (bird), na (fish), bar (air), or (fire), zi (cloth) etc.
2. Monosyllabic Verbs: za (eat), luŋ (drink), p^hui (come), t^haŋ (go), mau (do) etc.
3. Monosyllabic Pronoun: nuŋ (you), zuŋ (we), aŋ (i), bi (he/she), be (this) etc.
4. Monosyllabic Adjective: sraŋ (light), t^har (truth), law (liquid), un (back) etc.

Apart from the use of Monosyllabic words, there can be seen some special character in the formation of different words of Bodo. Those characters were not being seen in the Tibeto-Burman language. For example, the formation of derived, compound, reduplication and hybrid words could be mentioned. Derived is a kind of word that can be formed by adding various class-changing derivational affixes before and after the primary words. By adding two meaningful words are together a new compound word is formed. Many reduplication words can be found in Bodo. By using full and partial reduplication of different meaningful words, a new reduplication word is formed in Bodo. By adding a word of another language with an origin Bodo word, a new hybrid word is formed. The example of derived, compound, reduplication and hybrid words are given below.

1. **Derived words:** There can be found many derived words in Bodo. It can be derived noun, derived adjective, derived verb and etc.

- (a) **Derived Noun:** bi- + v. bar (to bloom) > d.n. bibar (flower)
n. gami (village) + -ari > d.n. gamiari (who live in a village) etc.
- (b) **Derived Verb:** p^hu- + v. suŋ (be short) > d.v. p^husuŋ (to make short)
v. za (eat) + -duŋ > d.v. zaduŋ (eating) etc.
- (c) **Derived Adjective:** guu- + zuu (to be high) > d. adj. guzuiu (high)
n. dui (water) + -bru > d. adj. duibru (watery) etc.
2. **Compound words:** There can be found many compound nouns, compound verb, compound adjective and other compound words in Bodo. The examples are given below:
- (a) **Compound Verb:** v. za (eat) + v. p^hui (come) > c.v. zap^hui
v. maw (do) + v. p^hui (come) > c.v. mawp^hui etc.
- (b) **Compound Noun:** n. ha (land) + v. sib (to clean) > c.n. hasib ()
v. guulum () + n. dui (water) > c. n. guulumdui () etc.
- (c) **Compound Adjective:** n. som (time) + v. zubnai (ended) > c. adj. somzubnai (expired)
n. guhuu (power) + adj. guura () > c. adj. guhuuguura (brave) etc.
3. **Reduplication words:** There can be found full and partial reduplication in Bodo. These reduplications could be of nouns, verbs, adjectives, adverbs and other words. The examples are given below:
- (a) **Reduplication of Noun:** n. lama (road) + P. Red. Sama > lama-sama (road and the like)
n. no (house) + F. Red. no > no-no (houses)
- (b) **Reduplication of Adjective:** adj. dular (round) + P. Red. dalar > dular-dalar (round and the like)
adj. gep^he (soft) + F. Red. gep^he > gep^he-gep^he (softs) etc.

Depending on the time, every culture of any community can see many changes. Like this, also in the languages of every community can see many changes depending on time. Rather than the primary, derived, compound and reduplication words there also can see the use of some hybrid and loan words in the different meaningful sentences of Bodo. In this language, the hybrid words can see more in noun and adjective. There is discussion below about the use of hybrid words in the sentences of Bodo.

Objectives of the study

There can be seen many new characters in the formation of different meaningful words of Bodo. The use of hybrid words is also a character of this. Because there can be found some hybrid words in this language. These are hybrid noun and hybrid adjective. The main objective of the study is to clearly describe about the structure of hybrid words and their used in different meaningful sentences of the Bodo language.

Methodology and Data Collection

To describe the hybrid words of Bodo the study depends on analytical methods from the linguistics point of view. The related data of this topic has been collected from primary sources by using observation, interview and questionnaire methods.

Hypothesis

The hypothesis of this study is given below:

- (i) There is the use of hybrid noun and hybrid adjective in Bodo.
- (ii) Mainly, the hybrid words are formed in Bodo by using a meaningful word of Bodo and a word of Indo-Aryan or Assamese word.
- (iii) The hybrid words can be used as a phrase in the sentences of Bodo.
- (iv) The hybrid words can be used as a subject and predicate in Bodo.

Discussion

Hybrid is formed by the compounding. The use of hybrid words can see in every language. Which words are formed by adding the two different meaningful words of the two different languages, it is called a hybrid word. Hybrid words can see more between the Bilingual and Multilingual persons or community.

The use of the hybrid word can be seen in the noun, verb, adjective and other parts of speech of Bodo. By adding only a meaningful word of another language and a meaningful word of Bodo a new hybrid word is formed. In the hybrid words of Bodo, there is no addition of more than the two meaningful words. The example is given below.

Hybrid Noun

A hybrid noun is formed in Bodo by adding a noun of other languages and a verb, noun or adjective word of Bodo. e.g.,

- (i) n. mas (fish) + v. laŋk^har > h. n. maslaŋk^har (A kind of Bird)
- (ii) n. mathi (land) + adj. galdab > h. n. mathiguldab (A kind of vegetable)
- (iii) n. gəbər + n. k^hi > h. n. gəbər^hi
- (iv) n. dak + n. nɔ > h. n. dak^hnɔ (Post office)

In the first example, by adding a noun of Indo-Aryan or Assamese languages before a complex verb of Bodo, a hybrid word has formed which can be defined as a new meaningful noun. In the second, by adding a noun of Assamese before a primary adjective of Bodo, a new hybrid noun has formed. In the third, by adding a noun of Assamese before a primary Noun of Bodo, a new hybrid noun has formed. It should be mentioned here, Assamese word 'gəbər' is used in Bodo as a 'gubur'. In this word of both languages can see the difference only in a vowel phoneme. In the last example, by adding a noun of Persian language before a noun of Bodo, a new hybrid noun has formed.

There can be seen some hybrid nouns in Bodo that are related to science. These words are formed by adding a noun of Assamese after a pure or primary noun of Bodo. The examples are given below:

- e.g.,*
- p. n. dui (water) + mondol > h. n. duiməndol (Hydrosphere)
 - p. n. ha (land) + mondol > h. n. haməndol (Lithosphere)
 - p. n. bar (air) + mondol > h. n. barməndol (Atmosphere)
 - p. n. zib (animal) + mondol > h. n. zibməndol (Biosphere)

In the above examples, the 'mondol' is an Assamese word that defines the parts of the Earth sphere.

Hybrid Adjective

By adding a meaningful word of other language and a word of Bodo, a new hybrid adjective can be formed in Bodo. The examples are given below:

- (i) n. sahəs (courage) + adj. guura > h. adj. sahəsguura (brave)
- (ii) n. gijan (knowledge) + adj. guanaŋ > h. adj. gijanguanaŋ (knowledgeable)
- (iii) n. k^hap^hal (forehead) + adj. guanaŋ > h. adj. k^hap^halguanaŋ (lucky)
- (iv) n. sahəs (courage) + adj. guiwui > h. adj. sahəs guiwui (coward)
- (v) n. gijan (knowledge) + adj. guiwui > h. adj. gijanguiwui (uninformed)
- (vi) n. k^hap^hal (forehead) + adj. guiwui > h. adj. k^hap^halguiwui (unlucky)

In the above examples have seen that the adding different nouns of Indo-Aryan or Assamese language before an adjective word of Bodo a new hybrid adjective has formed. After the use in a sentence, these hybrid words can express the meaning of adjectives certainly. The examples are given below:

- (i) biju sase sahəsguura mansi. (He is a courageous person)
- (ii) biju k^hap^halguanaŋ huusa. (He is lucky boy)
- (iii) gijanguanaŋ mansik^huu boibu man huju. (Everybody respects a knowledgeable person)

Sometimes hybrid compounding can be seen between the meaningful words of another language and the affixes or any grammatical parts of Bodo language. This kind of the hybrid words can't change the classes of the meaningful words. But can change the grammatical structure of the meaningful words. The examples are given below.

e.g. (i) Mobile + -p^hur > Mobilep^hur (Mobiles)

(ii) Chair + -p^hur > Chairp^hur (Chairs)

In the above examples, the plural form suffix of Bodo has been added behind the meaningful nouns of other languages. After the addition, the number of the nouns changed singular to plural form. This kind of hybrid compound can be seen in loan words of every language. In every language can see to communicate with each other by using the grammatical units of their languages with the loan words.

The use of hybrid words of two different languages in Bodo

There is the use of a kind of hybrid word in Bodo that are formed by adding the two meaningful words of two different languages. Such hybrid words are always used in Bodo people as the original words of their languages. This kind of hybrid word is always used in both the written and oral forms of the Bodo language. Therefore it can be called the loan hybrid word of Bodo. The examples are given below:

(i) Rel (English) + gad^{hi} (Hindi) > relgad^{hi} (train)

(ii) Asu (hindi) + gas (English) > asugas

(iii) Lathi (Hindi) + Charge (English) > lathicharge etc.

The use of hybrid words in the sentences of Bodo

In the simple, complex and compound sentences of Bodo, many hybrid words are used as a phrase. The phrase can be found into two parts. These are Noun Phrase and Verb Phrase. The examples are given below:

(i) **Simple sentence:**

(a) maslanj^hara birduŋ. (Kingfisher Bird is flying.)

↓

N.P.

↓

V.P.

(b) biju sahoŋguura mansi. (He is cleaver person.)

↓

N.P.

↓

V.P.

(c) policep^hura lat^hicharge k^halamduŋ. (The Police are lending lathe-charge.)

↓

N.P.

↓

V. P.

In the above examples have seen that the hybrid words can be used as a noun phrase and verb phrase to the simple sentence. It can be used as the same phrase to the complex and compound sentences. Apart from the phrase, the hybrid words can be found as a subject and a predicate in the different meaningful sentence of Bodo. The example is given below.

- | | |
|--------------------------------|-----------------------------|
| 1. maslan ^k ar daua | na zaduŋ. |
| ↓ | ↓ |
| Subject | Predicate |
| 2. anarija | guburk ⁱ garduŋ. |
| ↓ | ↓ |
| Subject | Predicate |

In the first example, the adjective has been used as a subject and in the second example has been used as a predicate.

Conclusion

With the discussion above it can be clearly said that there is no available hybrid word in Bodo. The use of hybrid words can see only in noun and adjective words. The noun and adjective hybrid have been formed by adding a meaningful word of Assamese or Indo-Aryan word before the original Bodo words. Apart from this, some loan hybrid words can see in Bodo which is formed by adding the two different languages words are together. The main reason for using such hybrid words in Bodo is the development of science and technology. Because many new words are being formed till now with develop of science and technology. The use hybrid words create code-mixing and code switching situation in the Bodo languages. The use of hybrid words can make to broad the vocabulary of every language.

Abbreviation

Adj.	Adjective
n.	Noun
p.n.	Primary Noun
v.	Verb
h.n.	Hybrid Noun
h.adj.	Hybrid Adjective
N.P.	Noun Phrase
V.P.	Verb Phrase
D.N.	Derived Noun
D.Adj.	Derived Adjective
D.V.	Derived Verb

c.n.	Compound Noun
c.adj.	Compound Adjective
c.v.	Compound Verb
F. Red.	Full Reduplication
P. Red.	Partial Reduplication

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‘Othered Childhood:’ Pedagogy, Childhood and the Object in Sowvendra Shekhar’s *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018)

Sourav Kumar Nag

Abstract

The present article offers a reading of Shekhar’s *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018). The primary argument of this article is that Shekhar’s novella offers a different portrayal of childhood from the margins of India. In *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018), Shekhar has offered a Promethean tale of welfare and wisdom from the margins of India. Besides, the novel offers a different picture of the childhood of the impoverished people of India. In the novel, Shekhar’s first book for children, a small dragon enters the lives of a small family of Champakbagh and very soon it becomes an important member of the family of Mohan Chandar, his wife Rupa Devi and their three children. The dragon was rescued and brought in by Mohan who had no idea until the end of the novel what he was rescuing. Unlike Beowulf, probably the oldest dragon slayer in the Norse folklore, Chandar sheltered the dragon and very soon it proves itself to be a boon to the family and the neighbouring village as well. The novel offers an alternative education of altruism and love through a gripping magico-realist tale.

Keywords: Object, Heterogeneity, Magico-realist, childhood, subaltern spaces.

Carol Lynch-Brown in her book *Essentials of Children’s Literature* (2011) defines children’s literature in the following way: “Children’s literature is a good quality trade books for children from birth to adolescence, covering topics of relevance and interest to children of those ages, through prose and poetry, fiction and nonfiction” (02). Brown’s definition underlines the essentials of children’s literature in an interesting way. The definition may lead one to wonder at her phrase ‘topic of relevance’ since the subject position of such utterance or the selection of relevance may vary indefinitely. Children’s literature as it emerged in India in the early 19th century has undergone significant evolution and the ‘topic of relevance’ has also changed over times. The tales of children bordering on the ideologies of the dominant cultures are now being resisted and the canon is under erasure. Writers like Hansda Sowvendra Shekhar have tales from the margins of India that constitute subaltern spaces to mark the heterogeneity of childhood in India and at the same time resists the narratives from the spaces of dominant culture that offer linear and homogenous portrayals of childhood.

Hansda Sowvendra Shekhar’s *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018) is less complex than *The Mysterious Ailment of Rupī Baskey* (2014) and *My Father’s Garden* (2018). Intended for children, *Jwala Kumar* (2018) offers a magico-realist tale of friendship, love, and empathy. In *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018), Shekhar has offered a promethean tale of welfare and wisdom from the margins of India. It is not just a novella written for children. It is a narrative of hope, dream, struggle and success. In the novella, Shekhar offers a powerful reading of the childhood

of the children belonging to impoverished families. The present article offers a reading of Shekhar's *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018) to show that Shekhar's novella offers a powerful depiction of childhood of the poor of India.

Children's Literature is a 'world literature' (Lerer 11) that has its genesis in every nation, culture, and history. Nevertheless, the representational dimensions may be different in different cultures. M.O. Grenby in "The Origins of Children's Literature" (2013) asserted that the genre called children's literature began in the mid eighteenth century and took hold first in Britain" (35). In India, children's literature, as it is, emerged in the 19th century, but India abounded in tales, poems and novellas meant for children since the antiquity. The primary purposes of those tales have ever remained to "teach and delight" (Sidney 09). The stories of Panchatantra, *Hitopadesha*, Jataka Tales, *Kathamala*, *Betal Panchabinsati*, *Akhyani Manjari*, *Thakurmar Jhuli* among others have made childhood beautiful and enjoyable at the same time, providing alternative education to the young mind. Be it the animals imbibing human behaviourism (as in *Panchatantra*) or the fantasy world of kings, monsters, ghosts and ghouls (as in *Thakurmar Jhuli*, *Betal Panchabinsati*), each and every tale comprises underlying moral lessons. Later, Naba Krishna Bhattacharya, Upendrakishore Roy Chowdhury, Jogendranath Bose, Sukumar Roy, Satyajit Roy and others contributed significantly to the evolution of children's literature.

It is not surprising that the voice of the marginalised and wretched of India has long remained subdued in these books for children. Kings, queens, Champak Brothers and high palaces are the dominant tropes in Indian *Roopkatha* (fairy tales). Shekhar's *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018) marks a paradigm shift in Children's Literature. In the story the protagonists are hailed from the margins of Indian society. The story bordering on fantasy deals with serious issues such as food, fire, and shelter and above all emancipation. It is not that in Santhali culture there were no stories for children. Plethora of tales has been told by mothers and grandmothers from one generation to another since antiquity. What Shekhar did is to register the cultural presence in a language that can cross the boundary of regionality. When I asked Hansda why he writes in English, his answer was "I write in English because I can write in English" (from an electronic conversation with the author via Google Mail, dated 19 May 2021). Hansda's reply is witty and manifests his urge to write in his own English. He is there to represent the voices from the margin and register the richness of the Santhali culture.

Postcolonial literature often embodies counterdiscursive strategies involving "writing back to canonical works since such a text received ideas of dominant culture" (Bradford 31). The existing body of children's literature in India upholds the high cultures and the voices of the dominant classes. There are few tales that represent the childhood of the poor. Hansda's *Jwala Kumar and the Gift of Fire: Adventures in Champakbagh* (2018) is one of the earliest books for children that usher the voices from the margin. The novella deals with the lives of someunderprivileged children and at the same time resists the existing canon of children's literature that empowers and represents the dominant cultures in India.

In the novella, a small dragon enters the lives of a small family of Champakbagh and very soon he (the small dragon is identified as a 'boy' in the text) becomes an important member of the family of Mohan Chandar, his wife Rupa Devi and their three children. The dragon was rescued and brought in by Mohan who had no idea until the end of the novel what he

was rescuing. Unlike Beowulf, probably the oldest dragon slayer in the Norse folklore, Chandar sheltered the dragon and very soon it proves itself to be a boon to the family and the neighbouring village as well. Mohan had no idea what the creature was when rescued it. First, he suspected it to be a bat. Then, he confused it with a chameleon with wings. Later, Biren, Chandar's son discovered that it was a dragon while watching a video: "'Di-ra-gun?' Mohan Chandar asked hesitatingly. 'No, Baba,' Biren corrected his father. 'Dragon.' 'Der-ra-gun?' Mohan Chandar tried again. 'Yes, yes,' Biren whooped with joy and encouraged his father. 'Exactly, Baba. Now say this a bit fast'" (Ch. 7). The baby dragon in the novella is a benign creature who belches fire to ignite the *chulha* (oven), gives warmth and helps the family to cook their food.

Hansda's representation of the subalternity is trustworthy since it upholds a heterogeneous space that resists the notions of nationalist homogeneity and linearity. Hansda's novelistic vision does not merely offer an alternative reading of Indian childhood but also resorts to magic realist elements. The dragon in the text is a representative of dream, hope and the impossible. He solves the problem of fire magically: "It opened its mouth and breathed a stream of flame into the *chulha*. The embers in the *chulha* did not need any blowing by Rupa Devi" (Ch. 4). This magical solution ushers the impossible but the poetics of the impossible that every child dreams.

Another crucial element of heterogeneity in the novella is the representation of the abject. Food is a space of heterogeneity. Something edible to one community may be despise by another. Kristeva in her *Powers of Horrors* (1982) wrote: "Loathing an item of food, a piece of filth, waste or dung. The spasms and vomiting that protect me. The repugnance, the retching that thrusts me to the side and turns me away from defilement, sewage, muck." (02). The young children of Mohan and Rupa Devi love roasted meat of rats-a delicious food to many of the underprivileged may produce immense surprise and incredulity in those children who belong to the well to do families in Indian metropolis. But it is an alternative food eaten by thousands of the tribal people of India for ages to satiate their hunger. The baby dragon roasted the rats with one blaze of fire streaming out of his mouth: Biren loved eating roasted rat meat. And so did his brother and sister. Had he known that he would have certainly set up traps and traps to catch them. (Ch. 6).

Another such example of 'othered' childhood in the novella is the children putting boiled eggs into their pockets when mid-day meal is served at school. Biren and his siblings put the boiled eggs in their pockets to feed Jwala Kumar. This example of altruism is not exceptional because it is "quite common for students to hide boiled eggs that they were served at school and bring them home to eat later or share them with other members of the family" (Ch. 6). The significance of Shekhar's narrative lies in the fact that it not only offers a magico-real tale of love, hope and happiness but also provides lasting watermarks of a different childhood.

Not fire and food, the baby dragon cured Mohan Chandar's fever just by singing and restores his health: "When they woke up the next day, it was still raining, and it was still cold. But Mohan Chandar had no fever. Yes, he was feeling a bit weak, but not as bad as he was feeling the night before" (Ch. 8). In the penultimate chapter of the novella, Jwala Kumar flew to every house in the village of Champakbaghand lighted their *chulha* and then joined a group of dragons in the upper sky to return to its world. The magic of altruism that Jwala Kumar performed in the lives of the underprivileged villagers who are far away from the modern comforts is a metaphor of their dreams. Every poor in the world believes in the magic.

Shekhar's novella not merely engages the young readers in a magico-realist session but also provides lessons of selflessness, love, hope and above all belief in a better future. Deviating significantly from the dominant voices, Shekhar has ventured to portray the childhood of the underprivileged children who eat rats, bring home the boiled eggs for their siblings or other members of their family and suffer helplessly for the want of food and warmth. In the novella, the dragon is a promethean creature that brought fire and the light of hope to a poor family and a small village far away from the metropolis and its middle-class enjoying the comforts of financial security. On the contrary, Mohan is a peasant who works in the paddy fields and makes ends meet after a lot of menial works. Due to incessant rain for many days, the Chandar family suffered immensely. The heterogeneity of childhood is the crux of Shekhar's narrative, and it creates subaltern spaces where the voice of the subaltern is heard as loudly as a dragon's song.

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A copy of the electronic interaction with the author via Gmail (dated 19 May 2021.)

1. Why do you write in English and not in Santhali?

Ans. I write in English because I can write in English. Also, I urge you to answer this question: Would you have asked Khushwant Singh why he wrote in English and not in Punjabi, or would you ask Amitav Ghosh and Shashi Tharoor why they write in English and not in, respectively, Bengali and Malayalam?

2. Don't you feel linguistic block while writing in English while expressing things that seem to be inexpressible in English because of cultural distance?

Ans. No, I haven't so far felt any major linguistic block, and I will complete this answer along with Q5.

3. Do you believe that Anglophone literature is World Literature or is it just another Eurocentric consumerist power politics?

Ans. Anglophone literature can never be World Literature. English is just one of the many languages spoken in this world. But yes, I do think that English is the language of power – a very one-sided, colonial sort of power. The English language has colonised the entire world. It is quite unfair that English (in all its forms: British, American, Indian, etc.) is always seen as the mainstream while every other language – even if it is a widely spoken language like Spanish or Mandarin – is seen as exotic. Maybe that is why so many fine works originally written in so many non-English languages all over the world have to be translated into English before they are appreciated and recognised by a majority of readers.

4. Do you feel that there are a good number of Santhal writers who have not gained recognition beyond their states or country because they wrote/write in Santhali and not in English?

Ans. Yes, I do think so.

“Hard Times For Us”: Locating Climate Crisis and Ordeals of Woman Victims in Kamala Markandaya’s *Nectar In A Sieve*

Kankana Bhowmick

Abstract

This paper is an attempt to analyse representation of climate catastrophe presented in literature that manages to portray the day to day encounters of poor woman farmers through their individual and collective struggle against natural forces. Informed by recent climatological and ecological theories, this study attempts a critical analysis of extreme weather events presented in Indian context by Kamala Markandaya in her novel *Nectar in a Sieve* (1954). Climate fictions or “Cli-fi” can make the interrelation between human and earth more comprehensible by depicting how natural forces drastically alter the fates of the nation-states and annihilate administrative mechanisms. Though written in the 1950s, the issues of Anthropocene have poignantly surfaced in the novel which is relevant even today as their cumulative manifestations add new dynamics to environmentalism and climatological discourses.

Keywords: Cli-fi, Anthropocene, climate change, ecology, climatological discourse.

Introduction

The analysis made through this paper is an effort to trace elements of environmental disasters and their impacts upon poor agrarian woman victims shown in the Indian English novel; at the same time, the article intends to explore how a particular Indian English novel adds a new dimension to climatological discourse. Climate fiction, colloquially abbreviated as “Cli-fi”, has emerged as a burgeoning genre in the 21st century literary spectrum. These narratives portray calamitous present and sinister future of a metamorphosed world. Despite the fact that authors have been writing about climate vagaries for centuries, it was not until the late 2000’s that the term “Climate Fiction” came into vogue after being officially coined by freelance writer and journalist Dan Bloom. Fictional representations modeled after the term “Cli-fi” has brought about a greater engagement with the issue of climate change in literary studies. The novels portray how socio-political and cultural set-ups and industrial or agricultural agencies are rendered powerless when challenged by the fury of climate catastrophe. Increasing threats of global warming in the Anthropocene and long term climate change due to human or non-human activities have significantly influenced contemporary scientific debate. Human beings are becoming conscious about the entry into a new era of history in which nonhuman agents are no longer exclusive components of their social and intellectual realm. Timothy Clark, in *Ecocriticism on the Edge* (2015), states that “Something planetary is breaking through, entailing a politicization of what may once have seemed insignificant, as familiar day-to-day practices incite an engaged ‘green’ political awareness” (Clark 9). This shows that when climate narratives point out the presence of nonhuman agencies in the

human world of perception, or when they point towards the limitations of human influence on nature, they aren't just pointing to cultural or political aspects; rather they are taking up a more complex mix of the cultural and biological or anthropological matters. According to Trexler and Johns-Putra (2011), climate narratives can be seen as a continuation of stories addressing human response to unpredictable environmental change. The growing number of critical analysis on climate change literature, particularly novels, is helping to consolidate a canon of climate change fiction. In 2013, cli-fi writer Margaret Atwood wrote:

"There's a new term, cli-fi (for climate fiction, a play on sci-fi) that's being used to describe books in which an altered climate is part of the plot. Dystopic novels used to concentrate only on hideous political regimes, as in George Orwell's *Nineteen Eighty-Four*. Now, however, they're more likely to take place in a challenging landscape that no longer resembles the hospitable planet we've taken for granted. Whether fictional or factual, the coming decades don't sound like a picnic. It's a scary scenario, and we're largely unprepared" (Atwood).

I argue that Indian English fiction about climate change explores the complexity of the issue and employs innovations in narrative techniques and characterization that voice a call for ecological and cultural rethinking and reshaping. The study has been worth undertaking as multi-faceted natural hazards and the uncertainty of shifting climates are becoming very common phenomena in the subcontinents.

Climate change has altered the pattern of monsoon which affects not only the agrarian life in India, but also other countries of South Asia. The present paper attempts a critical analysis of extreme weather events presented in Indian context by Kamala Markandaya in her novel *Nectar in a Sieve* (1954). Though written in the 1950's, the issues that have poignantly surfaced in the novel are relevant even today as their cumulative manifestations add new dynamics to environmentalism and climatological discourse. The study focuses on the manifestations of climate catastrophe in Markandaya's novel with a hope that detailed analysis of the novel may lead to a deeper climate consciousness and thereby contribute to more progressive climate change discourses. The novel deals with hazardous storms, floods due to excessive monsoon rain and drought due to failure of monsoon. Through the saga of Rukmani's life, the author tries to show how women are the firsthand victims of post-calamity devastations and consequent environmental degradation owing to their close association with nature. This study will thus consider the challenges that climate change poses to the woman victims due to their close association and interaction with nature. The novel depicts the impact of changing climate through ecological strife such as erratic monsoon, flood, storm and drought. Rukmani says:

"The drought continued until we lost control of the time. Day after day the pitiless sun blazed down, scorching whatever still struggled to grow and baking the earth hard until at last it split and great irregular fissures gaped in the land. Plants died and the grasses rotted, cattle and sheep crept to the river that was no more and perished there for lack of water, lizards and squirrels lay prone and gasping in the blistering sunlight" (*Nectar in a Sieve* 79).

The empirical claim on nature's mechanism reveals that the firsthand victim of the impact of environmental degradation is women because of their direct association and reliance on natural resources. Global climate issues have attracted scholars and activists from various disciplines to assess this association between the cultural human and natural non-human through gender reconsiderations. Karen Ya-Chu Yang in *Women and Nature?* (2018) states that "critical attention to the intersection between women's oppression and environmental

crises raises awareness to operating power politics which involve the sufferings of various groups marginalized as subordinate Others” (Vakoch & Mickey 4). The goal of this paper is to re-assess human’s relationship with environmental and climate forces to evoke more dynamic interactions with and between women and nature that gives a new dimension to consolidate a contemporary genre in literature called ‘Climate Fictions’. Rukmani’s experiences in the novel are parallel to the untold story of immense energy, suffering, struggles and dedication by thousands of women in agrarian societies of the world. Much remains to be learned regarding women’s role in conservation of the environment and its ecosystem. Gifford Pinchot, in his book *The Fight for Conservation* (1910), has praised the women of the progressive era for their substantial contributions to conservation. He claims women are the first teachers of right and wrong (Pinchot 109). In her book *Earthcare* (1996), Caroline Merchant states that conservation is the surest ‘weapon’ with which women might win success. She cites the formation of women’s clubs, organizations, movements and study groups for the conservation of forests and lands wherein “Nature should be left unrestrained”. Women all over the globe in both the North and the South began to insist that women’s issues and environmental issues be addressed in the same context. Women are allowed to attend development conferences, but mostly not involved in policy formation and planning that deals with vital questions affecting their livelihoods, resources and security. Women should have the right to express an opinion through suffrage on matters of vital importance to their lives. The “conservation of true womanhood” was a subject repeatedly stressed by women at the Conservation Congress. Merchant calls for an alternative *i.e.*, ‘partnership ethics’ which sees the human community and the biotic community in a mutual relationship with each other (Merchant 209-210). The need for such an ethic had been building out of the experiences of women in Third World countries through the acknowledgement that women and nature together carried the “brunt of malconceived development programs” orchestrated by male-dominated science, technology and capitalism.

According to Ellen-J. Pader, studies that analyse Third World women’s roles and contributions to home and community tend not to analyse the local-scale of guiding social change through ‘domestic spatial relations’ and related ‘cognitive processes’. It is found through researches on feminist discourses: “when women organize and make people listen to their voices, it becomes clear that contributions as mothers, wives, and community members have always insinuated themselves into the formation of their society” (Altman & Churchman 99). Rob Nixon, in his book *Slow Violence and the Environmentalism of the Poor* (2011), talks about Kenya’s Green Belt Movement initiated by Wangari Maathai. The movement serves as an instance of environmental activism among poor communities who have taken action against ‘slow violence’ specifically the imperceptible violence of deforestation and soil erosion. Maathai as a writer-activist motivated women from poor families to acknowledge, act for and counter the violence of delayed upshots on environment. The movement’s achievements have both substantial and symbolic outcomes as it provided employment while helping anchor soil, generate shade and firewood, and replenish watersheds. On the other hand, symbolically it inspired reforestation movements across the globe. Deforestation and resultant soil erosion were pervasively affecting Kenya’s longstanding human and environmental prospects (Nixon 129). The livelihood of rural Kenyan women has been threatened by natural disasters’ slow march. Maathai noted that during the rainy season, thousands of tons of topsoil are eroded from Kenya’s countryside by rivers and washed into ocean and lakes. She has considered losing topsoil is similar to losing territory to an invading army. Soil erosion results partly

from global forms of violence especially by human-induced climate change to which rural women have almost nothing to do. Through Green Belt Movement women found a process to exert their collective influence through which local forms of ‘slow violence’ can be averted to an extent. Women’s role as preserver of nature and its ecosystem is unavoidable, as their individual and collective efforts usher in a new era of mutual understanding and environmental conservation principles. This is also one reason that they become the firsthand victims of climate vagaries being exposed to harsh environmental conditions.

Monsoon and Literature: Storm, Flood and Drought

According to Global Climate Risk Index 2020 released by Germanwatch on December 4, 2019, India is the fifth most climate-affected country and also recorded the highest number of fatalities due to climate change in 2018. It also shows that geographically, South Asia is one of the most vulnerable regions affected by global climate change. The physiographical location have vouchsafed the region with many rivers, tropical zones, productive lands, favourable monsoon and massive mangrove forests, yet it is very prone to many natural disasters. Floods, cyclones, hurricanes, and tidal surges are common occurrences in the region, particularly in the low-lying areas of Sri Lanka, parts of India and Bangladesh. In terms of casualty, the region has also been marked as the worst sufferer. The assessment provided through Global Climate Risk Index 2020 highlights the existing vulnerabilities that may increase extreme weather events. Every year several lives and properties are destroyed due to these natural calamities.

Monsoon plays a very significant role in the agriculture-based economy of India. It bears an important influence on the lives of millions of farmers who largely rely upon seasonal rainfall (June to September) for their agricultural practices and livelihood. Sunil Amrith, in his book *Unruly Waters* (2018), elaborates how the moisture content of the air and the varying lengths of the heat waves between the land and the ocean generate the monsoon. Scientists have noticed that as the ocean’s surface gets warmed owing to change in climate conditions, the amount of moisture picked up by monsoon winds en route to South Asia increases.

Global climate change has altered the pattern of Indian monsoon season. The country witnesses frequent instances of extremely heavy rainfall, storm, flood and drought. These extreme weather events also pose the direst threat to the lives of peasant women as they are mainly assigned with the responsibility to sustain their families. Due to the lack of adequate rainfall, seeds fail to sprout and young shoots wither giving way to failure of crops. Sudden outburst of heavy rain makes the plants submerge. By the time the land becomes dry monsoon departs leaving the crops rot. Failure of crops ultimately leads to the tenant peasant woman’s heart-wrenching struggle to feed her large starving family and pay the debts to the landowners. Poverty and starvation are the twin forces that provoke third world peasant women to take up prostitution, migrate to cities and indulge in illegal activities:

“Climate Change and its extremes are increasingly one of the most serious national security threats, which will have significant impacts on agriculture, natural resources, ecosystem and biodiversity. At the same time, it is likely to trigger food insecurity, human migration, economic and social depression, environmental and political crisis, thereby affecting national development” (Mahdi ix).

Failure of Crops: 'Hard Times' For Rukmani

Markandaya's novel presents a realistic picture of the hardships faced by peasants of rural India. The main protagonist Rukmani, wife of a poor tenant farmer Nathan, undergoes devastating ordeals in the face of natural hazards, hunger and poverty. She is the backbone of her family which consists of her husband and numerous children. Heavy rainfall, storm, flood and drought strike her village in succession creating ineffable miseries to the family as well as neighbours. The catastrophic events destroy the crops bearing her only hope for a better future. She witnesses gradual deterioration of her children's health as they suffer endlessly from starvation and malnutrition. Poverty reverberates from every corner of her "mud hut". At a point, Rukmani has to divide a very small amount of rice into twenty four small portions to feed her family, creating a terrible image of hunger and suffering. She sells her utensils and clothes, including her wedding sari and Nathan's clothes in order to pay back the debts to the land owner. Unfortunately, she succeeds in collecting only 155 rupees from the objects she sold, which amounts to only less than half of what they owe in total.

For a farmer, what matters most is the sight of a good harvest. The loss of his/her long-awaited harvest due to climate disasters snatches away all the prospects of livelihood. Nathan's physical strength has been exhausted by his ceaseless hard work to maintain the adequate growth of the crops. Once the flood and storms are over, Rukmani's hope revives anticipating the success with the next harvest. But, the rain fails and the paddy lay before them as faded, worthless heaps of hay leaving no aid to revive them:

"Each day the level of water dropped and the heads of the paddy hung lower. The river had shrunk to a trickle, the well was as dry as a bone. Before long the shoots of the paddy were tipped with brown; even as we watched, the stain spread like some terrible disease, choking out the green that meant life to us" (Nectar in a Sieve 74).

After the great loss, Rukmani's husband fails to pay their dues to the landowner who eventually decides to sell the land at good prices to the newly introduced tannery industry. Markandaya shows how significant harvesting is for Indian rural farmers and failure of it entails unendurable misery on the peasant community.

Nature: A 'Wild Animal'

One of the most obvious themes in the novel is the interaction between woman and the forces of environment. The intimate relationship between woman and nature has inspired many critical thinkers, especially from the fields of ecofeminism, gender studies etc., to consider woman as the prime savior of nature. Women's inherent capability to protect, nurture and sustain nature also exposes them to the atrocities of climate disasters. Environmental activist and author Vandana Shiva claims:

"Women produce and reproduce life not merely biologically, but also through their social role in providing sustenance. All ecological societies of forest-dwellers and peasants, whose life is organized on the principle of sustainability and the reproduction of life in all its richness, also embody the feminine principle. Historically however, when such societies have been colonised and broken up the men have usually started to participate in life-destroying activities or have had to migrate; the women meanwhile, usually continue to be linked to life and nature through their role as providers to sustenance, food and water. The privileged

access of women to the sustaining principle thus has a historical and cultural, and not merely biological, basis” (Shiva 41).

Shiva confers the titles “traditional natural scientists” and “sylviculturalists” on women, especially peasant women, because of their knowledge of land, agriculture, water resources and ecology. Their experiences are reflections of the knowledge they possess about the diversity found in the natural ecosystem and nature-based cultures. Contrary to the idea of women as saviors of nature, the global catastrophic occurrences of climate change is making them helpless. Unpredictable climate vagaries threaten their privileged position as traditional pro-agriculturalists. Women are more at risk from the effects of climate change as a result of their collaborative efforts with nature. Woman climate victims suffer both physically and mentally due to their dependency on nature for survival.

In the novel, Rukmani initially secures this privileged position to exercise her mastery over the only piece of land and garden that her husband introduces to her. Though she does not own the land, she nurtures it with utmost care like her own child. Rukmani is proud of her ability of planting seeds and rearing plants and vegetables in the backyard garden of her hut. She joyously plants pumpkin seeds in the garden, waters them regularly fetching water from the nearby well and anxiously waits for the germination of the seeds. The seeds sprout with tender green shoots and her heart dances with joy to see the creation of her own hands. The bright yellow and red colour of the first pumpkin complements her endeavor and makes her husband proud. The remarkable growth of the pumpkin inspires her to plant variety of seeds and plants including beans, chillies, sweet potatoes and brinjals. Later, she was immensely thrilled for being able to raise some extra money to feed her husband and children by selling her organic produce. Everything grows well under her hand and they eat better than ever. Her expertise pushes her further to establish a strong bond with Earth, which, in turn enlivens her and blesses her with the essentials of life. She tries to discover the very secret of life in the lap of nature. Armed with traditional knowledge about cultivation of the land, she glorifies the use of dung in households and agricultural land as fuel, which helps in generating heat, provides protection against damp, and prevents the ants and mice venturing inside the houses. In Indian villages, dung is indeed used as a major fertilizer and germicide for ages.

But, her happiness is short lived. Although, Rukmani knows how to preserve crops and also excels in preserving seeds, her efforts fall short in front of the immense blow brought by flood and draught. Poor women may have the knowledge of regenerative power of the seeds but they remain largely unaware of the climate hazards and their mitigation strategies. Rukmani confronts the bitter reality that there is no ‘protective leaf’ to provide safeguard to her as well as to the crops growing in her land from the destructive force of climate disasters. However, despite her constant prayer to God, she has seen no improvements in the state of her land or its harvest. Due to flood and drought, her family lost their crops repeatedly and spent many sleepless nights out of hunger, yet she maintains her faith on nature’s mechanism and never blames either the field or nature. Rukmani poignantly refers to nature as a ‘wild animal’: “THAT YOU HAVE TO WORK FOR YOU. So long as you are vigilant and walk warily with thought and care, so long will it give you its aid; but look away for an instant, be heedless or forgetful, and it has you by the throat” (Nectar in a Sieve 41).

Dislocation and Identity Crisis

Climate change creates a new group of physically uprooted and culturally alienated people. In the process of moving from one place to the other, indigenous peasants become homeless and landless. Farmers are over-burdened with repeated failure of monsoon rain, destruction of crops and scarcity of seeds for reaping. Their miserable financial condition forces them to starve for long. As a result they move to the towns or cities in search of job to earn some money for the survival of their family members. This leads to overcrowding of the cities or towns. They sacrifice their land and property in the name of progress. Their green fields accommodate large buildings, industries, mines and dams instead of bountiful crops. The growing need for economic development drives these uprooted people away from their agricultural land:

“Development’ has meant the ecological and cultural rupture of bonds with nature, and within society, it has meant the transformation of organic communities into groups of uprooted and alienated individuals searching for abstract identities. What today are called ecology movements in the South are actually movements for rootedness, movements to resist uprooting before it begins. And what are generally perceived as ethnic struggles are also, in their own way, movements of uprooted people seeking social and cultural rootedness” (Mies and Shiva 99).

Sudden opening of a tannery industry in the village as mentioned in the novel gradually affects the social and cultural lives of the inhabitants. The sign of deteriorating environment becomes apparent when the birds are seen no more in the village. The smell of rotting animal skins and ceaseless unpleasant sounds produced by the tannery aggravate environmental degradation. The economy of the village gets badly affected when many of the young farmers, lured by the modernised developmental strategies the industry offers, break their ancestral bond with the land: “Wherever development projects are introduced, they tear apart the soil and sever the bonds between people and the soil” (Mies and Shiva 100).

Rukmani’s family is one of those, that disintegrates as the aftermath of this event. Her sons refuse to yield to the continuous struggle against hunger and poverty. They join the industry arousing their parents’ disappointment. The elder sons of Rukmani, Arjun and Thambi, initially work for the tannery for sometimes but their involvement in a worker’s strike leaves them jobless. Finally, they leave their native soil forever and migrate to Ceylon where they are hired as labourers. Raja, her fourth son, also joins the tannery. But he was killed by the guards of the tannery for allegedly being caught stealing a calf-skin. Rukmani sees the death of her youngest son Kuti out of starvation. She is terribly shaken but silently accepts the inevitable because she knows that she has nothing to do. The tannery, according to her, is not only responsible for the destruction of simple, primitive, traditional rustic life, but also the agricultural ground of the village. When crops fail, Rukmani and Nathan become penniless; and their landowner informs them through Sivaji about selling the land to the tannery. Scarcity of produce and high prices compel the villagers to depend upon the wages given by the tannery to buy food and satisfy other essential needs. This provides the industry with an opportunity to expand its territory to more lands and finally devours Nathan’s land too. They are granted only two week’s time to move. The event confirms Rukmani’s prediction:

“I had always felt the tannery would eventually be our undoing. I had known it since the day the carts had come with their loads of bricks and noisy dusty men, staining the clear

soft greens that had coloured our village and cleaving its cool silences with clamour. Since then it had spread like weeds in an untended garden, strangling whatever life grew in its way” (Nectar in a Sieve 135).

After more than thirty years of hard work and dedication to the land, Rukmani and Nathan are still denied the right to cultivate. As a consequence they are forced to move in with their son to the city. However, in the city they come to know that their son is missing. In urban areas poor people tend to commit crime due to lack of money to buy food. Rukmani loses her last savings as the meagre amount of money, which she kept to satisfy their requirements in the city, gets stolen. Having no money to return to the village, they start working in a stone quarry and Rukmani draws some extra money using her skill of writing letters. Here, she receives the final blow; her husband dies. Nathan dies leaving her alone in an alien land.

Rukmani’s identity is interconnected with the soil where she spends the greater part of her life. Her expulsion from the land and rejection by the owner to grant land rights pushes her to migrate to the city. Woman farmers’ efforts remain invisible despite their contribution to the land because “Economists tend to discount women’s work as ‘production’ because it falls out the so-called ‘production boundary’” (Mies and Shiva 166). Rukmani is deprived of any other alternative means to survive. Migration to an alien land due to climate catastrophe brings forth the issue of identity crisis as the deprived woman neither belongs to her native land nor the land they move to. Rukmani becomes one of the urban vagrants in the city. Disintegration of her ‘self’ can be aptly presented through the words of feminist philosopher Susan Griffin: “Space in which there is no center. Space filled with her disintegration. Where all certainties change. Space in which she feels she is coming apart. Space where nothing is ever still and motion always changes shape. The place where she hold on to nothing” (Griffin 170).

A Shared Sense of Catastrophe

Apart from Rukmani, Markandaya’s novel also focuses on the sufferings of other woman characters. In rural areas, women are left with higher burdens because of their responsibility to manage food for their families. Women are blessed with the ability to take charge of their lives and reduce the vulnerability of the communities living in harsh environmental conditions. They are not the owners of the land still nurture it like their child even without knowing “what their rights as claimants might be, and how they might go about asserting them” (Stevens et.al. 86). The adverse effect of climate change on crops leads mainly the third world peasants to migrate to towns or cities in search of jobs. Rukmani’s sons Arjun and Thambi leave their family profession of tilling the land for better financial prospects and eventually they leave the country for good. Murugan goes to the city to work as a servant and never returns to his parents. Human trafficking and sexual exploitation of women increase as the outcome of a climate disaster. Poverty, hunger and misery pave way for ethical degradation.

Ira, Rukmani’s daughter, takes up prostitution to provide food to her starving family. Her husband renounces her after five years of their marriage due to her inability to bear a child. She is returned to her parents and her husband takes another woman. Ira accepts the inevitable and tries to adjust in her parental home where other members are already fighting for their survival. It becomes necessary for Ira to earn some money in order to save her youngest

brother Kuti from starvation. Ira eventually gets productive and gives birth to an illegitimate albino child. Ironically, Ira becomes her family's aid through her choice of earning money, whereas, Rukmani was disappointed at her birth as the first child. Rukmani and Nathan try their best to prevent her from continuing her immoral activities but she refuses to pay heed to them as she could not allow her brother die out of hunger. If her parents had money to pay the dowry, they could arrange another man to marry her. Without it no one would ever take her as a wife as she had already lost her virginity. The Old Granny, in the novel, dies due to starvation during the drought. Her inability to sell vegetables in the country market after the havoc wrought by climate change, displays the gruesome reality of poverty-stricken village women. Kunthi, another village woman, also turns to prostitution to earn money. She repeatedly visits Rukmani's home to satisfy her hunger. Rukmani comes to know that Nathan had an affair with Kunthi before their marriage and he is the biological father of her sons.

The common thread of struggle and suffering among Markandaya's women characters binds them together in the face of frequent natural disasters. They portray their free will to confront the challenging situations when their abilities are tested. As they fight against natural forces, their sensitivity becomes more intense. Physical and mental growth of women makes them mature and helps them develop mutual understanding and fellow feeling which has been depicted by Dipesh Chakrabarty as "more like a universal that arises from a shared sense of catastrophe" (Chakrabarty 222). Vitality of Rukmani surpasses Nathan's as she comes out alive, whereas, Nathan surrenders in front of the challenges posed by a hard living. Women face disillusionment at every step of life, yet they boldly refuse to lose their hope and courage. Their invincible courage shapes their attitude towards survival that best fits with present climatological crisis. The beginning and the ending of the novel depict the same scene where Rukmani, doubly-traumatized by the death of her husband and for not getting any trace of her son, returns to her village. Her return can be considered as symbolic of the cyclical return of seasons. No one knows what awaits there for the protagonist and the family. This unpredictability is similar to the capricious nature of climate change.

Conclusion

Climate crisis is a growing concern for the mankind at present. Fiction uniquely offers the opportunity for the authors and readers to engage in a speculative simulation of a disaster-stricken region or its possible future, whilst the act of reading simultaneously suggests the mutual creation of that perilous scenario. Critical studies on climate change fiction particularly demand that environmental criticism, ecocriticism, or ecofeminism, should move beyond its long-standing interest in concepts of 'nature' and 'place', to embrace a new understanding of the local calamities in relation to the global crisis. According to Trexler and Johns-Putra (2011), when authors represent climate change as a "global, networked, and controversial phenomenon", they go beyond simply engaging the environment as a setting and begin to explore its effect on plot and character, producing "unconventional narrative trajectories and innovations" in character development. The study has been taken up with the assumption that a critical analysis of the representation of woman victims in Indian fiction will generate a unique connotation because of the significance of the issue in the context of India's geographical location, biodiversity and fast transforming climate. Women are still deprived of their demand to allow them to participate in national decision making activities on climate issues. Considering the significant challenges that climate change poses

to woman victims around the world, it's essential to pay attention to their cry for innovative mitigation strategies and representation in global policy making during the post-calamity period. Undoubtedly, Indian farmers have invented some mitigation mechanisms for landslides, flood, and drought over the years to cope with climate hazards. However, in the face of frequent and various kinds of catastrophic climate events and gradual oscillations in climate conditions leading to increased surface temperatures, changes in rainfall patterns, and declining moisture levels, these solutions have failed to be effective ones. Throughout the novel, Rukmani's efforts present an instance that people can repair damaged ecosystem and the environment with better practices.

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Emerging Trends in Education Loan: With Special Reference To Higher Education in India

Madhulika Singh

Abstract

Higher education has been one of the major areas which provided direction to national development. In the new millennium, higher education gets more priority in national development and efforts are being made to increase the educational network of colleges, universities and institutes of national importance as well as quality of infrastructure and human resources development. Higher education and especially management and technical education have undergone significant changes. Students loan has been proved to be best suitable model for reducing the cost of education and financing the higher education, however, in India, students loans are not encouraged by banking and financial institutes due to increasing default and converting the loan as non-productive assets. Education loan is the crucial component of retail loans in India. It has significantly grown in India over the last decades, however, it has shown declining trend in recent past in India. Present paper examines the financing of higher education and education loan in India the paper is based on secondary data and critical appreciation of pertinent literature.

Introduction

Higher education has been one of the major areas which provided direction to national development. In the new millennium, higher education gets more priority in national development and efforts are being made to increase the educational network of colleges, universities and institutes of national importance as well as quality of infrastructure and human resources development. Higher education and especially management and technical education have undergone significant changes. A large number of private institutions, including foreign and private universities, have ventured upon the task of introducing technical and vocational courses to impart management and engineering education to Indian students. AICTE has its own regulatory framework and mechanism to regulate the functioning of business institutions and ensure quality technical education, however, in order to being competent and experienced human resources, most educational institutions face daunting challenges. Educational work environment and climate is important. Most educational institutions are lacking qualified teaching staff, organizational commitment, job participation and job performance of teaching staff in these educational institutions which affect organizational climate and job satisfaction among teachers. Rapid economic growth, coupled with the demand for skilled human resources and increasing competition of Indian industries in the global economy, has made higher education sector equal access to the quantity and quality of education delivery, funding, quality research and development, employment of graduates and the benefits of international cooperation. Private higher education institutions complement the efforts of states to meet the increasing demand for

skilled workers. University education in India is in the early stage of a major reform today. India needs more holistic, flexible and vibrant universities. The education loan plays crucial role in financing of higher education and pursuing higher education by students belonging to different segment of society and income background. The education loan scheme by banks was initiated in 2001 and since then the cases of loan accounts and advances to students has increased many folds.

