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Representation of Disability in Classical and Contemporary Literature: A Reading of Select Narratives from Sanskrit and Tamil

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The emergence of Disability Studies in Indian academia is a welcome move. The development of a distinct, indigenous orientation and perspective in the arena of Disability Studies is the need of the hour. An analysis of the representation of disability in the selected literary narratives from the classical to the contemporary period is undertaken in this paper in the context of literature in two of our classical languages, namely Sanskrit and Tamil. An examination of how disabled characters are represented in the epics (The Mahabharata, The Ramayana, Manimegalai, Silappadhikaram) alerts us to the biases and exclusivist perspectives that seek to keep the disabled beyond the radar of the dynamics of power and hegemony. Prescriptive manuals on the deployment of actors for specific roles highlighting their disability, for instance, the Vidhushaka or the slave as outlined in The Natyashastra draw our attention to codified principles and formulations concerning disability in ancient texts. The paper proceeds to examine disability arising out of social disempowerment, apart from corporeal difference. Here, characters from the epics are studied, who exemplify how lack of social privilege pushes them to states of physical mutilation and disability perpetuated by acts of the privileged groups. These acts are located in the categories of caste, gender and other social identities. Intersectionality of disability with other categories located in socially and culturally marginalized spaces is indicated in the analysis. The concluding section highlights the need to politicize the discourse on disability by forging solidarities with other marginalized categories, foregrounding overlapping of disabilities (physical and social) and strengthening the movement for Disability Rights within the wider discourse of Human Rights. The paper concludes with a brief overview of self-articulation and narratives of disability that have emerged from disabled persons in contemporary Tamil literature. An important difference of perspective and focus on issues pertaining to disability, as reflected in the narratives by the disabled, and those by the non-disabled in the context of representation of disability in the contemporary Tamil literary discourse is also underscored.

Keywords: Disability Studies, classical Tamil and Sanskrit literature, hegemony, Indian epic

Disability Studies has emerged as a significant discipline formation in India in the recent years. Courses devised on Disability narratives have found place in academics, and popular social media platforms have begun to highlight issues and perspectives on the disabled. The representation of disabled persons has found greater visibility in literature, cinema and media studies in the contemporary society/discourses on the disabled. It is imperative at such a juncture to study aspects concerning conceptualization, perception, representation and self-representation in the context of discourse on disability. Theoretical elaborations on this front reflect largely a western orientation and derivative formulations. The disciplinary evolution in the context of India, merits an earnest foregrounding of historical, literary, cultural and intersectional paradigms reflecting our social formations and practices. Do we historicize perceptions and representations of the disabled in literary, performative, folk narratives? Or do we apply a derivative orientation and theoretical formulations on the problematic of disability in our social rubric? This paper foregrounds some of these concerns as pertinent to Disability Studies in the Indian academia.

A major reckoning concerning disability is to refrain from equating it with "inability". Disability merits to be perceived as a category of different ability, located in a physical or intellectual difference. The difference pertains not to notions of aptitude or talent but to a corporeal difference located in a material frame. Secondly, disability has to be posited as a social category, ensuing in discrimination related to the fact of difference. The need to politicize discourse on disability would help us address the multi-layered aspects concerning the discipline. A sustained effort to locate disability within the trajectory of identity politics and situate it in the domain of caste, gender, region and sexual orientation would go a long way in ensuring academic rigor and depth to this emerging discipline. The logical outcome of such an engagement would locate disability rights movement as human rights/ civil rights movement and affirmation of dignity of the individual.

The paper explores representation of disability in Indian literature(s) in classical and contemporary, canonical and marginal writings. The exploration depicts social perception and attitudes towards the disabled over the ages. An enquiry into representation of disability in our canonical epics, in Sanskrit and Tamil and a glance at the performative, folk traditions in our society reveals the biases, the stereotyping and marginalization of the disabled in our social, cultural spaces. A sustained marginalization of the disabled from power-play and leadership within the structures

of family, kingship or societal roles could be seen in many of our celebrated, canonized epics, drama and literary narratives. An examination of representation of the disabled in *The Ramayana*, *The Mahabharata and Manimegalai*, *Silappadhi karam* has been undertaken to examine representation, function and role of the disabled in familial and societal spaces.