Objective and Methods

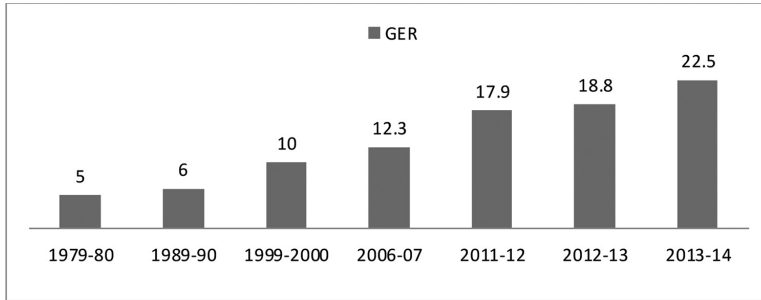
Present paper purports to examine the role of student loan in financing the higher education and analysing the emerging trends and patterns in the educational loan distributed by Nationalised Scheduled Commercial Banks, Regional Rural Banks, Private Banks and NBFCs. The paper is based on secondary data collected from reports of Trends and Progress of Banks in India, by Reserve Bank of India, Statistics Related to Banks, Ministry of Finance, Government of India, and other relevant publications of various government and non-government organisations. Besides, internet sources were used for compilation of secondary data and pertinent literature. The time series data analysis has been ensured along with critical appreciation of pertinent literature. Data has been shown in charts and tables.

Higher Education

The higher education system in India has seen substantial growth in the last three decades. Private educational institutions are providing higher education in traditional and professional disciplines and courses. Globalization and economic liberalization have created opportunities for expansion of higher education institutions, although there is still a shortage of educational institutions as the demand for higher education is gradually increasing. Management and technical education is being provided by a vast network of educational institutions including self-financed AICTE approved institutes and colleges. Quality professional education depends on organizational commitment, engagement and performance of teachers which is highly influenced by organizational climate and working conditions. Investments in higher education during 1950 and 1960 resulted in a strong knowledge base in many fields and contributed significantly to economic development, social and political change in independent India established through state legislations. The emergence of the private sector has helped expand capacity. Private institutions have improved accessibility in select disciplines such as engineering, management, medicine, IT, etc., where students are willing to pay substantial fees. A large number of institutions related to vocational education were reported in the southern states followed by the states falling under the western region. The technical education system incorporates courses and programs in engineering, technology, management, architecture, town planning, pharmacy, applied arts and crafts. The Ministry of Human Resource Development, Government of India caters to programs at undergraduate, postgraduate and research levels. The technical/management education system at the center includes All India Council of Technical Education (AICTE), Indian Institute of Technology (IITs), Indian Institute of Management (IIM), Indian Institute of Science (IISc), Regional Colleges. (RECs)/National Institute of Technology (NITs), Indian Institute of Information Technology, North East Regional Institute of Science and Technology. Our technical staff requires a high level of knowledge and skills to deal with rapidly changing technologies to compete successfully in the global labor market. Technical education includes engineering,

technology, management, architecture, town planning, pharmacy and courses in hotel management and catering technology. The share of private sector/corporate sector in higher education has increased considerably. The share of the private sector in higher education institutions was nearly 64 percent during 2012 with a share of 58.6 percent in enrolment (Chart 1).

Chart 1 : Gross Enrollment Ratio in Higher Education



Source: University Grants Commission, New Delhi (2014).

Professional education is defined as higher educational programmes that are designed for learners to acquire the knowledge, skills and competencies specific for a particular occupation or grade or class of occupations or trades. Enrolment in Professional courses is more in Private Institutions than in Government both at Under Graduate and Post Graduate levels. At Post Graduate level, the share of enrolment in Professional courses is higher than at Under Graduate level (Table 1).

Table 1: Enrolment of Students in Academic and Professional Courses in India

Level	Management	Academic			Professional		
		Male	Female	Total	Male	Female	Total
Under Graduate	Government	4804109	4607280	9411389	1133482	774881	1908363
	Government-Aided	2036170	2289780	4325950	421130	336689	757819
	Private	2916609	2963991	5880600	3628496	2092802	5721298
Post Graduate	Government	708625	964413	1673038	409274	316850	726124
	Government-Aided	153667	269403	423070	55691	72421	128112
	Private	139813	210610	350423	533839	419571	953410

Source: AISHE, 2016, Ministry of Human Resources Development, Government of India.

Many private universities have been established by the corporate sector in India. Some foreign universities are being set up in different corners of the country. Access to higher

education varies widely among states. More progressive southern states have better GERs as well as greater availability of educational institution. While the institutional density is low in most hilly areas, their GERs vary from high to low. This may be due to the fact that higher education does not depend solely on the physical availability of institutions, but also on other socio-economic factors such as parental income, desire for migration, cultural factors, etc. The state of Uttar Pradesh has more than 45 universities including 5 Central Universities, 28 State Universities, 8 Deemed Universities, 2 IITs in Varanasi and Kanpur, one IIM in Lucknow, one NIT in Allahabad, two IIITs in Allahabad and Lucknow, one National Law University. Lucknow, besides, there are number of polytechnics, engineering colleges and industrial training institutes. In addition, there are several private universities, educational institutions and educational centers across the state which provides technical and vocational education in addition to the provision of general education. The top 8 states in terms of most colleges in India are Uttar Pradesh, Maharashtra, Karnataka, Rajasthan, Andhra Pradesh, Tamil Nadu, Gujarat and Madhya Pradesh, with 28 more colleges per lakh population. In Uttar Pradesh, there are 6922 colleges and for every one lakh population. The private institutions are about two-thirds of the total higher education institutions in India. They are also responsible for most student enrolment. Most private universities in India, such as elsewhere in the world, primarily provide vocational education. The demand for professional education is changing from liberal education and the private sector is meeting this demand. Private education has played a positive role in expanding access and is considered more efficient than its public counterpart, but its impact on quality and equity is controversial. Most private institutions are professionally oriented and prepare graduates for job markets. Private higher education is to bring change, and periodically change the competitive qualifications and force in curriculum, pedagogy, examination and governance throughout the education sector.

Education Loan

Student loans are one of the alternative sources of financing higher education for loan-constrained students. Student loans in India are an attempt by the student banks to address the shortcomings in the capital market. But for the lender and borrower; the credit markets for higher education involve uncertainty at various stages. Becoming a successful student, a graduate, becoming an employee and also one who regularly pays off loans, which is dependent on his or her future earnings (Barr and Crawford, 2005; Chapman, 2006). However, financing of higher education is a highly controversial issue (Woodhall, 2007). Arguments in favor of public financing of higher education in India often cite social justice, fairness, equity and equality of opportunity (Tilak, 2004; Chattopadhyay, 2007). This equity argument often comes to the fore in defending any attempt to increase fees and/or initiate student loans in government-funded educational institutions. However, handling the affordability and equity objective by subsidizing everyone is an equal charge, and ends up in fact promoting inequality without targeting (D'souza, 2004). It is further argued that participation in higher education in India is a modest proportion and is limited to the privileged classes. Therefore, the claim to make higher education socially inclusive is a matter of debate (Shah, 2008).

Lending programs exist in more than 60 countries today, but rarely have some of them been successful in their primary mission. Countries like China, Russia and India, which are the three most populous countries, also introduced loan schemes, but on a large scale

these schemes have been successful only to some extent, in China. Panigrahi (2010) studied the accessibility of educational credit in India borrowed by students from technical and vocational institutions in terms of variables such as gender, regions, discipline and socio-economic status. Meenu John (2016) stated that education loan is a great aid for students who have not been able to pursue vocational education due to financial constraints. But the loan program was disappointing in terms of repayment status. Geeta Rani (20106) has attempted to examine the trends in financing of higher education in her paper which suggests that student loans are the major source for financing higher education in India. This leads us to explore various factors, which are enrolment growth, growth in the private sector, the emergence of a young population with a middle class with a wide acceptance of the credit culture, and an increase in the premium paid and paid for higher education desire.

In fact, children from well-off families provide low-quality school education to the public so that they are provided independently or with high subsidized high-cost and high-quality public higher education (Geeta Rani, 2014). To capture, equality cannot be achieved through blunt tools such as subsidized education for all students, as Tilak argues. Targeting is always more effective in promoting public objectives of equity (DeSouza, 2004). Socioeconomic privilege provides many direct benefits, both through a domestic culture that reinforces the goals of formal education and through the ability to access education in private schools after access to higher education in a review in European countries (Asplund *et al.*, 2008). Similarly in India, children from the richest income groups provide low-quality school education publicly so as to provide independently or at higher subsidized higher cost and higher quality public higher education (Geeta Rani, 2014). To be captured. The underestimation of underprivileged socioeconomic groups in higher education has important implications for social policy, economic efficiency, and social justice. In addition to social and economic groups, tuition fees and student loans across the course structure promote an imbalance in overall course requirements at the macro level. The structure of tuition fees is determined in part by subsidies and by course costs, with the latter marked differently (Chapman, 2006). The credit market in student loans primarily caters to a narrow segment of the student community based on their choice of professional and market-oriented courses. In addition to these courses, social loan background plays an important role in accessing student loans. This creates potential new disparities whereby students from poorer backgrounds qualify to diploma level and those with more affluent backgrounds obtain professional degrees (Christie and Munro, 2003). Tilak (1992) reported that the National Credit Scholarship Scheme has been in operation since 1963. He examined the strengths and weaknesses and problems specific to the program in India with a view to identifying measures for marginal improvement in the program. The conclusion is that student loans currently contribute very little to higher education efficiency or equity in India. The need to raise additional resources for higher education is widely recognized (Tilak 1992). Accordingly, various alternative measures are being discussed, including improvement in fees, introduction of payroll tax, student loans, fixed taxes etc. One proposal, a similar increase in fees, is usually rejected on the grounds that it would result in a decrease in socially and economically weaker sections of society's access to higher education. Adding to the complexities of the already complex tax framework in the country, arguments have been presented in favor of discriminatory fee structures (Tilak and Varghese 1985, and 1991), while graduation or payroll taxes are considered burdensome. Debt financing is not new in India. The National Debt Scholarship Scheme was introduced in 1963–64 with the aim of improving access to higher education without the government

having to bear the total burden of financing higher education. Varghese and Manoj (2012) stated that educational loans existed before the period of economic liberalization in India. But they were treated like personal loans and were available to those who met the conditions of individual banks. Since then, educational loans have become an important component of the personal loans of scheduled banks in India and the higher education scenario has had the effect of increasing the gross enrolment ratio of loans, NPAs, educational institutions and students. Higher education is an important driving force for economic development, and paramount in economic and social mobility.

Vast research literature including paper by Hanushek and Kimko (2000); Krueger and Lindahl (2000); Hanushek and Woessmann (2007) provide evidence of the value of investment in education to develop human capital and its contribution to economic growth and development. Admission to loans can be expected if there is a lack of credit for education decisions, there may be a difference in enrolment or educational attainment. However, evidence on the importance of lending barriers in education is mixed. Using data from the US to analyze enrolment in higher education, studies such as Cameron and Heckman (1998), Cameron and Heckman (2001), Carneiro and Heckman (2002) and Cameron and Taber (2004) showed college enrolment rates. The difference is credited. Rich and poor account for the difference in capacity resulting from systematically low investment in the early stage of education by poor families. On the other hand, recent studies Belley and Lochner (2007), Lochner and Monge-Naranjo (2011) and Brown, Scholz and Seshadri (2012) argue that lack of borrowing poses a major challenge for individuals to participate in higher education which causes low income families. Using the expectation of mothers' schooling and returns from Mexico, Attanasio and Kaufmann (2009), provide evidence from View, Dunlap (2012), Wiederspan (2015) and Rothenstein and Rouse (2010). Wiederspan (2015) analyzes the impact of community colleges' participation in the loan program. However, unlike Dunlap, which uses only cross-sectional variation across institutions, Wiederspan uses within-institution, to filter out the specific factors of the institution across time. They have no effect on attendance, degree attainment, and four-year college transfer, identifying the positive impact of lending on the number of credit courses. Analyzing the impact of student loans on early career choices using policy shifts, they find that student loans reduce graduates' chances of choosing lower-paying, public-interest jobs. Rothenstein and Rouse (2010) as well as Solis (2012) have used two education loan programs in Chile to employ a regression distortion design to estimate the effect due to access to credit on enrollment. Credit eligibility was determined solely by test scores. He finds positive and statistically significant effects. Solis also identifies an asymmetry in influence in relation to the quartile of family income. The effect is strongest for the poorest quartile and weakest for the richest quartile. In a similar study from a developing country, Gurgand, Lorenceau and M'elonio (2011) use a credit score cutoff to evaluate a lending program in South Africa. They have similar positive effects.

Student loans, sometimes referred as deferred payment plans', are integral to higher education policy, where educational costs are borne by students (Johnstone, 2004). Individual students are expected to meet the cost of higher education. Any increase in tuition fees may make it difficult or even impossible for weaker sections of society to pursue higher education (Mathew, 1996). There are many problems associated with student loans, such as, they have been psychologically exposed in many societies besides highly available as well as de facto unavailable for students from economically weaker sections of society in developing

countries due to the demand for protection by financial institutions (Friedman, 1962; Mathew, 1996; Nerlove, 1972; Pigou, 1920) and the risk of non-payment of debt (Tilak, 1995). Thus, “investing in loans for higher education will not provide good fiscal benefits to the government which invests in debt. “Debt is considered to promote equity and efficiency (Blaug, 1970; Mingat & Tan, 1985; Psacharopoulos & Woodhall, 1985; Woodhall, 1983). However, Johnstone (2004) calls these two “separate but quite contradictory”. Student loans have been considered beneficial to increase access to higher education (Matthew, 1996; Woodhall, 1983) and to increase students’ hard work and efficiency (Matthew, 1996). Loans are advocated because they provide flexibility in repayment.

The National Debt Scholarship Scheme started in India in 1963, when the government decided to conduct an interest-free National Debt Scholarship Scheme aimed at increasing access to higher education for the economically weaker sections of Indian society. The loans were provided based on merit as well as the financial needs of the students. The recovery of the debt was the responsibility of the Central Government and the amount recovered was to be shared between both the Central Government and the State Governments. However, the scheme had to be withdrawn mainly due to high default rate and low rate of recovery (Tilak, 2007). Private Banks enforce their terms, charge different rates of interest and insist on a regular source of income for the parents of the student seeking a loan. Furthermore, they do not care either for the student’s educational background or their economic background (Tilak, 2007, Agarwal, 2009). Ashar (2005) investigated that U.K. and compared to 85 percent in Sweden, 50 percent in the United States and Canada, and 77 percent in Australia, less than 1 percent of students took loans for their education in India (Agarwal, 2009). Bollag (2002) supported the view that loans are necessary to avoid becoming privileged students from educated families.

In India, the responsibility of financing higher education is shared by both the public and private sectors. The public sector includes central government and state governments (Ahir and Joshi, 2013). Central government spending is more towards central universities. Even if the trend is always upward, the total public expenditure on higher education is about 1.25 percent of GDP; by any standard is certainly insufficient (UGC, 2012). Private expenditure on higher education has increased nearly 12.8 times during the past decade (Ahir and Joshi, 2013). Public expenditure in the education sector, especially in higher education, has remained very low is only a little over 1 percent of GDP over the years. Funding is one of the most important aspects of higher education. The extent to which a country invests in its higher education sector determines the development of that country. Therefore, it is imperative to improve the financing of higher education, however, selection of appropriate methods has been always a major challenge. Providing education is considered a public good in India. Therefore, central government and state governments are more responsible for imparting education from basic to higher education level. Regarding public funding of higher education, about 80 percent has been circumcised from state governments while about 20 percent has been obtained from the central government (FICCI, 2011). Central universities receive more funding from the central government than the state government. However, state universities in India are more dominated. Therefore, it is necessary to promote higher education which is accessible, affordable and cost effective. Students may get education loan to finance their higher education as they are the primary beneficiaries. The Government of India is trying to promote education loans to subsidized education cost and increasing the accessibility and affordability of higher education. This is evident the changes have been

made to allow the deduction of interest payments on loans taken for higher education to assess taxable income (Chattopadhyay 2007).

Growth Patterns in Student Loans

There has been annual growth of 37.9 percent in loan advances and 33.7 percent growth in loan outstanding during the period of 2003-04 to 2013-14 The percentage of loan outstanding against advances was reported 73.06 percent in 2003-2004 which increased to 91.70 percent in 2012-13 (Table 2)

Table 2: Students Loans Outstanding in India

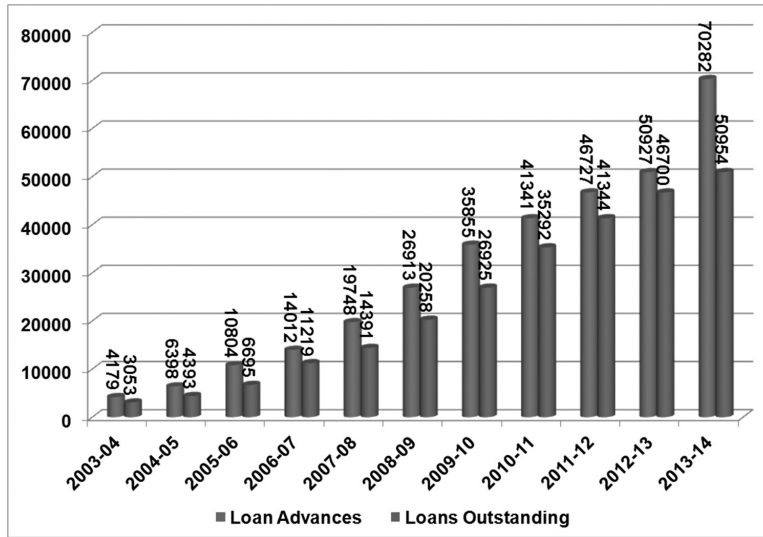
(Rs. In 10 millions)

Year	Loan Advances	Loans Outstanding	% Outstanding in Advances
2003-04	4179	3053	73.06
2004-05	6398	4393	68.66
2005-06	10804	6695	61.97
2006-07	14012	11219	80.07
2007-08	19748	14391	72.87
2008-09	26913	20258	75.27
2009-10	35855	26925	75.09
2010-11	41341	35292	85.37
2011-12	46727	41344	88.48
2012-13	50927	46700	91.7
2013-14	70282	50954	72.5
GR	37.9	33.7	-

Source: Statistical Tables relating to Banks in India, RBI.

Chart 2: Students Loans Outstanding in India

(Rs. In 10 millions)



Source: Statistical Tables relating to Banks in India, RBI.

Education loan scheme was initiated in India in 2001. Ever since its inception, the number of educational loans have increased from 0.11 million, in 2000-01 to 2.59 million in 2013- 14 with registering average annual growth rate of 28.7 percent in loan accounts while growth in enrolment in higher education was recorded 12 percent . The education loan distribution has increased by 68.37 times while education loans witnessed by 23.12 times increase over the corresponding period.. The education loan constituted 106.7 percent against government expenditure on higher education including technical education in 2013-14 (Table 3).

Table 3: Growth of Education Loans in India

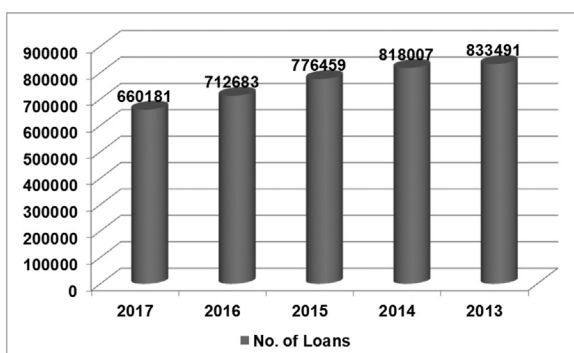
Year	Education Loans (in 000s)	% of Students Enrolled in Higher and Tech Education	Education Loans Released (Rs. 10 Millions)	Education. Loan as % of Govt. Exp. On Higher and tech. Education
2000-01	112.0	1.3	1028.0	5.1
2001-02	157.0	1.8	1527.0	16.0
2002-03	239.0	2.5	2870.0	28.2
2003-04	347.0	3.5	4179.0	35.1
2004-05	470.0	4.0	6398.0	50.6

2005-06	641.0	4.5	10804.0	73.6
2006-07	1002.0	6.4	14012.0	84.5
2007-08	1215.0	7.1	19748.0	86.4
2008-09	1580.0	8.5	26913.0	104.0
2009-10	1911.0	9.2	35855.0	111.8
2010-11	2211.0	8.0	41341.0	96.9
2011-12	2373.0	8.3	46727.0	94.1
2012-13	2479.0	8.4	50927.0	86.7
2013-14	2590.0	7.8	70282.0	106.7
GR*	28.7	12.1	37.9	14.9

Source: Statistical tables Relating to Banks in India, RBI.

The distribution of educational loan by State Bank of India and its associated banks has shown declining trend during 2013 to 2017. It shows that education loan has declined recently due to many factors, mainly because of poor financial recovery from loan advances released by banks (Chart3).

Chart 3: Distribution of Educational Loan By SBI and Its Associated Banks in India

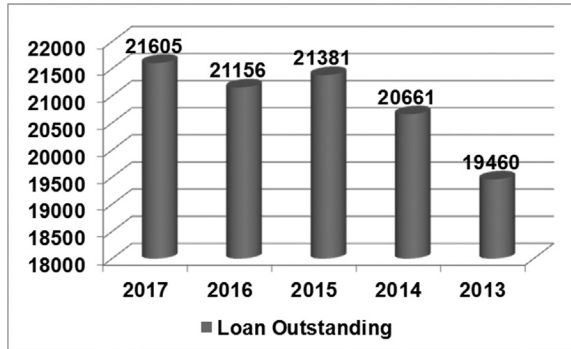


Source: Annual Reports, SBI.

Though number of student loan has declined in recent past, however, loan advances has shown significant growth (11 percent) during the period of 2013- 2017 (Chart 4).

Chart 4: Educational Loan Outstanding By SBI and Its Associated Banks in India

(Rs Crores)



Source: Annual Reports, SBI.

Loan advances increased at an annual average growth rate of 38 percent. Similarly, loans outstanding also increased at an annual average rate of 34 percent. Outstanding loan as a proportion of Student Loans constitute around more than 60 percent of loans released. Though this may not be an ideal way of examining performance of loans, this crude indicator reports with huge percentage of loans outstanding against loans advanced. Comparing education loan with other components of personal loans such as housing, consumer durables, vehicles and personal credit cards, indicate that not only student loan advances growing faster but also the growth rates of loans outstanding is also the highest with 21 percent during the period 2009 to 2013 (Table 4).

Table 4: Loan Outstanding Across in India

Rs. in Millions

Components	2009	2010	2011	2012	2013	GR
Housing	284751	306307	345931	378744	464711	12.66
Consumer Durables	7373	5759	6564	7347	8213	4.7
Vehicles	59824	44634	65717	70366	81619	11.37
Education	24848	38380	46990	52005	55044	20.86
Personal Credit Cards	30214	21807	20676	22179	25446	-3.21
Others	146536	142008	184256	219509	236257	14.92
Personnel loans	553546	558895	670135	750151	871291	12.77

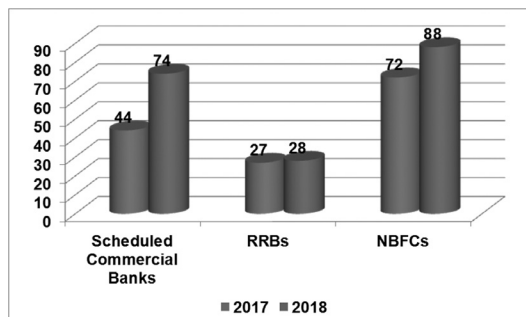
Source: Statistical tables Relating to Banks in India, RBI.

Educational loan has shown increase over the period of 2017 to 2018. During 2017, more than half of the loans were distributed by NBFCs while Scheduled Commercial Banks

released loans in the tune of 30.77 percent . However, share of NBFCs in educational loan reduced to 46.32 percent with the increased share of Scheduled Commercial Banks (Chart 5)

Chart 5: Education Loans by Banks in India

(Rs. in Billion)

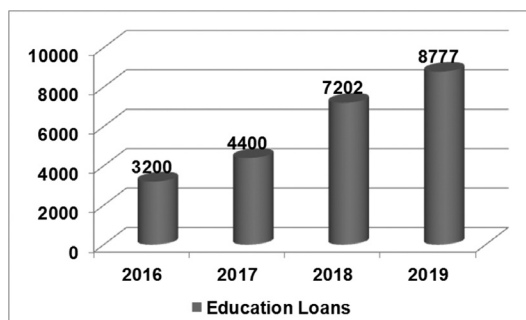


Source: Trends and Progress of Banking in India, RBI.

Education loan distribution by NBFCs has grown significantly during 2016 to 2019. It has shown 174.28 percent growth over the period (Chart 6).

Chart 6: Education Loan by NBFCs in India

(Rs. in Crores)



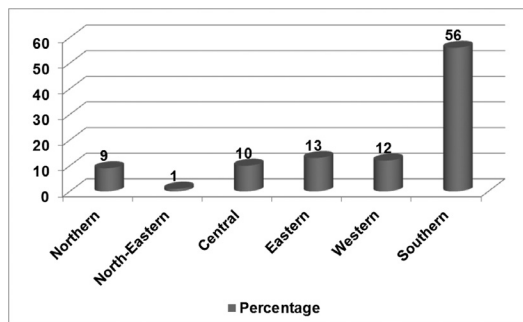
Source: Trends and Progress of Banking in India, RBI.

Financing for higher education is being met through various sources including direct student loan from banks and other financial institutions, parents borrowings through other channels including from friends and relatives, credit card borrowings, loan against property and other unorganised sources. The overall education loan portfolio is about Rs. 80,000 crore comprising mainly of scheduled commercial banks (Rs. 73,000 crore), co-operative Banks (Rs. 2,000 crore) and NBFCs (Rs. 5,000 crore). Education loan scheme was introduced in 2001 by banks for facilitating higher education for poor and meritorious students. Initially, this scheme covered students studying in India as well as abroad with a maximum ceiling of Rs. 7.5 lakh in India and Rs. 15 lakh for abroad studies. Currently, education loans up to Rs. 10 lakh are eligible to be classified as priority sector loan, irrespective of the sanctioned amount (CARE Rating, 2018) . Education loans under the priority sector lending stood at

around 89 percent in 2017 compared with the total educational loan portfolio of the banks. However, it has been observed that the ratio of priority sector loans to total educational loan portfolio has been on a decreasing trend from almost 95.86 percent in 2013 to 89.75 percent in 2017. However, there is no compulsory prescribed limit to banks for education loans segment under priority sector lending guidelines unlike in case of other segments i.e. agriculture (18 percent).

The distribution of the education loan portfolio by the banks shows large regional disparities. Southern India forms around 56% of the total education loan portfolio of the banks. Amongst the states, Tamil Nadu and Kerala together account for 36% of the outstanding education loan portfolio. The other states which contribute higher to the education loan portfolio of banks include Maharashtra, Karnataka, Andhra Pradesh and Telangana. The education loans are skewed towards some regions mainly on account of higher literacy levels and students inclination to pursue higher education mainly technical courses. Furthermore, the availability of the government schemes, access to finance and availability of ready educational infrastructure are other key aspects which skew the ratio towards these regions (Chart 7).

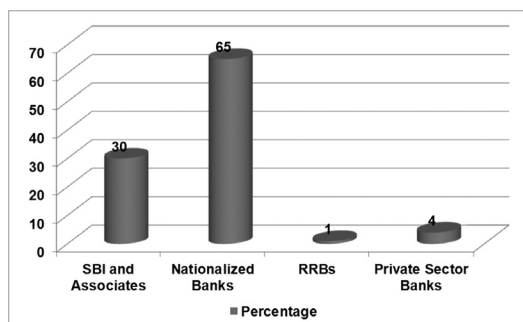
Chart 7: Region-wise Distribution of Education Loans in India



Source: CARE Ratings, 2018.

During 2017, about two third education loan was distributed by nationalised banks while SBI and its associated banks distributed about 30 percent loan to students, thus, about 4 percent loan was released by private sector financial institutions (Chart 8).

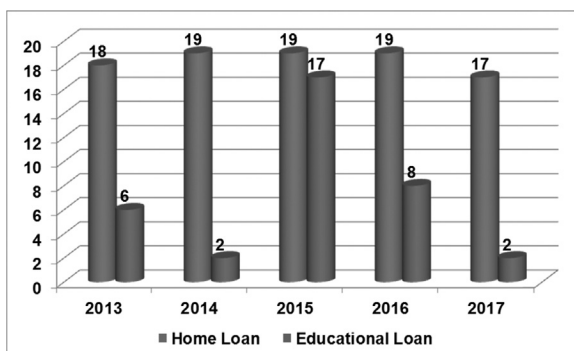
Chart 8: Distribution of Education Loans by Banks



Source: CARE Ratings, 2018.

The growth of educational loan is shown in chart 9. There has been less growth in education loan compared to housing loan in India. even, educational loan has reduced .over the period.

Chart 9: Annual Growth Rate of Education Loans

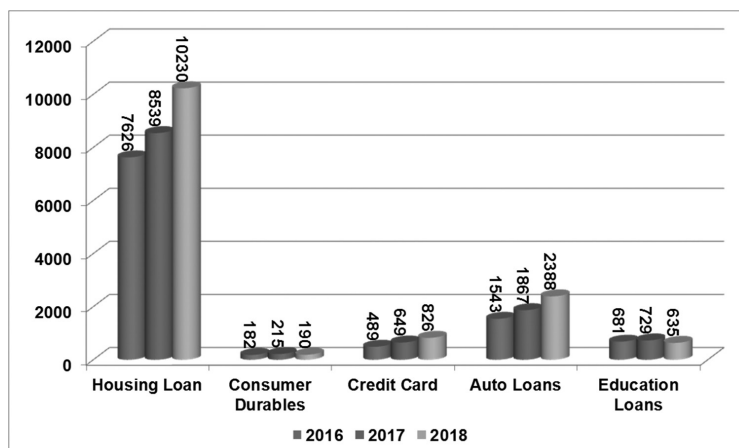


Source: CARE Ratings, 2018

There has been significant growth in retail loans in India over the period of 2016 to 2018, however, highest growth was recorded in credit card followed by auto loans and lowest growth was reported in consumer durables. Educational loan sector recorded 6.75 percent growth during the period of 2016-2018 (Chart 10).

Chart 10: Retail Loan Outstanding of Banks

(Rs. In Billion)



Source: Trends and Progress of Banking in India, RBI.

The education loan portfolio growth has been low despite the opportunities in the education segment. One major factor could be higher delinquencies experienced by banks and very few specialised lending institution in this segment. The total value of non-performing loans for the public sector banks in the education sector has grown from Rs. 3,536 crore in 2015 to Rs. 5,192 crore in 2017 with NPA ratio of 7.67 percent. While the problem of higher delinquencies across India, however Kerala and Tamil Nadu have higher delinquencies.

Conclusion

Universities can offer market-oriented self-financing courses, which are in demand and universities can associate self-financing private colleges. This can generate some income for universities. But it can discriminate and dominate other disciplines. Therefore, it may be one of the options to increase income but may not be the best in the Indian context. Due to fiscal constraints and a greater need for greater spending at the primary level, public funding in higher education is not sufficient. As a result, finding some more income generating options has been an essential task. Although fee increases and education loans have been practiced as sources of income generation to finance higher education, they also appear to be of limited options in terms of equity and access. It is imperative to explore potential sources of financing for higher education, as the rising cost of higher education, especially technical and professional education has made it a matter of concern for policy makers and educational leaders how to reduce the cost of education so that it can be made more accessible and affordable. Students loan has been proved to be best suitable model for reducing the cost of education and financing the higher education, however, in India, students loans are not encourages by banking and financial institutes due to increasing default and converting the loan as non-productive assets. The education loan segment requires a specialised approach towards designing the product to maintain good asset quality. The players need to clearly define the parameters to assess each student loan separately rather than treating it as priority sector loan.

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Impact of Employee Work Efficiency Due to Covid-19 Pandemic on Automobile Industries Employee's in Chennai – A Theoretical View

A. Kamalakannan & V.P. Matheswaran

Abstract

The effectiveness of organisation is determined by how successfully you assign resources in order to achieve your organizational goals in the right way. In other words, how well your organisation converts input into output, such as products, programmes and services. In this way effectiveness contributes to the success of your organisation. The producing firms throughout Covid-19 pandemic, modifying a number of the policies to figure within the organisation additionally modification a number of habits within company like maintaining social distance, sporting mask invariably and report check up daily base, it'll creates massive impact on employee's day to day life. the corporate use to take care of social distance among the employees and providing safety things like sinister, blood heat checking, report check up in daily base, and the and therefore the and additionally the company arrange to organize medical facilities workers for workers any uncertainty health issue happen within the corporate therefore will provides treatment for under Covid-19 patience therefore tie-up with Medical agency or Hospital it helps to avoid worry among the surroundings also employees could get sensible environments. If the businesses not properly maintain social distance within the organisation it's additionally creates unsafe work conditions and fears among employees. The employee's area unit worries concerning traveling throughout Covid-19 pandemic makes fears to achieve. That the management disbursement over expenses to arrangement various (more) vehicles obtain and drop the workers. Company transportation vehicle capaciousness having forty two suggests that solely twenty one individual's area unit enable to seat in this vehicle. The workers area unit permits to maintaining social distance within the vehicle, additionally sporting mask within the vehicle. The corporate production could increase or decrees however ne'er loss your loyalty workers, as a result of you ne'er get different one like him. Throughout Covid-19 pandemic most of the employee's expectation from company needs to give correct regular payment with safe work surroundings additionally don't force them to go away the duty if they need they leave job.

Keywords: Employee Work Efficiency, Performance and Productivity.

Introduction

The producing companies throughout Covid-19 pandemic, modifying variety of the policies to work inside the organisation together modification variety of habits inside company like maintaining social distance, sporting mask invariably and report check up daily base, it's going to creates immense impact on employee's day to day life. It'll manufacture immense impact on employee's day to day life. throughout covid-19 pandemic some the companies unit voluntarily forcing few of staff to quite their job for lacking skills and another reasons pressure from high level control over the account of shortage of funds, cash inflows, severe

squeeze from the assembly or employee been terminated as a result of Covid-19 pandemic considering companies cash state of affairs they takes this decision, together they makes discount activity to targeting initial lower level staff forces them to quite the duty and reducing welfare activities. Some staff resigned their service for low earnings and pressure among work culture. many of the workers unit in operation pestered due to family reasons. And together Employee's earnings has been deducted despite performing from home that was approved by my company itself. However, as per Government law it fully was been confirmed as a result of Covid-19 imprisonment, people can get a and to work from home if the company permits. staff unit marked LWP (Leave whereas not Pay), staff unit performing from home for his or her company's growth and name or whether or not or not the LWP was a right step taken by the company. If any of the workers unit affected in Covid-19, they are targeted and being given veiled threat of termination and not being permissible to come back to work, the companies things he/she might infect the other staff significantly the novice staff and contract staff (they exclusively considering permanent staff allow). If they have medical certificate of macromolecule take a glance at, still being rejected. Efficient employees have a positive attitude and an open mind. They are emotionally stable and have a consistent and efficient working and leadership style. They are quite composed even under pressure. An open mind enhances the learning capabilities of employees and also makes them good problem solvers. The productivity of the worker, that is to say the time spent on working divided by their time in the office. The value of the work produce over the time. The amount of time spent doing the task that creates the most value, which is the efficiency of the worker.

Meaning of Employee Work Efficiency

Efficiency in the workplace means when employees carry out the correct tasks in the right way, with the least waste of time and effort. In essence, improving workplace efficiency is about helping employees work smarter, not harder. They know how to organize their time and effort to complete tasks on time.

Strategies to Improve Employee Work Efficiency



Fig. 1. Strategies to Improve Employee Work Efficiency

Set Reasonable Goals

Setting reasonable goals also helps you focus on the goal itself and the desired outcome. When your goal is too lofty to attain or is not defined, you can't clarify it or properly focus your mind and efforts on it.

Time Management Practices

If you find yourself feeling buried in work, jumping from task to task with no clear strategy or struggling with work efficiency, you may need to refine your time management skills. Familiarize yourself with processes like chunking to group tasks together based on outcome so you feel less overwhelmed and more organized.

Create Positive Work Environment

Motivated employees who are committed to giving their best get their job done efficiently. It automatically fosters a positive and energetic work environment. If your employees have a low efficiency, it is very likely that the office atmosphere is close to that one in a morgue (which often leads to workers updating their resumes in hopes to find a better employer). A comfortable work environment has always been important to productivity. It is increasingly up to employees to improve this aspect of work efficiency. First ensure you have all the tools you need to do your job well: multiple monitors, ergonomic seating, a printer or scanner and so on.

Increased Engagement

Efficient workers are more engaged in their responsibilities. This helps employees be more focused on achieving goals. For companies, high engagement rates of employees means it will be easier both to retain and recruit talents. Ultimately, engaged workers will more likely help your company attain your business goals.

Rewarding Employees

Rewards and incentives drive employee efficiency. Multiple studies across different countries have demonstrated that by recognizing and rewarding well-performing employee's business managers help them feel more appreciated. Rewards and incentives the first thing that comes to mind is salary increase or some sort of financial bonus. However, any top manager will attest to the fact that appreciation goes far beyond money matters.

Team Work

Employee teamwork enables your workforce to: Split difficult tasks into simpler ones, then work together to complete them faster. Develop specialised skills, so that the best person for each task can do it better and faster. Collaboration is one of the most important skills for any employee's career success. As a leader, finding ways to encourage and improve collaboration among members of your team is equally important for team success and your own. Everyone has a different role to play. Whether you're all in the office or you're team is

remote, as a manager, your job is to draw out the different capabilities on your team and find ways to use them to achieve better outcomes. If you're a team member, your job is to play the role assigned to you, but also, identify if there's a gap. Sometimes you need to jump in and see what other roles you can fill. All of those roles need to be fulfilled in order to achieve progress. Collaborating as a team is not something that comes naturally to everybody. As a leader, it's helpful to highlight the importance of teamwork. But you also have to demonstrate everyday how and why teamwork is critical within your particular workplace. Leaders need to model cooperative behavior, recognize people who are collaborating well, and advocate for tools and performance measures that support collaboration.

Job Rotation

Job rotation is the systematic movement of employees from one job to another within the organization to achieve various human resources objectives such as orienting new employees, training employees, enhancing career development, and preventing job boredom or burnout. When an employee works across different departments or job profiles after a specific time interval, it qualifies as job rotation. One real-life example of job rotation is that of doctors. Doctors in a hospital work across different departments and gives them exposure across various verticals of medicine. Job rotation allows a company to see employees' potential and invest in teaching new skills throughout an organization. It can also help reduce turnover and keep staff that is familiar with how an organization works, even if additional training is needed for a specific role

Problem Faced by Employee in Automobile Industries

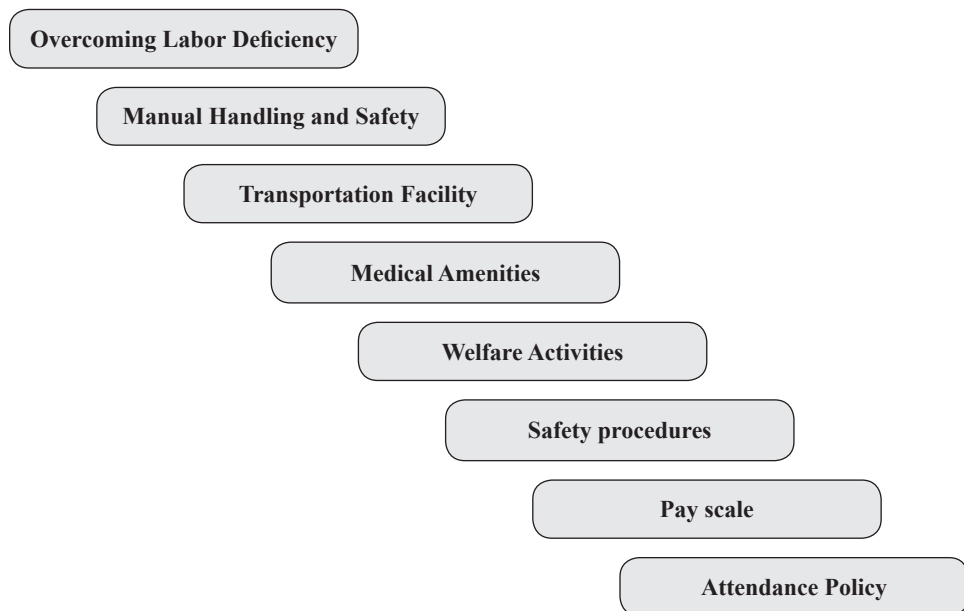


Fig. 2. Problem Faced By Employee in Automobile Industries

Attendance Policy

The producing corporations, management individuals are maintains employee's attending for exploitation bio-metric system with their finger punch. the workers need to press the thump into bio-metric before coming into and when effort company so machine scheming in and out time of the employee's presence. however currently throughout Covid-19 pandemic produce concern among workers are exploitation finger punch (thump) into bio-metric.

Pay scale

Some of the producing corporations are providing regular payment for workers solely UN agency are operating within the corporate, not works from home policy days throughout Covid-19 pandemic.

Safety Procedures

If the corporate not provides clear instruction to workers or workers might not adapt the management conditions regards correct use and maintain safety things like sanizter, temperature checking, and report check up in daily base throughout Covid-19 pandemic workers might suffer in unhealthy environments. If the businesses not properly maintain social distance within the organisation it's additionally creates unsafe work conditions and fears among employees.

Welfare Activities

During Covid-19 pandemic a number of the producing corporations minimizing some further welfare activities things, like birth day gifts, wedding gifts, 3c & 5s gifts, tour program, get-together, reducing snacks (low price bisects) et al. the extra welfare activates things helps to provides some happiness over the workers in traditional days.

Medical Amenities

Medical amenities within the corporate no use if they not having Covid-19 connected precaution medication additionally having one car, individuals concern among traveling that one car throughout Covid-19. as a result of any unsure health problems or already health weak condition connected issues individuals are suing that vehicle solely.

Transportation Facility

The employees are permits to maintaining social distance within the vehicle, additionally sporting mask within the vehicle. For instance if the vehicle capaciousness having forty two suggests that solely twenty one individuals are enable to seat therein vehicle. The employee's are worries concerning traveling throughout Covid-19 pandemic make fears to achieve. Therefore the management outlays over expenses to arrangement various (more) vehicles obtain and drop the workers.

Manual Handling and Safety

According to the Bureau Labor of Statistics, in the last recorded year, there were approximately 2.9 million non-fatal workplace injuries and illnesses reported by private industry employers. Manufacturing companies most frequent incident is non-fatal injuries to employees, because they lifting and handling some of things in manually. So manufacturers must find ways to help lower the risk of injuries. Examples employees use to handle **trolleys and trucks** which can help manufacturers lift heavy stuff to prevent injuries.

Overcoming Labor Deficiency

The manufacturing companies have to guide latest programs to develop your lower-skilled employees into more efficient workers. The companies always prepare with alternative employees to prevent loss of manpower. Examples if any one of the employees willing to quit their jobs for some personal reason or they completed end at their services, or leaving any of silly reason means that time the management ready to replace right person in that place, other views production will affect. If the manufacturing Partnerships with nearest colleges and other educational institutions that can make easy way of hiring, a reduced amount of risky and offered some internship programs for student which can helps manufacturing companies, to find future employees also have availability of workers in early stages.

The Internet of Things (IoT)

Manufacturing companies are facing today biggest challenge during Covid-19 pandemic, best way to implementing the **Internet of Things** to achieve operational goals, such as reducing costs, improving efficiency, increasing safety, supporting compliance or pushing product innovation. There's a pressure for manufacturers to use the Internet of Things to its full potential. It's not enough for them to simply implement the technology into their products and service, there needs to be a strategy. Systems need to be in place to collect, analyze and translate this data. If no clear strategy is set, manufacturers will not be able to improve their decision making in a way that is beneficial. So the manufacturing industries need to stay smart to the change. If manufacturers stay aware of the challenges they face today, they'll be able to find the best solutions and continue to be successful.

Implication for Employee Work Efficiency

Attendance Policy

The management plans to create electric card (bio-metric) access with face scanning for employee attendance instead of using finger punch, that electric card system having individual with their id number to access him/her presence in before entering and after leaving the company.

Safety Procedures

Employee are checking in gate before entering into company for wearing mask or not, body temperature check, using sanizhter, Health card check it haves in heath related issues.

Medical Amenities

During Covid-19 pandemic the company plan to arrange medical facilities for employees any uncertainty health issue happen inside the company so can provides treatment only for Covid-19 patience can check Example: tie-up with Medical agency or Hospital. if company having one ambulance facilities means also arrange one more alternative ambulance for emergency purpose traveling only Cobvid-19 patient over during covid-19 pandemic to avoid fear among the environment.

Canteen Facility

Maintaining social distance inside the canteen for examples if the table seating capacities having 500 means only 250 people are allow to seat inside the canteen, so the employee can have comfortable in that place also monitor with canteen supervisor inform to management in shift base. The management plans to arrange scheduled time for breakfast, lunch or dinner department wise fixing the time to avoiding rush in canteen. they also gives healthy food like banana and other vitamin food (vegetables) to employees during Covid-19 pandemic, it helps to improve good health also washing pleats in hot water for preventing bacteria to secure.

Transportation facility

The management plans to arrange (alternative) more vehicles for pick up and drop employees so they can assure physical distance inside the vehicle to reach safely. Not only that also the management has gives clear instruction to driver weather the employees are maintain social distance or not report into management or transportation in charge on daily shift basis. Once the vehicle reached in company, that vehicle preparing into washing and using extinguisher all over the areas and so we assure some safety over that, then ready with pick up next shift employees and drop the present employees safely.

Conclusion

The manufacturing company has to communicate with their people in right manner, like tell them your employees don't be panic on Covid-19 pandemic, it just controllable things, if we stand with unity it just nothing, also delivery awareness to people show them some good habits as to follow them also treat them your employees as humanity in this tough time. The company production may increase or decrees but never loss your loyalty employees, because you never get other one like him. During Covid-19 pandemic most of the employee's expectation from company has to provide proper salary with safe work environment also don't force them to leave the job if they want they leave job.

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Analysis of Housing Intrinsic Factors in House property Purchase in Urban Centres of Karnataka

Arunesha M. & K. Nagendra Babu

Abstract

Housing is the basic necessity of every human being after food and clothing. Technically speaking, house is the durable commodity being purchased or built once in lifetime out of permanent or lifetime earnings. Accordingly, there is a need to understand the factors influence the purchase behaviour of house property. The present study has been conducted to identify the factors which significantly influence purchase of house property. The study used primary data and factor analysis for examining the factors influence house property purchase. It has found from the principal component analysis that in the first place interior vastu, styles of the house and utility area have jointly and significantly influenced the house purchase decisions. In the second place kitchen size & design, room's size and location have jointly and significantly influenced the house purchase decisions. In the third place housing floors types, age/condition of housing and using material for house have jointly and significantly influenced the house purchase decisions. Accordingly, in order to attract the potential buyers for house purchase, there is a need give highest priority to style of the house which attract the purchaser, interior vastu has to be ensured and sufficient utility area has to be provided. It doesn't mean that the attributes identified under second and third component are not important; they also important but highest priority have to be given to style of the house, vastu and utility area.

Keywords: House, Housing Market, Buyers Perception, Intrinsic Attributes, and factor analysis.

Introduction

Housing is the basic necessity of every human being after food and clothing and bringing them with their immediate social milieu (Nagaraju, 2009). Home is the place of being connected with our families every day in our life, where other families can also meet and wish to share some beautiful moments altogether. It consists of various factors other than the basic needs such as comfort, space, lifestyle, and design to name a few (Wei, 2013). Generally, a man spends most of his time in his home. This shows clearly that a house is an integral part of a man's life so it is always a dream of every human being needs an adequate house.

The housing sector plays a significant role on the national economy and nation building. In recent years, housing has often been called the "Engine of domestic growth" of the economy. In terms of total linkage impact in the economy, housing ranks third out of 14 major industries (Jaheer, 2019).

Technically speaking, house is the durable commodity being purchased or built once in lifetime out of permanent or lifetime earnings. It has been also confirmed that homebuyer

does not pay only for the physical building but for many utilities, such as location and other facilities. Hence, a home is a set of characteristics. The first characteristic includes the physical attributes of the home such as size, number of rooms, and facilities. The second comprises the community attributes like demographic characteristics of the surrounding neighbourhoods. The third feature is the distance travel to one's place of work. The fourth characteristic is the potential and affordability of the prospective buyer. Accordingly, there is great diversity in preferences for residential properties.

The residential property purchase is a complex decision-making process because purchasing a home is not just a financial investment; it is an emotionally attached when the house becomes their dream home. As shown by most costly acquisition, rarely purchase, riskiness, high self-expressiveness, and awareness among purchaser of important differences among product substitute. purchaser are very specific about the property attributes that they are preferences, hence, giving rise to differences in attribute choices among them. In this situation, residential property marketing can be challenging if developers do not have a complete picture of buyers' preferences for such attributes. There have been many factors determined the purchase of house property and intrinsic attributes are the set of characteristics which significantly determine the purchase of house property. All together there are about 20 attributes within the housing intrinsic attribute; *housing types/floors of house, age/condition, using material, plot size, no of bed rooms, size and location & dining hall, kitchens size & design, room size & location, study rooms, no of toilets & bathrooms, size of living area, ventilation & windows, architectural plan, pooja/prayer hall, placing for equipment, style of the house, interior vastu, connectivity & spaciousness, utility area and store room*. All these attributes are having differential importance. Accordingly, understanding priority and importance of these attributes plays significant role in marketing of house property. Hence, in the present research paper an attempt has been made to identify the most preferred and important attributes within the intrinsic attributes in house property purchase decision by using factor analysis method.

Review of literature

Housing is one of the most researched areas in recent years. Accordingly, there is vast amount of literature available on housing and housing market. It has been understood by the previous literature that housing is a product which that highly heterogeneous in nature (Sudhi, 2011) and it provides safety, privacy, and independence. Owning a house gives consistency to family life and used as an investment opportunity, argued by (Rahman, 2010). It has been also found that House property developers have not made sufficient efforts to identifying consumers' actual needs and expectations in the house property buying process (Williams, 2015); (Opoku, 2010); (Hofman, 2006); (Bitter, 2007); (Pope, 2008). The very first step in understanding the buyers' behaviour is to identifying and prioritize the housing attributes. Both intrinsic and extrinsic attributes have been played important role in house purchase decision (Fierro, 2009); (Cupchick, 2003); (Greene, 2002). However, intrinsic attributes dominate the purchase decision, once the location of the house property is decided (Chiwuzie, 2020); (Tan, 2012); (Greene, 2002); (Hurtubia, 2010); (Moghimi, 2015); (Anthony, 2012). However, prioritizing the intrinsic attributes of the house property has not been systematically studied with an aggregate approach (Opoku, 2010). Accordingly, in order to fill this gap the present study has attempted. Hence, the present study has both relevance and significance in understanding the role of housing intrinsic attributes in house property purchase behaviour.

Methodology

The present paper has used primary data. The survey was done among the buyers and potential buyers in five cities of Karnataka; Mysuru, Bengaluru, Hubli-Dharwad, Kalburgi and Mangaluru. 950 buyers were interviewed and collected the necessary data on Likert scale. All the factors were measured using a five-point Likert scale with anchors ranging from 1-5 (1 for not at all influenced and 5 for extremely influenced). The Principal Component Analysis has used to identify the housing intrinsic attributes influencing the house property purchase. The factors used for the present analysis are mentioned in the introduction with *italic font*. The varimax repeated rotation method was adopted for repeated matrix. The stepwise factor analysis method was followed. Accordingly, descriptive statistics are computed for understanding the average score for the intrinsic attributes. Correlation matrix used for understanding the strength of relations among the housing intrinsic attributes considered for the present study. Kaiser-Meyer-Olkin (KMO) used for sampling Adequacy. Bartlett's test was used for Sphericity. The components have identified for which the Eigen value is greater than one and factor under each component identified for which extraction value is greater than 0.7. Accordingly the present study is systematic, analytical and scientific.

Results and discussions

The results of the present study have obtained from SPSS 21. The results of the study have also processed and presented according to the needs of study. The score for each factor given by all the customers are summarized and presented in the following descriptive table.

The following table presents the average score for housing intrinsic attributes influencing the purchase decision of house properties. It has been found from the above table that respondents have given highest score for two factors namely, Condition of the house and using material and followed by other factors. And there are sufficient variations among the respondents as depicted by standard deviation.

Table 1. Descriptive Statistics for Housing Intrinsic Attributes

S.No.	Factors	Mean	Std. Deviation	Analysis N
1.	Housing Types/Floors of House	4.39	0.764	950
2.	Age/Condition	4.50	0.703	950
3.	Using Material	4.50	0.673	950
4.	Plot Size	4.35	0.713	950
5.	No of Bed Rooms	4.34	0.825	950
6.	Size and Location & Dining Hall	4.32	0.716	950
7.	Kitchens Size & Design	4.29	0.767	950
8.	Room Size & Location	4.20	0.795	950

9.	Study Rooms	4.22	0.774	950
10.	No of Toilets & Bathrooms	4.30	0.746	950
11.	Size of Living Area	4.43	0.710	950
12.	Ventilation & Windows	4.46	0.832	950
13.	Architectural Plan	4.31	0.755	950
14.	Pooja/Prayer Hall	4.17	0.793	950
15.	Placing for Equipments	4.26	0.742	950
16.	Style of The House	4.22	0.720	950
17.	Interior Vastu	4.16	0.805	950
18.	Connectivity & Spaciousness	4.29	0.748	950
19.	Utility Area	4.14	0.734	950
20.	Store Room	4.19	0.777	950

Source: Primary data, computed by researcher.

Correlation matrix for factors influencing the purchase decision of buying house properties has computed for housing intrinsic attributes and found that the diagonals are the unit matrix and give solutions for factor analysis.

It is found from the correlation matrix that the highest correlation coefficient value is found between kitchen size & design and room size & location. It is also proven with many other factors that the correlation coefficients between the factors are greater than zero. Therefore, factor analysis is advisable for the present concept of factors influencing the purchase decisions of house properties.

Table 2. KMO&Barlett's Test for Housing Intrinsic Attributes

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.930
Bartlett's Test of Sphericity	Approx. Chi-Square	12520.751
	df	190
	Sig.	0.000

Source: Primary data, computed by researcher.

The Kaiser-Mayer-Olkin (KMO) and Bartlett's test was conducted to identify the adequacy of samples for factor analysis of housing intrinsic attributes influencing the purchase behaviour

of house properties. The KMO value is 0.930 and greater than 0.5. Hence, the samples used for the present factor analysis are adequate. The Chi-square test value is 12520.751 and it is significant at one percent level. Therefore, the test of sphericity has passed. Therefore, there are strong relations among the housing intrinsic attributes used for the analysis of factors influencing the purchase decisions.

Table 3. Communalities for Housing Intrinsic Attributes

S.No.	Factors	Initial	Extraction
1.	Housing Types/Floors of House	1.000	0.731
2.	Age/Condition	1.000	0.676
3.	Using Material	1.000	0.633
4.	Plot Size	1.000	0.567
5.	No of Bed Rooms	1.000	0.618
6.	Size and Location & Dining Hall	1.000	0.714
7.	Kitchens Size & Design	1.000	0.726
8.	Room Size & Location	1.000	0.725
9.	Study Rooms	1.000	0.706
10.	No of Toilets & Bathrooms	1.000	0.646
11.	Size of Living Area	1.000	0.606
12.	Ventilation & Windows	1.000	0.647
13.	Architectural Plan	1.000	0.646
14.	Pooja/Prayer Hall	1.000	0.614
15.	Placing for Equipments	1.000	0.707
16.	Style of The House	1.000	0.637
17.	Interior Vastu	1.000	0.558
18.	Connectivity & Spaciousness	1.000	0.607
19.	Utility Area	1.000	0.610
20.	Store Room	1.000	0.390
Extraction Method: Principal Component Analysis			

Source: Primary data, computed by researcher.

The communalities for each housing intrinsic attributes influencing the purchase decision of house property have estimated and found that initial values for the factors are 1 and extraction values are other than zero for housing intrinsic attributes. Accordingly, the present factor analysis for factor influencing house property purchase decision will identify at least one component which represents more than one factor.

Table 4. Total Variance Explained for Housing Intrinsic Attributes

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	9.867	49.333	49.333
2	1.688	8.440	57.773
3	1.209	6.044	63.817
4	.759	3.797	67.614
5	.746	3.730	71.344
6	.665	3.325	74.669
7	.621	3.105	77.774
8	.565	2.826	80.600
9	.520	2.602	83.202
10	.474	2.372	85.574
11	.430	2.151	87.725
12	.404	2.021	89.746
13	.371	1.855	91.601
14	.321	1.603	93.204
15	.280	1.400	94.604
16	.268	1.340	95.944
17	.226	1.130	97.074
18	.219	1.096	98.169
19	.201	1.004	99.173
20	.165	.827	100.000
Extraction Method: Principal Component Analysis			

Source: Primary data, computed by researcher.

The total Eigen values for housing intrinsic attributes influencing purchase decisions under different components and their relative variances explained the total variance by each component are computed and presented in the above table.

Based on the Eigen value three components are identified. The first component has explained 49.333 percent of variance in the total variance of housing intrinsic dimension. The second component has explained 8.440 percent of variance in the total variance of housing intrinsic attributes. The third component has explained 6.044 percent of total variance in the total variance of housing intrinsic attributes. Together, three components explained 63.817 percent of total variance of housing intrinsic attributes.

Identification of actors for Each Component of Housing Intrinsic Attributes:

Using rotated matrix, which is also a varimax procedure, for the housing intrinsic attributes influencing the house purchase decisions are identified under each component for which the value is greater than 0.7 (A factor loading approximately 0.7 is considered to be sufficient).

Table 5. Rotated Matrix for Housing Intrinsic Attributes for Influencing the House Purchase Decisions

Factors	Component		
	1	2	3
Housing Types/ Floors of House	.237	.108	.814
Age/Condition	.128	.171	.794
Using Material	.178	.215	.745
Plot Size	.247	.385	.598
No of Bed Rooms	.169	.510	.574
Size and Location & Dining Hall	.218	.658	.482
Kitchens Size & Design	.374	.712	.281
Room Size & Location	.274	.787	.174
Study Rooms	.310	.772	.116
No of Toilets & Bathrooms	.271	.682	.329
Size of Living Area	.398	.503	.442
Ventilation & Windows	.524	.461	.400
Architectural Plan	.644	.335	.344
Pooja / Prayer Hall	.656	.299	.307

Placing for Equipments	.688	-.002	.166
Style of The House	.743	.127	.262
Interior Vastu	.717	.406	.289
Connectivity & Spaciousness	.689	.316	.178
Utility Area	.701	.345	.015
Store Room	.555	.286	.015
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. (a) Rotation converged in 6 iterations.			

Source: Primary data, computed by researcher.

The principal component analysis (PCA) for Housing intrinsic attributes influencing the house purchase decisions has performed and found that factors have shown their intuition for more than one component. Hence, the varimax rotation method has performed and identified the specific factors for each component.

From the PCA, housing intrinsic attributes influencing the house purchase decisions, it has been found that interior vastu, styles of the house and utility area are identified under the first component. Kitchen size and design, room size and location and study rooms have identified under second component. Housing floors types, age or conditions of house and using material have identified under third component for which the factor component value is greater than 0.7.

It has been understood by the above results that in the first place interior vastu, styles of the house and utility area have jointly and significantly influenced the house purchase decisions. In the second place kitchen size & design, room's size and location have jointly and significantly influenced the house purchase decisions. In the third place housing floors types, age/condition of housing and using material for house have jointly and significantly influenced the house purchase decisions.

Accordingly, the interior vastu, style of the housing along with utility area attributes of the house will jointly, definitely and largely matters in making the decision for purchase of house property.

Though there are 20 factors identified under the dimension of housing intrinsic attributes, only 9 factors have significantly influence the house purchase decision and that to under the 3 components.

It can be inferred that a potential buyer first look into the factors identified under the first component; if and only these expectations have fulfilled the buyer will think of purchasing the house property. Accordingly, the factors identified under first component are necessary conditions for purchasing (selling) a house property. The factors identified under second

and third components are secondary and tertiary conditions for making decision for buying house property. The buyer may compromise with the factors which are not identified under any component. The potential seller has to fulfil the expectations of the buyer in their order of preferred expectations.

Conclusion

This study was conducted to identify the housing intrinsic attributes (factors) influencing the house property purchase. The fundamental relations among the variables that influence the house property purchase were examined. It has been found from the study that there are strong relations among the factors used for the study. It has been found also found that samples used for the study are adequate and passed the Bartlett's Test of Sphericity. The principal component analysis has identified three components. It has been found from the repeated varimax matrix that at the first place, interior vastu, styles of the house and utility area have jointly and significantly influenced the house purchase decisions. In the second place kitchen size & design, room's size and location have jointly and significantly influenced the house purchase decisions. In the third place housing floors types, age/condition of housing and using material for house have jointly and significantly influenced the house purchase decisions. Accordingly, in order to attract the potential buyers for house purchase, there is a need give highest priority to style of the house which attract the purchaser, interior vastu has to be ensured and sufficient utility area has to be provided. It doesn't mean that the attributes identified under second and third component are not important; they also important but highest priority has to be given to style of the house, vastu and utility area.

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Pattern of Investment Behavior of Indian Investors Amid COVID-19: An Empirical Assessment

Asmita Khanna & H.K. Singh

Abstract

Purpose of the Study: To understand how Covid-19 pandemic has affected the pattern of investment of individual investors in developing country like India.

Research Objective and Design: Objective- To study the preference of individual investors towards different investment avenues in post pandemic era.

Design: The study is descriptive in nature.

Implications: The outbreak of the pandemic is studied at micro level on the individual investors (of Uttar Pradesh) which can enable the institutions and individuals to handle the situations in much better way in near future.

Findings: Significant association was found between the spread of Covid-19 and the income of the individuals, thereby affecting the saving and investment pattern of the individuals in post pandemic era. Further a drop down was observed in the SIP investments amidst Covid-19.

Limitations:

- The study is based on individual investors of Uttar Pradesh only.
- The information can be biased due to the use of questionnaire.

Keywords: Investment Behavior, Individual Investor, Covid-19.

Introduction

The highly contagious COVID19 outbreak has changed human life significantly. Measures to combat the pandemic included social distancing, self-isolation, the closure of institutions and establishments, restrictions on transportation and national lockdowns, while appeared necessary in view of the fact that it was a new disease with no known cure, the impact on economic activity worldwide was significant. Mostly investors want to invest with maximum return in minimum time without the risk of losing money. Because of this, many are always looking for the best investment opportunities that will allow them to double their money in a short period of time with little or no risk. In reality, risk and return are directly linked and, ie the higher the risk, the higher is the return and vice versa. Profile of the risks associated with the product. There are some investments that are highly risky but have the potential to generate higher returns than other asset classes over the long term, while some investments are low risk and therefore have lower returns.

The coronavirus, or COVID 19, was first identified in December 2019 in Wuhan, China and has resulted in an ongoing pandemic. The first case of COVID19 in India was reported in Kerala on January 30, 2020. On March 2, 2020, the BSE SENSEX experienced a flash of lightning. Collapse due to the announcement by the Union Ministry of Health of two new confirmed cases. A UN report estimates the trade impact of the outbreak in India at \$ 348 million, making India one of the 15 worst-hit economies in the world. Indian stock markets suffered their worst decline since June 2017 after the WHO declared the outbreak a pandemic. The closure has had a negative impact on the service sectors such as banks, restaurants, grocery sellers and grocery delivery services, as well as the provision of health and medical care. With the prolonged lockdown and reduced economic activity, the economy experienced an extended period of slowdown; Millions of jobs have been lost and businesses have been hard hit. In this study the researcher have tried to assess and compare the impact of covid-19 on the investment made by individual investors.

Literature Review

The maximum vital funding avenues to be had in India had been diagnosed as financial institution deposits (savings, current), provident fund, coverage policy, securities (shares, debentures, and bonds), mutual finances and derivatives (futures and options), primarily based totally on hazard, return, marketability, tax refuge and convenience (Mittal, 2018). The liberalization in economic offerings brought the non-conventional funding avenues like various mutual finances schemes and funding plans (Arora & Marwaha, 2014). Insurance plans emerged as a secure opportunity funding road than simply as a hazard insurance tool for the center and salaried magnificence investors (Kathuria & Singhania, 2010). Investments in actual estate, gold and put-up workplace deposits are taken into consideration as dependable conventional investments because of the convenience of operation, familiarity, inflation-resistance, tax defend and bodily presence (Murithi et al., 2012; Nagpal & Bodla, 2007).

Stocks: The high-income group has long been thought to prefer to invest in the securities market, particularly in shares (Das, 2012; SEBINCAER, 1964). In recent years, the middle and salaried classes have seen a rise in their numbers. Because of increased awareness and better services given by financial institutions, investors have begun to invest in stocks. (Bandgar, 2000; Mittal & Dhade, 2007).

Mutual fund: Mutual fund investment has an impact on return, liquidity, flexibility, affordability, and transparency (Parihar et al., 2009). Traditionally, those with higher incomes and more education have invested. Investments in mutual funds (Bhatt & Bhatt, 2012). Investing in mutual funds is a good way to save money on taxes in addition to insurance (Rathinavel, 1992). Investors prefer mutual funds to insurance, bonds, and stocks in terms of service quality and risk-return tradeoff (Walia & Kiran, 2009).

Deposits in banks: Because of the low risk and high security, bank deposits are the most preferred investment avenue among all income groups, followed by insurance and postoffice savings (Agrawal & Jain, 2013; Samudra & Burghate, 2012). It is preferred over high return investments for contingency and longterm plans such as higher education and child marriage (Pati & Shome, 2011; Sathiyamoorthy & Sathiyamoorthy, 2011). The vast majority of investors prefer to put their money into fixed deposits with banks (Pandian & Umamaheswari

and Kumar, 2014; Thangadurai, 2013). Fixed deposits and savings deposits are both taken into account in the study. It is thought to be less hazardous than bank deposits by investors (Jothilingam & Kannan, 2013).

Real Estate: Investment in real estate has traditionally been preferred by those with a higher income, and there is no correlation with education level (Bhatt & Bhatt, 2012). According to Chalam (2003), investors prefer real estate investments first, followed by mutual fund schemes and gold.

Gold: According to studies, people of all income levels prefer to invest in gold, but it is more popular in rural areas due to increased awareness and a more traditional form of investment (Kumar & Vikkraman, 2010). According to a gender-based study of investor preferences, women prefer to invest in gold in order to avoid the lengthy procedures, formalities, commissions, and brokerage fees associated with stocks (Desigan et al., 2006; Yogesh & Charul, 2012). According to Hema (2007), women prefer to invest in gold, which is ranked second only to bank deposits.

Research Objectives

- To understand the impact of COVID-19 pandemic on the Investment preference of the individual investors.
- To analyze whether investors are willing to invest money during the pandemic.
- To identify the investment preferences of investors, post COVID 19.
- To know the impact of pandemic on SIPs of individual investors.

Scope of the Study

This study is restricted to the Varanasi district of Uttar Pradesh only.

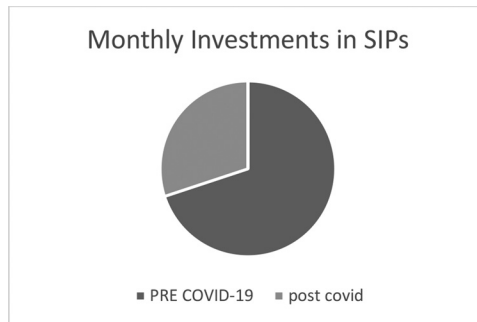
Hypotheses

1. **Ho:** Monthly investments in SIPs were equal in pre and post covid era.
Ha: Monthly investments in SIPs were unequal in pre and post covid era.
2. **Ho:** The preference of investment avenues remained same in pre and post pandemic period.
Ha: The preference of investment avenues changed in pre and post pandemic period.
3. **Ho:** There is no significant change in investment preference in pre and during covid period.
Ha: There is significant change in investment preference in pre and during covid period.

Hypotheses Testing and Findings

Hypothesis: 1 Monthly amounts Invested In Sips In Pre-Covid-19 Era And During Covid-19.

The study was conducted on 100 respondents from Varanasi district of Uttar Pradesh, which comprises of salaried and non-salaried individual investors. And it was found that the mean amount invested in SIPs in pre-pandemic era was 3800 but during the pandemic the same amount was 1634. Hence showing a downward trend.

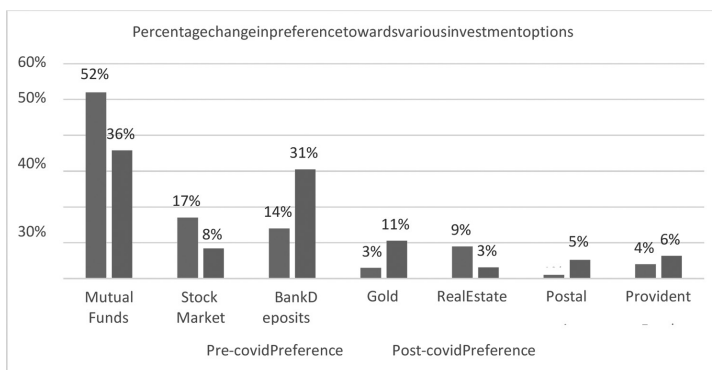


It can be clearly seen from the above graph that there is a decline of about 57% which is enough to reject the null hypothesis and thereby to accept the alternate hypothesis. Therefore, it can be said that the monthly investments in SIPs in pre and post pandemic era is unequal.

Hypothesis: 2 The preference of investment avenues in pre and post pandemic period.

Respondents were asked to say their preferences for numerous investment choices before and through the pandemic. Majority of the respondents reported that the COVID-19 pandemic had modified their investment and portfolio management perceptions. Presently, the most well-liked investment in instruments is that one which offered moderate returns and were less risky, like bank deposits (savings account and stuck deposits), gold, mutual funds, and postal savings. Studies counsel that bank deposits, PPF, gold, bill funds, NSC, and so forth attract investors in search of low-risk investment options. Figure below shows the share amendment in preference or investment options before and through the COVID-19 pandemic.

Change in preference of investment avenues before and during COVID19

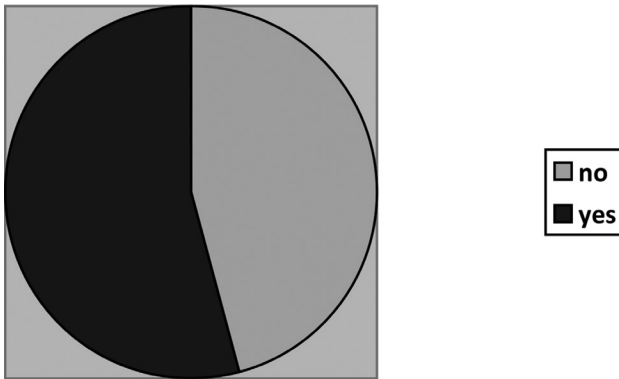


It can be inferred from the above graph that individual investors are preferring more of less risky and fixed return avenues after the pandemic outbreak. Thus, we can reject the null hypothesis and accept the alternate one. Hence, the preference of investment avenues changed in pre and post pandemic period.

Hypothesis: 3 Significant Change in Investment Preference in Pre and Post Covid Period.

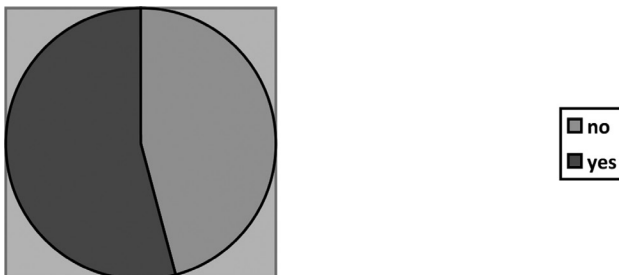
Are Respondents willing to change their portfolio post COVID 19?

Particulars	Respondents	Percentage
Yes	49	57.64
No	36	42.36
Total	85	100



If yes, is the change in investment portfolio due to change in the income level during the pandemic?

Particulars	Respondents	Percentage
Yes	57	67.05
No	28	32.95
Total	85	100



The above table and chart show clearly that majority-57.64% of individual investor will change their portfolio post covid-19. So, we can easily reject the null hypothesis and accept the alternate one. Thus, it can be concluded that pandemic has a significant impact on the investment preference of the individual investors.

Recommendations

- The investors should now take the calculated risk as the market is also improved and it will fetch better return for themselves only.
- Portfolio managers should include those securities in the portfolio which lead to at least moderate return and should also encourage the risk-averse individual investors to expand their portfolio.

Conclusion and Further Scope of Study

The covid-19 outbreak has impacted the whole economy on a larger scale. The unpredictable pandemic and its outcomes such as the lockdown, shutting down of economic activities led to the downfall in the income of the individuals and that's why the investors changed their perception from risky investment avenues with higher profit to secured investment avenues with moderate profit. With the outbreak of this pandemic now investors are also interested in fixed income securities and gold and there arises the need to educate the investors about techniques involved in investing in gold.

This study was conducted with 100 respondents only from Varanasi district of Uttar Pradesh (due to time and money constraints), the same can be conducted in various other geographical areas with a bigger sample size.

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A Comparative Study on Beekeeping As an Alternative Source of Livelihood in North-East India

Bhairab Talukdar & Diganta Kr Mudoi

Abstract

The basic objective of this article is to show how beekeeping or apiculture plays an important role as an alternative source of livelihood of the people in the North East India. This article clearly shows how a good number of people of this region live depending on apiculture. Apiculture also assists them in improving their living standard. As an alternative source of livelihood apiculture becomes indispensable part of this region. This article shows how a good number of people in this region exercising apiculture as an alternative source of living instead of agriculture become an example before the country. This region is an inspiration in front of the rural people. This article also shows the difference in living standard between beekeepers and non-beekeepers. North eastern part of India is really very naturally rich which leads to the rise of apiculture in this region. It's full of natural beauty. It has abundant natural resources. Due to rich in natural beauty this region has a high potential of apiculture. Apiculture means rearing bees by humans. In other word, nurture of bees usually honey producing bees is called apiculture or beekeeping. It's for either commercial or non-commercial purposes.

Keywords: Apiculture, livelihood, honey.

Introduction

Beekeeping or apiculture is not a new activity. It's more than 9000 years old. Apiculture is also an agricultural activity. The word 'Apiculture' comes from the Latin word 'apis' which means bee. This means apiculture is the rearing and management of honey bees. They are reared mainly for commercial purpose. Honey bees produce honey, wax, pollen, bee glue, jelly etc. Beekeepers keep bees also to pollinate crops and to produce bees for sale to other. Particularly bees are kept to gather honey. All bees are not reared as they do not produce honey. Only honey producing bees are reared. Without honey bees are just valueless in front of the beekeepers. Beekeepers rear bees to earn money. Honey is a high demanding product. It has international importance as well. Because of its demand, bee farmers rear bees. Apiculture helps beekeepers earn a lot and improves their living standard.

Honey collecting from bees is really very old activity. It dates back to about 10000 years ago. The ancient history shows the evidence of honey collection. In ancient time people didn't live like the present. They were nomads. They didn't live permanently in a particular place as they didn't know how to exercise cultivation. They were living in a place where water, food, safety etc were available. They lived until those facilities were available. They accepted honey, leave, fruits, meat, fish etc as food. They did not gather honey from bees like the present but they collected after destroying the whole bee colony. Honey was an important part of their food. But the problem was that they destroyed whole bee colonies to gather honey which led to their decline. As this result a lot of honey bees had collapsed.

Some cave paintings in Spain bears the historical evidence of apiculture. Before 2422 BCE, workers were depicted collecting honey from wild bees on the walls of the Egyptian Sun temple. An inscription of Mesopotamia civilization also bears the historical evidence of apiculture. In the inscription of Mesopotamia civilization, collection of honey, beekeeping, different issues related to beehive etc are interpreted briefly. Some archaeological sites in Israel also have the evidence of apiculture. Rehov- an important archaeological site in Israel represents the ancient evidence of beekeeping where workers rearing bees are depicted. A great philosopher Aristotle also explained about apiculture. Beekeeping was also practiced in ancient China that the book written by Fan Li explained. The people of Maya civilization reared bees for commercial purpose. Besides these, there are lots of historical evidences that represent apiculture. It's not obscure that beekeeping is a new activity. It's just a very old activity that got commenced many years ago since time immemorial.

Some studies showed that initially beekeeping had started in North-Africa. Beekeeping was first practiced in pottery vessels. This practice was followed about 9500 years ago. Initially beekeepers collected honey destroying the whole bee colonies. Until eighteenth century they didn't know how to collect honey without destroying them completely. At the first time beekeepers didn't use proper technique to expel bees to collect honey. Smoke was simply used to collect honey and honey was stored in jars. Some evidences show that people had started apiculture in artificial beehives made from pottery vessel, wooden box, hollow logs etc. Honey bees made honeycombs inside these beehives. People collected honey from honeycombs after expelling honeybees from their honeycomb. Smoke had the principal role in this case. Sometimes honeycombs were burnt while attempting to debar honeybees. This means initially collecting honey led to a great destruction of honey bees. But presently there are different techniques to collect honey from honeybee without harming them. Beekeepers use protective cloths such as gloves, veil, hat etc to stay safe from biting of honeybees and collect honey without causing any harm to honeybees. Different modern techniques ensure safe collection of honey.

India is an agro-based country since the ancient period. The Harappan Civilization is the evidence of it. This is one of the oldest three civilizations. Evidence of rice, pond, well, granaries, plough etc acknowledges this truth. India is still very rich in agriculture. Different variety of rice, wheat, pulse, vegetables etc are cultivated in India. India exports a large amount of agricultural products to different countries. It earns a good amount of foreign income from agricultural products. In India most of the people depend on agriculture for living. More than 50% people are in the primary activities. Apiculture is also an important activity of the primary sector in India. Apiculture is not a new activity in India, it's an old practice. Initially people practiced beekeeping only for domestic purpose. But later this scenery changed gradually. Honey has high demand among the people inside and outside the country. It has high economic value. Honey has also different medicinal quality. Because of these reasons, some people in India started practicing beekeeping later as a source of livelihood leaving the practice of agriculture. Beekeeping helps people earn income. Income is the means of living. Consequently the importance of beekeeping is growing gradually in India. Honey is a natural and healthy sweetener. It's also an alternative to sugar. Demand for it by people increases highly because of these. It's expected that the global honey market will reach about USD 9.01 billion in 2022. India also engages an important share in the global honey market. The government of India has adopted different policies, schemes,

strategies etc to expand honey production in India. ‘Honey Mission’ in India is an example of India’s missions. It’s thought that beekeeping will create about 3 lakhs employment in India very shortly.

North East India is the indispensable part of India. It comprises eight states- Assam, Arunachal Pradesh, Meghalaya, Nagaland, Mizoram, Tripura, Manipur and Sikkim. These states are naturally very rich. They are full of natural beauty. Every state of the North East Region has unique feature. The entire north east region is rich in flora. Because of this apiculture develops in this region. Here a good portion of people take apiculture as their source of livelihood. They live depending on apiculture. The north eastern states of India mostly produce honey. Honey production in this region has almost increased recently which shows that apiculture develops gradually in this region. The number of beekeepers also increases gradually in this region.

Objectives

1. To study the existing scenario of apiculture in the North Eastern Region.
2. To study about how beekeeping becomes an alternative source of livelihood in this region.
3. To show comparative progress in apiculture of the North Eastern States.

Review of Literature

Studies on apiculture in northeast India is rare. Very few studies are available. Swati Tripathi, Sadhan Kumar Basumatary, Samir Kumar Bera, Munmun Brahma & Gajen Chandra Sarma in their article “A palynological study of natural honeys from the Bongaigaon district of Assam, northeast India” have explained about honey production of Bongaigaon as a part of northeast India. M Premjit Singh in his article “Beekeeping for Sustainable Development of North Eastern Hill Agriculture” has explained how beekeeping becomes helpful for agricultural development of northeast India.

Till now nobody has comparatively studied apiculture of northeast India. Our article shows how apiculture becomes a source of livelihood for beekeepers in this region and also represents the existing scenario of apiculture.

Methodology

This article is mostly based on primary data. Secondary data was rarely used here. Field study and survey methods were taken into consideration for data collection. We collected basic information from every state in the north east India via questionnaires. In the field study method we gathered information from 100 beekeepers from each of the eight states using questionnaire regarding honey production and income. Regression and coefficient of correlation were used to show the relationship between honey production and income of beekeepers. Based on annual turnover earned by a beekeeper from annual honey production during 7 years coefficient of correlation and regression lines were constructed to show the relation between income and honey production.

Findings of the study: North East India is really very rich in natural resources. Every state of this region is rich in flora which leads to development of apiculture. All states of the region Assam, Arunachal Pradesh, Meghalaya, Nagaland, Mizoram, Tripura, Manipur and Sikkim have higher potential in apiculture development. Despite having higher potential they are not so advanced in apiculture as expected. The existing scenario and progress of all the eight states are discussed below.

Assam: Assam is a beautiful north eastern state. It's rich in flora with fauna. This leads to the development of apiculture in Assam. Flower is the life of honeybees. They collect nectar from flowers and keep them inside their body. They return those gathered nectar to the hive. This means without flower bee's life is just valueless. Presence of flowers helps expand apiculture in this Assam. Honeybees make honeycomb in a site situated near flowers. Because, if flowers are not available, then they can't gather nectar. Without nectar they can't be alive. Because of the presence of flowers in this state, apiculture develops rapidly in this north eastern state. This is the reason for which apiculture is developing in this state.

The state of Assam has 35 districts. All districts aren't rich in beekeeping. Only a few districts are rich in apiculture. Jorhat secured the first position in honey production followed by Golaghat, Baksa, Tamulpur, Dima Hasao etc. In Assam the number of beekeepers increases gradually. Presently there are about 5000 beekeepers in Assam which was low in the past. In 2012-13 about 1400 beekeepers existed in Assam. Presently it has around 570 honey producing units. But there were 445 honey producing units in 2013. Beekeeping industry is high profitable. As a result beekeeping families increase who take beekeeping as their livelihood as beekeeping is highly profitable. A beekeeper earns about 3 to 4 lakhs per year. Due to increase in beehives, honey production of every beekeeper increases.

Table 1. Honey production of all districts in Assam

Name of Districts	Approximate Annual Production in metric tons 2018-19
Jorhat	64
Golaghat	58
Baksa	56
Tamulpur	54
Bongaigaon	40
Udalguri	38
Kokrajhar	40
Chirang	49
Nalbari	38
Barpeta	33
Sivasagar	28

Tinsukia	34
Dibrugarh	44
Kamrup Metro	22
Nagaon	28
Hojai	43
Karbi Anglong	49
Karimganj	30
Darrang	39
Karbi Anglong West	37
Lakhimpur	43
Dhemaji	32
Tejpur	34
Hailakandi	23
Dima Hasao	51
Goalpara	29
Biswanath	24
Majuli	22
Charaideo	21
Kamrup	24
Cachar	30
Chirang	46
Dhubri	21
Bajali	28

The table shows that the district Jorhat secures second rank in honey production followed by Golaghat, Baksa, Tamulpur, Dima Hasao etc. All districts come ahead slowly for apiculture.

Initially all of the households of the state exercised cultivation as the source of livelihood. They highly cultivated rice. Besides this, they cultivated vegetables mainly for domestic purpose. Still most of the total population practice agriculture to meet the domestic need. They practiced cultivation using traditional strategies. They faced different problems in agriculture

such as lack of adequate irrigation facility, lack of HYV seeds, not getting institutional credit facility, improper use of fertilizer, lack of market, not cultivating cash crops for commercial purpose etc. Besides they don't have knowledge on modern agricultural practice. These led to less productivity. They are also marginal farmers. They don't have adequate land for cultivation. To increase income, they later start practicing apiculture instead of agriculture. This increases their income as well as improves their living standard. Apiculture is considered more profitable for them than agriculture as honey is a high demanding product. Consequently a portion of the total population has started practicing apiculture.

Beekeepers of this state whose data were collected are shown below in the table in terms of age group:

Table 2. Distribution of beekeepers in terms of age

Age group	No of beekeepers (100)	Percentage of beekeepers
25-30	12	12
31-36	33	33
37-42	19	19
43-48	21	21
49-54	15	15

Source: Field Study.

The table shows that 33% beekeepers fall in the age group of 31-36 years. This age group has the highest contribution to apiculture compared to others. Apiculture increases their income. It's notable that living standard of these 100 beekeepers is really very improved than non-beekeepers as their income is higher compare to non-beekeepers.

Honey has higher demand in the market. The price of per litre honey is about 200 to 400 in Assam. Beekeepers in the state earn a big amount of money every year. A deep honey frame gives about 3 to 4 litre honey. Honey bees take about 4 to 8 weeks to make honey. Beekeepers of this state collect honey after one month. One honey frame gives them nearly 1 to 2 litre honeys. They store honey in plastic bottles and sell them. Their income depends on honey production. A beekeeper earns more than 25000 in a month which is really very higher than his past agricultural income. By the help of this apiculture they become able to improve their living standard. In the field study it was found that almost all of the beekeepers have beautiful concrete house which was unimaginable during the practice of agriculture.

Table 3. Honey production in Assam

Year	Honey production in Metric tons '000'
2010-11	3.00
2011-12	2.2

2012-13	2.4
2013-14	-
2014-15	0.25
2015-16	0.85
2016-17	1.00
2017-18	1.20
2018-19	1.25
2019-20	1.15
2020-21	1.35

Source: Ministry of Agriculture and Farmer's Welfare, Govt. of India.

The table shows that honey production in Assam has recently increased gradually because of increase in importance of apiculture and beekeepers. Its production shows highest growth within the northeast India.

Meghalaya: It's a north eastern state which is full of natural beauty. It's very rich in biodiversity. Different flowers are available here which leads to the rise of apiculture. It has about 16728 bee colonies which are very low compared to its potential. A centre was set up in this state to boost apiculture known as Integrated Bee Development Centre. Under this centre many beekeepers are trained to boost honey production. It has higher potential of apiculture. It has around 300 honey producing units. But there were 215 honey producing units in 2013. It has about 6000 beekeepers but there were only 2000 in 2015. The number of beekeepers increases gradually due to government support and high income potential. Apiculture supplements income of farmers. As a result the number of families taking apiculture as their livelihood increases. A beekeeper earns 30000 to 40000 per month which improves its living standard & socio-economic status.

Table 4. Distribution of beekeepers in terms of age

Age group	No. of beekeepers (100)	Percentage of beekeepers
25-30	10	10
31-36	21	21
37-42	30	30
43-48	24	24
49-54	15	15

Source: Field Study.

The table shows that 30% beekeepers fall in the age group of 37-42 years. This age group has the highest contribution to apiculture compared to others.

Table 5. Honey production in Meghalaya

Year	Honey production in Metric tons ‘000’
2010-11	0.6
2011-12	0.4
2012-13	0.5
2013-14	–
2014-15	0.15
2015-16	0.2
2016-17	0.2
2017-18	0.25
2018-19	0.28
2019-20	0.25
2020-21	0.25

Source: Ministry of Agriculture and Farmer’s Welfare, Govt. of India.

The table shows that honey production in Meghalaya has recently increased gradually because of increase in importance of apiculture and the number of beekeepers. But it’s still backward in honey production compared to Assam. Presently the state highly emphasizes apiculture development to increase income and improve living of poor farmers. Honey production fluctuates but the number of beekeepers continuously increases.

Mizoram: It’s a north eastern state having high beekeeping potential. Presence of flowers leads to development of apiculture. It’s rich in biodiversity with the presence of different flowers. It has around 5500 beekeepers. But the number of beekeepers was about 1300 in 2015. The number of beekeepers increases gradually. As a source of livelihood apiculture succeeds in providing adequate income & improved living standard. As a result, the number of beekeeping families increases gradually. It has around 410 honey producing units. But there were only 332 honey producing units in 2013.

Table 6. Honey production in Mizoram

Year	Honey production in Metric tons ‘000’
2010-11	0.9
2011-12	0.7

2012-13	0.7
2013-14	—
2014-15	0.1
2015-16	0.15
2016-17	0.15
2017-18	0.18
2018-19	0.2
2019-20	0.2
2020-21	0.25

Source: Ministry of Agriculture and Farmer's Welfare, Govt. of India.

The table shows that honey production has been increasing gradually since 2015-16. Increase in the number of beekeepers and beehives leads to increase in honey production. But it's still backward compared to Assam.

Table 7. Distribution of beekeepers in terms of age.

Age group	No. of beekeepers (100)	Percentage of beekeepers
25-30	14	14
31-36	32	32
37-42	21	21
43-48	22	22
49-54	11	11

Source: Field Study.

The table shows that 32% beekeepers fall in the age group of 31-36 years. This age group has the highest contribution to apiculture compared to others while the age group of 49-54 years has the lowest contribution. Earlier these 100 beekeepers were cultivators where their living standard was very low. Apiculture improves both their income and living.

Manipur: It's also a part of northeast India having high beekeeping potential. More than 65% of the total geographical area is covered with forest. Presence of forest in the state leads to development of apiculture. It's full of different flowers. It has around 3000 beekeepers. But the number of beekeepers was about 900 in 2016. The number of beekeepers increases gradually. It has around 230 honey producing units. But there were 138 honey producing units in 2013. The government of Manipur has adopted different measures to boost honey production such as training, marketing, institutional credit with subsidy etc. The number

of beekeepers increases continuously as it's a source of livelihood. It helps farmers afford a standard living.

Table 8. Honey production in Manipur.

Year	Honey production in Metric tons '000'
2010-11	0.60
2011-12	0.40
2012-13	0.40
2013-14	–
2014-15	–
2015-16	0
2016-17	–
2017-18	–
2018-19	0.35
2019-20	0.30
2020-21	0.40

Source: Ministry of Agriculture and Farmer's Welfare, Govt. of India.

The table shows that honey production has been increasing gradually since 2019-20. Increase in the number of beekeepers and beehives leads to increase in honey production. But it's highly backward compared to Assam. During 2013-14, 2014-15, 2015-16, 2016-17, 2017-18 honey production was very low due to heavy rainfall, lack of marketing facility etc.

Table 9. Distribution of beekeepers in terms of age.

Age Group	Number of Beekeepers	Percentage
25-30	29	29
37-42	18	18
43-48	21	21
49-54	20	20

Source: Field Study.

The table shows that 29% beekeepers fall in the age group of 25-30 years. This age group has the highest contribution to apiculture compared to others while the age group of 37-42 years has the lowest contribution. Earlier these 100 beekeepers exercised cultivation where

their living standard was very low. But the practice of apiculture improves both their income and living standard.

Tripura: It's also a part of northeast India. Apiculture rapidly develops here. It's rich in forest that promotes apiculture. It's situated close to Assam and Mizoram. It's full of natural beauty like other northeastern states. It had only 400 beekeepers in 2016 but the number of beekeepers increased to about 2300 in 2021 as it's high profitable compared to crop cultivation. The Tripura Khadi Industry plays an important role in promoting apiculture. It has around 200 honey producing units which are lower than other states in the northeastern region. But there were only 80 honey producing units in 2013. It's in the lowest position in honey production within the region.

Table 10. Distribution of beekeepers in terms of age.

Age group	No. of beekeepers (100)	Percentage of beekeepers
25-30	15	15
31-36	31	31
37-42	27	27
43-48	14	14
49-54	13	13

Source: Field Study.

The table shows that 31% beekeepers fall in the age group of 31-36 years. This age group has the highest contribution to apiculture compared to others while the age group of 49-54 years has the lowest contribution. Earlier most of these 100 beekeepers cultivated different crops and some other practiced fish farming where their living standard was very low. But the practice of apiculture improves both their income and living standard.

Table 11. Honey production in Tripura.

Year	Honey production in Metric tons '000'
2010-11	0.4
2011-12	0.3
2012-13	0.3
2013-14	—
2014-15	—
2015-16	0
2016-17	—

2017-18	–
2018-19	0.18
2019-20	0.15
2020-21	0.20

Source: Ministry of Agriculture and Farmer's Welfare, Govt. of India.

The table shows that honey production has been increasing gradually since 2019-20. Increase in the number of beekeepers and beehives leads to increase in honey production. But it's highly backward compared to Assam. During 2013-14, 2014-15, 2015-16, 2016-17, 2017-18 honey production was very low due to shifting to other occupation, heavy rainfall, lack of marketing facility, credit etc. It's rapidly advancing in honey production compared to other northeastern states.

Arunachal Pradesh: It's a northeastern state of India. Its more than 80% area is covered with evergreen forests. Presence of forests leads to the development of apiculture. It has high potential in apiculture. The number of beekeepers and honey production both increase gradually. Beautiful environment & weather promote apiculture. It has around 255 honey producing units. But there were only 159 honey producing units in 2013. It has around 3500 beekeepers while the number of beekeepers was only 1100 in 2013. As a source of livelihood the number of beekeepers increases as apiculture gives them more income compared to cultivation. It helps eradicate poverty also. The state government plays a crucial role in promoting apiculture via provision of training, marketing facility, credit facility etc.

Table 12. Honey production in Arunachal Pradesh.

Year	Honey production in Metric tons '000'
2010-11	0.6
2011-12	0.4
2012-13	0.5
2013-14	–
2014-15	–
2015-16	0
2016-17	–
2017-18	–
2018-19	0.10
2019-20	0.10
2020-21	0.13

Source: Ministry of Agriculture and Farmer's Welfare, Govt. of India.

The table shows that honey production has been increasing gradually since 2018-19. Increase in the number of beekeepers and beehives leads to increase in honey production. But it's backward in honey production compared to Assam. During 2013-14, 2014-15, 2015-16, 2016-17, 2017-18 honey production was very low due to less interest to apiculture, shifting of beekeepers to other occupation, heavy rainfall, lack of marketing facility, credit etc. Apiculture rises as a high profitable source of livelihood as it provides more income from less production. The government's support to apiculture also increases. As a result the number of beekeepers increases.

Table 13. Distribution of beekeepers in terms of age.

Age group	No. of beekeepers (100)	Percentage of beekeepers
25-30	23	23
31-36	29	29
37-42	18	18
43-48	17	17
49-54	13	13

Source: Field Study.

The table shows that 29% beekeepers fall in the age group of 31-36 years. This age group has the highest contribution to apiculture while the age group of 49-54 years has the lowest contribution. Earlier most of these 100 beekeepers cultivated different crops and vegetables where their living standard was very low. But the practice of apiculture improves both their income and living standard which leads to increase in the number of beekeepers.

Nagaland: It's a northeastern state situated close to Assam and Manipur. It's agro based state where more than 70% people exercise cultivation. It's mostly covered with forests that lead to the development of apiculture. Honey production increases highly in this state. Government support and high earnings from apiculture increase the number of beekeepers. More families become encouraged to exercise apiculture as it helps them afford high standard of living. It has around 520 honey producing units while in 2013 the number of honey producing units was 434. This leads to high increase in the number of honey producing units. Presently it has about 4600 beekeepers. But in 2015 the number of beekeepers was only 1350. Attractive earnings and government support help in increase of the number of beekeepers.

Table 14. Distribution of beekeepers in terms of age.

Age group	No. of beekeepers (100)	Percentage of beekeepers
25-30	15	15
31-36	24	24
37-42	28	28

43-48	16	16
49-54	17	17

Source: Field Study.

The table shows that 28% beekeepers fall in the age group of 37-42 years. This age group has the highest contribution to apiculture while the age group of 25-30 years has the lowest contribution. Earlier most of these 100 beekeepers cultivated different crops and vegetables where their living standard was very low. But the practice of apiculture develops their income and living standard which leads to increase in the number of beekeepers.

Table 15. Honey production in Nagaland.

Year	Honey production in Metric tons '000'
2010-11	0.8
2011-12	0.6
2012-13	0.6
2013-14	—
2014-15	0.25
2015-16	0.43
2016-17	0.45
2017-18	0.55
2018-19	0.70
2019-20	0.60
2020-21	0.65

Source: Ministry of Agriculture and Farmer's Welfare, Govt. of India.

The above table shows that honey production has been increasing gradually since 2019-20. Increase in the number of beekeepers and beehives leads to increase in honey production. It secures 2nd position in honey production after Assam within the entire region. But it's backward in honey production compared to Assam. During 2013-14 honey production was very low due to less interest to apiculture, shifting of beekeepers to other occupation, heavy rainfall, lack of marketing facility, credit etc. But honey production has increased by 35% in three recent years. Apiculture occurs as a high profitable source of livelihood as it provides more income compare to cultivation. Because of this the number of beekeepers increases.

Sikkim: Sikkim is also a northeastern state of India. It's newly connected with Northeast India. It's rich in forests. It's a home to many wild flowers that lead to the rise of apiculture in the state. The state government's support and high income help in the development of

apiculture. It has around 209 honey producing units. But in 2013 only 107 units existed due to lack of apiculture development. It has about 3000 beekeepers. In 2015 there were only 800 beekeepers in the state. This indicates that the number of beekeepers increases as apiculture proves more profitable.

Table 16. Honey production in Sikkim.

Year	Honey production in Metric tons '000'
2010-11	0.3
2011-12	0.2
2012-13	0.3
2013-14	–
2014-15	0.2
2015-16	0.32
2016-17	0.35
2017-18	0.40
2018-19	0.40
2019-20	0.25
2020-21	0.45

Source: Ministry of Agriculture and Farmer's Welfare, Govt. of India.

The above table shows that honey production has been increasing gradually since 2019-20. Increase in the number of beekeepers and beehives leads to increase in honey production. But it's backward in honey production compared to Assam. During 2013-14 honey production was very low due to different reasons such as shifting of beekeepers to other occupation, heavy rainfall, lack of marketing facility, credit etc. But honey production has increased in recent years. Apiculture occurs as a high profitable source of livelihood as it provides more income. Because of this the number of beekeepers increases. It secures a lower position in honey production.

Table 17. Distribution of beekeepers in terms of age.

Age group	No. of beekeepers (100)	Percentage of beekeepers
25-30	21	22
31-36	32	24
37-42	24	31

43-48	13	13
49-54	10	10

Source: Field Study.

The above table shows that 31% beekeepers fall in the age group of 37-42 years. This age group has the highest contribution to apiculture while the age group of 49-54 years has the lowest contribution. Earlier most of these 100 beekeepers were farmers. Their living income was very low at that time. But the practice of apiculture develops their income and living standard which leads to gradual increase in the number of beekeepers.

Comparison: Honey production of the eight states indicates that Assam secures the first position in honey production followed by Nagaland, Sikkim, Manipur, Meghalaya, Mizoram, Tripura and Arunachal Pradesh. Arunachal Pradesh secures the lowest position in honey production according to the recent data.

Approximate average income and honey production of a beekeeper during 7 years:

Table 18.