The second section of the paper looks at the conceptualization, representation as well as role and function of disabled characters in Sanskrit drama and in some of the performative narratives in Tamil. The paper restricts the critical enquiry to the translated literary narratives originally written in two classical languages, Sanskrit and Tamil, both on account of their rich and ancient literary hegemony as well as on the grounds of my scholarship pertaining to these literatures in terms of teaching and research experience. In the final section, a brief analysis would be offered on depiction of disability as a tool of social disempowerment of marginalized communities as reflected in contemporary Tamil literature. The aspect of intersectionality enveloping disability discourse is indicated in recent cinematic representations and in the arena of self-representation in the writings emerging from the community of the disabled.

At the outset, a reading of the Sanskrit or Tamil epics alerts us to the fact that the disabled are not substantial in number. Their representation emerges as a cursory reference, as a presence that stands unaccommodated in aspects of governance. Further, disabled persons hardly ever get portrayed as central characters in epics. This could be seen as a deliberate erasure of the disabled from the domain of power-play and reckoning of power-sharing that is integral to the core action of the narrative. However, the disabled characters in Sanskrit and Tamil epics are widely recalled. What is worth noting is the premise for such a strong recall in popular imagination as herein lies the aspect of representation of the disabled that calls for a critical enquiry. These characters are recalled as scheming, jealous, vengeful or insecure and their state of mind is associated with their physical disability. Such a perception is widely shared by the general public and internalised in their attitude towards the disabled in their quotidian interactions. The narratives under study indicate a direct co-relation between physical difference and a deviant behaviour in the representation of the disabled.

Manthara in *The Ramayana* is a hunchback and her counsel to queen Kaikeyi is posited as evil, diabolic and responsible for the havoc that ensues in the palace, resulting in the death of the King Dasaratha and the exile of Rama and Sita. Manthara

had nurtured Kaikeyi since her childhood and accompanied her to her marital home when she got married to Dasaratha. Her loyalty towards Kaikeyi or a concern for her mistress' son are not foregrounded to humanize Manthara. Instead, her physical deformity acquires greater visibility and attention, and is traced as an equivalent to her evil counsel to Kaikeyi. While Kaikeyi's affection for Rama and her valour at the battlefield is foregrounded to absolve her of her guilt over Rama's exile, Manthara is stigmatized on account of her corporeal difference which is portrayed as a reflection of her distorted state of mind. In popular imagination, the differently-abled are summarily categorised as aberrant and devious individuals. Representation of disability as indicative of one's diabolic conduct has precipitated social biases towards the disabled in our society. The portrayal of the hunchback Manthara is a case in point. In popular vocabulary, she is simply referred to as 'kubdi' (Hindi) or 'kuni' (Tamil) and her name is not easily recalled by the lay reader.

Sakuni in *The Mahabharata* is yet another representation moulded in a similar vein. His orthopaedic disability is held as a comment on his role in the game of dice and its disastrous consequences to the Pandavas. The able-bodied Duryodhana's culpability in the game, his agenda to usurp the throne by taking recourse to unrighteous ways are not critiqued as vehemently as the crooked-footed Sakuni's role during the game. It is held as an aggravating factor in the feud between the Kauravas and Pandavas. Dhritrashtra's sightlessness is portrayed as being reflective of his lack of insight and his inability to govern the kingdom or restrain his emotions. He is portrayed as an overindulgent father who is ambitious and greedy for power. His valour at the battlefield, his training as a kshatriya prince or his claim to the throne as the elder son of the clan are set aside solely on the grounds that he is visually challenged. The quick co-relation of sightlessness and absence of vision (in terms of foresight, insight, acumen and competence as a ruler) is a serious restriction placed on the disabled. If Dhritrashtra's claim to the throne had been assigned the legitimacy it deserved, both on account of his birth and capabilities, the war could have been averted. Denial of legitimate rights, on account of one's physical disability, is thus sanctioned in our canonized epics. Such a perspective continues to persist in our society as we continue to view physical difference as disabling and thereby, disempowering.

Another important aspect concerning representation of disability in classical literature relates to positing disability as a punishment for a past act, often, to one's action in a past birth. This aspect is reflected in the Puranas and other narrative tales in the oral

tradition as well. The tale of Kubja, a woman with a hump at three places of her body is found in the Bhagavat Purana. She is shunned by all as ugly but is miraculously made beautiful and able-bodied by Krishna. It is told that she was Surpanaka in her earlier birth who had been rebuffed by Rama and his brother Lakshmana when she made overtures to them. When she insisted upon marriage, Lakshmana cut off her ears and nose. Surpanaka had to live with a mutilated body for having affirmed her desire for a man, despite being a widow. She is re-born as Kubja, leads a pious life and is redeemed by Krishna who renders her beautiful by embracing her. This shows how physical beauty is associated with a reward for pious conduct and disability as a punishment for a deviant conduct. These tales of disabled women, punished or blessed by men,rob the women of any agency over their body, desire or emotions. Their lives emerge as cautionary tales that hold out the curse of physical deformity or mutilation to women who assert their desire.