Years	X (Approximate Annual Turnover) Lakhs Rs	Y (Approximate Annual honey production) litre in lakhs	$dx =$ $X - 8$	$dy =$ $Y - 0.03$	dx^2	dy^2	$dx dy$
2015	3	0.01	-5	-0.02	25	0.0004	0.10
2016	5	0.02	-3	-0.01	9	0.0001	0.03
2017	8	0.03	0	0	0	0	0
2018	13	0.05	5	0.02	25	0.0004	0.10
2019	15	0.06	7	0.03	49	0.0009	0.21
2020	17	0.07	9	0.04	81	0.0016	0.36
2021	19	0.08	11	0.05	121	0.0025	0.55

$$N = 7 \quad dx^2 = 310 \quad dy^2 = 0.0059 \quad dx dy = 1.35$$

Source: Field study.

$$\text{Coefficient of correlation } (r) = \frac{\sum dx dy - \frac{\sum dx \sum dy}{n}}{\sqrt{\left(\sum dx^2 - \frac{(\sum dx)^2}{n} \right) \left(\sum dy^2 - \frac{(\sum dy)^2}{n} \right)}}$$

$$\begin{aligned}
 &= \frac{1.35 - \frac{24 \times 0.11}{7}}{\sqrt{\left(310 - \frac{(24)^2}{7}\right) \left(0.0059 - \frac{(0.11)^2}{7}\right)}} \\
 &= \frac{1.35 - 0.38}{\sqrt{(310 - 82.2857)(0.0059 - 0.0017)}} \\
 &= \frac{0.97}{\sqrt{(227.7143)(0.0042)}} = \frac{0.97}{0.98} = 0.99 \text{ (Approx.)}
 \end{aligned}$$

The value of coefficient of correlation represents the higher positive correlation between annual turnover and honey production. This means income fluctuates based on honey production. Its significance level is examined below:

$$\begin{aligned}
 \text{P.E. } (r) &= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - (0.99)^2}{\sqrt{7}} \\
 &= 0.6745 \times \frac{1 - 0.9801}{2.6457} = 0.6745 \times \frac{0.0199}{2.6457} \\
 &= 0.6745 \times 0.0075 = 0.0051 \text{ (Approx)}
 \end{aligned}$$

Now, $6 \times \text{P.E. } (r) = 6 \times 0.0051 = 0.0306$

$$r > 6 \text{ P.E. } (r)$$

Since coefficient of correlation is greater than 6 P.E. (r), that's why the correlation between the two variables is significant which means examination is successful. Based on the table-18 regression equations of income (X) on honey production (Y) and honey production on income are estimated below:

$$\begin{aligned}
 b_{xy} &= \frac{\Sigma dx dy - \frac{\Sigma dx \Sigma dy}{n}}{\Sigma dy^2 - \frac{(\Sigma dy)^2}{n}} = \frac{1.35 - \frac{24 \times 0.11}{7}}{0.0059 - \frac{(0.11)^2}{7}} \\
 &= \frac{1.35 - 0.38}{0.0059 - 0.0017} = \frac{0.97}{0.0042} = 230.952380
 \end{aligned}$$

Regression line of Y on X:

$$\begin{aligned}
 b_{yx} &= \frac{\Sigma dx dy - \frac{\Sigma dx \Sigma dy}{n}}{(\Sigma dx^2) - \frac{(\Sigma dx)^2}{n}} = \frac{1.35 - \frac{24 \times 0.11}{7}}{\left(310 - \frac{(24)^2}{7}\right)} \\
 &= \frac{1.35 - 0.38}{227.7143} = \frac{0.97}{227.7143} = 0.004259
 \end{aligned}$$

Now,
$$r^2 = b_{xy} \times b_{yx} = 230.9523 \times 0.004259 = 0.9836$$
$$r = \sqrt{0.9836} = 0.99 \text{ (Approx)}$$

Coefficient of correlation and regression lines show that there's a high positive relation between honey production and income. It indicates that income of beekeeper depends on honey production. With increase in honey production as well as income the living standard of a beekeeper improves gradually. The coefficient of correlation and regression lines clearly prove that beekeeping has a significant contribution to income and living standard of people. But beekeepers face different problems as given below:

- **Lack of adequate number and size of wooden box:** They don't have adequate number of wooden boxes. Besides the size of boxes is also not adequate. They need adequate number of boxes with proper size favorable for bees. But these are not adequately available for them.
- **Not having knowledge about disease of honeybees:** Beekeepers are practicing apiculture without having knowledge of different diseases of honeybees. They are not aware of their diseases. This leads to decline of honey production.
- **Lack of scientific knowledge:** Beekeepers do not have enough scientific knowledge about apiculture. Most of them do not even know how bees produce honey, what they need for honey production etc.
- **Lack of government intervention:** Government intervention is required to develop apiculture. Policies, strategies, measure etc taken by the government are very essential to develop and encourage apiculture. But the government doesn't respond enough to apiculture.
- **Lack of institutional credit facility:** They don't have access to institutional credit facility which is very essential to start and develop apiculture. Due to lack of fund a good number of people don't able to start beekeeping. Besides existing beekeepers also fail to develop beekeeping only because of this reason etc.

Conclusion

From the above study we can say that apiculture plays an important role in an economy. The northeastern region of India is famous for its tradition of honey bee rearing and honey usages. It has vast resources for development of apiculture and honey processing which can provide an alternative source of livelihood option to the farmers. Besides, there is a vast scope for developing apiculture-based food processing industry. A major portion of the honey produced in northeast India is used in medicine and the rest are utilized for food. Still apiculture has to develop rapidly. If different problems faced by beekeepers are lessened, apiculture will play a vital role in development or poverty eradication.

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The Impact of Selected Variables on Financial Inclusion

Bharti Chhabra Rana & Shilpi Khandelwal

Abstract

India has undergone a paradigm change as a result of its global competitiveness and economic growth. But it is a challenging task which initiates financial inclusion. Many policymakers are concerned about access to financial services or the approachability of the financial system. This is mostly due to the demographic and socio-economic variables of the unprivileged section of the society. The paper measures the Impact of these factors on financial inclusion. The data is collected through convenience sampling from 300 low-income respondents. The respondents are from service class, businessmen, housewives, students, and so on. T-test and ANOVA analysis with IBM SPSS 20 are utilised for data analysis. Hypotheses are tested based on the data analysis, and findings are generated with a conclusion.

Keywords: Financial Inclusion, Demographic factors, Socio-economic factors, T-Test, Anova, etc.

Introduction

A financial institution is a system that acts as a conduit between savings and consumption by providing financial services to persons and organisations that can pay for them. The primary role of a financial institution is to gather savings in various forms from individuals and institutions and to transmit that money to persons and institutions that require it for lucrative investments and other reasons. As a consequence, all economic players are financially included. Any country's development would be nearly impossible if each and every component of the economy were not included in the main stream. 'Access to financing for the deprived people is a precondition for poverty alleviation and social solidarity.' Financial services are essential to every economy's success. Financial services play a critical role in the flow of capital from the place of origin to the point of use, resulting in increased production, commerce, employment, and other economic activity. Access to financial services across the country is essential for growth.

The primary functions of financial services in society are to encourage people to save for future requirements while minimising the danger of saving, to offer financing to clients (short or long term), to invest money to buy or sell commercial items, and to educate people about financial services. As a result, all of these responsibilities of financial services need raising societal knowledge of financial transactions, financial services, and financial investment.

Literature Review

Serrao et al (2021) examined Karnataka division for judging the influence of socio-economic factors on financial inclusion for vulnerable families. They have found the degree of the financial inclusion. According to the report, the accessibility and usage of financial services brought favourable changes in living condition of the people and increase inclusive growth.

Kanungo and Gupta (2021) also stated the same conclusion that more financial inclusion leads to more education, income, living standard and inclusive growth.

According to a research (Sahoo, 2017), household income, education, private land ownership, and participation in an employment guarantee programme are all important predictors of financial inclusion. Individuals with a higher level of family income are more likely to have bank accounts and utilise them to access financial services. Individuals with a high level of education were also shown to be able to obtain financial services by opening and operating bank accounts. Individuals who owned private land were able to get bank loans because the land could be used as collateral. Disadvantaged and other vulnerable groups, such as SC, ST, and Women, as well as low-income households, disabled, rural residents, and undocumented migrants, were more likely to be excluded from the formal, regulated financial sector in both developed and developing nations, according to FATF (2011). In various countries, underserved consumers are a highly diverse group with extremely varied risk profiles. As a result, they couldn't be classed as low-risk clients just on the basis of this.

Gender, age, wealth, and education all affected financial inclusion in Africa, according to a research (Zins & Weill, 2016). They also discovered that education and income had a greater impact than the other variables. Because males handle the finances in the family and are the primary earners in most households, gender has a role in financial inclusion. Due to cultural factors, women are financially disadvantaged. Financial inclusion was also shown to be determined by an individual's age.

Danes and Hira (1987) utilised a 51-item questionnaire to evaluate the knowledge of 323 Iowa State University students on credit cards, insurance, personal loans, record keeping, and general financial management. According to their findings, males know more about most topics than females, married students know more than unmarried students, and upper class men know more than lower class men. Overall, they observed that college students have a limited grasp of financial matters. Volpe, Chen, and Pavlicko (1996) employed a 23-item questionnaire to survey 454 undergraduate business students from a single university. The average literacy score is 44 percent, with those who majored in business understanding more about investments than those who did not, according to the data. Markovich and DeVaney (1997) used a 34-item questionnaire to survey 236 Purdue University undergraduate seniors to assess their financial knowledge and behaviour. Despite the fact that their study included financial conduct, they merely assessed students' knowledge and behaviour, with no attempt to establish if knowledge influenced or was linked to behaviour.

Objectives of the study

The aims of this research are as follows:

1. Determine the respondents' level of financial inclusion awareness.
2. To learn about the relation between financial inclusion and other demographic variables.
3. To learn about the relation between financial inclusion and socio economic indicators.

Need of the study

There are various studies on Financial Inclusion but they are concentrating either on demographic variables or socio economic variables. There is dearth of a study which can measure the impact of demographic and socio economic factors together on financial inclusion.

Hypothesis

For the purpose of this study following hypotheses have been proposed:

Ho1: There is no significant relation in between Gender and Financial Inclusion.

Ho2: There is no significant relation in between Marital Status and Financial Inclusion.

Ho3: There is no significant relation in between Age and Financial Inclusion.

Ho4: There is no significant relation in between education of the respondents and Financial Inclusion.

Ho5: There is no significant relation in between Income and Financial Inclusion.

Ho6: There is no significant relation in between caste and Financial Inclusion.

Ho7: There is no significant relation in between number of family members of the respondents and Financial Inclusion.

Ho8: There is no significant relation in between Monthly Savings and Financial Inclusion.

Ho9: There is no significant relation in between respondents occupation and Financial Inclusion.

Research methodology

The influence of demographic and socio economic factors on financial inclusion is investigated in this study. The study technique began with a thorough assessment of the literature from a variety of reliable sources. Financial inclusion is considered as a dependent variable and Demographic and socio economic factors are independent variables based on the literature study and gap analysis. Afterwards, the reliability of variables discovered through the literature research, followed by the creation of a hypothesis.

Additionally, primary data is gathered via a two-part closed-ended questionnaire. The first section of the survey inquired about demographic and socio economic information, while the second portion focused on the respondent's attitude toward financial inclusion. The data is gathered from a convenience sample of 300 respondents, and the questionnaire is sent to those with low and moderate incomes. The respondents are from service class, businessmen, housewives, students, and so on. T test and ANOVA analysis with IBM SPSS 20 are utilised for data analysis. Hypotheses are tested based on the data analysis, and findings are generated with a conclusion.

Data Analysis

I. T-Test-t-test is done between gender, marital status with the financial Inclusion.

Ho1: There is no significant relation in between Gender and Financial Inclusion.

Table 1. Education and Financial Inclusion

	Gender	N	Mean	Std. Deviation	Std. Error Mean	t	Sig.
FL	Male	166	2.3876	.64790	.05029		
	Female	134	2.3004	.59429	.05134	1.202	.230

Males have a higher level of financial inclusion (2.3876) than females (2.3004). The value of t is 1.202. A null hypothesis is accepted since the significant value is 0.230, which is greater than the acceptable value of 0.05. Gender does not appear to have an impact on financial inclusion.

Ho2: There is no significant relation in between Marital Status and Financial Inclusion.

Table 2. Marital Status and Financial Inclusion

	Marital status	N	Mean	Std. Deviation	Std. Error Mean	T	Sig
FL	Married	150	2.2444	.64280	.05248	2.923.004	.004
	Unmarried	150	2.4528	.59063	.04822		

Unmarried people have a higher level of financial inclusion (2.4528) than married people (2.2444). The value of t is 2.923. A null hypothesis is rejected since the significant value is 0.004, which is less than the acceptable value of 0.05. It's assumed that marital status has an impact on financial inclusion.

II. One way ANOVA

Analysis is done between age, education qualification, Occupation, Bank account with aspects financial Inclusion.

Ho3: There is no significant relation in between Age and Financial Inclusion.

Table 3. Age and Financial Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.480	4	.620	1.600	.174
Within Groups	114.318	295	.388		
Total	116.798	299			

The f value is 1.6, and the significant value is 0.174, which is greater than the acceptable threshold of 0.05, implying that the null hypothesis is accepted and that age has no impact on financial inclusion.

Ho4: There is no significant relation in between education of the respondents and Financial Inclusion.

Table 4. Education and Financial Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	21.753	4	5.438	16.879	.000
Within Groups	95.045	295	.322		
Total	116.798	299			

The significant value is 0.000, which is less than the permissible threshold of 0.05. The f value is 16.879. As a result, a null hypothesis is rejected, and it is concluded that educational attainment has an impact on financial inclusion.

Ho5: There is no significant relation in between Respondent's Monthly Income and Financial Inclusion.

Table 5. Descriptive Statistics of Respondent's Monthly Income

	N	Mean	Std. Deviation	Maximum
less than 5000	34	2.1201	.55436	3.50
5000-15000	211	2.3519	.62293	3.92
15000-25000	41	2.5366	.63054	4.25
greaterthan25000	14	2.3036	.67984	3.83
Total	300	2.3486	.62500	4.25

Table 6. Anova table showing Impact of respondent's monthly Income on Financial Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.255	3	1.085	2.828	.039
Within Groups	113.543	296	.384		
Total	116.798	299			

The mean value of Income group 15K to 25K is highest i.e. 2.5366, shows this group is able to do more financial services. The f value is 2.828, and the significant value is 0.039 in table 6, which is less than the acceptable threshold of 0.05, implying that the null hypothesis is rejected and monthly income of the respondent's has significant impact on financial inclusion. Table 6: Anova table showing Impact of respondent's monthly Income on Financial Inclusion

Ho6: There is no impact of respondent's caste category on Financial Inclusion.

Table 7. Descriptive statistics of respondent's caste category

	N	Mean	Std. Deviation
general	160	3.0543	1.33552
SC/ST	116	3.0204	1.77624
Others	24	2.8767	1.36756

Table 8. Anova table showing Impact of respondent's caste category on Financial Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.910	2	1.955	1.394	.250
Within Groups	416.483	297	1.402		
Total	420.394	299			

Using the descriptive statistics given in Table.7, it has been found that the general category people are using more of the financial services. The general Category people have a higher level of financial inclusion (3.0543) than SC/ST (3.0204). Anova test, Table 2, is conducted to test the first hypothesis, showing the results of impact of the respondent's caste category on Financial Inclusion. It is observed that the p value is .250 which is greater than 0.05. Based on the results of the One-way Anova, the null hypothesis is accepted. Therefore, it is concluded that caste categories of the respondents have no influence on Financial Inclusion.

Ho7: There is no significant relation in between number of family members of the respondents and Financial Inclusion.

Table 9. Descriptive of family members of the respondents

	N	Mean	Std. Deviation	Std. Error
1	3	3.0833	.00000	.00000
2	8	2.3854	.43401	.15345
3	12	2.9444	.51288	.14806
4	83	2.4719	.62188	.06826
5	82	2.3547	.64958	.07173
6	63	2.4061	.56012	.07057
7	26	1.9679	.68681	.13469
8	16	2.1250	.43568	.10892

10	5	2.3667	.63081	.28211
15	2	2.0417	.64818	.45833
Total	300	2.3486	.62500	.03608

Table10. Anova table showing Impact of respondent's family members on Financial Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.593	9	1.177	3.214	.001
Within Groups	106.205	290	.366		
Total	116.798	299			

Table 9 is showing that the single member or two are able to avail financial services than others. The significant value is 0.001 in table 10, which is less than the permissible threshold of 0.05. The f value is 3.214. As a result, a null hypothesis is rejected, and it is concluded that the number of family members has an impact on financial inclusion.

Ho8: There is no significant relation in between Respondent's Monthly Saving and Financial Inclusion.

Table 11. Descriptive Statistics of Respondent's Monthly Saving

	N	Mean	Std. Deviation	Std. Error	Maximum
less than 500	133	2.1736	.55020	.04771	3.75
500-1500	103	2.4515	.61862	.06095	3.92
1500-2500	40	2.6792	.71799	.11352	4.25
greater than 2500	24	2.3264	.59533	.12152	3.50
Total	300	2.3486	.62500	.03608	4.25

Table 12. Anova table showing Impact of respondent's monthly Savings on Financial Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.548	3	3.183	8.783	.000
Within Groups	107.251	296	.362		
Total	116.798	299			

The mean value in table 5 is showing that the respondents having monthly saving of 1500 to 2000 are able to take more financial services. The f value is 8.783, and the significant value is 0.000 in table 6, which is less than the acceptable threshold of 0.05, implying that the

null hypothesis is rejected and monthly savings of the respondent's has significant impact on financial inclusion.

Ho9: There is no significant relation in between occupation of the respondents and Financial Inclusion.

Table 13. Descriptive Statistics of Respondent's occupation

	N	Mean	Std. Deviation	Std. Error	Maximum
salaried	136	2.4589	.62030	.05319	3.92
self employed	67	2.2575	.68006	.08308	4.25
student	48	2.4635	.53371	.07703	3.75
housewife	41	2.1443	.52771	.08241	3.75
Others	8	1.5938	.31319	.11073	2.00
Total	300	2.3486	.62500	.03608	4.25

Table 14. Anova table showing Impact of respondent's Occupation on Financial Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.116	4	2.279	6.244	.000
Within Groups	107.682	295	.365		
Total	116.798	299			

Table 13 showing that the students and salaried class are into financial services more than other respondents. The significant value is 0.000, which is less than the permissible threshold of 0.05. The f value is 6.244 in table 14. As a result, a null hypothesis is rejected, and it is concluded that the occupation of the respondents have an impact on financial inclusion

Findings

Null Hypothesis	Acception/Rejection
No significant relation in between Gender and Financial Inclusion.	Accepted
No significant relation in between Marital Status and Financial Inclusion.	Rejected
No significant relation in between Age and Financial Inclusion.	Accepted
No significant relation in between education of the respondents and Financial Inclusion.	Rejected
No significant relation in between income of the respondents and Financial Inclusion.	Rejected

No significant relation in between caste of the respondents and Financial Inclusion.	Rejected
No significant relation in between number of family members of the respondents and Financial Inclusion.	Rejected
No significant relation in between monthly saving of the respondents and Financial Inclusion.	Rejected
no significant relation in between occupation of the respondents and Financial Inclusion.	Rejected

Conclusion

In India, a variety of variables influence the poorer sections of society's access to financial services and formal banking system, including age, gender, employment, income, savings, education, location, and so on. This paper studies the influence of these factors on financial inclusion. It realised that gender and age did not have major influence on financial inclusion. But rest of the factors like education, income, saving, occupation have greater influence. Therefore, Government and Reserve Bank of India have to make policies and programmes keeping these factors in mind for boosting financial growth. It is now necessary to exert control over those elements that have a major impact on it.

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Service Quality and Customer Satisfaction of Public Transport Service Industry: Review of Literature

Jagdish Kanzariya & Hitesh Shukla

Abstract

Service quality and customer satisfaction is a most important factor for every economy of the countries. Service quality and customer satisfaction is play vital role for growth and sustains for each business in today global competition. Service quality is defined as quality of service where customer actually expects some quality from service. Customer satisfaction means the person getting support or goods is an outline idea and has to do with such factors as the quality of the product. The quality of the service on condition that the atmosphere of the placing where the product or service is got to own, and the price of the product or service. Customer can satisfy after purchasing product or service if he experience by the same product or service. Customer satisfaction helps to business for profit maximization and cost minimization. Customer satisfaction also useful to increase level of growth of business and show the way to sustain in the market for long time with profit.

Keywords: Service quality, customer satisfaction, public transportation, public transportation service provider.

Introduction

It has been said that knowledge is power in today era. Every research needs to review more and more literature for getting accurate result. Public Transportation is an important factor for economy as well as society also. The overall growth of any economy and society is depended on transport system. It has been believe that transportation system play a vital role behind development and growth of any country. Transportation system is also important for common man today. There are many modes of transpiration system available like land, water, air, pipeline etc. India is developing country since two or three decades due to transportation. There is some limitation in transportation like lake of infrastructure and investment. Customer satisfactions and service quality also most important factor to sustain for any public transportation as well as any business. If the level of customer satisfaction and service quality is high then organization or business gets high level of profit. When every passenger travels by public transportation at that time they have an ideal expectation of the service. Service quality measures how well a Service is gave birth to made a comparison of to person getting support or goods degrees in which event is probable. Businesses that meet or exceed expectations are considered to have high service quality.

Public Transportation

Public transportion is also experienced as mass transport, public transit, or public transport. Public transport is a part of passenger transport service which is available for use by the common public with help of some modes such as ferry, taxi, car, tram, bus, train, boat, ship,

and airplane. Public transportation is operated by government of country, state, district, taluka and village. Some time and some place government hire this kind of services for general public for better benefits. All control of the operation may under by the government as well as public privet partnership. Most public transport services run from one place to another according to a fixed schedule and timetable.

Those people who have not own car, tram and bus, they uses public transportation to go places far away. Buses, trains and airplane are useful for long distant transportation. Public transportation is more often private transportation. When people use public transportation at that time, they need to take ticket or card from some authorities like ticket counter, driver and conductor. Timetable tells them when they come and goes in public transportation. Some announcement also available at the bus stand, railway station and airport where passenger get information about his journey.

The vehicle of public transportation is good condition as per government norms. So public transportation also good for the environment. Second thing most important that the fair of cost of public transportation is very low which attract to common people to catch public transport every day. Public transportation strongly helpful to general public for sending them where passengers want to go Public transportation saves fuel, gasoline consumption and it reduces traffic on road. Public transportation provides economic opportunities & drives community growth and development in life of people.

Service Quality

The term “service quality” is a combination of two different words “service” and “quality”. Service means “activity or benefit which one party can offer to another that is essentially intangible and does not result in the ownership of anything.

Quality is most important for a strategic tool for maintain operational efficiency and better performance of business. Quality is very important factor in service sector for the success of any business. Services quality helps in profit maximization and customer satisfaction.

Definition of Service Quality

The term “service quality” is to hand to explain and judge. There are many reputed author tried to define it and give definitions in different point of views.

Philip kotler and Grey Armstrong defined the term “service quality” as “it is the ability of a service firm to hang on to its customers”.

Christian Gronroos suggested that the quality of service as perceived by the customer has two dimensions – technical or outcome dimension and the faction of process related dimension.

A. Parasuraman, Valarie A. Zeithaml and L. Berry defined service quality as delivery of excellent or best service as per customer requirement. They have done a lot of research on service quality and identified ten criteria in evaluating service quality. Later, they reduced it into five broad dimensions like.

1. Reliability,
2. Responsiveness,

3. Assurance,
4. Empathy,
5. Tangibility.

So, from the above discussions it is clear that the service quality is a difficult concept to define in a single definition.

Dimensions of Service Quality

As above discussed service quality is depended term and its formation depends upon several factor related to service and service provider. There are five dimension of service quality like reliability, responsiveness, assurance, empathy and tangibility. All dimensions are discussed as under:

Tangibles: The physical appearance of the facilities, staff, buildings, and communication materials.

Reliability: Ability to perform the promised service dependably and accurately.

Responsiveness: Willingness to help customers and provide prompt service.

Assurance: Knowledge and courtesy of staff/personal and their ability to convey trust and confidence to customer.

Empathy: Caring, individualized attention the firm provides its customers.

Customer Satisfaction

Customer satisfaction measures how well the expectations of a customer Concerning a product or service provided by your company have been met. Customer satisfaction is an abstract concept and involves such factors as the quality of the product, the quality of the service provided, the atmosphere of the location where the product or service is purchased, and the price of the product or service.

Customer satisfaction is most important factor for every business and markers because it provides proper direction to owner as well as customer for their actually needs. So customer can satisfy after purchasing product or service if he experience by the same product or service. Customer satisfaction helps to business for profit maximization and cost minimization. Customer satisfaction also useful to increase level of growth of business and show the way how to sustain in the market for long time with profit.

Factor affection to customer satisfaction: Price, Product quality, Service quality, Specific product or service features, Consumer emotions, Attributions for service success or failure, Perceptions of equity or fairness, Other consumers, family members, and coworkers, Personal factors, Situational factors, brand name.

Who is The Customer?

There are mainly two types of customer like internal customer and external customer.

1. Internal customers are people, departments, units and groups within an organization served by what we do.
2. External Customer are end users of the organization's product or services depositors, borrowers, investors, etc.

Why Customer Satisfaction Needed?

It has been said that customer is the king of market. Market trends and position over all depend on the customers as well as any organization also. So customer satisfaction is most important for any organization to sustain in the market. Customer satisfactions also useful for customer to decide buy any product or service.

Customer Feedback

Customer feedback play vital role for the customer satisfaction status. It is must be as going on all the time done and looked at by some careful way. Customer feedback helps to reduce dissatisfaction of customer and provide right quality to right customer. Customer feedback also Identify customer need and decide some opportunities for development of business.

How to Ensure Customer Satisfaction

There are many methods to ensure customer satisfaction which are as under:

Questionnaire, surveys, feedback of customer, alternatives Comparison, feedback of worker, Internet, newspaper Toll free numbers.

There are many studies have been done in customer satisfaction and service quality in public transportation. Literature review would cover the relevant literature, findings and previous studies associated as under bellow:

1. Service Quality,
2. Customer Satisfaction.

SERVICE QUALITY				
Sr. No	Researcher/ Author	Year	Country/ State	Research
1.	Mathew M.O.	1964	Calcutta	In his book on Rail and Road transport in India emphasized that the unit size is very important for every transport industry.
2.	Halder Dilip Kumar	1967	Calcutta	Calcutta state transport corporation (CSTC) is facing traffic problem in city and due to low fleet utilization and higher absenteeism of passenger Calcutta state transport corporation faces more losses.

3.	S.R. Kalyanraman & T.R. Sehgal	1968	India	the cost of transport industry depended on the road condition, vehicle position and number of passanger. These factor are more inter related to each other in public transport industry in Andhra Pradesh
4.	Thorsten Hennig-Thurau, Alexander Klee	1997	Germany	Customer mindset changed in concern market competition, customer level of satisfaction and customer need in quality standard. This model could be useful in theoretical aspect of customer relation for creating market for product and service. Customer oriented market need to measure level of customer satisfaction and relation where this model may be applied.
5.	Gabriella Mazzulla, Laura Eboli	2006	Calabria	Transport service quality attributes which persuade global customer contentment has been analyzed. As a result it emerge that service quality attributes with a major weight on global customer satisfaction are service frequency and seats on the bus.
6.	Gabriela Beirao, Jose Sarsfield Cabral	2006	Portugal	Private sector of transport service increasing his service quality so public sector of transport must need to modify his service to attract more passengers. Researches also suggested that public transport systems need to some change in regularity of public transport and its strategy for more customer to getting high service quality.
7.	Maria Morfoulaki, Yannis Tyrinopoulos, And Georgia Aifadopoulou	2007	Paris	Customer satisfaction increasing due to increasing level of customer perception on time schedule, root board, security of customer etc. This paper also useful for maintains customer satisfaction and service quality.
8.	Margareta Friman And Markus Fellesson	2009	Sweden	High level of satisfaction does not fill full better objective and vice a versa. Researcher has survey between two different cities and found that customer satisfaction is related upon the service quality which is not getting in public transport .customer satisfaction and service quality is quietly interrelated in public transport industry.

9.	Doddy Hendra Wijaya	2009	Sweden	Many problem of passenger has been seen during the transportation. Media is best way to convey complaint for the public transportation. Author has also suggested that public transportation need to some action against passenger companions.
10.	Filipa Fonseca, Sofia Pinto, Carlos Brito	2010	Portugal	Some service quality factor like level of being ready for working, safety, speed, comfort and on time form effects on customer satisfaction.
11.	Kokku Randheer, Ahmed A. Al-Motawa, Prince Vijay J.	2011	Hyderabad	Culture factor play vital role for the customer satisfaction and service quality of public transportation. Researcher has found that most of passenger wants to get more stop on his journey so they can reach at his office and home timely. There are many people depended on public transportation so maintenance is most important factor for getting higher customer satisfaction.
12.	Dr. Shiipa Trivedi	2012	Gujarat	The government may provide financial services for better health of GSRTC. Municipal corporation may take over city services. Management may recruit sufficient staff for better services.
13.	Central Institute of Road Transport Pune	2012	Pune	Rajasthan State Road Transport Corporation may offering high assuring services with quality and economically and the priorities are of improvement of Rajasthan State Road Transport Corporation need to attention immediately in management.
14.	Rida Khurshid, Dr. Hummayoun Naeem, Sana Ejaz, Faiza Mukhtar, Taha Batool	2012	Pakistan	Public transport of Pakistan is not entirely owned by Government, so overall quality of services is decreasing at end level due to not rules and regulations.
15.	K.S. Muthupandian And Dr. C. Vijayakumar	2012	India	All parameters are related to each other for service quality of public transportation.

16.	P. Sivaraman	2013	Tamilnadu	There is some gap between service quality and actually quality. Banks are not able to provide good service quality for his customers. It has been also found that service quality and customer satisfaction is interrelated factor in banking sector
17.	Fahed Salim Khatib	2013	Jordanian	There is high level satisfaction in on board service. It means that there is need of some improvement for increase the level of customer satisfaction. Researcher also suggested that some further changes requirement in flight departures and flight delay.
18.	N.B. Patel , Prof. Dipal Kothiya	2014	Gujarat	There is most important of technical quality variables such as convenient timings, facilities in the terminus/bus centre, comfort in the bus, honesty of operational staff and ease of travel are the dominant influential factors on the part of the commuters during the state of rendering the services
19.	Juan De Ona, Rocio De Ona, Laura Eboli & Gabriella Mazzulla	2014	Italy	Perception of service quality of railway passenger is positively where overall customer satisfied with the most of service of railway. This study is easy to understand and useful for comparison with other factor. If the railway want to take decision at that time this study becomes very helpful.
20.	Kumar, Gaurav, Kaur Amandeep And Singh Kiran K.	2014	Punjab	Common public happy with service of public transportation but not happy with time schedule of buses. The middle class of people is happy with safety and cleanness but not satisfied with time schedule of buses. Researchers also found that below 25 year public is not happy with time schedule of buses but other age group of public is happy with time schedule of buses.
21.	Dr. P.M. Gawali	2015	Maharashtra	The economic growth of the country is depended on transport industry primarily. He also found that bus services of the country declined to 20 % till 1998. So public transport industry making losses since many years. Thus it has danger effect in the welfare of state.

22.	Ravi Prakash Maheshvari, Parveen Berwal And Ravi Kant Pareek.	2016	Rajasthan	Rajasthan State Road Transport Corporation is providing good service on ground. Rajasthan State Road Transport Corporation attracts public for better economical services in spite of having financially losses.
23.	Erick P. Massami, Benitha M. Myamba, Leticia Edward	2016	Tanzania	Quality of urban transport is good compare to others in Dar es Salaam city of Tanzania. Author also found that rail transportation is highly satisfied by the passenger in compare to road transportation.
24.	Deneke Dana, Million Nane, Mebratu Belete, Teshome Ergado	2016	Ethiopia	Passenger of public transportation is not satisfied with the service of public transportation. There are many problems facing passenger related to facility not available at bus stand. Public transportation need to modify its service factor for getting higher customer satisfaction level. Drivers of public transport need to take training for passenger.
25.	R Luke and G Heyns	2017	Johannesburg	Customer perception score is not showing as per customer satisfaction level with service quality. The passenger of public bus is not happy with the comfort and reliability service factor.
Customer Satisfaction				
Sr. No	Researcher/ Author	Year	Country/ State	Research
26.	Oktiani Astuti Budiono	2009	Indonesia	Public passenger of Indonesia is not happy with the service of public transport service because car transport is much better than Indonesian public bus transport. Indonesian Public bus transport needs to focus on the demand of customer for getting higher level of customer satisfaction.
27.	Geetika, Shefali Nandan	2010	India	Railway platform is directly responsible for customer satisfaction. This study is also important for passenger safety and security, employee of railway and information system. Behaviour of staff is playing vital role for the customer satisfaction.

28.	Mintesnot G. Woldeamanuel, Rita Cyganski	2010	Germany	Public transport services are highly related to parameters of customer satisfaction. Service provider need to enhance his service range to customer for getting high level of customer satisfaction. Central point of pick up is useful for passenger while access to routes frequently and time limit.
29.	Mkonnen Mammo	2010	Ethiopia	Service of bus of transport is not good which not actually fulfill expectation of customer. Author has found that Anbassa City Bus Service Enterprise has not satisfied its service for customer so overall the customer satisfaction level of service is not positively.
30.	Jorrit Van't Hart	2012	Netherlands	Availability of service, safety, regularity, time to time schedule operation of buses are play vital role for customer satisfaction with public transport.
31.	Diem-Trinh Le-Klahn	2012	Germany	Public transport is more important in tourism system and play vital role for growth of tourism. In Munich, public transports were positively judged satisfaction level of tourist.
32.	Andrew Morris Kundi	2013	Tanzania	Public transportation is play most important roll for the public which is using daily. Price setting is also import factor for public transportation as well as public also.
33.	Raja Irfan Sabir, Sara Javed, Wasim Ahmad, Nabila Noor, Hafiza Mubeen Munir	2013	Pakistan	All factors like tangibility, reliability, empathy, responsiveness and assurance is interrelated with customer satisfaction. Empathy is play vital role for getting higher customer satisfaction. Daewoo Express transportation of Pakistan is satisfied by its customer but not happy with services of Daewoo Express.
34.	Amsori Muhammad Das, Mohd Azizul Ladin, Amiruddin Ismail, Rizaatiq O.K. Rahmat	2013	Kuala Lumpur	Passenger is happy with the services of public transport monorail is s in Kuala Lumpur. Authors also suggested that if public transport monorail wants to increase level of customer satisfaction or profit maximize then need to some improvement its affecting factor like parking facility and comfort of train.

35.	M.C. Vijayakanth Urs, A.N. Harirao, A.N. Santhosh Kumar	2014	Karnataka	Researchers have observed that for the query and problems of the customer, government may need to give training to front line executives and front line executive may need to improve their knowledge and skill for fast and good services
36.	Dr. J. Anuradha	2014	Tamil Nadu	Indian railway may public advertisement regarding service awareness at some place where passenger is out going place like rest room, at the entrance, ticket counter, passengers' lounge and platform ,though announcement and on the back of ticket.
37.	Mounica V.	2014	Andhra Pradesh	Service quality impact on customer satisfaction in public bus transport. Service quality may improve or evaluated by single attributes and factor based on several attributes
38.	Prof. Henry M. Bwisa	2014	Kenya	Overall satisfaction of public transport and customer satisfaction is good. Travel time, punctuality, clear information, good staff behaviour and assured board security are in satisfaction level therefore customer is highly attracted with public transportation due to conscious of time.
39.	Harifah Mohd Noor, Naasah Nasrudin, Jurry Foo	2014	Malaysia	The primary object is satisfaction level of minibus and transit bus. Level of comfort and convince is excellent and good frequency of minibus also.
40.	Rana Imam	2014	Jordan	Most of passengers are satisfied with the service of public transport. Some improvement is necessary at level of satisfaction in Amman. Due to this improvement, passenger may attract with the services of public transport in future.
41.	Rabiul Islam, Mohammed S. Chowdhury, Mohammad Sumann Sarker And Salauddin Ahmed	2014	Malaysia	Service quality is play vital role to attract customer. Researchers also criticized that high quality public bus transport does not fulfill the expectation of the customers but overall attract potential customers. Behaviour of bus driver, frequency of services, reliably of services, waiting time is most effective factor for customer satisfaction.

42.	Greater Wellington Regional Council	2014	Auckland	There may be need to some improvement in reliability and fair rate in Wellington's public transport system. 9 % traveller more frequent service, 6 % suggested that capacity of serves may need to increase
43.	Thomas Kolawole Ojo, Dickson Okoree Mireku, Suleman Dauda, Ricky Yao Nutsogbodo	2014	Ghana	Researcher has found 15 attributes in SERVQUAL scale portray poor perception of service quality. They explained that respondent not happy with more than half of attributes. There are some competitions entering in this business so it may be effect on the revenue.
44.	Prof. Henry M. Bwisa	2014	Kenya	Overall satisfaction of public transport is influences significantly shuttle transport. Travel time, punctuality, clear information, good staff behaviour and assured board security are attributes attract and satisfy customer to shuttle transport.
45.	Vincent Valentine Buluma	2014	Kenya	Perception is directly related to the respondent for the level of customer satisfaction. Passenger satisfaction is importantly related to service quality and therefore service is most important factor for getting high level of customer satisfaction.
46.	Yuvaraja Seegodu Eshwarappa	2014	Kathmandu	Customer satisfaction and service quality is interrelating to each other strongly.
47.	Ali Alphonsus Nwachukwu	2014	Nigeria	The performance of the public transport services in Abuja is not satisfied with passenger so public transport services in Abuja need to increase level of customer satisfaction. This study also found that public transport services in Abuja may increase his all transport services with help of administration. Comfort is most important factor for the public passenger for the getting higher customer satisfaction level.

48.	Harsh Vijaykumar Tamakuwala	2014	Gujarat	Surat people well know about the services of Gujarat State Road Transport Corporation. He explained that people are using services of Gujarat State Road Transport Corporation lot in routing their journey but there are some improvement for growth of higher passenger and income
49.	Singh Sanjay	2016	Lucknow	The overall customer satisfaction level of transport industry is low level which is not suitable for passenger in Lucknow. In this study author found that government needs to some improvements in public transport industry. . Author also has suggested that comfortness is most important for the public passenger so Lucknow Mahanagar Parivahan Sewa is controlled by UPSRTC having best customer satisfactions.
50.	Manoj Kumar, Vikas Anand, Anup Srivastava,	2016	India	Uttar Pradesh State Road Transport Corporation is not providing satisfaction to their public passengers at some level. UPSRTC need to modify its strategy for getting customer satisfaction and service quality.

Conclusion

Service quality of private transport sector moving fast due to globalization and new technology so it is difficult to sustain public transport service provider. So public sector of transport industry should need to modify in his service to attract more passengers. Public transport systems need to some change in regularity of public transport and its strategy for more customer to getting high service quality. In above review of literature, customer satisfaction and service quality is interrelating to each other strongly. Behaviour of staff, frequency of services, reliability of services, waiting time is most effective factor for passenger for getting high level of customer satisfaction. Government may need to give training to high level officer and high level officer may need to improve their knowledge and skill for fast and good services. Travel time, punctuality, clear information, good staff behaviour, cleanness, safety and security are most highly important factor to attract public passenger.

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The mental health status of working women in India:

A theoretical construct

Mohammad Ashraf Malik

Abstract

The present paper reviews the available evidence on the mental health status of working women in India. In this paper an attempts was made to know the causes and consequences of mental health of women, especially those who are employed. Due to the excessive burden of work and house holding activities most of the women lost their mental equilibrium and becomes a vulnerable to psychological disorders like stress, depression etc. According to National Population Policy (2000), women should have access to comprehensive, affordable and quality health care. There is a greater prevalence of the more common type of disorders such as depression, phobias and anxiety among women compared to men across all socio-economic groups and diverse societies (Sonpar & Kapur, 1999). Independent studies on mental depression across the world show that women are twice as likely as men to suffer from clinical depression (Davar, 1998). In some studies like Brown and Harris (1978), it has been also found that depression was more prevalent among working-class than middle class women living in London. So, this paper is an exhaustive effort to highlight some issues related to the mental health of women in India.

Keywords: Mental-Health, Women, Employed, India.

Concept of mental health

Mental health may be defined as our cognitive or emotional wellbeing. Simply, mentally health means a person who is free from any kind mental disturbance. In broader terms mental health refers to how we think, feel and behave. Mental health also includes a person's ability to enjoy life to attain a balance between life activities and to achieve psychological resilience. In other words mental health can be defined as the reflection of equilibrium between the individual and environment, constituting an integral part of overall health (WHO, 2001). The concept of mental health can be Better understood by the following given definition.

According to Medical dictionary, mental health is "emotional, behavioral, and social maturity or normality; the absence of a mental or behavioral disorder; a state of psychological wellbeing in which one has achieved a satisfactory integration of one's instinctual drives acceptable to both oneself and one's social milieu; an appropriate balance of love, work, and leisure pursuits".

According to WHO (World Health Organization), mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community". WHO stresses that mental health is not just the absence of mental disorder.

Literature review on mental health of working women in India

It is well said by somebody that “Health is Wealth”. Health is really a precious ornament. How much curable we remain towards it, we can preserve it better. Health should be given special focus because, if we lost wealth we lost nothing, but if we lost health we lost everything. The main objective of the present paper is to highlight the issues related to the mental health of working women by reviewing the literature.

In India the women health is burning issue. Women health in India can be examined in terms of multiple indicators, which vary by geography, socio economic standing and culture (Chatterjee & Paily, 2011). Presently, women in India are facing different kinds of multitude of health problems, which ultimately affect the aggregate economy’s output. Addressing the gender, class or ethnic disparities that exist in healthcare and improving the health outcomes can contribute to economic gain through the creation of quality human capital and increased levels of savings and investment (Ariana, Proochista & Naveed, 2009).

India has been considered as middle income country by the United Nations (2011). Similarly the world economic forum also termed India one of the worst country in terms of gender inequality as compared to other countries and is ranked as 132 out of 187 in terms of gender inequality, the findings from the World Economic Forum indicate that India is one of the worst countries in the world in terms of gender inequality and socially distressful situations by the United Nations Development Programmes Human Development Report (2011).

The working women’s mental health is more susceptible because of the low tendency to avoid distressful situations, which is predictable in the working situation in comparison to the non-working women; they spend a quantity as well as quality time with the family member, which helps them to remain mentally healthy. Some existential and experiential realm is attributed to human bonding and it does positively help the individuals maintain their mental health. The findings of this study corroborate the earlier observations of Mukhopadhyay (1997) and Sinha (1997). Similarly, Padma (1991) has reported correlation between security-insecurity and adjustment problems. She argued these working women play a dual role in the family and the workplace, they experience a sustained stress to cope in both the conditions and hence their mental well-being gets affected (Mukhopadhyay, 1997). Irrespective of the fact that they are the earning member of the family, the mental distress of women remains unacknowledged within families (Isaac & Kapur, 1980), especially Indian families do underestimate mental distress levels in women (Davar, 1999). Also, social discipline and expected role seemingly induces an anxiety in them.

Women’s in all kinds of occupations are suffering from the problems of mental health. Most of the studies reported that working women fails to cope with an over burden of work and are involved in role conflicts, like in one of study by (Parikh, Taukari & Bhattacharya, 2004), reported that nurses may suffer from workload, role ambiguity, problems in interpersonal relationships and death and dying concerns, as emotional distress, burnouts and psychological morbidity. Similarly in other study by (Desai & Gaur, 2004), on women working in a small scale industry. They reported that those women who works for six to eight hours a day shows higher prevalence of pain and discomfort than that the control group of housewives and the pain experienced in working women was more enduring.

Lakhani, (2004), in his study of women construction workers revealed often long (10-12) hours of work in a noisy, dusty environment full of pollutants like tar and glass were suffering from respiratory, eye and skin disorders as well as noise induced hearing loss were common and further it was argued that more than half the women (56%) reported of injuries that led to work loss and about three-fourths of the women reported gendered stressors like sex discrimination and balancing work and family demands, apart from 'general' stressors like excessive workload and under utilization of skills (Lakhani, 2004). 1999). One should take cognizance of women's lived experiences while addressing their mental health problems. He reported that marriage, multiple work burdens, violence, membership in marginalized groups, are stressors that women are (more) subject to, that lead to somatisation and depression, (Davar, 1999).

Conclusions and suggestions

In the light of above documentary evidence it has been revealed that the mental health conditions of working women are worse and they are suffering from different types mental disorders like stress, depression, anxiety, etc. Due to presence of such type of mental disturbances they could not balance their work and could not stand over the family demands. This will create a lot of problems in balancing their social and psychological adjustment. Now the need of our is to give a special focus toward the deteriorating mental health of working women by societies in general and Government in particular. There should be some rules and laws of working hours in both private and public industries, so that women can work according to the prescribed schedule and can avoid the overloading of work. Not only this but some mental hospital and counseling centers should be opened in each and every district of the country, so that they can function as the source of relief for those sufferers. The awareness programmes should be organised in context of the coping with stress, anxiety and other mental problems. Counseling centers, family counseling centers should be open where from they can seek the needed help and emotional support.

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Changing Scenario and Challenges of Academic Libraries Services Strategy During Covid-19 Pandemic

Newton Kabiraj

Abstract

The article examines the importance of understanding how and why libraries are changing, analyzes the limitations and difficulties of traditional library performance measures and explores environmental factors that may help account for why library use is changing. The transformational change in academic libraries due to Covid-19 pandemic situation and also it concludes with an overview to develop an understanding of how user behavior and preferences affect demand for use of library collections, services, and facilities of academic libraries and librarianship.

Introduction

Library Services provides for the cultural, education, recreation, information and learning needs of people of all ages. Academic libraries are changing in response to changes in the learning and research environment and changes in the behavior of library users. The changes are evolutionary libraries are adding new, digital resources and services while maintaining most of the old, traditional resources and services. Finding and funding the appropriate balance of digital and traditional initiatives challenges strategic and financial planners. The Covid-19 affected all aspects of human activities in the world such as education, research, economy, business, transportation, sports, entertainment, social gathering, interaction, worship, service sector and politics. The reality of the situation was challenging to bear the education sector library also bear the changing and challenges services strategy during Covid-19 pandemic situation.

Corona Virus Covid-19

The Corona virus is a disease that first indentified in Wuhan, China in the year of 2019 later it was coded COVID-19 by W.H.O. This virus more affected on serious illness older people with underling medical problems like diabetic, cancer, chronic respiratory disease and cardiovascular disease. The main symptoms of this virus are high fever, sore throat, constant coughing, runny nose, flue and breathing difficulty. First time of this study, there was no reliable treatment for this virus but at present researcher finding clinical vaccine to prevent to affect this virus. Some of the behavioral changes can help to spread of the corona virus it's include washing hand with soap or alcohol based sanitizers, wearing of face mask, physical distancing, avoiding touching of face, avoiding traveling and gathering, reducing contacts with unknown people.

Affect of Corona Virus on Education

According to advice WHO social distancing is the first prevention step to stop spread of Corona Virus. Therefore all countries started of lockdown to stop any type of communication.

Due to lockdown education section also affected schools colleges and universities become closed. This situation breakdown of schedule student's education also the various entrances and service examinations were postponed. Many opportunities have come out this pandemic situation regular classroom teaching mode convert to a new era of digital mode. The education section and library services have been fighting to challenges and changes to threat of their existing of the pandemic situation. Due to lockdown people staying at home day after day forced to spent time with family and economic changes are affect the higher education indirectly and digital divide all have played an important role.²

Role of Library E-Learning

Library is a part of higher education system. The present educational curriculums no one can have know all the resources required at a certain time. Therefore persons are dependence on the library is growing day by day. At present libraries are facing challenges new generation of users their required online digital current integrated information at a very few time. After invention of information and communication technology libraries also changing use of various technology for better users services such as communication technology, computing technology, mass storage technology and also libraries digital data access, retrieve, store, manipulate and dissemination of information to the end users. Academic libraries are using modern technology and implement efficient and effective library services and resource sharing network develop institutional repository of digital contents for dissemination of information.

Strategies for Online Digital Education During Covid-19 Pandemic

There are various types of strategies for continuing online digital education system in long terms this pandemic situation.

- E-PG pathshala is a platform for postgraduate students they can access free e-books, online course and study materials during this pandemic situation.
- DIKSHA is a platform for access 80,000 free e-books for class 1 to 12 by CBSE, NCERT in multi languages.
- NROER is a platform to free access multi language books interactive modules and videos of host, stem based games for students and teachers.
- SWAYAM is a web portal where we can study any web based course with study materials for teaching learning resources.
- Through SWAYAM web portal NCERT has launched 34 online courses with study material for the students of class 11 to 12.
- SWAYAM include NIOS offers 18 MOOCs for secondary education and 20 course of senior secondary education level.
- MIT OPEN COURSE WARE it is the platform it's include all type of online technical course through Massachusetts Institute of Technology its can also provide free lecture notes, exams and video from MIT.

- ALISON LEARNING CENTRE is the most popular platform for online course class UKG to class Twelve. It's also include class lecture note, video and online examination.
- MOODLE.NET archive is the platform of share any course with study materials and videos.
- COURSERA is one of the platform for free online course with study materials and videos without limits.
- EDX it is the platform for free online course of various world's best universities.
- UDEMY is the free online resource center and various online courses with study materials and videos.
- CAREEAR LAUNCHER it is the E-learning platform for various course with study material and videos.
- IMPRINT (Impacting Research Innovation and Technology) this portal launched by MHRD Government of India it's can include new technology and innovation of new ideas to research students and people.
- NATIONAL DEFENCE ACADEMY this portal help to the people those who are interested is defence services it's include information any type of indoor outdoor defence services training with online examination and guidance.
- NPTEL this portal launched by MHRD Government of India. The main aim in this platform for free online self study course with study materials and videos.
- MUKT VIDYA VANI is an audio internet radio services its provide open education radio facility national and international content for better learning and also live interactive for personal contact programmes for various subjects secondary senior secondary and vocational courses.
- RADIO VAHINI FM 91.2 MHz is the community radio station the main aim is that extending education to school droop out candidate through ODL mode.
- SHIKSHA VAANI is an audio based learning initiative of CBSE and it is available of Android App it's cover various subjects secondary and senior secondary available in english and hindi language.⁶

In our country most of the libraries have hard copy of educational resources for information services to the users. During this Covid-19 Pandemic situation libraries facing challenges surviving of existing users services therefore libraries need to change services strategy and depends on digital form of information for study. There are various types of strategies for online digital form of library services in long terms this pandemic situation.

INFLIBNET (Information and Library Network) it is the autonomous body under guidance by UGC of India the main objective are to promote and establish communication facilities to improve information transfer and access. This autonomous body initiative to maintain various digital library consortiums for digital information processing retrieved and dissemination of information to the end users. INFLIBNET and other Institutional Consortium has initiative various digital resources project such as:

- N-LIST this web portal provides more than 6000 thousand e-journals and more than 97000 e-books to the users. It's also included JSTOR and Taylor & Francis journal.
- UGC-INFONET This consortium included all subject such as arts, science, humanities, it's provide more than 8500 core archival and peer reviewed e-journal, the bibliographical data base from 28 publishers.
- E-Shodh Sindhu Infibnet has initiative to maintain more than 10,000 core archival and peer reviewed journals and number of bibliographic citation database in different discipline.
- Shodh Ganga Infilbnet has initiative under the guidance of UGC this web portal provide free open access Indian thesis and dissertation to the academic communities.
- INDEST Indian Digital Library in Engineering Science and Technology included government engineering and science technology colleges and also included AICTE supported engineering colleges. This web portal provides to access more than 20750 peer reviewed journals and 10 bibliographical data base.
- MICT Ministry of Communication and Information Technology this consortium provide the services free five electronic resources such as ACM digital library, Science Direct, IEL online, Indian Standards, JCCC digital resources and access more than 1820 e-journals and 14000 e-books and also provide union catalogue, library automation software.
- NKRC National Knowledge Resource Consortium the main objective of this consortium to access more than 8000 e-journals of all major subjects and provide more than 8060 peer reviewed e-journals with 7 bibliographical data base.
- DRDO E-Journal Defence Research and Development Organization it is undertaken by Ministry of Defence Government of India it is the largest government funded defence research organization. It's provide more than 568 full text e-journals all the journals subscribed by 20 major DRDO labs.
- DAE Department of Atomic Energy Consortium under taken by Gov. of India the main objective of this consortium to provide information regarding atomic energy throughout the country and subscribed more than 2000 e-journals including Science Direct, Springer, Math Sci Net.
- DELCON e-library consortium it is funded by department of biotechnology the main objective is this consortium to provide information regarding biotechnology invention it's also provides more than 600 e-journals with bibliographical data base.
- Digital Library of India the main aim of this web portal to free assess digital resources 48 different languages in all subjects it has include more than 480335 full text e-books.
- Muktabodha Digital Library and Archiving Project is initiative by Muktabodha Ideological Research Institute provides to preserve and disseminate rare Sanskrit manuscript and text in digital format to accessible through website.

- Kalasampada Digital Library Resources for Indian Cultural Heritage is initiative by Indra Gandhi National Centre for Arts and Ministry of communication & Information Technology it's provide to preserve and access rare manuscript, photograph, books, painting, handicrafts, sculptures, monuments, graphical and multimedia information resources. It's included more than 272000 manuscripts, 4000 rare photograph, and various rare books.
- National Digital Library of India this project is undertaken by Ministry of Human Resource Development under National Mission on Education information and communication technology the main objective of this portal is that make available digital educational resources throughout the country for encourage online digital learning all subject from school level to college and university level.
- VIDYANIDHI this web portal was introduced by Department of Library Science Mysore University supported by NISSAT, DSIR Government of India, the main objective this portal to provide full text Phd thesis with bibliographical data base hosted by all Universities in India more than 5000 Phd thesis with 50,000 bibliographical data base free access.
- E-Gyankosh this digital repository resources introduced by Indira Gandhi National Open University it's included preserve and store digital study materials also bibliographical data base for free access digital learning resources open and distance learning institutions all over India.
- CeRA e-resources in agriculture consortium introduced by Indian Agricultural Research Institute the main aim is to provide information regarding agricultural science. It's included more than 3000 scholarly journals and also subscribed free access journals from seven major publishers in India.

Due to this Covid-19 Pandemic situation most of the college libraries have challenges suffering their existing services to the users because they have hard copy of study materials therefore libraries need to initiative hard copy of study materials convert to digital form and also it is hosted library created personal web portal. Some of the free open source repository resources hosted in this portal for user's services in this pandemic situation such as:

- National Library (<http://nationallibrary.gov.in/>)
- State Central Library, Kolkata (<http://dspace.wbpublibnet.gov.in:8080/jspui/>)
- Central Secretariat Library (<http://cslibrary.nvli.in/>)
- Rare Book Society of India (www.rarebooksocietyofindia.org)
- Indian Manuscripts & Antique Books (<http://indianmanuscripts.com/>)
- Indian Culture Collection for Archives Manuscripts & Antique Books (<https://indianculture.gov.in/>)
- "Bichitra" Online Tagore Varioum (Rabindra Rachana Sambhar) (<http://bichitra.jdvu.ac.in/index.php>)
- "Gurbani Path Darpan" Online Text Books & Audio Visual Archives (https://archive.org/stream/GurbaniPathDarpan/GurbaniPathDarpan_djvu.txt)

- Granth South Asia Online Text Books & Archives (<http://www.granthsouthasia.in/>)
- Internet Archive all kind of Open Access Books, Video, Audio, Images (<https://archive.org/>)
- Springer Open Access Books (<https://www.springer.com/gp/open-access>)
- Tailor & Francis Open Access (www.tandfonline.com/openaccess)
- Science Direct Open Access Books & Journals (<https://www.sciencedirect.com/>)
- Computational Linguistics R & D Sanskrit and Indic Studies (<http://sanskrit.jnu.ac.in/index.jsp>)
- Bookboon-All Kind of Open Access Books (<https://bookboon.com/>)
- Open Stax-All kind of Open Access Books (<https://openstax.org/>)
- Open Text Book Library (<https://open.umn.edu/opentextbooks>)
- Libre Texts-World's Most popular Online Texts Books (<https://libretexts.org/>)
- Open Library-All Kind of Open Access Books (<https://openlibrary.org/>)
- Oregon State University-Open Educational Resources (<https://open.oregonstate.edu/textbooks/free.htm>)
- Berkeley Library-University of California (<https://guides.lib.berkeley.edu/c.php?g=623949&p=4397840>)
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- Common Wealth of Learning-All Kind of E-Resources (<https://www.col.org/>)
- OER-Open Educational Resources (<https://www.oercommons.org/oer>)
- Directory of Open Access Books (<https://www.doabooks.org/>)
- IGNOU E-Resources (<https://egyankosh.ac.in/>)
- Z-library-World E-books (<https://z-lib.org/>)
- World Public Library (<http://worldlibrary.org/>)
- World E-books Library (<http://worldlibrary.in/>)
- Project Gutenberg-Free E-books (<https://www.gutenberg.org/>)
- Directory of Open Access Journals (<https://doaj.org/>)

- Elsevier Open Access Books & Journals (<https://www.elsevier.com/en-in>)
- Springer Open Access Journals (<https://members.cj.com/member/404.html>)
- Science Direct Open Access Books & Journals (<https://www.sciencedirect.com/>)
- Shodhganga Indian Thesis & Dissertations (<https://shodhganga.inflibnet.ac.in/>)
- Open Access Thesis & Dissertations Published Around the World (<https://oatd.org/>)
- PQDT Open Access Thesis & Dissertations (<https://pqdtopen.proquest.com/search.html>)
- NDLTD Networked Digital Library of Thesis & Dissertations (<http://www.ndltd.org/>)

Positives Effect of Covid-19 Pandemic Situation on Education

Some of the new opportunities will transform the higher education through library services during Covid-19 pandemic are as:

- Students were not able to collect the hard copies of study materials, therefore most of the students adapted to soft copies of study materials.
- People to learn and use digital technology as a resulted in increasing digital literacy.
- Students are interested to increasing online class adopted to interacts national and international educational community.
- New way for assessment and learning open opportunities and curriculum development.
- Great opportunities to companies for developing online learning management system.

Negative Effects on Covid-19 Pandemic Situation on Education

- Board's examination and annual examination entrance test postponed due to lockdown. All classes have been suspended and admission procedure got delayed during lockdown.
- Without any planning and curriculum was not designed due to lockdown sudden shift to online learning. India is the country most of the students have first generation to online learning so it is difficult to adopt.
- Employment of education sector government or private postponed due to lockdown it is the drawback of decreasing quality of education.
- Admission and payment of schools colleges and universities got delayed due to most of the guardians facing unemployment therefore they are not able to pay educational fees due time.

- Educational research also affected due to lockdown because students was not access laboratory for lab base practice and in many cases, where secondary data are needed but students cannot visit data collection sources like field survey to general people, offices, institutions, libraries and others, therefore so many time bound research project was delayed.

Conclusion

At current times, access to technology and the internet is an urgent requirement therefore digital capabilities and the required must be developed to facilitate to the students for their continue education during pandemic situation. Need to encourage students find out the gap of internet technology and online classes ensure students continue to learn digitally. Government should come up with new ideas to added online classes and digital educational resources implementation to all the educational institutions. Librarian and library authorities should have need to adopt new technologies and they have need professional development of their staff for adopting new technologies and hard copies educational resources convert to digital format and hosting in a particular website for students to access any time anywhere. This written emphasizes the need for the adaptation of new technology of education and educational resources, as a way to the effect of the Coronavirus and the other pandemic situation in education. It is acknowledge that the decision to shut down all educational institution across the world may be harmful, but it is sensible considering the rate of spread and dangers imposed by Covid-19 pandemic.

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Hiding secret data in an image using a higher order recursive equation as key

Ruchika Sharma & Vinay Kumar

Abstract

The way the information technology is expanding, the need for security and privacy of data is also increasing. Recent years have seen the development of many techniques intended to protect digital data from unauthorized access. Digital data can be protected by using cryptography and steganography. While cryptography focuses on encrypting the data, steganography focuses on hiding the very existence of secret data in digital media. This paper proposes a new steganographic method to provide security to digital data by using higher order recursive equation as key to find the holes in digital cover for hiding secret data. 24 bit bmp file is considered as digital cover to hide secret data. Higher order recursive equation is used as key to obtain pixel positions which are at large distance from each other in bmp file to make proposed approach more robust.

Keywords: bmp file, cryptography, digital cover, higher order recursive equation, steganography.

Introduction

As the recent advancement in usage of information technology is increasing day by day, the need to secure data while transmission over public network is also becoming crucial. Securing data is the process of protecting data from direct or indirect modification of data by unauthorized users. Two techniques can be used to provide security to data. One is cryptography, which converts plain data into cipher data by jumbling up the data at sender's end and then again converting cipher data to plain data at receiver's end [20]. Another technique is hiding the very existence of secret data known as steganography. It is a process of hiding secret data in innocuous cover which hides the presence of communication being taking place [9], [10]. Steganography also means covered writing [2], [18], which uses digital media like text, images, audio or video as cover to hide secret data behind it [3].

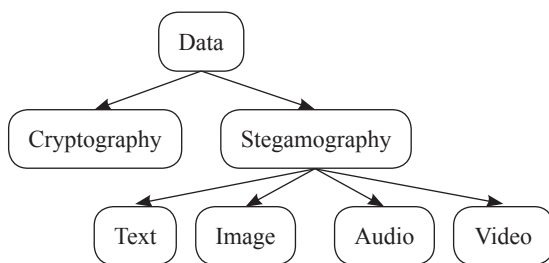


Fig. 1. presents techniques of Data Hiding

Steganography has been used from ancient times. In earlier times, the data was protected by hiding it behind the wax or by writing it on the scalp of slaves while in modern era, the data is hidden and transmitted in the form of text, images, audio and video [5], [7].

In the proposed paper, we are considering images as digital media to transmit hidden data. The paper proposes to use higher order recursive equation as key to hide secret in an image media. The purpose of using higher order recursion is to provide more secure and robust approach to hide data. We are proposing to arbitrarily generate the bit positions using higher order recursion to make it more difficult for any unauthorized user to be able to even detect the very existence of secret data. The following diagram represents the proposed approach.

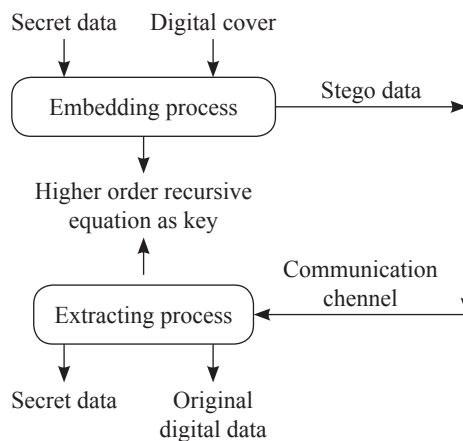


Fig. 2. Presents the proposed approach of steganography

This paper contains seven sections. Second section describes higher order recursion which is going to be used as key for hiding secret data. In third section, image file format is explained. Fourth section explains the conceptual approach using algorithm for generating bit positions in image file using higher order recursion. Fifth section describes the implementation of the proposed conceptual approach. In section 6, steganalysis is explained which verifies the effectiveness of the algorithm based on different parameters. Seventh section concludes the proposed approach.

Literature Review of steganographic Techniques

Different steganographic techniques have been used to secure information by hiding it in some way that no one can even detect the presence of hidden information. The following are some of the techniques that have been employed so far:

Least Significant bit

The least significant bit (LSB) is a method for embedding a secret message into an image cover [23]. Using this technique, the secret information is hidden at a precise place of the least significant bit of an image. In an image, the least significant bit of each byte is replaced by one single bit from secret information [12].

For example, in a 24 bit bmp image file ,3 bytes are used to present relative intensities of blue, green and red color of a pixel and in each byte one LSB bit of every byte can be replaced with a bit from secret information. So in one single pixel, 3 bits of secret information can be hidden.

Enhanced Least Significant bit

In LSB technique, the secret information is hidden in least significant bit of each red, green and blue color of a pixel but in enhanced least significant bit technique, only one bit is hidden in any one of the colors i.e. either red or green or blue color of a pixel. The enhanced LSB technique is better technique in terms of robustness. In enhanced LSB technique, the possible distortion of the image is much lesser than normal LSB technique [10], [11].

Graph Theoretic Approach

The Graph Theoretic technique preserves all bits in a 24-bit BMP image's color palette. This method does not change or modify color bits in digital covers to minimize distortion. This technique treats digital cover image as collection of many data units. The approach focuses on finding the relationship between different data units and present that data using graphs [15]. The method is used to identify the maximum embedding space in a digital cover and then look for a relationship between data units that communicates the existence of a message in the cover without replacing or swapping any color bits.

Higher Order Recursive Equation Approach

Recursion means something is occurring again and again and repeating itself until it encounters some terminating condition [16], [21]. The sequence of terms $t_0, t_1, t_2, t_3, \dots, t_n$ can be shown in two ways:

- **Explicit Form:** This form generates the terms based on position number in sequence. For e.g., $t_n = 4t_n + 3$ where $n > 0$
- **Recursive Form:** This form generates terms based on previous sequence terms. The advantage of using recursive form is to evaluate any term by planting numbers into an equation instead of calculating complete sequence. For e.g., $t_n = t_{n-1} + 4$ with initial or terminating condition $t_0 = 3$.

Recursive Equation

Recursive equation can be classified based on order of equation. The order of equation determines the number of steps involved from first to last participant of sequence in equation.

Recursive equations can be of first, second, fourth till n^{th} order.

In this paper, we are considering higher order recursive equation in place of linear order recursive equation for the following reasons:

To hide secret data at bit positions which are at large distance from each other in digital cover. This helps to make it more difficult for an intruder to first attack and then detect the presence of secret data at bit positions generated by higher order recursive equation.

To make the proposed algorithm more robust by improving hidden communication as this equation randomizes the bit locations of hidden communication in digital cover at far distance from the previous generated bit position [22].

Digital Image File Format

A digital image is made up of a series of integers that represent the intensity of light at different pixels. When digital images are utilised in steganography to hide a secret message, their architecture must be understood in order to locate redundancy in the data, allowing the secret message to be hidden in the cover without affecting the useful information in the pixel data. The cover file plays an important role while using it for hiding data [6]. However, it is always expected to introduce a general algorithm to hide data in any cover file regardless of its type. As different image files have different formats, it becomes difficult to obtain a general algorithm for hiding data in all image file formats [7]. Therefore, this paper proposes to use single file *i.e.*, BMP file as digital cover for hiding secret information

Bmp File Format

The proposed technique is considering only one image file format *i.e.*, BMP file format. The main benefit of using BMP file format is their larger size. Bitmap images can be of varying bit depth. A BMP image may have different bit depth as 1 bit, 4 bit, 8 bit, 16 bit, 24 bit or 32 bit [14]. We are proposing to use 24-bit BMP as digital cover for hiding information because of the range of colors it represents and redundancy it carries along.

The other benefit is its lossless nature which means while compressing this file, it will not lose any vital data.

The 24-bit BMP file format structure is shown below:

Table.1. Represents 24-bit BMP format

BMP File Header (BMPFILEHEADER)

BMP Info Header (BMPINFOHEADER)

Image Data

BMP File Header structure contains all the basic information of whole BMP file. The total size of BMP file header is fourteen bytes [5], [24]. BMP Info Header contains the information about resolution, bit depths and height and width of BMP image. The total size of BMP Info Header is forty bytes. Image Data contains the actual bits of the BMP image stored in one dimensional array. Each pixel in 24 bit BMP is stored in (b,g,r) format [24].

In 24 bit BMP file format, 3 bytes are used to represent a pixel *i.e.* one byte for blue, one byte for green and last byte for red [1]. As it uses 24 bits to represent one pixel, a large amount of data can be hidden in this file format.

Reason for Choosing 24 Bit Image as Digital Cover

- 24-bit BMP file is considered for its high-quality graphics, colors range. In a 24-bit BMP, more than 16 million colors can be considered which allows us to hide large amount of data in file [8].
- The other benefit is its lossless nature which means while compressing this file, it will not lose any vital data [19].

Proposed Algorithm for Hiding Data

This paper introduces a new technique to use higher order recursion to find bit places in 24-bit bmp file format to hide secret data. The algorithm to search bit places using recursive equation is explained in below steps:

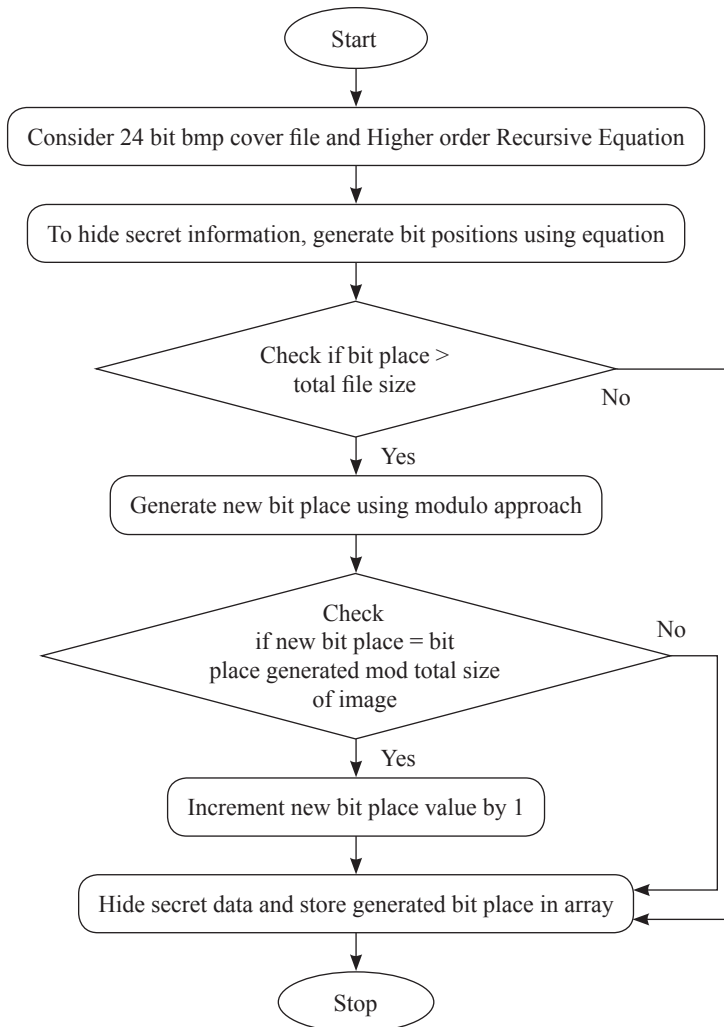
- This paper uses 24-bit BMP file for hiding secret data. The secret data will be embedded in pixel positions of BMP file. The BMP file is known for its larger size so using this format we can hide heap of secret data [22]. For example, if 24-bit BMP file size is 80*90 then total space for hiding secret data will be 21,600 bytes.
- Using higher order recursive equation, the arbitrary bit places will be generated and secret data will be embedded in those bit places. The initial value determines the first bit position to hide data. Subsequent bit places will be produced by using previous values and this way the secret data will be hidden at the locations generated by higher order recursive equation.
- The bit places generated by higher order recursive equation will be stored in one dimensional array to keep record of bit positions of stored hidden data.
- The higher order recursive equation will generate bit places which are stored at great distance from each other. So the equation may generate bit place which is outside the total size of image. The algorithm resolves this issue by using modulo approach. If the generated bit place is beyond the total size, modulo approach takes out the remainder and we consider this remainder as new bit place to hide secret data.

new bit place = generated bit place mod total size of image

For example, if total size of 24-bit BMP image is 21,600 bytes and higher order recursive equation generates bit place value as 26,400 then new bit place value is 4800 which is generated as the remainder of 26400 mod 21600.

- In this step, the array which has stored bit places value will be checked to see if the bit place obtained by modulo approach matches any value in the array. If the value does not match then secret data will be hidden at the new bit place without any modification in bit place but in case if the obtained value matches with already stored bit place then we will hide secret data at new bit place value incremented by 1.

The algorithm is described briefly using below flowchart.



Flowchart 1. Representing conceptual approach

Algorithm Implementation

The proposed algorithm introduces the new technique for hiding secret data using higher order recursive equation. To start with, we need a 24 bit bmp file, higher order recursive equation and a message to be hidden and an array to store byte location of hidden data.

Let the secret data to be hidden is a string “higherorderrecursionforsteganography”. Consider a 24 bit bmp file of size 500*300.

Let the one dimensional array be $a[]$

Assume a higher order recursive equation

$$f_n = 7f_{n-1} + 10f_{n-2}$$

Initial value of $f_0 = 0$ and $f_1 = 10$.

Total size of secret data to be hidden is 40 bytes as each character occupies one byte in memory. Total size of secret data in terms of bits is $40 \times 8 = 320$ bits

Total size of 24-bit BMP file = 1,50,000 pixel = $150000 \times 3 = 4,50,000$ bytes

The secret data need to be first converted in binary form.

The binary equivalent of the string “higherorderrecursionforsteganography” is as follows:

Table 2. Presenting binary equivalent of letters in word

Word	Binary equivalent
higher	01101000 01101001 01100111 01101000 0110010101110010
order	01101111 01110010 01100100 01100101 01110010
recursion	01110010 01100101 01100011 01110101 01110010 01110011 01101001 0110111101101110
for	01100110 01101111 01110010
steganography	01110011 01110100 01100101 01100111 01100001 01101110 01101111 01100111 01110010 01100001 0111000001101000 01111001

We will start hiding first word higher. Letter h will be first hidden, its binary equivalent is 01101000. We will start hiding from lsb to msb bit of first letter h .

Now recursive equation will generate the byte location to hide bits of secret data.

$$f_n = 7f_{n-1} + 10f_{n-2}$$

Initial value of $f_0 = 0$.

Initial value of $f_1 = 10$.

$$f_2 = 7 * f_1 + 10 * f_0$$

$$f_2 = 7 * 10 + 10 * 0$$

$$f_2 = 70$$

Starting from LSB, the first bit to hide is 0 from 01101000 which is binary equivalent of letter h . As the above equation generated 70th byte location, so 0 will be hidden at 70th byte and the location is added in array at 0th position *i.e.*, $a[0] = 70$.

To store second bit *i.e.*, 0 from 01101000, the following equation will generate the next location.

$$f_3 = 7 * f_2 + 10 * f_1$$

$$f_3 = 7 * 70 + 10 * 10$$

$$f_3 = 490 + 100$$

$$f_3 = 590$$

So second bit 0 will be hidden at 590 byte location and $a[1]$ will have 590 value.

Now,

$$f_4 = 7 * f_3 + 10 * f_2$$

$$f_4 = 7 * 590 + 10 * 70$$

$$f_4 = 4830$$

The third bit from 01101000 is again 0 will be hidden at 4830th byte location and $a[2] = 4830$.

This way, using higher order recursive equation, we will generate rest of the byte locations to hide secret data.

$$f_5 = 7 * f_4 + 10 * f_3$$

$$f_5 = 7 * 4830 + 5900$$

$$f_5 = 39710$$

Fourth bit 1 will be hidden at 39710th location and location 39710 is added in array *i.e.*, $a[3] = 39710$.

$$f_6 = 7 * 39710 + 48300$$

$$f_6 = 326270$$

Fifth bit 0 from 01101000 will be hidden at 326270th byte location and $a[4] = 326270$.

$$f_7 = 7 * 326270 + 10 * 39710$$

$$f_7 = 26,80,990$$

Total image size is 450000 bytes and f_7 results in a value which is out of the range of image size. Now we will use modulo approach and generate remainder.

$$\text{New bit place} = \text{generated location} \bmod \text{total size of image}$$

$$\text{New value of } f_7 = 2680990 \bmod 450000$$

$$= 430990$$

So sixth bit 1 from 01101000 will be stored at new location *i.e.*, 430990th byte and array is also updated *i.e.*, $a[5] = 430990$.

$$f_8 = 7 * 2680990 + 10 * 326270 = 22029630$$

Again the location generated is out of range of size of 24 bit bmp image, modulo approach will generate new location.

$$\text{New } f_8 = 22029630 \bmod 450000 = 429630$$

The seventh bit 1 will be hidden at 429630th byte location and $a[6] = 429630$.

$$f_9 = 7 * 22029630 + 26809900 = 181017310$$

New

$$f_9 = 181017310 \bmod 450000$$

$$f_9 = 117310$$

Eighth bit 0 is stored at 117310 byte location and this location is inserted in array at 7th position $a[7] = 117310$.

Using above method, h is fully hidden at different byte locations generated by higher order recursive equation. Now we will start hiding next character “ i ” whose binary equivalent is 01101001 from LSB.

The ninth bit *i.e.*, 0 will be stored at the byte location generated by f_{10} .

$$f_{10} = 7 * 181017310 + 10 * 22029630 = 1487417470$$

$$f_{10} = 1487417470 \bmod 450000$$

$$f_{10} = 167470$$

This location will be added in array so $a[8] = 167470$.

At each step, the new generated byte place is compared with the already stored byte places in array.

$$f_{11} = 12222095390 \bmod 450000 = 95390$$

$$a[9] = 95390$$

The 10th bit 0 from 01101001 will be hidden at 95390 byte location and array will also be updated.

Few more generated byte places are shown to hide rest of the bits of letter “ i ”.

Following are the location generated to hide secret data till 16th bit:

$$f_{12} = 100428842430 \bmod 450000 = 92430$$

$$a[10] = 92430$$

$$f_{13} = 825222850910 \bmod 450000 = 250910$$

$$a[11] = 250910$$

$$f_{14} = 6780848380670 \bmod 450000 = 430670$$

$$a[12] = 430670$$

$$f_{15} = 55718167173790 \bmod 450000 = 123790$$

$$a[13] = 123790$$

$$f_{16} = 457835654023230 \bmod 450000 = 223230$$

$$a[14] = 223230$$

$$f_{17} = 3762031249900510 \bmod 450000 = 100510$$

$$a[15] = 100510$$

For 01101001 which is binary equivalent of letter “i”, we have generated locations to hide all bits starting from LSB. This way bit by bit, whole secret data will be hidden in 24 bit bmp file.

Each time the new location is generated by algorithm. It is compared with already stored location in array and till the time the algorithm generates different location, the same process follows to hide rest of the secret data. But if in case the new generated location matches with any value in array, we increment the location by adding one to newly generated location. The above procedure is followed to avoid discrepancies as we cannot use same location again to hide secret data.

Suppose f_{40} generates location 100510. Now before inserting this value in array it will be compared with already stored locations in array and as array at 15th location already have this value *i.e.*, $a[15]$ then we will add 1 to 100510 to get new location to hide secret data. The following instructions explain the example in better way:

If (new byte location *i.e.*, $f_{40}(100510) = \text{any value in array}$) then stop at the array location where it finds the same value *i.e.*, $a[15]$ in this example and increment f_{40} by 1.

$$f_{40} = f_{40} + 1 \quad \text{i.e.,} \quad 100510 + 1 = 100511$$

and 10051 will be inserted in array at 38th location.

$$a[38] = 100511$$

Steganalysis

Steganalysis is the process of finding out the presence of secret data embedded in digital media. Steganalysis focuses on detection of implanted secret data. Steganography and steganalysis can be considered as two sides of same coin. Steganography hides the very presence of secret data in digital media whereas steganalysis checks and reveals the existence of secret data in digital cover [17]. The motive of steganalysis is to detect if digital cover holds any secret data and to ensure that embedded steganographic system is strong in terms of its strength [13], [11]. The suspect of detection arises if any change in image cover comes in notice. As the proposed algorithm hides secret data at great distance from each other, it becomes very difficult to detect the presence as there will be very slight variation in digital cover which cannot be noticeable by human visual system. Steganalysis judges the performance of the proposed algorithm on different parameters *i.e.*, capacity, perceptibility and robustness [4]. The embedded algorithm is tested on above three parameters. These parameters test the amount of secret data the algorithm allows to hide in stego cover, similarity between the original and stego cover and the ability of the proposed approach to be able to perform well without failure under different conditions. The proposed algorithm considered all the above factors and produced an optimized solution.

Conclusion

Hiding secret data under any digital image is popularly known as steganography. The proposed steganographic algorithm uses higher order recursion as key to generate positions

to hide secret data in 24 bit bmp file format. The paper considers second order recursive equation to find the locations to hide secret data. The purpose of using second order is to obtain locations in 24 bit bmp file which are far off from each other. By doing this, it becomes almost impossible for any intruder to detect the existence of secret data in digital cover and even if an intruder detects the presence, it would be very difficult to figure out the positions of hidden secret data. The proposed approach is robust and secure in nature. The approach is very useful to hide secret data when large amount of data is shared over public network. The proposed algorithm can also be implemented with other higher orders of recursive equation. In future to make it more robust, the algorithm can consider any other higher order of equation to generate more randomized locations to hide secret data.

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Author[S] Brief Introduction:

25. Ruchika Sharma is an Assistant Professor in Jagannath Institute of Management Studies, affiliated to GGSIPU, Delhi. Her area of interest is DBMS, steganography, data security.
26. Dr.Vinay Kumar has worked as a scientist in National Informatics Centre (NIC), Government of India for approximately 21 years. He also worked with Vivekananda Institute of Professional Studies (VIPS), affiliated to GGSIPU, as Professor and Dean of the IT Department and Research and Publication. He has extensively contributed to the knowledge arena through his books and research publications. He has published over 100 research papers in refereed journals and authored a book of Discrete Mathematics and a memoir Killed Instinct.

Entertainment Exploits People: The Traumatic Condition of the Participants in *The Hunger Games* by Suzanne Collins

S. Monika

Entertainment is the devil's substitutes for Joy.

—Lenard Ravenhill

Abstract

This paper focuses on the aspect of entertainment and how it exploits the human being. Further it explains about the domination of the upper class and how media manipulates and controls the society. It high lights the impact of the reality show and the violence in media and it desensitize people to violence in real world.

Keywords: Media, Entertainment, Capitol, Psychology, Television.

Storytelling, music, show, dance, and various types of execution exist in all cultures, were upheld in imperial courts, formed into modern structures, and over the long haul opened up to all citizens. Similarly, other vital abilities, like cooking, have formed into exhibitions among experts, organized as worldwide rivalries, and afterward broadcast for entertainment. Television is the powerful medium of mass communication. It has become an integral part of life in every human being. Today, a TV is not the main stage accessible to sit in front of the TV programs. In the 21st century people are living in a multiplatform climate. Different video stages, including TV, the Internet on a PC, and cell phones, are accessible for watching video content.

There are many benefits of diversion in the television like unwinding, friendship, social holding with existing organizations, support of online persona, data sharing, self-documentation, and so on. It has created a great impact on the younger generation on the basis of violence, health, and sexual issues. In spite of the advantages of television programs, it acts as an idiot box which is highly responsible for destruction and dehumanization. The programs like *You Bet*, *Big Brothers*, *Candid Camera*, *Chuck Barris: The Dating Game*, *Debate shows*, *Talk Shows* etc. ruled the American television. The privacy and the dignity of the participants are telecasted in the programs.

According to Vijaykumar and Arulchelvan (2015), Reality Television can be analysed with the following characteristics.

1. Use of non professionally trained actors,
2. Programmes being filmed in unscripted situations,
3. Given more prominence in capturing contestants' spontaneity over improvisation.
4. With a very limited level of producer/director's creative involvement in the programme.
5. The recording of the contestants' experience is not limited to a particular moment.

The idea of reality TV programs generally had been with regards to how diversion content is shot in a genuine setting affecting individuals from reality. The general impression of the watchers with respect to the legitimacy of the reality TV show has been wary. The control of reality annoys them however not to a degree that it hampers the standard survey example of their choicest reality TV shows. Psychologist says that the capacity of media is “the attainment of gratification”. Aside from delight, amusement provides some psychological insight to the audience. Media impact and control the individuals. The audience and the participants are the important part of the reality shows. Media violence can desensitize people to violence in real world.

The Hunger Games by Suzanne Collins is the best example for the violence in media and theory of conflicts. *The Hunger Games* is a young adult tragic novel composed by Suzanne Collins and published in 2008. The novel won many awards like Weekly’s Best Book of the Year Award, the New York Times “Notable Children’s Book of 2008” award, and the California Young Reader Medal in 2011, among others. It was additionally on the New York Times success list for north of 60 weeks.

It subtleties the life of teen champion Katniss Everdeen as she battles to the passing for the amusement of her extremist government. The story happens in Panem, a dystopian America isolated into regions that are constrained by the Capitol. Set in a future North America known as “Panem”, the Capitol chooses a kid and a young lady between the ages of 12 and 18 from every one of the twelve peripheral regions to contend in the yearly ‘Hunger Games’, a broadcast battle to the death. The rules are exceptionally simple; the 24 players should kill one another and make due in the wild until just one remaining part. The games are communicated through the Capitol and the twelve regions to engage and threaten the populace. Sadly, Katniss’ younger sibling is chosen for the Hunger Games, so Katniss volunteers to have her spot. Young Adults literature media is powerfully used in this novel. Media manipulates and controls the society by controlling people in masses.

Vijaysethupathis’ tamil movie *Kavan* is the best example to show how media controls people in masses. A journalist in the movie goes against his dishonest boss who does all his programs with the intention of attracting audience. The boss is influenced by some political party leaders and he projects them as the best individual. When the journalist tries to reveal the original identity of the Politian, he has been fired. People believe everything projected in the media. The Capitol uses media as a medium to exert its power on the poor. The Capitol rules the other district of Panem and keeps them under its control by different means. *The Hunger Games* is one among them, which the Capitol conducts with two participants from each district who are selected on lot basis and is made to fight for life.

Different set of people in Panem have different views on the hunger games. The hunger games are telecasted lively in every district. The Capitol’s privileged citizens live happily because of the sufferings of the other district people. The government of Panem controls every citizen by having Hunger Games, a televised reality show that takes place every year. This reality show is viewed in two different ways. The Capitol’s people see this hunger game as a medium through which they can attain fame. They consider this purely for entertainment purpose.

The Capitol celebrates the Hunger Games as a sporting event. But the district people see the games with fear. For the poor district the games become a suffering and sacrifice. They accept the games with the intension to win which bring them sufficient food for the upcoming

years. But the poor districts have no proper resource to train themselves up for the Hunger Games. These games remind them about the power exerted on them by the Capitol, their weakness and poverty.

The audience in the Capitol hates the games when there is dullness or when there is no interesting happenings like death. So the participants, besides saving their lives and fighting in the arena, they must try to keep the audience interested in the games. The Capitol treats the games as festival whereas it is the nightmare for the people of poor district. The entertainment of the Capitol becomes fear for the rest. All the participants are controlled and manipulated by the Capitol. The violence in the current media is unavoidable. The WHO defined violence as “ the international use of physical force or power, threatened or actual, against oneself, against another person or against a group or community, which either result in injury, death, psychological harm or deprivation”. American society is filled with violence. Before the age of 18, American youth witness two lakhS violent acts on television. Susan Collins uses this concept of violence in media effectively. This can be experienced through the deaths of different candidates of the Hunger Games.

The furious attitude of meek Katniss’s forceful words reveals about the violence happened in the following lines:

I really think I stand a chance of doing it now. Winning. It’s not just having the arrows or outsmarting the careers a few times, although those things help. Something happened when I was holding Rue’s hand, watching the life drain out of her. Now I am determined to avenge her, to make her lose unforgettable, and I can only do that by winning and thereby making myself unforgettable. (THG 242)

The winning attitude of Katniss grows to avenge the death of Rue, who resembles Katniss’s sister Prim. Katniss’s victory depends on killing the rest of the candidates. The people of the Capitol enjoy the death of every single soul whereas the people of the district were dumbstruck watching their children die. The family of the candidates undergo psychological trauma by seeing their children’s death right in front of their eyes, where the death of the children appears to be entertainment for the rest. Collins clearly depicts the current American society.

The audiences are not merely the audience. They are sponsors too. The audience from the capitol plays a betting match and fixes winners. This scenario can be very well compared with the current reality shows where the winners are declared based on the votes they get through message, phone calls, etc. and even in IPL auction. The participants were made to attract the audience to sponsor them. By the sponsors, the participants have the high possibilities for their survival. Cinna, the designer for district 12, tries his level best to make Peeta and Katniss look attractive, on their very first pubic meet. Katniss remembers Cinna’s words when she was presented before the audience as follows:

Remember, heads high. Smiles. They’re going to love you! I hear Cinna’s voice in my head. I lift my chin a bit higher, put on my most winning smile, and wave with my free hand. I’m glad now I have Peeta to clutch for balance; he is so steady, solid as a rock. (THG 70)

Katniss follows every step as taught by Cinna, to capture her sponsors. The sponsors chose their tributes based on their appearance, strength, character, etc. Katniss has attraction towards Gale, her friend. They both were not sure about what love is still they have interest

on each other. But media branded Peeta and Katniss as star crossed lovers. Haymitch, the guide of district 12 ordered Peeta and Katniss to keep up the brand and act accordingly to captures more sponsors. The sponsors help them in surviving the game. Right before we parade onto the stage, Haymitch comes up behind Peeta and me and growls, “Remember, you’re still a happy pair. So act like it”. (THG 123)

Rich people of the Capitol sponsored the tributes highly. The people of the poor district were also allowed to sponsor some possible things to tributes. Rue, the tribute from district 11 and Katniss maintained a good relationship. Katniss shared the medicine and food with Rue which she got from her sponsors. Once when Katniss finds that Rue is dead, she was grief stricken. She feels much for Rue. Katniss made a decent burial for Rue’s body. She cries like anything, sings the song which Rue loves and decorated the body with flower. All these emotional moments were watched on the television by all.

The participants in the show were not fed properly. The following line expresses the feeling of Katniss when she opens the box of food item:

I open the parachute and find a small loaf of bread. It’s not the fine which Capitol stuff. It’s made of dark ration grain and shaped in a crescent. Sprinkled with seeds. I flashed back to Peeta’s lesson on various district breads in the Training centre. This bread came from district 11. I cautiously lift the skill warm loaf. What must it have cost the people of District 11 who can’t even feed themselves? (THG 238)

Ktniss received a loaf of bread from district 11. They sponsored her bread for the care she showered on Rue. Peeta and Katniss learned to attract the sponsors over a period of time. The gamers extend their level of torture till they have enough scenes to draw the attention of the viewers. Violence is the key elements in American sports.

The Hunger Games novel is noted for its post-apocalyptic happenings of North America. Though the novel is set in future, it reflects the contemporary society which is at the verge of destruction. The novel focuses on a variety of theme as techno culture and the role of media and its effect. Violence bring the popular culture of the American society, media projects too much of violence in its shows. The world has become much corrupted and the novel has become the best example which brings out the undesirable world.

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Impact of Pandemic on Demand of Electronics Gadgets Due to Remote Learning in Higher Education Institutions

Shweta Gupta & Deeksha Chandawat

Abstract

In every sector around the world, the effect of pandemic COVID is observed. This has a significant impact on both India's and the world's education sectors. The paper investigates the impact of pandemic on demand of computing market due to virtual learning in higher education institutions. Data were collected through structured questionnaires administered to 50 respondents that consist of teachers, students and parents and data related to computing market were collected through various websites, annual reports. The data collected were analyzed by using SPSS correlation technique and demand of computing market was analyzed by descriptive statistics. As a result, there is a massive demand from parents in the market for tabs and second-hand mobiles. This paper illustrates the important effects of Covid-19 on different level of education in India, the challenges and opportunities of changed learning processes and measures to best prepare ourselves for an uncertain future. Some steps have been taken by India's higher education institutions and educational authorities to ensure that educational services are not affected during the crisis. COVID-19 has been found to have negative effects on education, including learning disruptions, limited access to education and research resources, loss of employment, and increased student debt, according to the research. Because of the Covid-19 pandemic, many new ways of learning, opinions, and trends have emerged, and this may continue as we go forward to a new tomorrow. Both positive and negative impact on higher education discussed and spike in demand of computing market due to digital learning which changes the outlook of learning also elaborated.

Keywords: Covid-19, Higher Education Institution (HEI), Impact post, Computing Market, Remote Learning.

Introduction

On March 11, 2020, the World Health Organization (WHO) declared Covid-19 a pandemic. Covid-19 has harmed more than 4.5 million people worldwide. On 30 January 2020, the first Covid-19-affected case in India was discovered in the state of Kerala, with the impacted patient having travelled from Wuhan (China). As a result, the Covid-19 pandemic seems to have a significant influence on the educational sector. According to the UNESCO report, Covid-19 has harmed nearly 68 percent of the total. The Covid-19 outbreak has affected around 1.2 billion students and young people worldwide through the closing of schools and universities. Localized closures have also been introduced by many other nations, affecting millions of additional learners. In India, the separate restrictions and the national lockdown for Covid-19 have affected more than 32 crores student. The sudden increase in demand for laptops caused by culture and online learning from home (WFH) has driven up the prices

of new and refurbished laptops by 30-40%. PCs have become important and customers are looking for individual devices among family members instead of one shared device. The Covid-19 pandemic has taught society as a whole how the need is Mother of invention by encouraging online learning to be embraced by educational institutions and introducing a virtual culture of learning. The Ministry of Human Resources Development (MHRD) has put in place various arrangements, such as online websites and educational platforms, to allow students to continue learning through Direct to Home TV and Radio. During lockdown for online learning system teaching, students use common social media platforms such as WhatsApp, Zoom, Google Meet, Telegram, YouTube Live, Facebook Live, and many others. There are classes of guardians, teacher, students and parents from WhatsApp for effective communication in which, through this e-medium, they are always in contact to share their challenges.” Compared to smartphone, Mitesh Modi, President of the All India Electronics Association, said, ”Tab is available at low cost. Hence, many parents prefer tabs. Most parents also do not have their daily income flowing in, so they prefer buying second-hand mobiles. In India, several advanced educational institutions are not currently fitted with digital facilities to cope with a sudden shift from conventional education to an online education system.

Research Objectives

- Enlighten the positive impact of Covid-19 on higher education.
- Enlighten the negative impact of Covid-19 on higher education and put some effective suggestion for continuing education during pandemic.
- Enlighten the impact of Covid-19 on demand of computing market due to digital learning.

Research methodology

Data collection

Numerous reports on the Covid-19 pandemic from national and international organizations are searched in order to gather data for current studies. Because data collection is impossible due to the coronavirus’s lockdown and spread, information was gathered from a variety of reliable websites, journals, and e-contents about the impact of Covid-19 on India’s higher education system, and data was gathered through structured questionnaires administered to 50 respondents, including teachers, students and parents. The study covers the period from April 2021 to July 2021.

Hypothesis

- H_{01} : There is no significant impact of pandemic on higher education.
- H_{a1} : There is a significant impact of pandemic on higher education.

Mode of Analysis

As data is based on both secondary and primary numeric character so analysis is based on

qualitative and quantitative approach. Online qualitative research methods make it easier to understand they are more communicative and descriptive. Well-designed online communities empower to collect quantitative data in a cohesive manner from the same audience through fast polls and surveys.

Discussions

Table 1.1

Descriptive Statistics (April, may, June, July 2021)								
	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Laptop	4	294.00	7940.00	8234.00	32537.00	8134.2500	68.71484	137.42968
Tablet	4	1281.0	11397.0	12678.0	49320.0	12330.00	311.853	623.70666
Smartphone	4	627.00	12345.0	12972.0	50929.0	12732.25	144.651	289.30304
Valid N (listwise)	4							

Source: (www.dell.co.in, www.lenovo.com)

Inferences: Indian digital market is witnessing robust growth in the era of virtualization and cloud computing. COVID-19 led lockdown has accelerated the usage of laptop, smartphone and Tablet resulting in increased demand for band width. As table 1.1 exhibits, the data of laptop, tablet and smartphone in the month of April 2021, May 2021, June 2021 and July 2021. It is clearly visible that selling of laptop, smartphone and tablet accelerated during pandemic study period. Due to widespread of covid-19 the demand of smartphone, laptop and tablet accelerated as HEI's adopted online modes. However, HEIs were able to provide support to students via online modes in a relatively short period of time. Online university education would allow college students to live at home with their parents, saving money on rent, transportation, and other living expenses. The abrupt transition from classroom to online classes had an impact on quality. However, if this trend continues for another semester, the quality of online courses will be balanced by classroom teaching.

Relationship between learning behavior based on online education and learning effectiveness: An Empirical-analysis using correlation has been applied on the learning behavior based on Learning Effectiveness.

Inference: A sample of 50 students has been collected. From the sample, 32 students disagree to the positive impact of Covid-19 on higher education while 18 students are the opinions that covid-19 had positive impact on education. Remote learning should not be continue after pandemic is over, according to 27 students and on the other hand remaining 23 students are of the opinions that remote leaning should continue even after pandemic. Most of the students uses laptops for distance learning. From the sample of 50 students

collected 38 students use laptop while 12 students uses smartphone according to sample data, the best part of mobile learning is that many sources are present online. According to the data collected, 38 students believe distance learning is moderately effective because of issues such as the quality of instruction, hidden costs, technology misuse, and the behaviors of instructors, students, and administrators. And 44 students accepted that due to remote learning the demand and supply of desktop, laptop, tablet and smartphone has increases during pandemic in India.

Table 1.2.

Correlations			
		Learning Behaviour Based Online Education	Learning Effectiveness
Learning Behaviour Based Online Education	Pearson Correlation	1	-.456**
	Sig. (2-tailed)		.001
	N	50	50
Learning Effectiveness	Pearson Correlation	-.456**	1
	Sig. (2-tailed)	.001	0
	N	50	50

** Correlations is significant at the 0.01 level (2-tailed).

Inferences: The table 1.2 exhibits the correlation between the learning behavior based on online education and learning effectiveness and it is clearly visible that there is negative correlation between the two variables. R-value is – 0.456 which indicate that as learning behavior based on online education increases learning effectiveness decreases. As a result of the lack of human contact in their lives, many students and teachers who spend the majority of their time online will develop symptoms of social isolation, and students will be unable to learn as effectively as they did in the classroom. In order to prevent students from getting off track during their studies, face-to-face contact with instructors, peer-to-peer interactions and strict schedules all operate in combination.

Positive Impact of Covid-19 on Higher Education

1. **E-Learning:** E-learning has grown in popularity as a result of widespread covid-19, the expansion of smartphones, and significant technological advancements. Educational institutions have moved toward blended learning methods. It inspired both teachers and students to learn more about technology. Online education must consider students' varying learning speeds and develop personalized solutions for them.
2. **Reduce Mass Gatherings:** Technology can also be utilized to decrease large gatherings at schools and universities, which helps to reduce the spread of covid-19

in India. Large online classrooms can be divided into smaller groups of students, with qualified teachers who can facilitate online discussions.

3. **Reduce pollution:** Covid-19 is taught us about the benefits of virtual space. People should use them to help reduce pollution and prepare for the next emergence situation.
4. **Improved use of electronic media:** Learning materials are easily exchanged among students, relevant and important questions are answered via e-mail, SMS, phone calls, and other means. Social networking sites such as Facebook and WhatsApp were used.

Negative Impact on Covid-19 on higher education

1. **Sluggish cross-border movement of students:** The pandemic has had a significant impact on the higher education sector. A large number of Indian students enrolled in many universities abroad are now leaving those countries, particularly in the worst-affected countries and if the situation continues, there will be a significant decrease in demand for foreign higher education in the long term.
2. **Passive learning by students:** Without any planning, the abrupt shift to online learning – particularly in countries such as India, where the backbone for online learning was not yet ready and the curriculum was not developed for such a format – has generated the risk that most of our students would become passive learners and lose interest due to low levels of attention span.
3. **Reduced employment opportunities:** Some may have Losing their jobs in other nations and passing out because of the students, they do not get their job outside India the constraints caused by COVID-19. Many Indians would be able to after losing their jobs overseas due to lack of work, they returned home towards COVID-19. Hence, the new students who are likely to be it could be difficult to reach the work market earlier having adequate jobs. Many students who have children there may not be work already got through campus interviews Capable of entering their employers because of the lockout.
4. **Economic and social stress:** The schooling and learning structure, including teaching and evaluation methodologies, was the first to be impacted by these closures. Only a small number of private schools will use online education methods. Their low-income private and public school peers, on the other hand, have been completely shut down due to a lack of access to e-learning solutions. Aside from lost learning opportunities, students no longer have access to nutritious meals during this time, and this subject causes economic and social stress.

Suggestions

- **Simplicity is a key:** keep in mind that simple frameworks can also require intensive work: tasks with few instructions always lead to the greatest amount of higher-order thought, because within specified constraints, students find out what to do. Distance learning should inspire educators to think about how their delivery of new data can be leaner and more succinct.

- **Record all lectures:** If students are ill or have difficulty connecting to the internet, they will miss a live streamed lecture. Instead, record videos and send them to your students so they can watch them at their free time.
- **Set up adequate working environment:** It is the next obstacle to operate remotely (in general). Stay-at-home-work can become a nightmare without the right atmosphere and a decent amount of self-discipline. This can be avoided with a little thought. Firstly, set up a room for online class. This room should, if possible, be intended for class only. Teacher should to be friendly and welcoming in this room, but still promote constructive work conduct. Keep the work space free of distractions such as TV, other members of the family, or household tasks.
- **Provide timely feedback on assignments:** Grading and the input that students got were seen as something that added value to their learning. In this way, they better understood what the instructor was looking for, what they were doing, and how they could make adjustments.

Conclusion

An empirical analysis states that there is a significant impact of COVID-19 on higher education institution. The recent pandemic has provided impetus for a change in teaching methodologies and the implementation of interactive education at all levels of education. E-learning, as the name implies, is dependent on the availability and accessibility of technology. Furthermore, there is negative correlation between learning behavior based on online education and learning effectiveness. As a lack of human contact in their lives, many students and teachers who spend the majority of their time online will develop symptoms of social isolation, and students will be unable to learn as effectively as they did in the classroom. With the aid of power supply, the technical skills of teachers and students, internet access, digital learning, high-and low-tech solutions, etc. need to explored. Need to explore interactive learning tools.Steps should be taken to minimize the impact of the pandemic on work prospects, internship programs and research projects. We cannot overlook the fact that, at this time of crisis, successful education practice is required for the capacity building of young minds.

Limitations and future research

The scope of this research is limited to the study of content. Since our research is Empirical, it opens up a lot of possibilities for future research, both in terms of hypothesis creation and idea validation. Further empirical studies would be needed to refine and elaborate findings. The analysis is eye-opening for researchers who are passionate about E-Learning. Future research may concentrate on basis of age group, income level and other aspects.

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The Oppression Faced By Female Characters in Ann Petry's Novel "The Street"

Shweta Mour & Ashok Singh Rao

Abstract

Ann Lane Petry was a profuse African American writer. *The Street* was her debut novel that was published in 1946 and was an outstanding achievement by Ann Lane Petry in African American Literature. Issues related to the female protagonist are considerable in her writing. This story examines the struggle of African American women to find a place in society. It also delves into other facets of urban living. This novel takes place in Harlem during the 1940s. This paper focuses on the struggle of African-American women, subjugation, Triple Oppression, and Separation under which African's live. This study examines Racial Discrimination, gender inequality, African American Feminism and Supremacy as demonstrate by both white people and members of their society. It investigates the restricted lives of Black women in society from several perspectives. The purpose of this study is to break down African's hardships and their persecuted lives. It explored the problems of being a single mother and a single lady. In her works, Ann Lane Petry beautifully captured the black and white American experience. In the 1940s, *The Street* was a powerful social satire on the disappointments of black urban life. Ann Lane Petry's novel was well-received and commercial success. The main purpose was to represent this struggle from a feminist perspective.

Keywords: African American Feminism, Subjugation, African-American Women, Racial Discrimination.

Introduction

Ann Lane Petry was a renowned writer. She was born and brought up in Old Saybrook, Connecticut, on 12 October, 1908. Ann was the youngest of three daughters born to Peter Clark Lane and Bertha James Lane. They were from the black middle class of a tiny town. Her father was a pharmacist who owned and operated a neighborhood drugstore. Her mother was a licensed chiropodist. Petry began writing short stories and plays while still in high school. She earned her bachelor's degree in pharmacy from Connecticut College. She worked as a journalist for two Harlem Newspapers as a sort of apprenticeship. Furthermore, she came up with the slogan of perfume advertisement, while she was in a high school.

In 1938, she married George D. Petry, a mystery writer from New York, and relocated to the city. After her marriage, her life took a turn for the better. In New York, she worked as a reporter for *The Amsterdam News* and *The People's Voice*, two Harlem newspapers. Marie of the Cabin Club, her debut short story, was published in 1939. Petry was awarded the Houghton Mifflin Literary Fellowship in 1945 for the opening chapters of her first novel, *The Street*. Petry was a role model for a new generation of black women writers, including Alice Walker, Toni Morrison, and Gloria Naylor, who had followed in the footsteps of Zora

Neale Hurston. Petry's historical works for young readers include *The Drugstore Cat* (1949), *Harriot Tubman: Conductor on the Underground Railroad* (1955), *Tituba of Salem Village* (1964) and *Legends of the Saints* (1970) are among Ann Petry's historical books for young readers. *Miss Muriel and Other Stories* (1971), a collection of short stories, illustrates her extraordinary flexibility.

She also worked on a sociological study on the effects of segregation on ghetto children in addition to her writing career. She was a recreational specialist at a Harlem elementary school while also teaching a course at the National Association for the Advancement of Coloured People. Ann Petry's work was significantly impacted by her experiences as a reporter, social worker, and active community member in the inner city. After a brief illness, she died on April 28, 1997, near her home in Old Saybrook. Her characters were average, law abiding African-American from the working class. They were dedicated to hard work and aspired to be a middle-class aspirant who believed in the American Dream.

Ann Lane Petry's novel *The Street* was a masterpiece of African American Literature. Lutie Johnson, a young black mother, and her struggle to raise her son in Harlem was the subject of the film. Harlem was in the midst of a racial and economic crisis in the late 1940s. Ann Petry's novel was her debut. *The Street* (1946) was the first book written by a black woman to sell over a million copies. A newspaper article about an apartment home administrator teaching a young child how to collect letters from mailboxes inspired *The Street*. Petry claims that, the goal of the picture was to "highlight how cheaply and readily the environment can affect the path of a person's life". *The Street* concentrates on a young woman's frustrated and natural efforts as a spectacle, as a body to be begun with and exploited by male sexual desire. The accomplishment of *The Street* must be viewed in the context of the objectification of women; rape and dismemberment of women are preconditions for Bigger's ascension into manhood.

Oppression Faced by Female Characters in *The Street*

The Street was generally praised as the first female novel written by a Black American Woman. It was translated into Spanish, French, Portuguese, Japanese, among other languages. The novel is set in Harlem in the 1940s. It premieres in November 1944 in New York City. In the 16th Century, black women were depicted as "icons of evil". Western culture further degraded the image by portraying Black Women as a sexual excess in the minds of White men. As a result, black males were enslaved, while women were relegated to the role of "sexual receptacles for men." Afro-American women brought to America were forced to work as breeding animals. They were designed to be used as a "body toy" or a "sexpot." Slavery existed in the United States even after it was abolished.

Lutie Johnson, the main protagonist of the novel. She was a Black Woman. She was looking for a place to live that was available for rent. Ann Petry explained how women's prior experiences and current situations made them strong enough to fight for what they wanted. Lutie and Bub were living with her father and Lil, his girlfriend. Lil was a terrible woman. Lutie wished to separate Bub from Lil. Bub was a tiny baby. Lil had him light her cigarettes for her and give him sips of gin when he was just eight years old. Lutie was concerned that Bub might develop a liking for smokes and gin. That was really detrimental to his future. Lutie was also concerned about Lil's intentions toward Bub, and Lil's potential to teach the

small kid anything. Petry eloquently depicted in this story how the breakdown of the family leads to a generation of lost children.

Lutie Johnson is trapped on all sides by the great “three isms” of American White and Black societies, namely Capitalism, Racism and Sexism, unleashed on her by the Chandlers, Junto, Mr. Croose, Jones, Boots Smith, Mrs. Hedges and Jim. The Chandlers, for whom Lutie works as a “domestic,” represent and personify capitalism at the top of the story. The Chandlers are also racist and sexist towards Lutie (both men and women). Lutie Johnson was challenged and made aware of the threefold oppression perpetrated by members of society (American citizens). Lutie Johnson was a young, self-assured white black lady who confronted triple oppression from her estranged husband and white Americans.

Lutie, a single mother living in Harlemand with her eight-year-old son Bub was subjected to three forms of discrimination. It emphasizes race and gender as persisting hurdles to achieving the American dream. Lutie Johnson is a very ambitious and native black lady, filled with all of the necessary concepts and ideals for success, as well as the drive to carry out her goals as a single black mom, but she was unfairly denied entrance to the world of Benjamin Franklin’s philosophy Lutie couldn’t overcome her sense of self, and she firmly believed that even if Ben Franklin could survive on a small sum of money and thrive, so could she. Following her divorce from her marriage, she relocated to Harlem, New York. Harlem is a black neighborhood in New York City. She is still there, repressed and silenced as a result of triple oppression.

As more than just a young mother and a Black African woman, Lutie Johnson suffers prejudice in all aspects of her life, both personal and professional. Because they are believed to be of a lesser race, Lutie and the other African Americans in the story are wrongly denied various rights and opportunities that are accessible to Anglo-neighboring Americans. Housing in New York City was separated by race at the time Petry wrote her novel and only certain buildings would rent flats to black tenants – a kind of institutional racism that severely limited African Americans’ options. Lutie, like many other black New Yorkers, wishes to leave crowded Harlem but is unable to do so because she has the financial means to do so. Due to the extreme severe poverty and gender inequality that existed before to the 1960s civil rights struggle, the novel’s Black American protagonists are inextricably tied to Harlem.

As a conclusion, they feel angered and upset since they would not have the same rights and privileges as others. The notion that Black People should have fought alongside other Americans in World War II for liberties that predominantly favor white Americans magnifies these emotions. The representation of misogyny and communism in the 1940s in the U. S is also significant in Petry’s work. Those who do not value Lutie as a woman approach her as a commodity in her search of a good job. She feels compelled to conceal the fact that she has ason because possible employers, such as Boots, are only interested in her for her romantic potential. As the novel’s sad climax illustrates, hard work alone is unable to overcome the barriers of race, gender, and class that exist in American culture. The heroine, Lutie Johnson, is introduced to the notion that achievement and economic independence are inevitable results of hard work and perseverance while working for the Chandlers, a white family of considerable wealth – the American ideal. Lutie adopts this mind-set and is always concerned with money, wanting to climb above her poor circumstances in Harlem.

Bub, her son, does not really comprehend why Lutie is so concerned about money, but he too tries to impress his mother, so he works hard to make money. William Jones is imprisoned after trying to take advantage of his desire to earn his mother's affection by luring him into stealing mail. However, as Petry's work vividly portrays, American in the 1940s was not really a place of equal rights for Black People or females. Lutie faces cultural and class prejudice while trying to generate money. Finally, she seems unable to achieve her dream of winning the street war.

Conclusion

Ann Lane Petry was one of the most illustrious authors of African American literature, and her novel *The Street* was profoundly moving. The notion of a woman's struggle and defeat played a significant role in this story. Petry's most well-known piece, *The Street*, was a picture of African Americans' economic suffering. Lutie was a novel's black female protagonist who was both distinct and significant. Petry was a well-known author in African American literature who focused on contemporary social concerns such as female struggle, single parenting, and sex politics. *The Street* addresses the African American woman's specific role in sustaining her position in a world of classism, sexism and racism. Through the work, Ann Petry studied the black woman as the heart of the family and community. Lutie owed race a moral and ethical obligation.

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A Critical Review on Impact of Organizational Culture on Employee Performance in Higher Education Institutes

Shweta Pradaip Bhatia & Subodh Rathore

Abstract

Today's organisations are more dynamic than they were in the past. Having a strong culture is vital to achieving a desired position and ranking in today's competitive environment for higher education institutions. As the world becomes a smaller, more interconnected place, people are becoming more savvy, bright and diligent. Having flourishing relationships at work is as important to employees of any company as financial advancement. These goals are defined by their cultural context. Employees might be encouraged to perform well by presenting them with a sense of purpose. Organizational culture and employee performance have been the subject of extensive academic study. In order to keep up with the changing needs of employees, the organization's culture allows for additional time to adapt to these changes. To better understand the relationship between organisational culture and employee performance, as well as the role it plays in boosting employee output, the primary goal of this study is to identify any existing correlations between these two factors. To accomplish this goal, a literature review is carried out. Study results show that an organisation increases employee loyalty to the organisation. "Positive attitudes, mutual trust, better understanding, reduced conflict, improved quality of work, feelings of accomplishment and improved performance" are all part of creating an organisational culture. This culture empowers internal reconciliation and coordination between the organisation and its employees. This study's findings may have practical and managerial consequences for managers looking to improve employee work satisfaction and performance and, as a result, inspire people to stay loyal to their firms.

Keywords: Impact, Organization Culture, Organization Performance, Employee's Commitment, organizational goals.

Introduction

Individuals' attitudes and behaviours can be positively influenced by higher education institutions' mission to transmit information. The gap between literate and illiterate people can be traced back to this shift in perspective. Higher education institutions need a distinct culture to be effective in this role. The primary goal of higher education institutions is to foster a climate in which students feel free to express their ideas, assumptions and values in a way that is consistent with the norms of the institution. An organization's ability to grow and succeed is directly correlated to the strength of its culture. Furthermore, an institution's culture demonstrates its norms and values to its personnel, as well as possibilities to foster innovation and creativity within the organisation. Thus, not only are institutional values strengthened, but the intellectual capacities of employees are also strengthened, resulting in improved performance.

The combination of an organization's aspirations and expectations, as well as its history, logic, philosophy and core values, is what we call its culture. Corporate culture and organisational culture are both terms used to describe the same thing. The effectiveness and efficiency of an organisation are directly impacted by its culture. It sets quality, timeliness, safety and security criteria, among other things, based on the situation. For each organisation, the culture is unique and it is exceedingly difficult to change it. It is the combination of good working skills and an ideal workplace that determines an employee's overall performance.

Behavioral outcomes such as work satisfaction and commitment are influenced by an organization's culture, which is intangible. Organizational culture has a significant impact on employee behaviour and performance, and it must be taken into account by employers. Literature on organisational culture, which connects employees to their firms, has grown in recent years. Organizational cultures that align with employees' expectations and values have been documented to have an impact on their job satisfaction and commitment.

A supportive culture is a potent motivating tool that seeks to motivate people to operate efficiently and provides enhanced productivity, according to Ritchie (2000) in this context (Ritchie, 2000). There has been a lot of study done on many aspects of organisational culture, such as varieties of organisational culture (Tharp, 2009) and organisational psychology (Schein, 1990), which focuses on how culture affects employees' psychological and behavioural health.

It's also worth noting that a number of studies have been undertaken in industrialised countries utilising a variety of employee classifications to examine these themes. This suggests that developing countries like India, which has seen numerous transformations, could benefit from comparable research on these principles. However, little attention has been paid to the influence of company culture on employee performance. Therefore, the purpose of this study is to examine the influence of corporate culture on employee performance. In other words, we can determine the level of employee performance by analysing the influence of corporate cultural elements.

The Aim of The Study: The major objective of this research is to discover the existing relationship between two variables *i.e.*, organization's culture & its performance and also "to evaluate the impact of organizational on enhancing employee performance in higher education institutes".

Methodology: Literature review is embraced as a strategy to evaluate the culture of an organization impacts upon process, workforce and environment. For this paper number of articles has been studied. Few National and International articles have been reviewed for this study.

Review of Literature

Examining existing studies to see if there are any links between company culture and employee performance is what a literature study is all about. Organizational culture has been examined in critical research in existing literature and some of these studies are analysed here.

Employee performance and productivity are strongly influenced by corporate culture, according to a wealth of research available in the public domain. There is a strong belief

that organisational culture can be used to estimate an organization's financial performance (Hofstede, Ouchi, 1981; Kotter, 1992; Magee, 2002). Because of basic ambiguity, it is possible that organisational quality may fluctuate, yet it is possible that certain social attributes may be the cornerstone of competitive advantage. (Barney, 1991 and Peters and Waterman, 1982).

Organization Culture

According to an organisation learning process, culture is derived from attributes' ordered parts. In the words of "Schein (1992), an organization's culture is a collection of basic rules that a presumed group has formed, either virtually or visibly, in order to address its issues of outward distinction and indispensable integration". In the beginning, Administrative Science Quarterly characterised organisational culture (Pettigrew, 1979). Philosophy, attitudes, feelings, assumptions, trust, concepts and values are some of the characteristics of organisational culture.

Hofstede (1980) defines organisational culture as the sum total of mental processes that divides members of one group from those of another. An organization's culture can help keep its personnel motivated and focused on the company's goals, according to the above theory.

According to Robbins (2002), organisational culture (OC) is defined as the shared understanding held by various individuals of a company that sets it apart from its competitors. In order to create a positive organisational culture, seven main characters are considered. Innovation and the willingness to take chances are among the most important traits, as are a focus on the details, a human-centered approach, a collaborative approach, assertiveness, and a sense of stability.

Employee Performance

The organisation calculates an employee's performance by comparing it to the organization's performance standard. The term "great performance" refers to the employee's ability to complete the task assigned to him. In order to achieve an organization's goals, performance is a fundamental multidimensional form that is anticipated to deliver outcomes (Mwita, 2000).

The achievement of the organization's goals has been planned in light of the performance of the employees (Richardo, 2001).

Performance refers to a worker's success in meeting the company's goals while on the job. There are many distinct academics who have found a wide range of perspectives on how to quantify the feasibility of input and output measurements that influence value-based relationships (Stannack, 1996).

The relationship between Organization Culture and Employee Performance

DIANA, et. al. (2021). "Factor influencing employee performance: The role of organisational culture. Leadership style and organisational culture are examined in this study to see if they influence employee performance". What we want to find out is whether or not Democratic Leadership has an impact directly on employee performance, how it affects organisational culture, and how it affects employee performance through the role of Organizational culture

as mediator. All of the people that took part in the survey worked at the East Java Education Office. With the help of surveys and questionnaires, the Education Office East Java in Indonesia collected data from 106 of its employees using the sampling approach. The SPSS statistical software was used to perform Path Analysis on the data. There were four main takeaways from the research. First and foremost, democratic leadership has a substantial impact on staff productivity. Organizational culture is also affected by democratic leadership. Third, the performance of employees is strongly influenced by the culture of the organisation. “As a last point, corporate culture has a significant impact on the effectiveness of democratic leadership”. Leadership style and mediating roles also contribute to knowledge. Employee performance improved when Democratic Leadership was implemented and backed by a supportive company culture, according to the findings.

Sapta, Muafi & Setini, (2021). “The role of technology, organisational culture, and job satisfaction in improving employee performance during the Covid-19 pandemic”. Technology plays a critical part in the present Covid-19 pandemic, allowing all operations to continue. When a pandemic occurs, rural banks in Bali may be motivated to improve their performance by factors such as technological advancements and organisational culture. Data were obtained from an online questionnaire. There was a minimum one-year employment time and a high school education or equivalent required for those who applied. A total of 100 samples were collected using these criteria. “Organizational culture, technology and job happiness are the independent variables, and work motivation is the intervening variable”. A new study shows that a company’s culture, work satisfaction, and technology all play a role in motivating its employees and improving their performance. Employee performance is not influenced by an organization’s culture in a positive or direct way.

Jufrizen, et. al. (2021). “Effect of Moderation of Work Motivation on the Influence of Organizational Culture on Organizational Commitment and Employee Performance”. “It is the goal of this research to examine the impact of organization culture on employee performance”. When conducting this type of research, as many as 85 employees are sampled from the public at large. Questionnaires and Partial Least Squares both rely on data collecting and analysis methods (SmartPls). “Organizational culture has a positive and significant impact on employee performance, according to research”. It also has a positive and significant impact on organisational commitment, which, in turn, has a positive and significant impact on performance. Finally, organisational commitment has a positive and significant impact on performance, according to research.

Febriano, Astuti, Triatmanto, (2021). “The Impact of Organizational Culture and Emotional Intelligence on Employee Performance: An Empirical Study from Indonesia”. “The purpose of this study is to explore the influence of organisational culture, work engagement and emotional intelligence on employee performance through job satisfaction and organisational commitment at commercial banks in the Great Malang”. As a result of the purposive sampling strategy, the SEM was utilised to analyse the results from 240 of the 600 employees of four commercial banks. According to the findings, “neither emotional intelligence nor corporate culture have any impact on employee performance as measured by work satisfaction”.

Paais & Pattiruhu, (2020). “Effect of motivation, leadership, and organisational culture on satisfaction and employee performance”. “Employee satisfaction and performance at Wahana Resources Ltd North Seram District, Central Maluku Regency, Indonesia are

examined in this study using empirical methodologies”. Academics studying human resources management will find this assessment useful as a critical evaluation (HRM). Proportionate Stratified Random Sampling was used to pick the study’s 155 participants. The Structural Equation Modeling on Amos was used to examine the survey data collected at the same time. While work motivation and organisational culture had a beneficial impact on performance, they did not have a substantial impact on employee job satisfaction. It’s not the leader’s performance that’s affected, it’s their job satisfaction. Coefficients of determination suggest that 57.3 percent of the job satisfaction is impacted by motivation, leadership, and culture variables and that 73.5 percent of the performance of employees is influenced by these same variables as well. The rest is affected by things that aren’t part of this investigation. “To raise employee satisfaction, the motivation, leadership, and organisational culture of employees must be improved”. Employees who are more satisfied with their jobs are more likely to perform better.

Thien, N.H. (2020). “Exploring The Organizational Culture of Higher Education Institutions in Vietnam from Faculty’s Perspective—A Case Study”. Organizational culture in Vietnam’s higher education industry will be examined as part of this study. “Organizational culture, the culture of higher education institutions, and pertinent issues in Vietnam are the focus of this research”. Qualitative methodologies and a single-case holistic approach are used in this study to help achieve its goals. According to the data, the most significant values in Vietnamese higher education institutions are morality, professional expertise, and faculty teaching methods. Respect for university norms and procedures is also expected and professors are seen as role models by their pupils.

Hendri, (2019). “The mediation effect of job satisfaction and organisational commitment on the organisational learning effect of the employee performance”. “It is the goal of this study to examine the relationship between organisational culture (OC) and job satisfaction (JS) and employee performance (EP) as well as the role of employee engagement (EE) in the relationship between these two variables”. Using stratified random sampling, 52 employees were selected as the research sample. T-tests, F-tests, multiple linear regression analyses, and path analysis were used to assess the data collected by a survey questionnaire. Research shows OC has an impact on both the emotional state (JS and EP) and on the emotional state (EE) of the participants, while EE has an impact on both the emotional state (JS) and on the emotional state (EP).

Ilham, (2018). “The impact of organisational culture and leadership style on job satisfaction and employee performance”. “It is the goal of this study to examine the influence of corporate culture and leadership style on employee satisfaction and productivity”. In this study, STIE PerbanasSurabaya lecturer is used as a sample since he or she is involved in education. SEM-PLS with 36 samples is the statistical method employed in this study. There are five types of leadership styles: participatory, nurturing, authoritarian, bureaucratic, and task-oriented (or command-and-and-control). Organizational culture has three dimensions: integration, differentiation, and fragmentation. Satisfaction with compensation, promotion, coworkers, supervisor, and job supervisor are all factors in job satisfaction. We found that “leadership style had a positive impact on employee performance, organisational culture had a positive impact on job satisfaction, organisational culture had a positive impact on job satisfaction, and leadership style also had a positive impact on organization’s overall culture”. According

to the findings of the research, organisational culture and leadership style have a significant impact on employee performance and work satisfaction.

Kumari & Singh, (2018). "Impact of organisational culture on employee performance". The values, beliefs, underlying assumptions, attitudes, and behaviours of a group of people form the basis of its culture. When a group agrees on a set of unstated and unwritten standards for functioning together, the result is a culture. There are so many subcultures within a firm that it can be difficult to get a clear picture of the overall company culture. Each department or work unit may have a distinct personality. "The study's goal was to determine the effect of business culture on employee performance at a major plastics factory". The preliminary information gathered through exploratory research was utilised to define the problems and propose hypotheses. Performance management systems (PMS) have a 3.1 percent impact on the work culture, according to a study that examined the relationship between these two factors. Businesses can foster a sense of camaraderie among their workers by hosting events like seminars and other team-building exercises. KRA's should be included in job descriptions, and employees should be involved in the goal-setting process.

Abu-Jarad et al. (2010) state that different personnel and outcomes associated with the company are influenced by organisational culture. Employee conduct, learning and development, innovation and creativity, and information management are all influenced by organisational culture Vincent et al., 2004). Because of discrepancies in definition, fundamental and configuration, the results are ambiguous (Scott et al. 2002; Abu-Jarad et al., 2010).

According to Barney (1991), performance is a hotly disputed topic among corporate experts. The goal of organisational performance is to describe the problem as well as to identify possible solutions to the problem (Heffermanand Flood 2000). For Daft (2000), "organisational performance is defined as the ability of an organization's resources", whether human or otherwise, to meet the organization's goals effectively and efficiently.

Additional research into the impact of organisational culture on work satisfaction levels of college workers in Pakistan was conducted. Researchers' findings suggested that Pakistan's public sector culture be improved in order to raise staff productivity and happiness to levels comparable to those found at Pakistani universities ("Syed Munir Ahmed Shah and Mohammad Salih Memon 2012").

When a company fails to meet these capacities to a satisfactory degree, employees may suffer from a lack of internal integration and coordination between the company's tasks and its employees (Furnham and Gunter, 1993).

"Culture overviews" have shown that employee performance can be improved through the creation and implementation of specific organisational cultures (Sackmann and Bertelsmann 2006).

"For Pettigrew (1979), an organization's culture is dependent on the frameworks that help define how people make decisions and think about their work tasks". An organization's culture is a collection of beliefs, values, and assumptions that, for the most part, define how it does its business. A company's culture, according to Nelson and Quick (2011), has a four-fold role in an organization's success: offering employees a sense of individuality, increasing employee dedication, strengthening organisational attributes, and directing behaviour through a focus component.

Having a healthy corporate culture can lead to better employee conduct, according to O'Doul (2015), which makes it easier to plan and implement procedures in a proper manner. However, she emphasises the importance of aligning an organization's culture with its procedures in order to improve performance (Hofstede 2010).

Various organisational practises have been linked to an organization's culture by researchers. "Both Sheridan (1992) and Gamble and Gibson (1999) have noted a link between an organization's culture and its employees' productivity and profitability". Despite the fact that organisational culture has always been visible within organisations, most companies have paid little attention to it. Throughout the organisation, the culture of the organisation may be seen to permeate every critical area.

Organizational culture has been studied extensively by a slew of experts over the last two decades. Employee participation in organisational success has a significant impact, according to researchers studying the topic. Instead of focusing on the business's structures and arrangements, strong incentive frameworks and ongoing inspiration encourage employees to do their best to target the accomplishments of the organisation (1998).

A company's culture, according to Schein (1990), is nothing more than the general population's most fundamental attributes and habits used as a catalyst for the successful completion of the organization's goals. Organizational culture, according to Hofstede (1991), is the attitude of persons who identify themselves as distinct from one other, both within and outside the organisation. This integrates the employee's values, convictions, and practises that are not exactly the same as those of the other organisation. Culture at an organisation refers to the set of beliefs and values that are held by the general public or a particular department (Kotter and Heskett, 1992).

Since then, there has been a resurgence of interest in corporate culture. Kotter and Heskett (1992) interviewed 75 highly regarded money-related investigators a few years after the fact to get their perspective on the situation. Twelve very successful companies were compared to ten less successful ones by each investigator. There was only one study that found that culture had no effect on business performance, despite the fact that researchers are typically seen as primarily interested in factual data. Everybody acknowledged the importance of culture in long-term financial success (Cameron, Quinn, 2006).

Fewer studies on culture and performance, even if there are many publications on culture's unique aspects (Kim et al., 2004; Lim, 1995; Reichers and Schneider, 1990). Some review studies also mentioned the difficulties in defining, planning and estimating the relationship between an organization's culture and its performance, which led to inconsistent conclusions (Kim et al., 2004; Lim, 1995; Reichers and Schneider, 1990). This suggests that further research is needed to understand and investigate the relationship between organisational culture and performance. Research into culture-performance relationships has been spurred forward by a lack of studies from underdeveloped countries.

Findings

Based on research, it appears that an institution's culture can be strong and cohesive when staff and students are educated about the institution's mission, which is communicated to them in a clear and unambiguous manner, as well as shared by everyone in the organisation. It is

clear from the preceding discussion that an institution's culture has a significant impact on the performance of its employees. Developing and maintaining a high-performance culture in an institution is essential. Until now, culture has been measured in specific ways, and research shows that an organization's values and standards are influenced by its interaction with its employees. In order to achieve a high level of performance, an organisation must devise a plan of action. Adjusting the scorecard and recognising the type and capabilities of an organization's framework culture allowed us to estimate the performance administration framework.

Conclusion

Organizational culture and employee performance in higher education institutions were examined using information from a variety of relevant literature. Organizational growth is always viewed as the responsibility of employees, according to the findings of the literature review. The company promotes its employees' commitment to it. It's easier to achieve internal harmony and coordination between the company and its employees when there is a healthy corporate culture that promotes a work environment that encourages education and learning as well as competition and possibilities for growth. Consequently, employees must adapt to the organisational culture to the greatest extent possible and senior management should provide precise rules and advice to encourage employees to fulfil the organization's objectives.

This research looked at the relationship between organisational culture and employee performance at the higher education institutions through a literature review. This research aims to help practising managers the most, and it also has various implications for future research. The findings help us better understand the educational sector's corporate culture and employee performance. This research has also given us a better knowledge of the impact of various organisational culture aspects on employee performance. The findings emphasise the importance of monitoring organisational culture and evolving improved management methods in order to sustain high levels of employee happiness and performance. In other words, the findings could have practical consequences for managers and consultants in management development programmes that are aligned with the training needs of higher education personnel. As a result, employees are more likely to perform well and have a high degree of job satisfaction, resulting in increased loyalty to their employers. Finally, in a competitive market, higher levels of employee satisfaction in such firms may provide an edge over other organisations in attracting and retaining people.

Recommendation

Performance can be improved by an organization's in-built culture, which is fully focused on managers and leaders. The favourable association between the culture and employee performance has been acknowledged by organisations' management. It is via this relationship that companies are gaining a competitive edge.

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Financial Stability of Nestle India Ltd.

Shweta Pradip Bhatia & Kanchan Bajaj

Abstract

Financial stability can be retrieved by financial analysis with the help of financial statements of the firm. The financial data of Nestle India Ltd. has been analyzed by using ratio methods where liquidity ratios, solvency ratios, activity-based ratios and profitability ratios have been taken into consideration. The study is primarily based on the secondary data for which, the data has been taken from the CMIE, Annual reports and other relevant published sources. The data is collected for the last decade and meaningful inferences have been drawn by analyzing the data. The results indicate satisfactory position of Nestle India Ltd. Although the data reveals the significant growth of the firm, yet there needs some modification in the policies of the firm to strengthen the financial position in future.

Keywords: Financial stability, Liquidity, Profitability, Capital structure, Nestle.

Introduction

The scope of food and beverages industry is increasing day by day and Asian countries are notching the top most positions worldwide. India is holding the second positions being the largest producer of food items next to China and is competing neck to neck with European, Asian, and Western countries in food and agricultural industry. The total food production is likely to become double by the next five years with enormous scope of adoption of food processing technologies, skills and equipment and specialty items. In addition to this, the food firms are seeking abundance growth in thermo processing, fruits and vegetables items, beverages and soft drinks segments and frozen products in diversified areas. Firms are focusing on offering portfolios of food products rather than dealing in one or two products. Furthermore, health products and health supplements are other rapidly growing segments which are gaining massive popularity in the country.

Nestle India Ltd. is one of the largest and oldest companies in Indian food processing industry. Although, Nestle has won many medals to their name but in 2015, food and safety and standards authority of India (FSSAI) has banned its most famous product named Maggi de to lead beyond its permissible limit and declaring Maggi as unsafe and hazardous product to be consumed. This has set back the market share of Maggi and deteriorated the branding of Nestle in the market. This product contributes almost one third to company's total revenue in RTE segment and was the key drivers to generate massive volumes. The ban has reported a decline of 17% in its net sales during January-December 2015, and sharp decline has been witnessed in the net profit from Maggi from Rs 1185 crores to Rs 563 crores. The very next year 2016 was crucial for Nestle; they have cleared the safety test and marketed the Maggi to back to the market. But meanwhile, many players have captured the market share of Maggi which is still beyond the control of Nestle India Ltd.

Nestle India is one of the oldest firm in India in food sector. It is a subsidiary of Nestle SA of Switzerland, which was founded in 1867 in Geneva by Henri Nestle. Nestle started

its products by producing infants' cereals followed by condensed milk. Nestle's has tied up with India in 1912. Company's headquarter is at Gurgaon but the branches have been spread throughout India. Nestle India is one of the biggest and strongest FMCG segment and has presence in all food and dairy products. The key products which are also renowned internationally are Nescafe, Maggi, Milkybar, Kit Kat, Bar-One, Milkmaid and Nestea and in recent years the Company has also introduced products of daily consumption and uses such as Nestle's milk, slim milk, dahi and jeeraraita to attract large number of volumes.

Besides, the established brands such as Nestle's Milkmaid, Every-day, Maggi Noodles and Kit-Kat belong to Nestle. Nestle is holding first position in marketing their instant noodles and instant coffee and second position in healthy soups and chocolate category. Nestle is awarded with CNBC Awaaz Consumer award for Nescafe as the most preferred coffee over other brands, Business India has rated number one for Return on Capital Employed. Many awards like Best Exporter of Instant Coffee", "Highest Exporter to Russia and CIS", "Highest Exporter to Far East Countries" are also awarded to Nestle India Ltd.

Review of Literature

Rathore and Roi (2007) has examined the financial performance of Air India and pointed out that capital structure, working capital, operating performance and profitability positions must be taken into consideration to analyze the financial performance of the firm. The results concluded that based on capital structure, Air India has improved their financial structure and established that higher the capital structure, more stable the financial position of the firm.

Anuradharajendran (2009) has analyzed financial and accounting statements of sugar mill firms for a period of 10 years from 1997 to 2007. The main objective is to analyse the sales performance, financial performance, and profitability of sugar mills of Tamilnadu region. The results indicate that ratio analysis and trend analysis is used to analyze the financial data. There is positive correlation between return on total assets and inventory turnover ratio. The study concludes that higher the assets, larger the inventory will yield maximum profit for the company.

Bhunia (2010) has found that calculation of liquidity, solvency and profitability ratios results in investigating the financial performance of the pharmaceutical firms. The study helps the author to understand the role of financial management in the growth and expansion of the companies.

Chander and Chandel (2010) has conducted observations in manufacturing firms in for the period of 2000 to 2008 and found that capital adequacy, liquidity and management efficiency determines the financial efficiency of the firms. The study consists of manufacturing firms in iron and steel sector belongs to MSME segments.

Reddy and Shivaji (2010) examined the paper mills for a period of 10 years and found that fixed assets including plant and machinery depends upon the investments in fixed assets, degree of work in process and expansion of firm through advanced technological equipment. The improvement in financial transactions rely upon the financing the fixed assets. On the other hand, Roy (2010) proposed that reforms in the textile industry are results of technological changes and adoption of modern machinery in textile industry.

Ahmet (2011) investigated that financial performance is a meta-analytic review along with critical integration of assets, financial measures, and diversification of the firm. The meta analytic view suggests that diversification of the firm rely upon the managing the diversity beyond intangible assets that a firm posses such as age, size, products, employees etc.

Mistry (2011) reveals that production efficiency and employee's efficiency are the key drivers of financial performance in two-wheeler automobile segment firms. The study consists of 8 firms producing two-wheeler automobiles and the outcome reported that there is higher fluctuation in the forecasting of commercial and three-wheelervehicles than two-wheelervehicles based on their coefficient of variation.

Subramanian and Venatachalam (2014) studied the financial performance of paper manufacturing firm by calculating the ratios like probability, activity ratio and liquidity ratio. The study concludes that profitability ratio and turnover ratios can provide better insights to understand the financial aspects of the firm.

Renuka and Ganesan (2015) has examined the financial statements of real estate firms and found that profitability ratios, turnover ratios and solvency ratio provide better understanding to know firm's position and performance in the upcoming years.

Research Methodology

The current study has collected data of 10 years from 2010 to 2020 for Nestle India Ltd. they key objective is to investigate the financial performance of the Nestle India Ltd. by examining few parameters determining the financial aspects of the firm. The accounting and financial ratios are calculated to analyses the data. The data is secondary in nature and has been collected from CMIE, books, journals and annual profit and loss statements of the Nestle India Ltd.

Objective of the study

The key objective is to evaluate the financial position and profitability of the firm. Furthermore, liquidity and valuation positions of company will be evaluated and lastly, operational efficiency of Nestle India Ltd. will be examined.

Data Analysis and Interpretation

Financial ratios analyze the result of calculation of accounting and financial statements and how they are correlated with each other. The influence of one ratio on theother is the key figure to understand the relationships between elements of financial figures and firm's position and performance level. Ratio analysis is considered as a powerful tool to evaluate the financial analysis and interpretation of financial ratios of Nestle India Ltd to take a strategic management decision for the betterment of the firm (Subramanian and Ramakrishnan, 2014). The financial ratios are classified as liquidity ratios, profitability ratios, valuation ratios and capital structure ratios.

Table 1. Liquidity ratiosand Capital Structure ratios (in times) of Nestle India Ltd.

	Liquidity Ratios			Financial/Capital Structure Analysis			
Year	Current Ratio	Liquid Ratio	Absolute Liquid Ratio	Dividend Coverage Ratio	Debt to Equity Ratio	Financial Leverage Index	Debt to Capital Ratio
2020	0.857	1.11	0.749	1.599	0.02%	3.911	0.983
2019	0.858	1.18	0.647	0.597	0.03%	3.653	0.981
2018	0.953	0.02	0.978	1.449	0.01%	2.202	0.978
2017	0.898	2.033	1.02	1.477	0.01%	2.152	0.976
2016	0.854	1.43	0.554	1.525	0.01%	2.258	0.975
2015	0.883	1.124	0.348	1.204	0.01%	2.157	0.971
2014	1.032	0.825	0.34	1.95	0.23%	2.051	0.968
2013	0.913	1.162	0.559	2.389	0.54%	2.665	0.976
2012	0.908	0.653	0.208	2.228	0.66%	2.871	0.972
2011	0.946	0.379	0.155	2.056	0.46%	3.455	0.97
2010	1.293	0.281	0.152	1.75	0.01%	2.58	0.505
Mean	0.945	0.927	0.519	1.657	0.002	2.723	0.932
SD	0.127	0.574	0.310	0.504	0.003	0.667	0.142
CV	13.418	61.909	59.657	30.425	139.126	24.478	15.208
Range	0.439	2.013	0.868	1.792	0.007	1.860	0.478
Minimum	0.854	0.020	0.152	0.597	0.000	2.051	0.505
Maximum	1.293	2.033	1.020	2.389	0.007	3.911	0.983

Source: Calculation of Balance sheets, annual reports, and website data availability.

Liquidity ratio is a measure of credibility of the debtor to pay the debts when debts are due. This can be further explained as the ability to pay the short-term obligations without fail, hence considered as the base of continuous business operations (Singh, 2003). For this purpose, current ratio, liquid ratio, and absolute liquid ratio is calculated to draw the inferences. Capital structure analysis is used to examine the ability of firm to use their debt and equity as a means of financing the company's assets and operations in short term as well in long term (APQC, 1993). The elements of capital structure such as dividend coverage ratio, debt to equity ratio, financial leverage index and debt to capital ratio influences the

company's financing options to invest in its own plant or its partner's firms to strengthen their hold over others (APO, 2005).

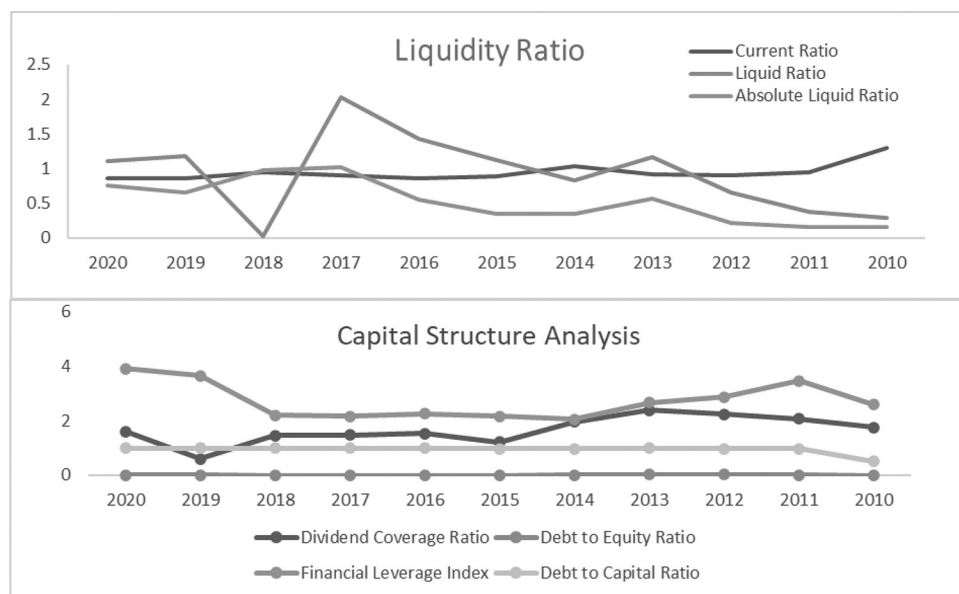


Fig. 1. Liquidity ratio and Capital Structure (in times) of Nestle India Ltd.

The table 1 depicts the liquidity positions of Nestle India Ltd. for the last decade i.e. from 2010 to 2020. During the tenure of 11 years, the company has witnessed tremendous growth even though there are much fluctuations in the liquidity ratio. During the last three years, the liquidity position was at its minimum in 2018, was approximately zero. The drastic decline in the liquidity is the fluctuations in the stocks of the firm and the firm failed to maintain their cash and bank balance to meet their current liabilities. But the next year, 2019, the firm has improved their position by establishing goodwill in the market and triggering their stocks and share values in the market. Whereas, the current ratio and absolute liquidity ratio are increasing at the constant rate during the last 11 years.

Table 1 further revealed that the current ratio has been decreased from 1.293 in 2010 to 0.857 in 2020, which is a positive sign of handling the current assets and managing their current liabilities. The liquid ratio has witnessed drastic improvement during the last decade i.e., 0.281 in 2010 to 1.11 in 2020, indicating that the firm has significantly improved their financial position over the period of time whereas absolute liquid ratio has been tremendously increased from 0.152 to 0.749 from 2010 to 2020. This significant improvement in the entire ratio of liquidity analysis indicates significant development and expansion of the firm along with advances of cash and funds in the banks.

This indicates that the firm has developed the ability to pay off their short-term liabilities and obligations with its current assets. The higher values of liquidity depict that the company has sound financial position and has good safety margin to meet their liabilities. Further, this highlights that the company is less likely to face any financial burdens in future and the company can generate cash to meet their short-term commitments at any time (Zakic and Zarik, 2012).

The table 1 further highlights the capital structure analysis for Nestle India Ltd. based on four ratios. The capital structure has positive impact on the corporate values of the firm besides it helps in managing the short-term debt, which enhances the profit when used in short term to improve the capital structure of the firm. The value of dividend coverage ratio of Nestle India ltd has been remarkable during the last decade, where the value of dividend coverage ratio is more than or equal to 1.5, clearly indicating that the firm is growing and the shareholders, stakeholders are getting timely dividend of their investments. This has not only retained the trust level of the investors in the company but also unlocked many business opportunities.

Higher dividend coverage ratio indicates sound capital structure of a company and company's ability to pay off dividend to its shareholders. But in 2019, company has setback and the value was less than 1, so company must use their profit of previous years to pay dividend to their shareholders. The value of debt-to-equity ratio of Nestle has been constant during the previous years and is using their long-term debts to generate their long-term finances and is successfully managing the same. But during the 2011 to 2014, company has to take some borrowings from other sources to maintain their leverages to pay their liabilities but later on 2014 onwards company has become self-sufficient to pay off their debts and liabilities. The value for financial leverage index is always greater than 2 but during the last two months, it's greater than 3 which is a positive sign of company's growth that its' using its leverage to increase the return on its equity (Khan and Jain, 2002).

The higher value of Nestle Indicates that company's return on equity exceeds return on assets from 2010 onwards. Company has good debt to equity ratio and is less than 1 throughout the last decade indicating that company has equal ratio of debt and equity and company own more assets than liabilities and in case of emergency, Nestle can meet their liabilities or obligations by selling their assets. It is rightly said that lower the debt equity ratio, less risky the company is (Maheswari, 2015). Thus overall, capital structure of Nestle indicates sound financial position of the company and has limited liabilities, which can be overcome easily by Nestle. Moreover, investors and shareholders have shown their willingness to invest in Nestle and Nestle without doubt, paying them dividend on time.

Table 2. Profitability and valuation ratios of Nestle India Ltd.

Year	Valuation Ratios			Profitability Ratios in (%age)			
	Enterprise Value (Cr.)	EV/Net Operating Revenue (X)	Price/Net Operating Revenue	Operating Profit Margin	Return On Assets	Return On Equity	Net Profit Margin Annual %
2020	1,75,604.01	13.15	13.28	23.98%	26.36%	103.12%	15.59%
2019	1,41,349.79	11.43	11.53	25.15%	27.90%	101.92%	15.91%
2018	1,05,521.18	9.34	9.48	25.47%	19.86%	43.74%	14.23%
2017	74,219.21	7.41	7.56	22.71%	16.64%	35.81%	12.24%

2016	57,292.48	6.21	6.3	21.77%	13.61%	30.74%	10.04%
2015	55,674.15	6.81	6.87	14.24%	9.26%	19.98%	6.88%
2014	61,087.78	6.2	6.24	21.57%	20.35%	41.75%	12.02%
2013	51,516.21	5.66	5.61	22.46%	17.69%	47.16%	12.27%
2012	48,930.67	5.87	5.77	22.27%	20.68%	59.38%	12.81%
2011	40,976.83	5.45	5.35	20.58%	21.84%	75.47%	12.79%
2010	36,336.39	5.8	5.85	20.37%	31.40%	81.02%	13.07%
Mean	77,137.15	7.58	7.62	0.030	0.064	0.284	0.025
SD	44910.48	2.60	2.65	13.84	31.10	48.81	19.97
CV	58.22	34.33	34.89	0.11	1.11	2.11	3.11
Range	1,39,267.62	7.70	7.93	14.24%	9.26%	19.98%	6.88%
Minimum	36,336.39	5.45	5.35	25.47%	31.40%	103.12%	15.91%
Maximum	1,75,604.01	13.15	13.28	0.030	0.064	0.284	0.025

Source: Calculation of Balance sheets, annual reports, and website data availability.

Table 2 provides that results of valuation and profitability ratios of Nestle India Ltd. Valuation ratio indicates degree of the relationships between market value of a company and some fundamental financial metrics. Table 2 clearly indicates that the firms' value is increasing year by year and has been increased almost five times than 2010 to till date. The value of firm in 2010 was 36336.39 crores and has been increased to 175604.01 crores in 2020. This shows that the Nestle is growing tremendously. The value of EV/Net operating revenue is also increasing year by year and has increased twice from the last ten years. The value has increased from 5.8 to 13.15 from 2010 to 2020. This indicates that company's enterprise value is increasing leaps and bounds and generating more revenue for Nestle India Ltd. The value of Price/Net operating revenue ratio is increasing year by year and is more than 13 which is a healthy sign for the overall growth and expansion of the company (Sheela and Christine, 2011).

The profitability ratios measure the efficiency of management in the employment of business resources to earn profit. The main objective of the profitability ratios is to get a better understanding of success and failure of business income generation activities for a particular time. The strong values represent stockholders' higher income, higher dividend to shareholders, improvement in stocks and stock values (Sriram and Shankar, 2006). The advanced payment of income, payment of interest and fixed dividend income are the indicators of good profitability positions of the firm. The profitability ratio values of Nestle indicate remarkable growth since 2010 to 2020. The values of operating profit margin is more than 20% through out the decade and is accounted maximum for the last three years,

which is an indication of improved production activities along with financial positions so that the firm can pay higher dividends to their shareholders and can reinvest some portion for their expansion.

Similarly, the value of return on assets is accounted maximum in 2010 and thereafter in 2019 and 2020 respectively. During the tenure of 2011 to 2018, Nestle has yielded less profit whereas specifically in 2015, the value of return on assets is minimum due to ban of Maggi product which was accountable for one third of profit. On an average, Nestle India Ltd. has earned good profit as compared to other firms. In case of return on equity, the values of Nestle are higher in the last two years, indicating that investors can trust the firm that firm is utilizing their money in a right direction to earn more profits so that firm can pay them more dividends. Lastly, the values of net profit margin are increasing year by year and are accounted for maximum for 2019 and 2020, where firm has earned more than 100% return on equity.

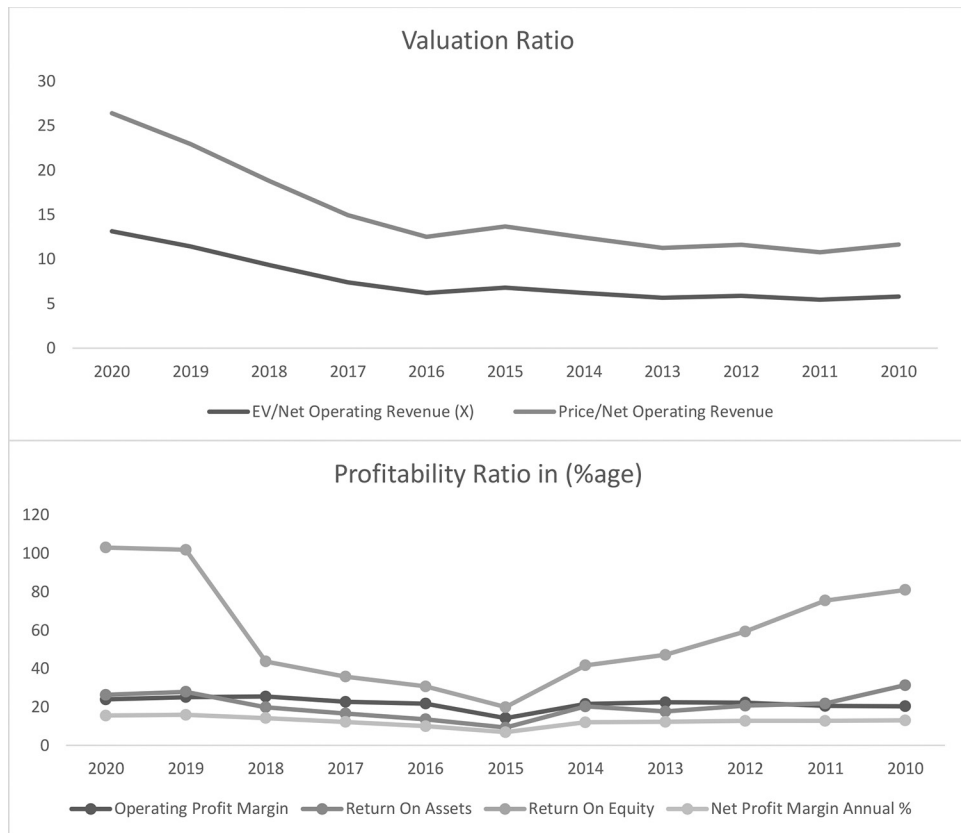


Fig. 2. Profitability Ratio and Valuation Ratio of Nestle India Ltd.

Findings and Conclusion

The results of all the ratios measuring financial position of Nestle India Ltd. have produced significant improvement over the last ten years. The findings indicate that Nestle's total worth

has been improved by five times since 2010 and similar results can be seen in case of net operating revenue with respect to price and enterprises value. Nestle has been yielding more than twice of revenue of the firm in both the aspects since 2010 and in 2020 the values are maximum for Nestle. Nestle has achieved marvelous results in profitability analysis where it has shown consistent results over the last decade and developed and maintained trust among its investors and shareholders. Nestle has been known for paying good dividend to their shareholders on time and investors has started investing more money in Nestle due to reliable financial conditions.

In case of liquidity ratios, company is not able to maintain 1:2 current ratio in some cases and similar results stands for liquid ration and absolute ratios that company fails to maintain the standardized value for these values. Absolute ratio is found to be more volatile during the study period which is a matter of concern. Debt equity ratio was very low during the 2011 to 2014 but thereafter company has managed to control the fluctuations and stabilized the debt equity ratio. The value of financial leverage index is found to be more than 3 indicating that the firm can repay its short-term obligations on its own. Overall, the values of capital structure reveals that the firm has the potential to repay its all its debts by selling its assets in case of emergency. But the firm is growing significantly and is competing at global level by expanding its business operations.

The financial performance can be measured by targeting more of the ratios such as solvency ratio and turnover ratios and many more but the current ratios also indicate sound financial position of the Nestle India Ltd. If more ratios can be calculated then they might produce more robust results and satisfactory return on investments position of the firm (Renuka and Ganesan, 2015).

Suggestions

- The firm must take necessary actions to strengthen the liquidity position by improving their current assets and reducing their current liability.
- Firm may borrow short term loans to maintain their 1:1 debt equity ratio, which might strengthen the fixed assets and improve the advances of cash and income.
- The firm may improve its operational performance with proper utilization of funds, which would improve significant profit margins in future.
- The introduction of marketing techniques and strategic decision may help the firm to revive its current position in the market and can capture the largest market share in future.
- Firm should take care of the quality of its products in future so that there should not be any quality incidence with Nestle in future.
- The value of financial leverage index is high which indicates that the firm should repay its short-term obligations on its own.

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Title: Study Habit and the Use of Leisure Time by Post-Graduate Students during Covid-19 Pandemic

Sima Kalita & Mallika Gayary

Abstract

Study habit is a very important factor to make the learning process and experience easier. Good study habit helps the learners to improve their academic learning and skills. Adoption of good study habit facilitates the whole learning process. We also need proper utilization of the leisure time. A student's leisure time may be utilized in developing the qualities of creativity and imaginativeness, learn new skills and techniques by indulging themselves in some creative activity. This paper studies and examines the study habit and use of leisure time by post-graduate students. For this purpose, 50 post-graduate students from each of the two universities namely Gauhati University and Bodoland University with a total of 100 samples, which have been selected randomly. The study has been done by administering a self-constructed questionnaire specifically prepared for this purpose. The study revealed that study habits of the post-graduate students are at average level where female students are better than that of male students. But, in case of use of leisure time, male students are better than that of the female students. In comparison, it is also found that the students of two universities differ with each other in the study habits as well as the use of leisure time.

Keywords: Study habits, covid-19, pandemic, leisure time, post-graduate students.

Introduction

Study habit of a learner means the practice or a routine that a student follows to learn or for the purpose of study. Study habit is a very important factor which helps the students in the academic field to gain better understanding, knowledge and efficiency in learning. Adoption of good study habit facilitates the whole learning process. Students with satisfactory and proper study habits improve in their academic achievement whereas, those who have poor study habits have poor academic achievement (Sasi and Anju, 2020). It is also supported by the study done by two other authors (Uju and Paul, 2017) in which it is revealed that study habits has a significant relationship with the academic performance. Every student follows a different style of studying. They may have different techniques which they follow for the efficient learning process. Mallillin, et.al., (2020) conducted a study in which it is found that the students have a planned learning style and study habits by which they are motivated to learn. They also have a plan to cope and adapt better learning styles and study habits. There can be many factors which influences the study habits of the learner. Study habits comprises of many factors. It is evident by the studies done by different researchers in this area. There are certain factors which intervenes the life of the learners which makes the situation of not balancing the life properly and makes the person emotionally unstable and unable to study properly (Agarwal and Gupta, 2020). Gender is one of the factors which have a significant impact on study habits (Khan, 2016). Female students had a better study habits than male students, better time management skill and are active in learning activities, finding materials/

references and taking notes (Angkarini, 2021). There is a need motivation among the students to adapt effective study habits (Kumar, 2015). It is also evident by another study. Achievement motivation and study habits are very effective in academic performance and also helps in better performance and academic achievement (Yazdani and Godbole, 2014). Moreover, study habits among students can be differed based on the education system. Students of formal education system are competent in managing time for study, more active in classroom activities and better in examination preparation in comparison to distance learners whereas distance learners are good in textbook reading habit and the habit which can be seen common for the learners of both the system of education are- use of index cards to get information, note taking and having time in advance for examination preparation (Bajwa, et.al., 2011). Formal students plan their study schedule, attend classes regularly, prepares assignment well, prepare themselves properly for examination, more capable to take and review notes, more proficient to put notes from text into own words in comparison to non formal education (Mahmood, et.al, 2017). A significant relationship has been found between study habit, learning styles and performances in online learning (Cakiroglu, 2014).

Leisure time means the free time. It is the time when the person is not occupied with any work. Use of leisure time to some productive activities is a good quality which every student should follow. Students may use their leisure times to develop the qualities of creativity and imaginativeness, learn new skills and techniques by indulging themselves to some productive activity. Before the pandemic, life was totally different. During pandemic people cannot go out of the house whereas before pandemic people used to go out in their leisure times which is evident by some of the studies. Majority of the students preferred going outdoors such as parks and gardens. Students also participated in courses, conferences, seminars, etc (Eratay and Aydogan, 2015). Student's priorities regarding leisure time activities is going to parties, watching their favourite programs, working on computers and going to shopping malls (Masrour, et.al., (2012). Whereas, it is also known fact that different people prefers different types of activities for their leisure time. It depends on the place they belong to or age group they belong to or situations that is prevalent to them and many other factors. Significant difference has been found between genders in terms of preferences, importance, access and self esteem in participation of leisure time activities (Afridi and Jan, 2020). Students from metro and urban areas involves greatly in multiple sedentary activities whereas rural adolescents students engage in watching television, listening music and religious leisure (Singh and Misra 2015). Moreover, difference in the use of leisure time also depends on the differences in parents' social class. Middle class parents' flexible working arrangements facilitates their children's leisure activities whereas working class parents' lack of flexible time faces difficulties in this aspect (Eecken, et.al., 2020). Through the model based on literature review indicated that parental support and intrinsic motivation were the factors which contribute in adolescents' participation to structured activities (Fawcett, 2007). Also, Gender is one of the factors which influences in the selection and choice of leisure time activities (Weaver, 1968). Leisure time can also be considered as a very important factor which has a correlation with educational achievement and can influence other aspects of life also. It is evident by some of the studies in this aspect. Students with a higher academic achievement spend more of their leisure time in doing cultural and relaxing activities, whereas, those students with poor academic achievement spends more of their leisure time in hanging out and going out (Duranovic and Opic, 2016). Free time is found to be an important factor that develops the personality of young people with more opportunities and

choices for correct and constructive usage of the free time (Havziu and Rasimi, 2015). At the same time leisure time has some negative aspects also if it is not used wisely, like- idleness, laziness etc. It is also evident by some studies. Devices and technology have reshaped both study habits and ways of learning and transforms their academic environment also and Technological devices have changed the way students learn using different leisure activities as an alternative form of learning (Zambrano, et.al., 2016). While, the use of device like Smartphone leads to idleness and perceived timelessness by staying physically immobile (Irimias, et.al., 2021).

Covid-19 pandemic has affected every aspects of human life, such as- financial, social life, psychological, educational, etc. Now, in the second wave of pandemic also these areas are equally affected. It is a known fact to everyone that during the first wave of pandemic also these areas of life were greatly affected. When we talk about education, students are the worst sufferers. All the levels of educational sector in India have been disrupted due to pandemic (Waral, Sajan, 2020). All the educational institutions are shut down due to which it has brought imbalances in the life of every student, their academic life. As a solution for challenges due to COVID-19 adopting virtual learning plays a titanic role (Patil, et.al., 2021). It is also supported by other studies. Virtual teaching has become popular in countries where schools are closed due to pandemic (Abri, 2020). At the same time it is also negatively affecting the students' academic life. All the educational activities are performed through online mode only and students are getting more leisure time as compared to when academic activities are done in offline mode. The virtual learning system has a negative impact also. Students spent less time on online classes and that limited class interaction and inefficient time table affects the level of satisfaction among students (Chaturvedi, et.al., 2020). On a global perspective students are concerned about their future professional career and study issues and were also bored, anxious and frustrated (Aristovnik, et.al., 2020). During the pandemic virtual learning system has become a new normal setting in the education system which has brought changes in behavior and attitude of learners. It also has an impact on learning styles. Students are lazy during online classes, not used to the online class and also they are busy doing online games aside from the online classes (Mallillin, et.al., 2021). On the other hand, it also shows some positive impact. In the current situation students are spending more time on studying as compared to that of before the pandemic but, students with technical backgrounds having practical subjects are under confident about their learning process because of the current situation (Bongale, et.al., 2021). Subjects with practical work are difficult in learning through online (Mahdy, 2020).

Objectives of The Study

1. To study the study habits of post graduate students during the current Covid-19 pandemic.
2. To compare the study habits of post-graduate students with respect to their gender.
3. To compare the study habits of post-graduate students with respect to their universities.
4. To study the use of leisure time by the post graduate students.
5. To compare the use of leisure time of the students with respect to their gender.
6. To compare the use of leisure time of the students with respect to their universities.

Needs and Significance of The Study

Covid-19 pandemic has led to the changes of life style among the people across the globe. In the field of education also, it has brought a great change. Education has been transitioned from offline classes to online classes. All the educational activities are done through online mode. Study habit has a great role in the academic success of students It is evident through some of the research studies. Also students are spending less time on classes, they are getting more of the leisure times than they usually would have got in the normal situation. The sample for the present study is the students of Post-graduate level. Since, post-graduate level can be considered as the final stage of education, because after this level student will opt for a particular profession. Therefore, the researcher felt the need to study the study habits of students of Post-graduate level and how they use their leisure time activities during this covid-19 pandemic.

Methodology

Study Design: Descriptive Study method has been used for the present study.

Sample and Sampling Technique: The study was carried out on Post-Graduate students. 50 students were selected randomly from Gauhati University and 50 students from Bodoland University. The sampling technique used for the present study is simple random sampling technique.

Tools for the study: A self-constructed questionnaire has been administered to the samples of the study. The questionnaire consisted of the statements related to study habits and leisure time use Eg: I study regularly during this pandemic. For each of the statements five options were given, such as: Never, Rarely, Frequently, Sometimes and Always with a score of 1, 2, 3, 4 and 5 respectively. The student samples were asked to tick mark on any of the options which is applicable to them.

Content analysis of questionnaire has been done by three experts. In the content analysis the following scoring has been determined.

Scoring for study habit		Scoring for use of leisure time	
Level	Points	Level	Points
Poor	1 – 30	Poor	1 – 20
Average	31 – 60	Average	21 – 40
Good	61 – 95	Good	41 – 60

Data collection Process: The questionnaire was administered to the samples through online mode and was asked to fill it up and submit it to the researcher through online mode (email). A specific time limit was given to the samples to submit the questionnaire.

Analysis and Interpretation of Data

Objective-1: To study the study habits of post graduate students during the current Covid-19 pandemic.

Table 1. Showing the study habits of post-graduate students

Level	Number of respondents	Percentage
Poor	20	20%
Average	41	41%
Good	39	39%

The above table shows that 20% of the total respondents have a poor study habits, 41% have average and 39% follows good study habits.

Objective-2: To compare the study habits of post-graduate students with respect to their gender.

Table 2. Showing the comparison with respect to gender

Male			Female		
Level	Number of respondents	Percentage	Level	Number of respondents	Percentage
Poor	9	22.5%	Poor	11	18.33%
Average	22	55%	Average	19	31.67%
Good	9	22.5%	Good	30	50%

The above table shows that 22.5% male respondents have a poor study habit and 18.33% female respondents have poor study habit. 55% of male respondents have average study habits, whereas, 31.67% female respondents have average study habits. 22.5% male respondents have a good study habit, whereas, 50% female respondents have good study habits.

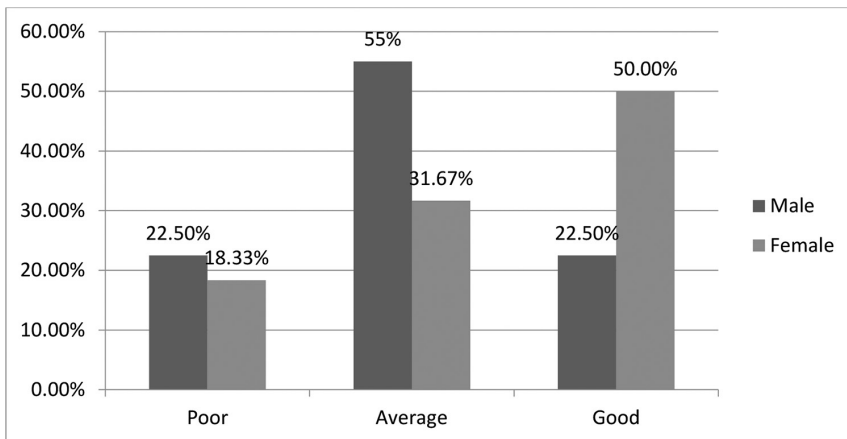


Fig. 1. Showing the comparison on study habits with respect to gender

Objective-3: To compare the study habits of post-graduate students with respect to their universities.

Table 3. Showing the study habits of post-graduate students with respect to their universities

Gauhati University Students			Bodoland University Students		
Level	Number of respondents	Percentage	Level	Number of respondents	Percentage
Poor	10	20%	Poor	10	20%
Average	24	48%	Average	17	34%
Good	16	32%	Good	23	46%

The above table shows that 20% of respondents from Gauhati University have a poor study habits, 48% respondents have average study habits, 32% respondents have good study habits. Whereas, 20% of respondents from Bodoland University have poor study habits, 34% respondents have average study habits and 46% respondents have good study habits.

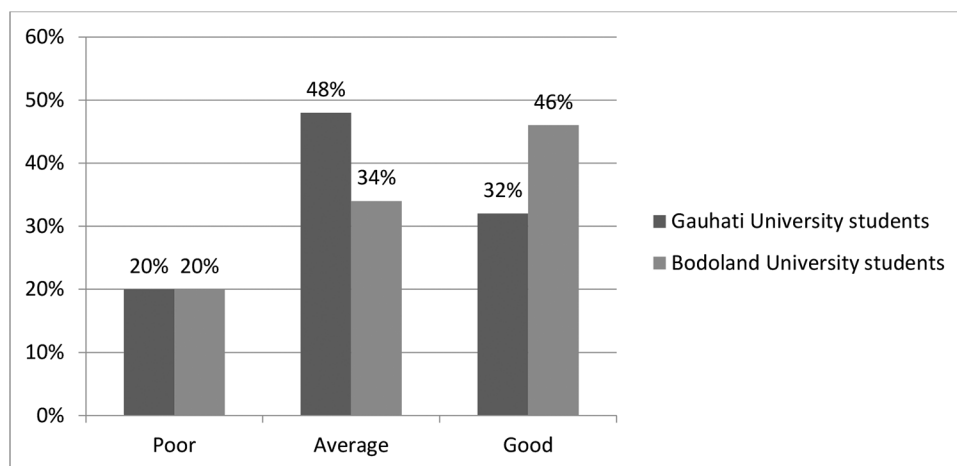


Fig. 2. Showing the comparison on study habits with respect to universities

Objective-4: To study the use of leisure time by the post graduate students.

Table 4. Showing the use of leisure time by post graduate students

Level	Number of respondents	Percentage
Poor	23	23%
Average	39	39%
Good	38	38%

The above table shows that 23% of the sample students have poor study habits, 39% have average study habits and 38% have good study habits.

Objective-5: To compare the use of leisure time by post graduate with respect to their gender.

Table 5. Showing the comparison of the use of leisure time by post-graduate students with respect to their gender

Male			Female		
Level	Number of respondents	Percentage	Level	Number of respondents	Percentage
Poor	6	15%	Poor	17	28.33%
Average	14	35%	Average	25	41.67%
Good	20	50%	Good	18	30%

The above table shows that 15% of male respondents are poor in using their leisure time, 35% are average and 50% are good. On the other hand, 28.33% of female respondents are poor in using their leisure time, 41.67% are average and 30% are good.

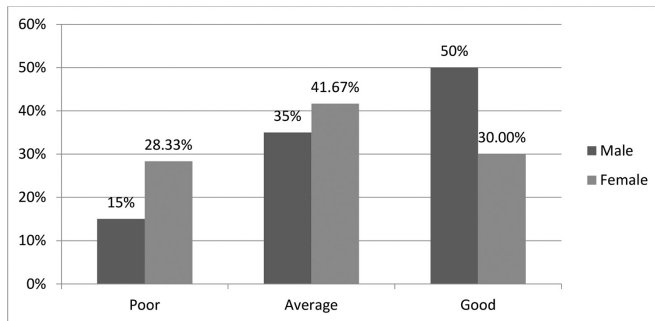


Fig. 3. Showing the comparison of the use of leisure time by post graduate students with respect to gender

Objective-6: To compare the use of leisure time by post graduate students with respect to their universities.

Table 6. Showing the comparison of the use of leisure time by post graduate students with respect to their universities

Gauhati University students			Bodoland University Students		
Level	Number of respondents	Percentage	Level	Number of respondents	Percentage
Poor	12	24%	Poor	11	22%
Average	18	36%	Average	21	42%
Good	20	40%	Good	18	36%

The above table shows that 24% of the respondents from Gauhati university are poor in using their leisure time, 30% respondents are average and 40% respondents are good. Whereas, 22% of respondents from Bodoland University are poor, 42% respondents are average and 36% respondents are good in using their leisure time.

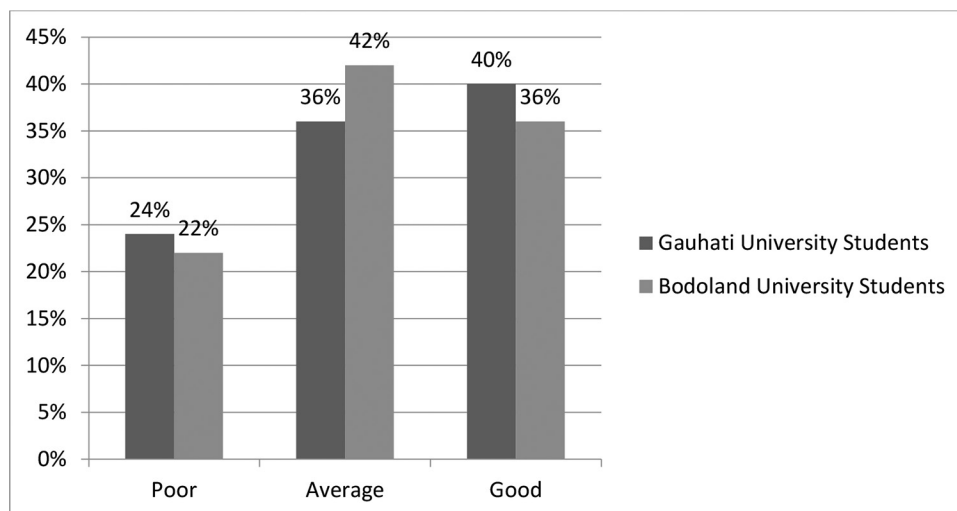


Fig. 4. Showing the comparison of the use of leisure time by post graduate students with respect to universities

Major Findings of The Study

Major findings of the study are:

1. The study habits of post-graduate students are at average level during Covid-19 Pandemic.
2. Female students are better in study habits in comparison to male students.
3. Maximum numbers of female students (50%) are at good level whereas, maximum number of male students (55%) are at average level in study habits.
4. Bodoland University students are better than Gauhati university students in terms of study habits.
5. Maximum number (48%) of Gauhati University respondents is at good level and maximum number of Bodoland University (46%) respondents falls at average level in study habits.
6. Maximum number of sample post-graduate students (39%) falls under average level in the use of leisure time during Covid-19 Pandemic.
7. Male post-graduate students are better than females in using their leisure time.
8. Maximum numbers of male students (50%) are at good level. Whereas, maximum number (41.67%) of females are at average level in using their leisure time.

9. Respondents from Gauhati University are better in the use of leisure time in comparison to Bodoland University respondents.
10. Maximum number of Gauhati university (40%) respondents are at good level, whereas, maximum number of Bodoland university respondents (42%) are at average level.

Conclusions and Implications

The study found that study habits and use of leisure time differs according to the gender and their respective universities. It may be because of number of reasons which could be find out through further studies in the same area. Also, this study showed that there is no relation between study habits and use of leisure time. In the study it has been found that though students from one university is better in study habits than the other university, the result is different in terms of use of leisure time. Student from one university might be better in study habits, they lags in the proper use of their leisure time.

Students should be encouraged to manage their time efficiently in every modes of life as this pandemic has taught all of us that things might change suddenly in any moment of life. Life might be totally different within a fraction of second. So, we need to be always ready for a change. Students should also be conscious enough to adapt to the changes taking place in educational field due to the pandemic or other reasons. Study habits should not get affected by any reason as it hampers in one's whole educational process in present as well as future. Also, during this era of digital life, nothing should affect the study pattern as well as utilizing the leisure time appropriately as everything, eg., study materials, classes, etc can be get with just a finger tip. Therefore, this pandemic also should not affect the study habits and the use of leisure time by students.

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Problems in the Implementation of Green Banking- A Study of SBI in Western Maharashtra

Vaishali Vitthal Jagtap & V.P. Katti

Abstract

The ecological imbalance has adversely affected the human life. Internationally and nationally different organizations and Governments have started discussing and implementing environmental policies to combat the problem of climate change and global warming. The financial institutions in developed as well as developing countries have started green banking initiative to maintain ecological balance and achieve sustainable development.

The green banking institutions are based on new technology in the banking operations. It is but natural that in the primary phase of implementation of any new technology-based banking operations there may be some difficulties or obstacles faced by the bank staff as well as the bank customers like green banking. The state bank of India has become a pioneering bank in the implementation of green banking in India. The present research paper is an attempt to identify and analyze the problems faced by the bank staff and bank customers of the SBI in the implementation of green banking in western Maharashtra. The present study based on primary data revealed that the problems faced by bank managers are significantly less but problems faced by the bank staff and bank customers are significantly more.

Keyword: Green Banking, Green Initiatives, Environmental Development, Sustainable Development, bank staff, bank customers.

Introduction

The world today is facing many environmental problems like global warming and climate change. Industrialization has become symbol of prosperity and development of an economy. But it has resulted into over exploitation of the natural resources. This has led to ecological imbalance which has adversely affected the human life. Therefore the issues of environmental degradation and environmental sustainability are debated around the world. Different organizations and Governments have started discussing and implementing environmental policies to combat the environmental challenges. These policies aim at maintaining ecological balance particularly by reducing carbon emission.

The financial sector worldwide is also undertaking many steps towards contributing to maintain ecological balance. The very important step in this regard is the green banking initiatives in recent years. The RBI has published a booklet containing the guidelines for the Indian banks regarding adoption of green banking initiatives. Accordingly, the public and private sector banks in India have been implementing various green banking initiatives. The largest public sector bank in India the State Bank of India is a leading bank implementing the green banking initiatives. The green banking initiatives are based on new technology used in banking operations. It is but natural that in the primary phase of implementation of

any new technology-based banking operations there may be some difficulties or obstacles faced by the bank staff as well as the bank customers. For achieving success such difficulties have to be removed or minimized. But of course, for this purpose the initial requirement is to identify the problems or obstacles in the implementation of new initiatives like green banking. Therefore, the researcher has attempted to identify and analyze the problems faced by the bank managers, bank staff and the bank customer of the State Bank of India in western Maharashtra.

Objectives of The Study

The study is conducted with the following objectives:

1. To provide a comprehensive conceptual dimensions of green banking.
2. To present the various problems in the implementation of green banking.
3. To identify and analyze the problems faced by the bank staff and bank customers of the SBI in western Maharashtra.

Research Methodology

The present research study is primary based on the secondary data. The primary data was collected by using structured questionnaire and interviews of the concerned respondents. The study is confined to implementation of green banking initiatives by the western Maharashtra i.e. Kolhapur, Sangli, Satara and Solapur districts. For this study 30 branch manager, 90 bank staff member and 300 bank customers were contacted for necessary data collection. The collected data was statistically analyzed and conclusions are drawn.

Hypotheses of The Study

Following hypotheses are formulated for the present research study:

- While implementing green banking initiatives, the problems faced by bank managers are not significant than the bank staff.
- The problems faced by the staff while using the green banking initiatives are significantly more.
- The problems faced by the customers while using the green banking initiatives are significantly more.

Concept of Green Banking

Green bank is a normal bank which considers all the social and environmental factors with an aim to protect the environmental and conserve natural resources (Indian Banks Association – 2014). The banks, like any other institutions are the consumers of natural resources. Banking activities are not physically related to the environment. Banks affect the environment directly by their day-to-day operations in terms of use of electricity, paperless banking, air conditioning, electronic equipments, generators etc. The banks make negative

impact on the environment indirectly by giving long term loans to various industries that pollute the environment heavily like chemical, fertilizer, cement, metal industries, paper and pulp, Tanneries, sector also needs to undertake sustainable eco-friendly practices.

Green banking is an umbrella term referring to practices and guidelines that make banks sustainable in economic, environment and social dimensions. The banks have utilize IT and other physical infrastructure as efficient and effective as possible with zero or nominal impact on the environment. Green banking includes the activities such as introduction of paperless statements, electronic communication with clients, internal efforts to save energy, use of solar energy, recycling program for solid waste, managing waste for reusing effectively green banking involves promotion of environmental friendly practices and reducing carbon footprint from the banking activities. The UNEP FI (2007) states that sustainable bank considers the impacts of operations of various products and services for the current as well as future generation. In order to promote reduction in the external carbon emission, The banks should focus on financing the technology and projects that are environment friendly. Green banking aims at improving the operations and technology along with making the client and staff habits environment friendly in the banking business.

There are other definitions of green banking concept but the central meaning is the same *i.e.*, protecting the environment and resources for future generation by looking for sustainable development. Banks provide effective market based solution for addressing environmental problems like climate changes, deforestation, loss of biodiversity etc. The green banking is also known as ethical or sustainable banking.

Problems in Implementation of Green Banking

While implementing the green banking initiatives the banks face different problems. These problems generally are:

- (i) Technology related problems.
- (ii) Human resource related problems.
- (iii) Awareness related problems.
- (iv) Cost related problems.
- (v) Mindset or approach of different stakeholders towards the green banking.
- (vi) Risk related to the credit and reputation of the bank.
- (vii) The overall understanding of the people regarding environmental problems and their responsibility towards maintaining environmental balance etc.

Therefore, we can say that the banks' overall success of implementing the green banking initiatives depends upon how the bank management tackles such problems and what kind of measures the bank undertakes in this regard. The researcher has tried to focus some important problems faced by the managers and bank staff of the SBI and the bank customers as below.

Problems in Implementation of Green banking initiatives in the area under study

The SBI has been implementing various green banking initiatives in the study area. The management and the staff of the bank has been educating the customers and creating awareness required for the implementation of the green banking initiatives. The bank management has also tried to provide the necessary training to the bank staff. Despite these efforts, it is found that the bank staff well as the bank customers are facing some problems in the implementation of green banking initiatives in the area under study which are discussed as below.

Problems faced by the Bank Managers

The researcher has studied 30 branches of SBI in the four districts of western Maharashtra. The responses of the branch managers regarding the problems faced by them in the implementation of green banking initiatives are analyzed and conclusions are drawn as below. The responses of the bank managers in the study area regarding the problems faced by them while implementing the green banking initiatives along with their rating are presented in the table 1.

Table 1. The problems faced by the bank managers while implementing green banking practices

Problem	Strongly Agree	Less Agree	Neutral	Less Disagree	Strongly Disagree	Total	Mean	Variance
Slow process	7 (23.33)	9 (30)	4 (13.33)	8 (26.67)	2 (6.67)	30 (100)	3.37	1.68
High cost	0	0	2 (6.67)	6 (20)	22 (73.33)	30 (100)	1.33	0.36
Lack of training for bank staff	0	4 (13.33)	3 (10)	22 (73.33)	1 (3.33)	30 (100)	2.33	0.573
Lack of awareness among customers	10 (33.33)	16 (53.33)	4 (13.33)	0	0	30 (100)	4.2	0.44
Unavailability of skilled employees	0	20 (66.67)	6 (20)	4 (13.33)	0	30 (100)	3.53	0.53
At this juncture there is no need for such activities	0	0	5 (16.67)	19 (63.33)	6 (20)	30 (100)	1.97	0.37
Data insecurity and privacy problem	0	17 (56.67)	9 (30)	4 (13.33)	0	30 (100)	3.43	0.52
Server down	14 (46.67)	9 (30)	4 (13.33)	1 (3.33)	2 (6.67)	30 (100)	4.07	1.37
Total	31	75	37	64	33	240	24.23	5.89

Source: Field Work (2017-18).

Note: Figures in parentheses show percentage to the total.

The table 1 highlights the different problems such as slow process, costliness of green banking activities, lack of training for the bank staff, unavailability of skilled employees, the feeling that there is no need for such activities at this juncture, data insecurity and privacy problem and the problem of server down.

It is found from the table that the most important problem faced by the bank managers is the problem of server down. 14 bank managers i.e. nearly 47 percent of the total bank managers have stated that they are strongly agree with the problem of server down. Another 9 bank managers (30 percent) have recorded that they are less agree with this problem. It is seen from the table that only 4 bank managers are neutral about this problem and 2 bank managers are strongly disagreed with the problem of server down.

It is clear from the table that the second most important problem faced by the managers of the SBI in the implementation of green banking is the problem of lack of awareness among the customers. It is revealed that one third bank managers have faced this problem heavily and 53 percent bank managers have faced this problem to some extent. It is seen that none of the bank managers is lessor strongly disagree with this problem.

The third important problem faced by the bank managers is slow process of the internet functioning. More than 23 percent bank managers have faced this problem to large extent and 30 percent managers have faced the problem to some extent.

It is found from the table that none of the bank managers is strongly or less strongly agreed with the problem of costliness of green banking activities and the thought that there is no need for such green activities at this juncture. It is revealed from the study that 22 out of 30 bank managers have recorded that they are strongly disagreed with the costliness of green banking products and services of the bank. It means that more than 73 percent bank managers do not consider that the green banking activities are costly. It means that nearly three fourth bank managers consider that the costs of green banking are very less.

Similarly it is clear from the table that none of the bank managers is strongly agreed with lack of training for the bank staff and availability of skilled employees required for the implementation of green banking initiatives. So it is concluded that the bank has made the necessary arrangement of imparting training to the bank staff about the implementation of green banking initiatives and the required skilled manpower is also available for the bank.

Statistical analysis

H₀: While implementing green banking practices, the problems faced by bank managers are not significantly more.

H₁: While implementing green banking practices, the problems faced by bank managers are significantly more.

Sample mean = 24.23, sample variance = 5.889.

Calculated value of Z = 0.5192, p value at 5% level of significance = 0.6036.

As p is more than 0.05, Accept H₀ at 5% level of significance.

Hence, while implementing green banking practices, the problems faced by bank managers of the study area are significantly less.

Problems faced by the Bank Staff

It is the bank staff who implements/provides the green banking products and services to the bank customers. The staff is regularly in contact with the bank customers for their banking transactions. Therefore, the bank staff is well aware of the problems faced during the implementation of green banking practices. The researcher has attempted to identify such problems and their nature as well as extent. The researcher has studied the responses of 90 bank staff regarding the problems faced by them in implementation of green banking initiatives and conclusions are drawn as below. This is presented into the table 2.

Table 2. The problems faced by the bank staff while implementing green banking practices

S.No.	Problem	Agree	Neutral	Disagree	Total	Mean	Variance
1.	Technology Phobia	43 (47.78)	39 (43.33)	8 (8.89)	90 (100)	2.39	0.42
2.	Technical issues	42 (46.67)	36 (40)	12 (13.33)	90 (100)	2.33	0.49
3.	Traditional Approach	47 (52.22)	37 (41.11)	6 (6.67)	90 (100)	2.46	0.39
4.	Data security and privacy	22 (24.44)	49 (54.44)	19 (21.11)	90 (100)	2.03	0.46
5.	Ignorance about the green banking initiatives	32 (35.56)	50 (55.56)	8 (8.89)	90 (100)	2.27	0.38
6.	Lack of infrastructure	27 (30)	55 (61.11)	8 (8.89)	90 (100)	2.21	0.35
7.	Lack of guidance and support from the bank Manager	17 (18.89)	58 (64.44)	15 (16.67)	90 (100)	2.02	0.36
	Total	230	324	76	630	15.71	2.84

Source: Field Work (2017-18).

Note: Figures in parentheses show percentage to the total.

It is found from the table no. 2 that the most important problem faced by the bank staff is traditional approach. Because more than 52 percent bank staff has recorded that they are agree to this problem. But it is also important to note that another 41 percent bank staff has recorded its neutral response to this problem and there are only 6 bank staff members who are disagreed with this problem. So it is concluded that the traditional approach of the bank staff towards performing the banking operations is the most important problem in the implementation of green products and services.

It is seen from the table that Technology Phobia and technical issues are the next important problems faced by the bank staff in implementing green banking initiatives. 43 and 42 bank staff members are agreed with these problems respectively and 39 and 36 respectively are neutral about these problems while only 9 and 13 percent bank staff members are disagreed with these problems. It means that 47 percent bank staff has stated that they have been facing these problems. It is clear from the table that ignorance about the green banking initiatives is also an important problem faced by the bank staff. 32 bank staff members have recorded that they are agreed with this problem. But 50 out of 90 bank staff members kept their response neutral for this problem and only 8 members are disagreed with this problem. If we consider the mean values of these problem the traditional approach has the highest mean value *i.e.*, 2.46 and followed by the lack of education and technical issues with mean value 2.39 and 2.33 respectively.

The striking feature observed from the table is that the problems like lack of guidance and support from the bank managers, lack of infrastructure have recorded more than 60 percent neutral responses from the bank staff. This means that as these are related with the bank management majority of the bank staff has not recorded their responses openly. Similarly in case of the data security and privacy nearly 55 percent bank staff has recorded neutral response. Therefore it can be concluded that the bank management has to concentrate on eliminating/minimizing these problems in the SBI branches in the study area.

If we observe the variance value of the problems faced by the bank staff, the technical issues is leading with 0.49 and followed by data security and privacy and lack of education with 0.46 and 0.42 respectively. On the basis of this analysis it can be concluded that the problems faced by bank staff in implementation of green banking initiatives in the study area are significantly more.

Statistical analysis

H₀: The problems regarding the use of green banking in the banks for bank staff are significantly less.

H₁: The problems regarding the use of green banking in the banks for bank staff are significantly more.

Sample mean = 15.711, Sample variance = 2.844.

Calculated value of Z =9.625, 'P' value at 5% level of significance = 0.0001.

As 'P' value <0.05, Reject H₀ at 5% level of significance.

Hence, while implementing green banking practices, the problems faced by bank staff are significantly more.

Problems faced by the Bank Customers

The researcher has studied the responses of 300 bank customers regarding the problems faced by them while using green banking facilities. This is shown in the table 3. It is clear from these responses that the most important problems faced by the bank customers are

traditional approach of bank customers regarding the banking operations, technical issues, and data security and privacy. It is clear from the table that the most important problem faced by the bank customers is data insecurity and privacy and it is followed the technical issues.

Table 3. The problems faced by the bank customers while using green banking facilities

S.No.	Problem	Agree	Neutral	Disagree	Total	Mean	Variance
1.	Lack of education	126 (42)	34 (11.33)	140 (46.67)	300 (100)	1.95	0.89
2.	Technical issues	158 (52.67)	30 (10)	112 (37.33)	300 (100)	2.15	0.88
3.	Traditional Approach	117 (39)	69 (23)	114 (38)	300 (100)	2.01	0.77
4.	Data security and privacy	204 (68)	50 (16.67)	46 (15.33)	300 (100)	2.53	0.56
5.	Ignorance about the green banking initiatives	147 (49)	52 (17.33)	101 (33.67)	300 (100)	2.15	0.81
6.	Lack of infrastructure	157 (52.33)	37 (12.33)	106 (35.33)	300 (100)	2.17	0.85
7.	Lack of guidance and support from the bank staff	129 (43)	57 (19)	114 (38)	300 (100)	2.05	0.81
	Total	1038	329	733	2100	15.02	5.56

Source: Field Work (2017-18).

Note: Figures in parentheses show percentage to the total.

It is revealed from the table that the most important problem faced by the customers in the implementation of green banking is data security and privacy. Because out of 300 respondents 204 have agreed to this problem. It is also clear from the table that nearly 53 percent customers have recorded that they are agreed with the problems of technical issues and lack of infrastructure required for the application of green banking initiatives. It is found from the table that nearly 50 percent customers were agreed to the problem of ignorance about green banking initiatives and another more than 17 percent customers have recorded their responses as neutral about the problem of ignorance about the green banking initiatives. The problem of traditional approach received the lowest number of agreed counts i.e. 117 from the customers. It is also disagreed by equal number of customers i.e. 114. On the basis of this analysis it can be concluded that the SBI has to give more attention towards resolving these problems faced by the customers in using the green banking facilities.

Statistical analysis

H₀: The problems regarding the use of green banking for bank customers of SBI are significantly less.

H₁: The problems regarding the use of green banking for bank customers of SBI are significantly more.

Sample mean = 15.02, Sample variance = 5.56.

Calculated value of $Z = 7.465$, at 5% level of significance Z table = 1.64.

'P' value at 5% level of significance = 0.0001.

As 'P' value < 0.05 , Reject H_0 at 5% level of significance.

As Z cal is greater than Z table, Reject H_0 .

Hence, it is concluded that the problems regarding the use of green banking for bank customers are significantly more.

Conclusion and Suggestions

Only recently the banks in India have started undertaking green banking initiatives. The SBI has been implementing green banking initiatives in urban as well as rural branches. It is found from the study that the bank staff and the bank customers of the SBI in the study area are facing certain problems in the implementation of green banking practices. It is clear from the study that while implementing green banking practices the problems faced by the bank managers are significantly more. Therefore there is need for the bank management to undertake some appropriate measures to resolve and minimize these problems in the implementation of green banking. This will help the bank to maximize its contribution towards maintaining ecological balance and achieving sustainable development.

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Investigation of hurdles and obstacles affecting business performance of small business in Karnataka during the Pandemic of Covid-19

Amita Venkatesh & Aruna P.

Abstract

Small businesses have their presence on every corner of the streets, and they comprise of either services or retail operations such as medical stores, grocery stores, and provisions, bakeries and so on. Small businesses are the second largest employment generator in the Indian Economy next to agriculture and contribute to balanced regional development of our nation. Since the emergence of the pandemic and the commencement of the nationwide lockdown imposed by the government of India the businesses are facing several hurdles and obstacles in successfully running their business thereby affecting their business performance. This study is aimed at investigating the various hurdles and obstacles affecting the business performance of small businesses in South India during the pandemic of covid-19. A total sample of 200 businesses in Karnataka was being considered for this study and this study is useful for the owners of small businesses to understand the hurdles and obstacles faced during the pandemic and suggest suitable measures to be incorporated in order to improve their performance.

Keywords: Small Businesses, COVID-19, South India, Hurdles and Obstacles, Business performance.

Introduction

Small businesses have their presence on every corner of the streets, and they may comprise either services or retail operations such as medical stores, grocery stores, and provisions, bakeries and so on (Laxmi, 2021). They are an independently owned organization that requires less capital and a workforce with little or no investment to be made in machinery. They operate on a small scale, catering to the local community, and providing profits to business owners. Small business plays a tremendous role in the growth and development of our nation, by generating employment and livelihood for several people and account for around 45% of the total exports from India (Gamage et al., 2020). Also, they play a large role in the growth and development of the nation by generating employment opportunities, promoting equitable distribution of National Income, facilitating the effective mobilization of unutilized capital and skilled workforce, and facilitating balanced regional development (Sharma et al., 2020). Prior to the pandemic, the performance of such small businesses was in an advantageous position as many customers would visit the place of business and make their purchases. Since the pandemic had struck the nation there has been a fall in the number of customers visiting the place of business thus resulting in reduced sales and profitability of the businesses (Patrida, 2020). This study attempts to study the various financial issues and other hurdles faced by small businesses in South India, to examine if there is a need

for the businesses to start selling their goods and services online via the internet and also, analyze if there is any cash crunch, faced the businesses and the various sources through which the funds could be raised.

Literature review

Kumar and Ayadee (2020) in their study have explored the problems faced by small and medium enterprises during the pandemic of covid-19. For the purpose of this study the author has relied upon secondary sources of data in order to identify the problems faced by small and medium enterprises. Some of the major problems faced by the enterprises as compiled by the authors include the layoff of employees, health issues faced by employees, massive fall in sales, financial crunch, and fall in customer demand. In the study done by (George, 2019) the authors have explained the various problems faced by small business retailers in India. Data for this study was obtained through secondary sources including journal articles, magazines, and others. The various problems being faced by small business retailers as discussed in this study include an increase in the number of customers preferring online shopping, huge maintenance cost involved, more competition from big retail chains such as big bazaar, lulu mall, reliance, etc. lesser chances for expansion as such businesses are being confined to limited markets, lack of sufficient finance and inability to take the risk and so on.

Partida (2020) in her article has explained the struggles and obstacles faced by small businesses due to the covid-19 pandemic. One of the major issues faced by the businesses as a result of covid-19 includes a shortage of adequate cash flow to run the business and an increase in several business owners facing severe stress and worry. Other problems being faced by such small businesses include reduced sales revenue, and difficulty in the supply chain thereby resulting in hindrances for the business. Also, the sudden transformation of customers opting for online purchases from purchasing in stores is another major issue faced by these businesses. In the study done by (Yogita Singh, 2020) the author has reported in her article that the recent pandemic of covid-19 has had a huge impact on almost all sectors of the economy across the globe. Some of the significant effects include economic slowdown, trade, supply chain disruptions, commodities, and logistics. The lockdown which has been imposed in India due to the pandemic has caused severe effects on small businesses as many of them have shut down their operations and have resulted in the permanent closure of the businesses as they are suffering from cash flow issues lack of sufficient working capital to run their business, lack of availability of labor, unable to pay wages to workers, decrease in customer's demand for non-essential items and so on.

In the study done by (Kalogiannidis, 2020) the author has aimed to find out the impact of the pandemic on small business profitability and the impact of the pandemic on employee turnover ratio in small businesses. Prior to the pandemic, the small businesses had very limited cash to sustain their operation during the lockdown. The small businesses had very limited options either to lower their costs or take additional debts if not to be declared bankrupt. Also, several businesses had financial crises and many employees were being laid off as the businesses were unable to pay them for their services. Thus, the impact of a pandemic on small businesses and employees has changed the overall business policies facing economic imbalance.

Gaba (2020) in her report titled "The economic impact of COVID-19 on different sectors in India" has stressed on the impact of covid 19 pandemic on all the major sectors of the

economy. The pandemic has affected all the major sectors of the economy with exception of certain sectors like IT as the majority of the workforce was forced to work from home. Businesses all over the country are suffering from major issues like loss of revenue, and supply chain disruption as many factories are being shut down due to the pandemic. Other major reasons include reduced demand, lack of adequate and skilled workers, and so on.

Rationale for ths Study

Small businesses have their existence in almost each and every street of the city, towns, and even villages. According to the recent official reports there are around 63.05 million small businesses all over the country. Small businesses play in the economic growth and development of the nation by providing employment to a larger number of people in the local community, promoting balanced regional development of both the urban and rural areas, mobilization of local resources, facilitating in optimization of capital, and promotes entrepreneurship (Vasquez, 2017). Since the pandemic had evolved and the nationwide lockdown was being enforced in India the small businesses were forced to shut down their stores and shops for almost a period of 6 months. This resulted in huge losses for the businesses as a result of reduced or no sales, increased operating costs, reduced number of customers visiting the shops and stores, increased rental expenses, a major shift in the consumer preference of purchasing the items online than directly visiting shops and stores. Thus, there is a need to identify the problems associated with finance and other business problems suffered by such small shops, stores, and similar businesses, identify if there is a need to take their business online to ensure greater success post-pandemic and other measures which can be taken to improve the current position of such businesses.

Research gap

Several studies have focused on studying the effect of covid-19 on small businesses and the problems in general with limited focus given to examining the various kinds of financial hurdles and other obstacles which in turn affect the performance of such businesses. Also, this study seeks to examine the need for the business to start selling the products online and the source through which the funds can be raised by such businesses in case of a shortage of sufficient working capital requirements which have not been explored in prior studies.

Research methodology

Data needed for the study were being collected mainly through primary data sources through survey methods by issuing questionnaires and via telephonic interviews. A total of 132 out of 200 small businesses were being considered out of which responses were being used for further analysis. The study considers small businesses from all the four major states of South India. The non-probability convenience Sampling method was being employed. The questionnaire b consisted of questions related to basic details of the business, financial issues and other business problems faced by the businesses, the existence of cash shortage due to the pandemic, the ways through which the shortage of cash was being met, and the measures which need to be taken to improve the current situation and ensure greater success in future. Z test for single proportion and analysis of variance was being used for hypothesis testing.

Objectives of the Study

1. To study the various financial issues affecting the performance of small businesses.
2. To examine the other hurdles affecting the performance of small businesses.
3. To analyse if there is a need for businesses to go online.
4. To investigate if the businesses are facing a cash crunch due to the pandemic and to find out the various sources of finance through which the needed funds can be raised.

Conceptual Framework

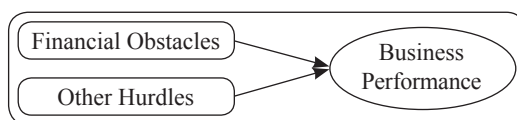


Fig. 1.1. Thematic Framework created by Author

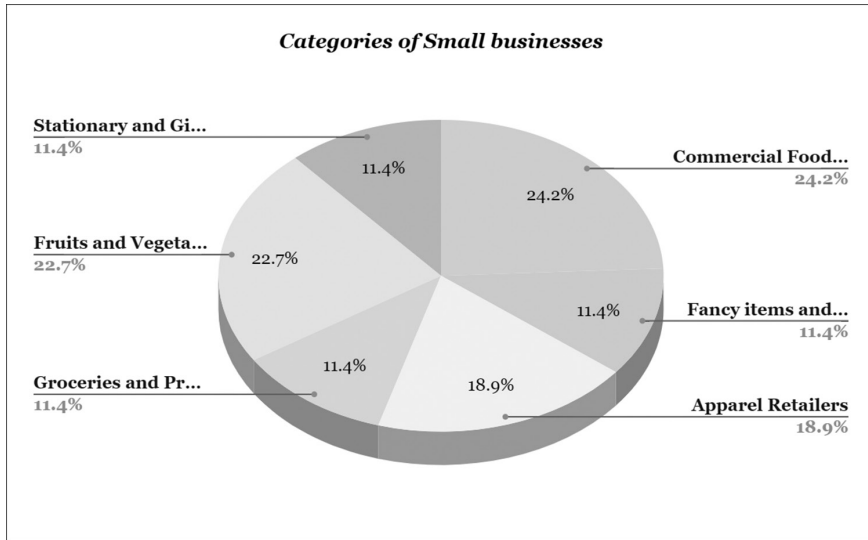
Results and Discussions

In this study, several types of small businesses are being considered including commercial food service establishments, fancy items, and jewelry retailers, clothing retailers, groceries and provision stores, fruits and vegetable vendors, stationery and gift shops, and other kinds of small businesses.

Demographic Profile of Businesses:

Table 1.1. Table showing the demographic profile of small businesses in Karnataka and Other States of South India considered in this study

Type of Small Businesses	Number of businesses of each type in Karnataka	Percentage (%)
Commercial Food Service Establishments	32	24.24%
Fancy items and Jewellery Retailers	15	11.36%
Apparel Retailers	25	18.94%
Groceries and Provision stores	15	11.36%
Fruits and Vegetable Vendors and Retailers	30	22.73%
Stationary and Gift Shops	15	11.36%
Total	132	100%



Graph 1.1. Pie-Graph showing the percentage of small businesses for each type considered for this study

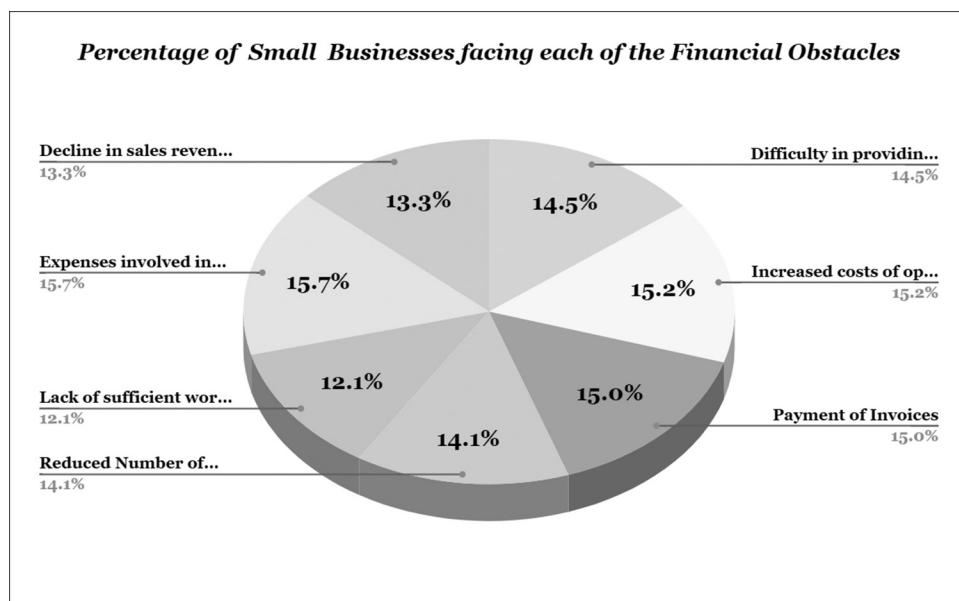
Financial Obstacles Faced by Small Businesses

Financial issues refer to any monetary issues faced by the businesses which make it hard for the businesses to meet their daily needs and expenses. Since the pandemic, several financial issues were being faced by small businesses such as a decline in sales and profitability, increasing expenses involved in shifting the business online, lack of sufficient working capital, increased rent, electricity, and other expenses, and so on. In the study done by (Indrakumar, 2020) the author has stated that the majority of the small businesses faced a severe slowdown in business activities due to a cash crunch which in turn could affect their performance and could result in the closure of such businesses in future.

Table 1.2. Table showing the major financial obstacles affecting the business performance of small businesses due to covid-19 pandemic

Type of Small Businesses	Financial obstacles faced by the businesses due to covid -19 pandemic	Number of financial obstacles faced by each type of small businesses	Percentages of Businesses facing each of the financial obstacles
Commercial Food Service Establishments	Difficulty in providing monthly pay to workers	127	14.43%
Fancy Items and Jewellery Retailers	Increased costs of operations and other expenses	165	18.75%
Apparel Retailers	Payment of Invoices	223	25.34%

Groceries and Provision stores	Reduced Number of Receivables	147	16.70%
Fruits and Vegetable Vendors and Retailers	Lack of sufficient working capital	133	15.11%
Stationary and Gift Shops	Expenses involved in establishing the business online	52	5.91%
Others	Decline in sales revenue and profitability	33	3.75%
Total		880	100%



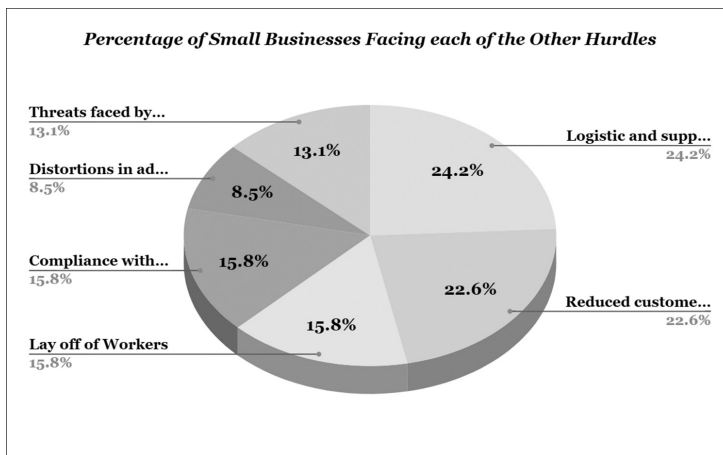
Graph 1.2. Pie-Graph showing the percentage of small businesses facing each of the financial obstacles

Other Hurdles Faced by Small Businesses

Apart from financial obstacles there are other hurdles that are being faced by small businesses which in turn affect the performance of the small business. Since the pandemic and the nationwide lockdown being imposed by the Indian government small businesses faced other hurdles apart from financial obstacles including reduced customer demand for purchasing items from brick-and-mortar stores, compliance with the rules and guidelines related to the lockdown, distortions in adequate and timely supply of materials, threats faced by the sudden transformation of the mode of purchase by the customer from offline to online and so on.

Table1.3. Table showing other hurdles affecting the business performance of small businesses due to covid-19 pandemic

Type of Small Businesses	Other Hurdles faced by the businesses due to covid-19 pandemic	Number of Other Hurdles faced by each type of small businesses	Percentages of Businesses facing each of the Other Hurdles
Commercial Food Service Establishments	Logistic and supply chain issues	184	23.61%
Fancy Items and Jewellery Retailers	Reduced customer demand for purchasing items from brick and mortar stores	172	22.09%
Apparel Retailers	Lay off of Workers	120	15.78%
Groceries and Provision stores	Compliance with government regulations pertaining to lockdown	120	16.41%
Fruits and Vegetable Vendors and Retailers	Distortions in adequate and timely supply of materials	65	8.21%
Stationary and Gift Shops	Threats faced by an increase in the number of customers opting for purchasing from online	100	13.89%
Total		761	100%

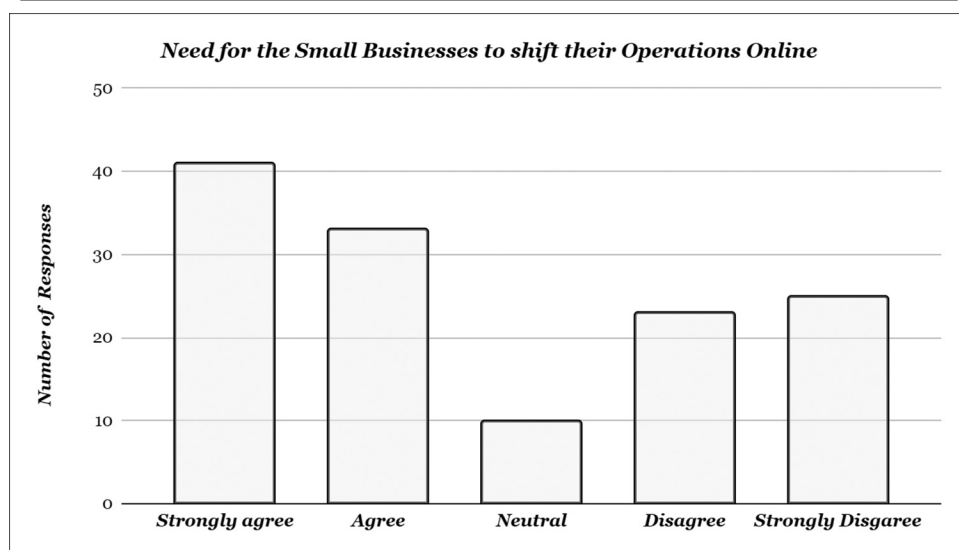


Graph 1.3. Pie-Graph showing the percentage of small businesses facing each of the other hurdles

Is There a Need for The Small Businesses to Shift Their Operations Online

Table 1.4. Table showing the respondents opinion with regard to shifting their operations online

There is a need for the business to shift their operation online	Number of responses
Strongly agree	41
Agree	33
Neutral	10
Disagree	23
Strongly Disagree	25



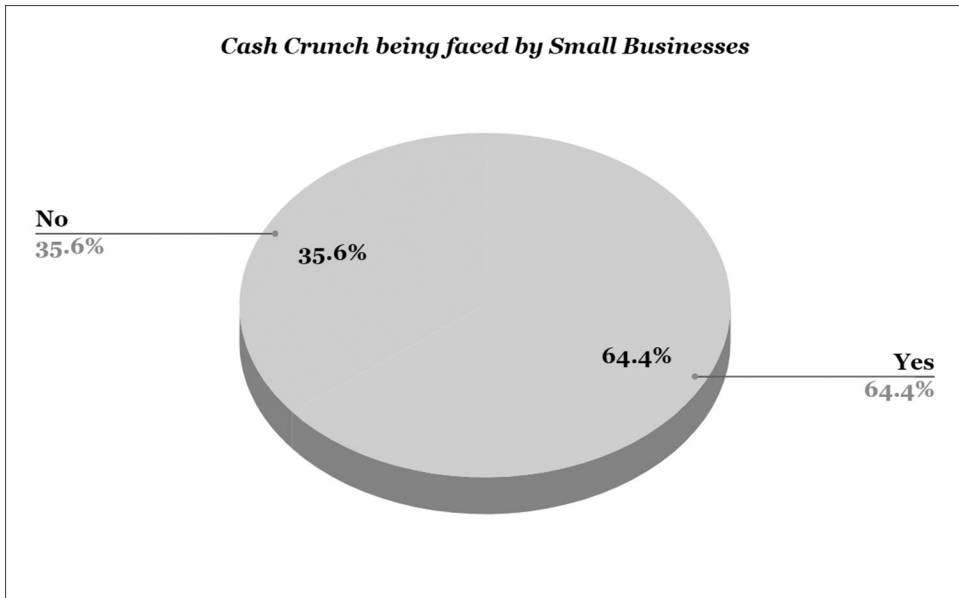
Graph 1.4. Bar-Graph showing the respondents opinion with regard to the need for the small businesses to shift their operations online

Cash Flow Shortage Faced by Small Businesses Due to The Pandemic and The Sources Through Which The Funds Can be Raised to Meet The Shortage of Funds

Table 1.5. Table showing the percentage of small businesses experiencing cash flow shortages vs percentage of small businesses not experiencing cash flow shortages.

Small businesses are experiencing cash flow shortage due to the pandemic	Number of Responses	Percentage (%)
Yes	85	64%

No	47	36%
Total	132	100%



Graph 1.5. Pie-Graph showing the percentage of businesses experiencing cash flow shortage due to the pandemic

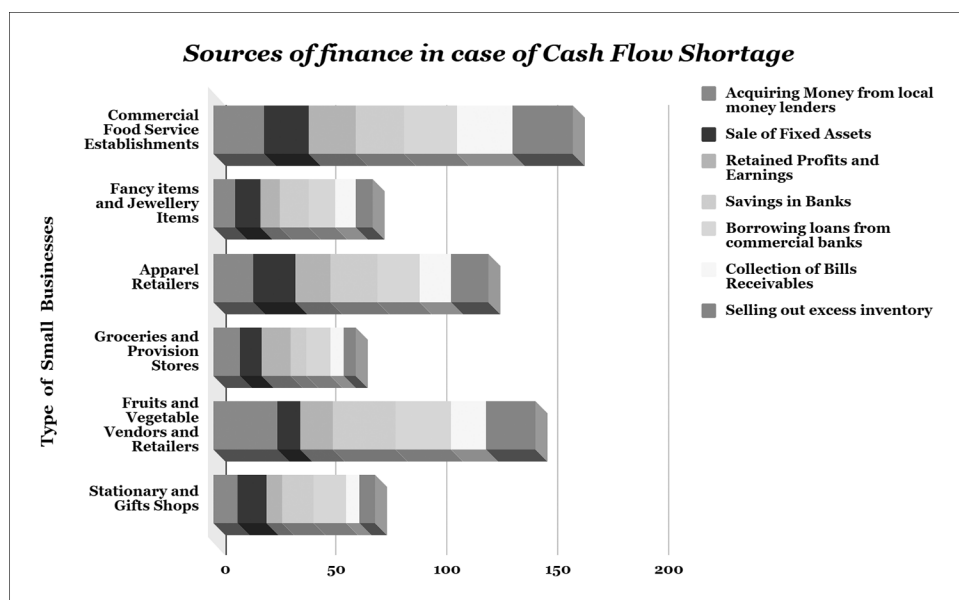
Sources through which funds can be raised in case of cash flow shortage

Cash flow shortage refers to the situation where the outflow of cash is lesser than the inflow of cash. Since the nationwide lockdown was being imposed by the Indian government due to the pandemic around 64.4% of small businesses have been facing cash flow shortages as there is a drastic fall in sales revenue and profitability and increased operating costs and expenses. Such shortage of cash can be raised through several internal and external sources including acquiring funds from local money lenders, sale of fixed assets, out of retained profits generated from previous sales, savings in banks, borrowing loans from commercial banks, collecting bills receivables, selling excess inventory and so on.

Table 1.6. Table showing the various sources of funds being obtained by small businesses in case of cash flow shortage

Type of Small Business Sources of funds	Commercial Food Service Establishments	Fancy items and Jewellery Items	Apparel Retailers	Groceries and Provision Stores	Fruits and Vegetable Vendors and Retailers	Stationary and Gifts Shops
Acquiring Money from local money lenders	23	10	18	12	29	11

Sale of Fixed Assets	20	11	19	10	10	13
Retained Profits and Earnings	21	9	16	13	15	7
Savings in Banks	22	13	21	7	28	14
Borrowing loans from commercial banks	24	12	19	11	25	15
Collection of Bills Receivables	25	9	14	6	16	6
Selling out excess inventory	27	8	17	5	22	7
Total	162	72	124	64	145	73



Graph 1.6. Stacked Bar Graph showing the various sources of finance through which funds could be raised in case of cash flow shortage and the types of small businesses

Hypothesis Testing

Ho: There is no significant difference between the various sources through which the funds could be raised in case of cash flow shortage and the types of small businesses.

Vs H1: There is a significant difference between the various sources through which the funds could be raised in case of cash flow shortage and the types of small businesses.

Table 1.7. Table showing the results of Two-way ANOVA

Anova: Two-Factor Without Replication						
Summary	Count	Sum	Average	Variance		
Acquiring Money from local money lenders	6	103	17.16667	58.16667		
Sale of Fixed Assets	6	83	13.83333	20.56667		
Retained Profits and Earnings	6	81	13.5	25.5		
Savings in Banks	6	105	17.5	57.1		
Borrowing loans from commercial banks	6	106	17.66667	35.86667		
Collection of Bills Receivables	6	76	12.66667	53.46667		
Selling out excess inventory	6	86	14.33333	81.46667		
Commercial Food Service Establishments	7	162	23.14286	5.809524		
Fancy items and Jewellery Items	7	72	10.28571	3.238095		
Apparel Retailers	7	124	17.71429	5.238095		
Groceries and Provision Stores	7	64	9.142857	9.809524		
Fruits and Vegetable Vendors and Retailers	7	145	20.71429	51.90476		
Stationary and Gifts Shops	7	73	10.42857	13.95238		
ANOVA						
Source of Variation	SS	df	MS	F	<i>P-value</i>	<i>F crit</i>
Rows	162.9524	6	27.15873	2.162538	0.075021	2.420523
Columns	1283.905	5	256.781	20.44641	7.47E-09	2.533555
Error	376.7619	30	12.55873			
Total	1823.619	41				

Interpretation

Since F-Ratio = 2.1625 is lesser than p-value = 0.05 thus we can conclude that there is a significant difference between the various sources through which the funds could be raised in case of cash flow shortage and the types of small businesses.

Since F-Ratio = 20.4464 is lesser than p-value = 0.05 thus we can conclude that there is a significant difference between the various sources through which the funds could be raised in case of cash flow shortage and the types of small businesses.

Managerial Implication and Future Research

This study seeks to understand the financial obstacles and other hurdles faced by small businesses in the state of Karnataka, India. Small Business plays a vital role in the development of the nation by providing employment opportunities and livelihood to several people, facilitating balanced regional development of the country, equitable distribution of national income, and so on. Since the emergence of the pandemic and the nationwide lockdown being imposed in the country small businesses had to temporarily close their businesses for nearly a period of 4-5 months as a result of this their businesses were being severely affected thereby resulting in several financial obstacles and other hurdles which in turn were affecting their business performance. The pandemic also forced most of the customers to purchase their day-to-day requirements through e-commerce sites and thus there has been a major transformation in the purchase behaviour of customers from offline stores to online shopping sites. This has led to several small businesses establishing their businesses online to improve their sales and profitability. From the results of this study, we can infer that payment of invoices, increased costs of operations, reduced number of receivables, lack of sufficient working capital, and difficulty in paying wages to workers were the major financial obstacles faced by the small businesses that in turn were affecting their business performance as a result of the nationwide lockdown being imposed by the government. In order to overcome these financial constraints, the businesses need to set aside a portion of their sales revenue and profits every month for a contingency fund that can be used in case of an emergency. Along with these financial obstacles there are other hurdles that are being faced by the businesses including reduced customer demand for items and an increased number of customers opting for online purchases, also as a result of difficulty faced in making wage payments to workers most workers had to be laid off, also the logistics and supply chain issues had a significant impact on the performance of the businesses. Thus, in order to improve their business, several small businesses were being forced to expand their business operations online and the majority of the businesses agreed with the same. Thus, the majority of the small businesses can have a presence both online and offline to improve their performance and increase their sales revenue and profitability in the future. Also, we could infer that there is a significant difference between the types of small businesses and the sources through which the needed funds can be raised in case of cash flow shortage. In order to overcome the cash flow shortage, the businesses can keep a track of their expenses and income and monitor them on a regular basis by maintaining them on accounting software or through cloud software applications such as Zoho. By doing so the businesses can get a clear view of their income and their expenses and track them on a regular basis and take appropriate decisions.

Future Research

Even though this study has made an effort in ascertaining the various financial obstacles and other hurdles affecting the performance of the small businesses yet there are some limitations. Firstly this study has been focused on small businesses in only one state Karnataka as a result the results of this study cannot be generalized to other states thus this study can be expanded by considering two or more states and also comparative study can be made between states in order to ascertain if there is any difference between the obstacles and hurdles faced by such businesses. Also, the sample size considered in this study is limited and the sampling method used is convenience sampling which can be biased. Thus future research can focus on expanding the sample size and employing probability-based sampling methods. Also, future studies can focus on analyzing if there is a significant difference between financial obstacles and other hurdles and the type of small businesses.

Conclusion

Small businesses have their presence in each and every nook and corner of the streets of various cities and towns. They cater to the needs of the local community by providing goods and services to them. This study was undertaken to find out the financial obstacles and other hurdles faced by the small businesses which are in turn affecting their business performance. Payment of invoices, increased costs of operations, reduced number of receivables, lack of sufficient working capital, difficulty in paying wages to workers, reduced customer demand for items, increased number of customers opting for online purchases, the difficulty faced in making wage payments to workers consequently resulting in lay off of workers, logistics and supply chain issues were the major financial obstacles and other hurdles faced by small businesses in the state as derived in the findings. Thus, it is highly crucial for businesses to take appropriate decisions to overcome such obstacles and hurdles and thereby improve their performance and profitability position. Also, businesses can start selling their products online in order to increase customer demand and generate more sales and profits.

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Knowledge and attitude among secondary school children about water, sanitation and hygiene: A study in Dharwad District

Dundappa Y. Badlakkanavar & Sangeetha R. Mane

Abstract

Introduction and objective: In schools' and households' water, sanitation, and hygiene have played an important role in lowering water and sanitation-related illnesses, hence enhancing the health and learning performance of school children. The goal of this study was to measure and describe secondary school student's knowledge and attitude about water, sanitation and hygiene in Dharwad district of Karnataka.

Methods: This study envisages a sample size of 1028 respondents from Government School 402 and Private school 626 makes respondents as sample for the study. Systematic random sampling technique was applied to obtain the desired sample size. Self-structured questionnaire used for data collection and SPSS 15.0 software was used for data analysis.

Results: This study revealed that knowledge and attitude regarding water, sanitation and hygiene. Out of 1028 students male were 531 (51.65%), 626 (60.89%) students are from private schools, (40.18%). p-value is less than 0.05, so conclude that the null hypothesis is rejected i.e., There is significant difference of opinion among government and private school students about water, sanitation and hygiene.

Conclusions: The knowledge and Attitude of Water, Sanitation and Hygiene (WASH) among secondary school students are still poor. The knowledge of WASH in secondary school students when compared to the Government Schools, Private Schools had better on the basis of knowledge and attitude score.

Keywords: Knowledge, Attitude, Water, Sanitation, Hygiene.

Introduction

The development of any nation and prosperity of family relies on healthy growth of children as they are the real asset of nation. Children are needed to grow and develop in a healthy environment with good health and vigour. It is significant to know the level of knowledge and attitude of children about water and sanitary prevailing around them, as they are going to be future responsible citizens and certainly contribute for the overall prosperity of the country. So, water, sanitation and hygiene are a very crucial matter which influence on children. Keeping this issue into account governments have formulated policies and programs to curb diseases and deficiencies which hamper the growth and development of the children. In this regard, the poor knowledge and attitude among children about water and sanitation would lead to poor health and poor practice. The future of the upcoming generation relies largely on water and sanitation and it is also a crucial element of public health. (Kumar Alok, 2010)

Around the worldwide 2.65 billion people live without access to proper toilet facilities and 883 million do not have access to safe water. The World Health Organization listed diarrheal diseases at fifth position in the list of top diseases of leading causes of deaths around the globe (WHO 2013). Ninety percent of the deaths in children under the age of 5 years are due to diarrheal diseases due to poor water quality, sanitation and hygiene of these 2,000 deaths occur every day and sadly 240 children are dying in India itself (UNICEF 2013).

Methods and Materials

Data Collection: The primary data included questionnaires and personal observations. A total of 1028 from Government and Private Schools students were interviewed. The total 257 schools were selected from 5 Taluka within the Dharwad District.

Survey Tools: The tools for data collection of the survey were questionnaires. It's designed to elicit responses on the main water supply sources, sanitation facilities, the knowledge and attitude of learners on personal hygiene, waterborne diseases and sanitation. Personal observations, using a checklist, were used to collect information regarding water supply sources at schools, personal hygiene practices of learners, the status of hand washing areas, the status of construction, operation and maintenance of sanitary latrines at schools.

Data Processing and Analysis: In order to ensure the quality of the data, each completed questionnaire was manually checked before it could be coded on MS Excel 2007. The data was analyzed using the Statistical Package for Social Science (SPSS 22) with Chi-square test and Mann-Whitney U test for independence at a significance level.

Objectives of the study:

- To know the level of knowledge and attitude of water usage and sanitation of secondary school children.
- To understand the relationship between level of knowledge and attitude of water usage with demographic profile of secondary school children.
- To understand the relationship between level of knowledge and attitude of sanitation with demographic profile of secondary school children.

Hypotheses:

Ho₁: There is no significant difference between level of knowledge and attitude of water usage.

Ho₂: There is no significant difference between level of knowledge and attitude of sanitation.

Ho₃: There is no significant difference between level of knowledge and attitude of hygiene.

Table 1. Results and Discussion

Demographic profile of the respondents				
S.No	Variables	Schools	Students	Percentage %
1.	School-wise distribution of respondents.	Govt.	402	39.11%
		Private	626	60.89%
2.	Gender and school type-wise distribution of respondents	Govt.	Male – 207	51.49%
			Female – 195	48.51%
		Private	Male – 324	51.76%
			Female – 302	48.24%

S.No. 1 contains the distribution of respondents according to school type. It is observed from **Table 1** that the study involves 626 (60.89%) students are from private schools and 402 (39.11%) students are from Government schools. **S.No. 2** provides the distribution of respondents according to school type and gender. From **Table 1** observe that the following study involves 207 (51.49%) male students and 195 (48.51%) female students of all government school. Similarly, of all private school students, 324 (51.76%) students are male and 302 (48.24%) students are female.

Table 2. Results and Discussion

Knowledge regarding Water, Sanitation and Hygiene								
S.No.	Variables	Schools	Strongly agree	Agree	Uncertain	Disagree	Strongly Disagree	U-Test & P-Value
1.	Greenhouse effect is going to lead to scarcity of safe water.	Govt.	28.11%	31.34%	24.63%	6.47%	9.45%	U-89797.5 P-0.000
		Private	49.36%	31.47%	13.10%	2.72%	3.35%	
2.	Facility of purified and hygienic drinking water tanks in their school.	Govt.	15.17%	9.70%	24.63%	36.32%	14.18%	U-76445.5 P-0.000
		Private	30.67%	33.23%	17.09%	10.38%	8.63%	
3.	Issue of defecating. Near water source can Cause contamination.	Govt.	20.15%	24.13%	31.59%	14.68%	9.45%	U-66559.0 P- 0.000
		Private	54.79%	31.31%	4.95%	5.43%	3.51%	

S.No. 1 Provides the respondents opinions on the belief that the greenhouse effect is going to lead to scarcity of safe water. From **Table 2** we observe that the following study involves of all government school students, 126 (31.34%) students agree, 113 (28.11%) students

strongly agree, 99 (24.63%) students uncertain, 38 (9.45%) students strongly disagree and 26 (6.47%) students disagree. Similarly, of all private school students, 309 (49.36%) students who strongly agree, 197 (31.47%) students agree, 82 (13.10%) students are uncertain, 21 (3.35%) students strongly disagree and 17 (2.72%) students disagree. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding the belief of the greenhouse effect is going to lead to scarcity of safe water.

S.No. 2 Provides the respondents opinions regarding the facility of purified and hygienic drinking water tanks in their school. From **Table 2** observe that all government school students, 146 (36.32%) students disagree, 99 (24.63%) students uncertain, 61 (15.17%) students strongly agree, 57 (14.18%) students strongly disagree and 39 (9.70%) students agree. Similarly, of all private school students, 208 (33.23%) students agree, 192 (30.67%) students strongly agree, 107 (17.09%) students uncertain, 65 (10.38%) students disagree and 54 (8.63%) students strongly disagree. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding the facility of purified and hygienic drinking water tanks in their school.

S.No. 3 Provides the respondents opinions regarding issue of defecating near water source can cause contamination. From **Table 2** we observe that the following study involves of all government school students, 127 (31.59%) are uncertain, 97 (24.13%) students agree, 81 (20.15%) students who strongly agree, 59 (14.68%) students disagree and 38 (9.45%) students strongly disagree that the issue of defecating near water source can cause contamination. Similarly, of all private school students, 343 (54.79%) students strongly agree, 196 (31.31%) students, 34 (5.43%) students disagree, 31 (4.95%) students are uncertain and 22 (3.51%) students strongly disagree. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding defecating near water source can cause contamination.

Table 3. Results and Discussion

Attitude regarding Water, Sanitation and Hygiene							
S.No.	Variables	Schools	Always	Sometime	Occasional	Never	U- Test & P-Value
1.	Teacher discussions on the benefits of water usage and importance of sanitation and hygiene.	Govt.	20.65%	31.34%	36.82%	11.19%	U-74807.00 P-0.000
		Private	50.48%	34.19%	9.90%	5.43%	
2.	Washing hands with soap or sanitizer after handling garbage or dirty things.	Govt.	15.42%	33.83%	46.02%	4.73%	U-77295.5 P-0.000
		Private	48.72%	30.67%	12.14%	8.47%	
3.	Awareness and follow-up of water usage, sanitation and hygiene rules and restrictions.	Govt.	20.15%	23.88%	41.79%	14.18%	U-78457.5 P-0.000
		Private	45.69%	32.59%	14.54%	7.19%	

S.No. 1 Provides the respondents opinions regarding teachers discuss the benefits of water usage and importance of sanitation and hygiene. From **Table 3** we observe that the following study involves of all government school students, 148 (36.82%) students occasionally, 126 (31.34%) students, 83 (20.65%) students always and 45 (11.19%) students never. Similarly, of all private school students, 316 (50.48%) students always discuss the benefits of water usage and importance of sanitation and hygiene, 214 (34.19%) students sometimes, 62 (9.90%) students occasionally and 34 (5.43%) students never. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding their teacher discusses the benefits of water usage and importance of sanitation and hygiene.

S.No. 2 Provides the respondents opinions regarding washing hands with soap or sanitizer after handling garbage or dirty things. From **Table 3** we observe that the following study involves of all government school students, 185 (46.02%) students occasionally, 136 (33.83%) students sometime, 62 (15.42%) students always and 19 (4.73%) students never, Similarly among private school students majority of the students always wash their hands with soap or sanitizer after handling garbage or dirty things. 305 (48.72%) students always, 192 (30.67%) students sometime, 76 (12.14%) students occasionally and 53 (8.47%) students never wash their hands with soap or sanitizer after handling garbage or dirty things. Since p-value is less than 0.05, so conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students about washing hands with soap or sanitizer after handling garbage or dirty things.

S.No. 3 Respondents' opinion on the awareness and follow-up of water usage, sanitation and hygiene rules and restrictions. From **Table 3** observe that the following study involves of all government school students, 168 (41.79%) students who believe that they occasionally have the awareness and follow-up of water usage, sanitation and hygiene rules and restrictions, 96 (23.88%) students sometime, 81 (20.15%) students always and 57 (14.18%) students never. Similarly, of all private school students, 286 (45.69%) students who believe that they always have the awareness and follow-up of water usage, sanitation and hygiene rules and restrictions, 204 (32.59%) students sometime, 91 (14.54%) students occasionally and 45 (7.19%) students never. Since p-value is less than 0.05, so conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding the awareness and follow-up of water usage, sanitation and hygiene rules and restrictions.

Table 4. Results and Discussion

Knowledge regarding Water, Sanitation and Hygiene								
S.No.	Variables	Schools	Strongly agree	Agree	Uncertain	Disagree	Strongly Disagree	U-Test & P-Value
1.	Washing hands after using latrine prevents diarrheal diseases	Govt.	15.67%	31.59%	28.36%	14.43%	9.95%	U-74352.0
		Private	39.46%	41.69%	11.66%	5.43%	1.76%	P-0.000

2.	Health issues due to cattle dung and human feces.	Govt.	15.67%	23.38%	27.86%	12.69%	20.40%	U-87076.0
		Private	31.47%	32.59%	21.09%	7.83%	7.03%	P-0.000
3.	Diarrheal diseases are caused by poor personal hygiene and sanitation.	Govt.	16.92%	20.15%	43.28%	10.70%	8.96%	U-83663.5
		Private	39.46%	33.23%	11.82%	8.15%	7.35%	P-0.000

S.No. 1 opinions regarding “washing hands after using latrine prevents diarrheal diseases”. From **Table 4** among government school students observe that majority of the students agree with the above statement. 127 (31.59%) students agree with the above statement, 114 (28.36%) students are uncertain about the statement, 63 (15.67%) students strongly agree with the statement, 58 (14.43%) students disagree with the statement and 40 (9.95%) students strongly disagree with the statement. Similarly among private school students observe that majority of the students agree with the statement. 261 (41.69%) students agree with the statement, 247 (39.46%) students strongly agree with the statement, 73 (11.66%) students are uncertain about the statement, 34 (5.43%) students disagree with the statement and 11 (1.76%) students strongly disagree with the statement. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding washing hands after using latrine prevents diarrheal diseases.

S.No. 2 opinions regarding “if cattle dung and human feces are not managed properly then it leads to health problems”. From **Table 4** that majority of the government school students are uncertain about the above statement. 112 (27.86%) students are uncertain about the statement, 94 (23.38%) students agree with the statement, 82 (20.40%) students strongly disagree with the statement, 63 (15.67%) students strongly agree with the statement and 51 (12.69%) students disagree. Similarly majority of the private school students agree with the above statement. 204 (32.59%) students agree, 197 (31.47%) students strongly agree, 132 (21.09%) students are uncertain, 49 (7.83%) students disagree and 44 (7.03%) students strongly disagree with the statement. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is a significant difference of opinion among government and private school students regarding the following statement “Cattle dung and human feces if not properly managed, cause health problems”.

S.No. 3 opinions regarding “diarrheal diseases are caused by poor personal hygiene and sanitation”. From **Table 4** majority of the government school students are uncertain about the above statement. 174 (43.28%) students are uncertain, 81 (20.15%) students agree, 68 (16.92%) students agree, 43 (10.70%) students disagree and 36 (8.96%) students strongly disagree with the above statement. Similarly majority of the private school students strongly agree with the above statement. 247 (39.46%) students strongly agree, 208 (33.23%) students agree, 74 (11.82%) students are uncertain, 51 (8.15%) students disagree with the above statement and 46 (7.35%) students strongly disagree with the above statement. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is a significant difference of opinion among government and private school students regarding the following statement “Diarrheal diseases are caused by poor personal hygiene and sanitation”.

Table 5. Results and Discussion

Attitude regarding Water, Sanitation and Hygiene							
S.No.		Schools	Always	Sometime	Occasional	Never	U-Test & P-Value
1.	Teachers and students sharing common toilets in the school	Govt.	15.92%	23.63%	30.85%	29.60%	U-102080.5
		Private	22.04%	27.80%	38.50%	11.66%	P-0.000
2.	Usage of face mask in the class rooms, school premises and public places	Govt.	9.45%	20.90%	41.79%	27.86%	U-54511.0
		Private	45.85%	34.50%	12.30%	7.35%	P-0.000
3.	Respondents cover their mouth and nose when coughing	Govt.	14.43%	17.91%	46.52%	21.14%	U-67672.0
		Private	44.89%	32.43%	12.46%	10.22%	P-0.000

S.No. 1. from table-5 the majority of the government school students believe that teachers & students occasionally share common toilets in their school. 124 (30.85%) occasionally, 119 (29.60%) students never, 95 (23.63%) students sometime and 64 (15.92%) students believe that teachers & students always share common toilets in their school. Similarly majority of the private school students believe that teachers & students occasionally share common toilets in their school. 241 (38.50%) students occasionally, 174 (27.80%) students sometime, 138 (22.04%) students always and 73 (11.66%) students believe that teachers & students never share common toilets in their school. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding teachers & students sharing common toilets in the schools.

S.No. 2 from table-5 the majority of government school students occasionally use facemask. 168 (41.79%) occasionally, 112 (27.86%) students never use facemask, 84 (20.90%) students sometime use facemask and 38 (9.45%) students always use facemask. Similarly majority of the private school students always use facemask. 287 (45.85%) students always use facemask, 216 (34.50%) students sometime use facemask, 77 (12.30%) students occasionally use facemask and 46 (7.35%) students never use facemask. Since p-value is less than 0.05, so conclude that the null hypothesis is rejected *i.e.*, There is significant difference of opinion among government and private school students regarding the use face mask in the class room, school premises and public places.

S.No. 3 from table-5 the majority of the government school students occasionally cover their mouth and nose when coughing. 187 (46.52%) students occasionally, 85 (21.14%) students never, 72 (17.91%) students sometime and 58 (14.43%) students always cover their mouth and nose when coughing. Similarly the majority of the private school students always cover their mouth and nose when coughing. 281 (44.89%) students, 203 (32.43%) students sometimes, 78 (12.46%) students occasionally and 64 (10.22%) students never cover their mouth and nose when coughing. Since p-value is less than 0.05, so we conclude that the null hypothesis is rejected *i.e.*, There is a significant difference of opinion among

government and private school students regarding the how often they usually cover their mouth and nose when coughing.

Conclusion

This research provides insight into students' knowledge and attitudes about water, sanitation, and hygiene, which, if addressed, might have a positive influence on hygiene promotion and practices in secondary schools. While learners have a high degree of knowledge about water and sanitation, it does not connect with cleanliness behaviours. Because they are unable to implement the right sanitation-related behaviours they have been taught due to a lack of sanitation facilities and their compromised surroundings that do not fulfil learners' requirements, they do not always represent the information they have. The lack of hygiene promotion tools and resources affects students' attitudes and cleanliness practices at school. Collaboration with parents and communities may considerably enhance hygiene practice, as certain practices are driven by possibilities available at home. Effective water, sanitation, and hygiene practices in schools are critical not just for illness prevention but also for academic success. The study's conclusion revealed how students struggle to match their school-taught sanitation and hygiene knowledge and attitudes with the realities of the conditions and accessibility of the facilities accessible to them.

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The journey of consumer protection in India

Harshita Bisht

Abstract

A person becomes a consumer even before he is born. Just use, consume or avail a bought product or service and you will enter the club of consumerism. It's so easy that even neonates, toddlers, pre-schoolers, and teenagers can become consumers by putting in little effort. Consumers are the essence of consumerism. On 24th December 1986, the consumer protection bill received the assent of the Indian President and on the same date, it became an act. This act was considered to be the landmark act passed for consumer protection in India. To keep pace with evolving times and the ever-changing world of consumers, the need for an amendment to the consumer protection act 1986 was felt. The Consumer Protection Act 1986 was amended several times but failed to meet the dynamics of the current market. At present Consumer Protection Act, 2019 has been implemented which repealed the consumer protection act of 1986 and is regulating and monitoring all the business activities of sellers, middlemen, distributors, service providers, etc. The paper aims at enlightening the viewers regarding the concept of consumerism and the journey of consumer protection in India.

Keywords: Consumerism, Consumer Protection Bill, Amendment, Consumer Protection Act 2019.

Introduction

While people across many diverse civilizations and epochs have always purchased and consumed goods, the modern concept of consumerism is best understood to have begun in the late 1600s in Europe. From that point, consumerism intensified throughout the 1700s and 1800s and became a major societal phenomenon in which the consumption of products became a vitally important task for most people in society (History Crunch 2015-21). People before the 18th century hardly earned much, all the economic activities like production, consumption, selling, purchases, distribution, etc., were constant. As a result, World's GDP also remained constant for many years.

The beginning of the 18th century marked the occurrence of a notable phenomenon where the economies began to expand. The inception of the industrial revolution took place in Britain and in other countries of North-western Europe. By the middle of the 18th century, observers recognized that they were living through a period of epochal change that historians have since described as the world's first consumer revolution (The School of life 2018). With the introduction of the internet in India in 1995, the first wave of E-commerce commenced. The advertising concept was also embraced by the firms. People in India are in advertising since the 19th century (Aishna Pathak). From factual advertising (1947-1960), creative advertising (1960-1980), impactful advertising (the 1980s) to digital marketing and advertising to date, it's prominently and immensely in use. Economic growth hastens during the twentieth century in all the regions of the world eventuating in the creation of a virtuous economic cycle. New industries and expansion of the existing ones created new jobs, and employment and wages

increased eventuating in more demand, more demand further led to more production, and the economy started to expand.

These many opportunities brought some negative fallouts with them too. In order to stand in the competition, cater to the widespread demand, and earn more profits the businesses, sellers, distributors, middlemen, advertisers, etc., started to carry out unscrupulous and unfair marketing practices like selling spurious products, fictitious pricing, price collusion, defective packing, hoardings, black marketing, misleading advertising, short weight, and measures, etc. The demand for luxuries started to rise and the demand for necessities elevated exponentially. The human values and behaviour changed, consumption patterns drastically shifted from necessity to luxury, people started to purchase not only for necessity but for fashion's sake, development took place but not sustainably and all vying sellers impulsively kept increasing their market share. As a result, consumers were misled, duped, and defrauded. In order to eradicate all these unethical and furtive acts of the aforementioned parties, the concept of consumerism and consumer protection came into being and strict rules and regulations were imposed on the sellers and businessmen.

Consumer protection

India is a country of human values and ethics. From the Ancient Period (Vedic Age) to the Modern Period (21st century) great importance has been given to the protection and safety of consumers. Many rules, regulations, restrictions, and by-laws were imposed on the traders and sellers so as to protect the interest of the buyers, in bygone days.

There are five philosophical concepts that are applied by the firms to run their business activities. Before the origination of these five concepts, the exchange concept prevailed where the negotiators existed and people exchange commodities with each other. Due to many loopholes of this concept a medium of exchange was introduced that is money and commerce was carried on then with time more concepts emerged and were adopted by the businesses.

1. **Production Concept:** It's one of the oldest business concepts wherein it is believed that consumers will favour a product that suits their budget and is widely available. Managers adopting this concept emphasize achieving economies of scale.
2. **Product Concept:** This business orientation holds that consumer will prefer to buy a commodity that possesses fine quality and innovative & distinctive features that makes the product superior. The focus of managers adopting this concept is on research and development.
3. **Selling Concept:** This philosophy holds that efforts on the quality and quantity production of the product will get squandered until and unless the product is being coaxed into buying by the sales force. The managers here focus on promotions and persuade the public to buy what they have produced.
4. **Marketing Concept:** In the 1950s the marketing concept came and challenged the above three concepts of production, product, and selling. It states that producing a supreme quality product, increasing the level of production, or hiring an efficacious sales force would be a futile effort if consumers' preference is not reviewed. It is

important to produce and sell products while reckoning with the preferences and desires of consumers of the target market. The marketing concept focuses on the needs of the buyer, here weightage is given to solving the problems of consumers. Consumers' satisfaction is the focal point under this concept.

5. **Societal Marketing/Holistic Marketing Concept:** This concept is an extension of the marketing concept. Consumers' satisfaction is important but not at the cost of society's well-being. Under this concept managers try to address the needs, wants, and interests of the consumers along with the long-run societal welfare.

Even after the emergence of the Marketing and Holistic Marketing Concept where businesses were expected to strive for their paramount desire of satisfying the consumers' needs and redressing their problems, the need for consumer protection is felt more. The reason behind this was the failure or ignorance of sellers and producers to adopt these concepts from consumers' point of view. Every dimension of the marketing concept was accomplished but from producers' and sellers' points of view and so a serious need was felt for consumer protection. Consumer protection is the act of safeguarding the consumers, group of consumers, and the society as a whole, against the unethical business practices performed by the sellers, distributors, middlemen, manufacturers, etc. so as to earn more profits and achieve greater market share.

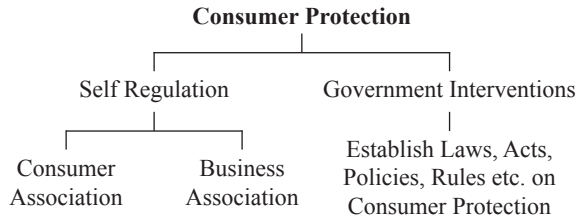
Consumer protection aims at:

- Achieving adequate safeguard for all the consumers,
- Minimize consumer litigation,
- Providing speedy redressal to the consumers,
- Improving the present miserable condition of the consumers,
- Encouraging consumers to be more conscious about their rights, duties, and responsibilities,
- Encouraging consumers to adopt sustainable consumption habits,
- Ensuring production according to the requirements of the consumers etc.

Need for consumers' protection:

- Most of the consumers are illiterate and uneducated.
- Most of the consumers give weight to price over quality.
- Most of the consumers are ignorant and carefree.
- Consumers are reluctant to be aware.
- Consumers are not united.
- Consumers lack information.
- Consumers had no say.

Methods of consumer protection:



Source: Primary.

Consumer Protection Pre-1986

Before 1986 the concept of CAVEAT EMPTOR prevailed in the country. Caveat Emptor is a Latin phrase that means “let the buyer beware”. According to this concept, it is the responsibility of the buyer to check the product or go through the terms of services before using it. In case of any harm or discrepancies in the product or service, the buyer would be blamed for his careless and casual attitude while purchasing. After the Consumer Protection Act, 1986 came into force, the concept of Caveat Emptor was replaced by CAVEAT VENDITOR, another Latin word that means “let the seller beware”. The consumer protection act 1986 bound the sellers and service providers by its provisions to be accountable to the consumers. It became the responsibility and obligatory for the sellers to provide all relevant information to the consumers about the product, like ingredients used in it, standard weight, MRP, expiry date, precautions to be taken while using a product, and many such materials information. Since the LPG policy was not introduced by the government of India at that time, the Indian market was unable to experience worldwide exposure resulting in the narrow scope of the Consumer Protection Act 1986.

Monopolies and Restrictive Trade Practices Act 1969 came into force on 1 June 1970 with an aim to prohibit monopolies and restrictive trade practices and to reduce the concentration of economic power in a few hands. MRTP act covered Monopolies Trade Practices (MTP), Restrictive Trade Practices (RTP), and Unfair Trade Practices (UTP) under its legal regime. Any enterprise having an assets value of more than INR 20 crore has to take prior approval from the Central Government for undergoing any corporate restructuring or a proposed takeover. Enterprises having an asset value of more than INR 1 crore were deemed to be dominant enterprises as per the set criteria of the act.

In 1986 UTP was removed from the legal regime of the MRTP Act and a new act was formed especially for the Unfair Trade Practices, which was The Consumer Protection Act 1986. COPRA 1986 was the act of parliament applicable to the whole of India except for the states of Jammu and Kashmir. The act is divided into 4 chapters and 31 sections.

With the initiation of the LPG policy in 1991 by Prime Minister P.V. Narasimha Rao and Finance Minister Dr. Manmohan Singh, commonly known as economic reforms, and with the introduction of the internet facility in 1995, the Indian market expanded. Due to Liberalization license raj was removed except for 18 industries, and entry and growth restrictions on the private enterprises were removed. Due to privatization, the stake of the public sector was transferred to the private sector, and many sleeping and dormant industries of government

were sold to the private individuals. Due to Globalization Indian economy integrated with the global economy, trade barriers imposed in 1956 by the Indian government were reduced and removed, international competition increased due to globalization and privatization, and many short and long-run measures were taken to run the economy efficiently. With the beginning of the internet facilities, the trend of online shopping started. New companies, fewer restrictions, liberal policies, and more national and international competition increased the risk of consumers' exposure to exploitation.

After the enforcement of the Consumer Protection Act 1986, the MRTP act had MTP and RTP under its jurisdiction. But after the new economic reforms, restrictions were replaced by healthy competition. Therefore, MRTP Act was no longer important and meaningful and so in 2002 Competition Act was passed to replace the MRTP Act. MRTP Act existed and worked till 31st August 2009 and from 1st September 2009 Competition Act came into force and MRTP Act was abolished. Consumer Protection Act 1986 is one of the most progressive and compendious pieces of legislation enacted for consumers' protection in India.

Consumer Protection Act 1986 in Brief

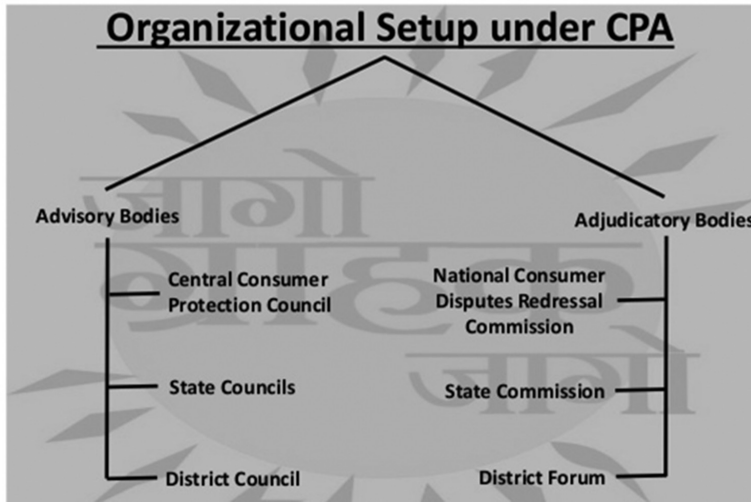
Consumer protection as discussed above was exercised even before independence but a formal consumer protection law that purely focuses on consumer protection was enacted in the year 1986 (Rajanikanth Makala 02 MAY 2019). Consumer protection act 1986 is considered one of the best acts for consumer protection in India. The laws of the United Kingdom, United States of America, Australia, and New Zealand were closely studied, analyzed, and considered while drafting the bill (Visivanathan,2008). On 24th December the CPA 1986 received the assent of the Indian President. The act was implemented with a view to promoting the interest of the consumers by protecting them from unscrupulous businessmen and sellers etc. The act also aimed at providing speedy and affordable redressal to consumers for their grievances. According to Shri HKL Bhagat, this legislation was designed to provide a prompt and meaningful remedy for consumers' grievances. The preamble of the Consumer Protection Act 1986 says, "An Act to provide for better protection of the interests of consumers and for that purpose to make provisions for the establishment of Consumer Councils and other authorities for the settlement of consumers' disputes and for matters connected therewith." The act was applicable to the whole of India except for the State of Jammu and Kashmir and applicable to all types of undertakings whether big or small, private, public or cooperative, whether a manufacturer or trader. The act confers 6 rights to consumers with a view to empower them. These rights are: Right to choose, right to seek redressal, right against exploitation, right to choose, right to consumer education, and right to be heard.

Objectives of the Act

- The act seeks to promote and protect the rights of consumers.
- The act aims at safeguarding the interest of consumers through Councils established at the National and State levels.
- The act seeks to provide a simple, speedy, and economical redressal mechanism through Quasi-judicial machinery at District, State, and National levels.

- To give relief to consumers in case of exploitation faced by them by providing them appropriate compensation.
- To impose penalties on unscrupulous businesses and Sellers for non-compliance with orders given by the Consumer Court.

Organizational structure of COPRA 1986



Source: slideshare.net

Under the Consumer Protection Act of 1986 there is a three-tier, Quasi-Judicial machinery for resolving consumer disputes at District, State and National level commonly known as Consumer Courts.

- At National level – The National Consumer Dispute Redressal Commission.
- At State level – The State Consumer Dispute Redressal Commission.
- At District level – The District Forum.

Composition

1. District Forum of each state shall consist of a president who is or has been or is qualified to be a District Judge and two eminent members having adequate knowledge, experience, and ability in dealing with problems related to law, commerce, and accountancy, public affairs, administration, etc. One of them shall be a lady member.
2. State Commission shall consist of a president who is or has been a judge of a High Court and two other members of eminence having knowledge, experience, and ability concerning the problems relating to law, commerce, public affairs, economics, industry, etc. One of them shall be a woman.

3. National Commission shall consist of a president who is or has been a judge of the Supreme Court and other four members of high standing and have adequate knowledge and experience of dealing in the areas of law, economics, commerce, industry, etc. One of them shall be a woman.

Orders passed by Consumer Courts

- To remove the defect from the goods if found defective by the appropriate laboratory.
- To replace the defective product with a new one that is free from defects.
- To return the aggrieved complainant's price of the defective product or charges paid by him.
- To pay compensation to the affected party for the loss suffered by him.
- To remove the deficiencies in the services rendered to the individual.
- To stop the Unfair and Restrictive trade practices.
- Not to supply hazardous goods that are a threat to life.

On 15-6-1991, Consumer Protection (amendment) Act 1991, on 18-6-1993, Consumer Protection (amendment) Act 1993 and on 15-3-2003, Consumer Protection (amendment) Act 2002 was passed and many other amendments took place.

The Consumer Protection Act 2019

The consumer protection bill 2019 was introduced in the Lower house (Lok Sabha) of the parliament by the then Union Minister of consumer affairs, food and distribution, Mr. Ram Vilas Paswan on 8th July 2019. It was passed in the Lower House (Lok Sabha) on 30th July 2019 and in the Upper House (Rajya Sabha) on 6th August 2019. On 9th August, The President of India, Mr. Ram Nath Kovind gave his assent to it. After this, a notification was passed on 15.07.2019, and 20th June 2020 was decided to be the date for the enforcement of CPA 2019. (Waheb Hussaini & Snigdha Singh 2020). CPA 2019 was successfully enforced on 20th June 2020. It ensures transparency at all levels, timely and effective administration and settlement of consumer disputes, and protection of the interest and rights of consumers.

Conclusion

Briskly with time the modes of buying and selling changed which brought forth an all-embracing market. With the dynamic expansion of market businesses, marketers, sellers, distributors, and advertising agencies discovered new tactics, and the chances of consumers' being exposed to exploitation also increased. The Consumer Protection Act of 1986 had a limited horizon and found it too obsolete to cover the transformative marketing strategies of the 21st century. Though Consumer Protection Act 1986 has remedies for the consumers in the marketplace, they are not sufficient and the consumer finds himself/herself helpless due to ineffective legal machinery (Chatterjee and Sahoo, 2011). The act needs further amendments to provide better protection to consumers in the country (Singh and Chadah, 2008). The new act gives more power and strength to the consumers. The facelift of the

consumer laws through the enactment of CPA 2019 is reckoned to be a giant step towards ensuring consumers' safety, timely & effective administration, and settlement of consumer disputes.

The position and potential of the consumers could easily be determined by the following slogan:

**“We (consumers) will decide their journey,
They (sellers) will follow our Interest.”**

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