Dhritrashtra's mother had shut her eyes when she conceived him and this resulted in his blindness, we are told. The discourse of pity towards the disabled overlaps with the discourse of a punitive, rationalizing one that underscores a cause-and-effect relationship between disability and one's past action. This has led to valorization of the karma principle and consequently an absence of inquiry and redressal of the condition of disability. It gets further compounded with gender roles in our social structure. Gandhari chooses to wear a blind-fold as her husband is sightless. Do we see this as an affirmation of her agency or as a reflection of an internalisation of patriarchal subservience of women within the institution of marriage? The fact that Gandhari is valorized for such an act implies the value-loaded perception of a chaste wife as a socially empowered individual while being blind is a disempowering subjectivity for a prince. In other words, Dhritrashtra is denied his right to be crowned as he is born blind while Gandhari is revered for her act of remaining sightless as a mark of her wifely devotion.

In the Tamil epic, Silappadhikaram, Kannagi wrenches off her left breast to fling at the corrupt city of Madurai for denying justice to her husband, Kovalan. With her power of chastity, she burns down the city and is deified as a goddess who can grant boons to kings. She is taken to heaven by celestial powers and is hailed as a deity. Her deification neutralizes the physical trauma of self-mutilation or view her condition as disabling to her feminine subjectivity. Disfigurement of chaste wives is celebrated while disfigurement of widows/ women who assert their desire or sexuality is projected as an act of well-deserved punishment.

In another Tamil epic, *Manimegalai*, the disabled are presented as a catalogue of multiple disabilities and clubbed as a single, descriptive entity without distinction or individuation. The blind, the deaf, the mute, the crippled, the idiots, the orphans are listed as a single category who throng the city to be fed and cared for by the Buddhist nun, Manimegalai. The disabled are represented as objects of pity, entitled to charity. The discourse of piety that guarantees salvation to the physically able-bodied on account of their care rendered to the disabled does not rule out the underlying premise that the fact of disability is a punishment for acts committed in the past births of the disabled persons.

It merits recording that performative, folk, dance drama traditions located disability in a binary construct of pity and piety. If the disabled remained pious, prayed to the divine powers and affirmed their abjectness, they were entitled to patronage, pity and charity. A blessing to be re-born whole and able was held out as the ultimate reward for self-defacement embedded in piety and devotion. A performative tradition, popular in Tamil Nadu, captures the career of a cripple who repents his shady past as a thief and offers prayers and seeks forgiveness as a ritual act of performance. The performance itself is called the *Nondi Nadagam* (A cripple's drama) and is played out at temple festivals. The protagonist, a cripple, is shown as a thief and a philanderer who repents for his sins and prays to Lord Murugan who blesses him. The narrative underlines disability as a marker of socially deviant behaviour and the need for repentance and surrender to divine will on the part of the disabled person as necessary for his rehabilitation in the community.

In Sanskrit drama, the presence and role of the *Vidhushaka* is integral to the action and to evoke Hasya rasa. However, much of the laughter/hasya is generated on account of the physical disability of the *Vidhushaka*. He is a hunchback, lame, walks with a staff, has protruding teeth and is held ugly by convention. He enjoys good food, license of speech and is a bosom friend of the protagonist, often a king in Sanskrit plays. He is represented as a butt of ridicule, to be laughed at on account of his ugly physical features and disability. The *hasya* (comic)in this context arises out of a presumption of the *vibhatsa* (the disgusting). *Natya Shastra*, considered as *PanchamVed*, the fifth Veda is a treatise that is revered by theatre practitioners till date. It is a prescriptive manual for theatre and other performative arts. Its formulations on the role and function of *Vidhushaka* and slaves is an unfortunate marshalling of disability into performative arena as a quotient of entertainment. *Natya Shastra* has unequivocally

laid down the physical features of the slaves and *Vidhushaka* in its verses to indicate which categories of actors can be enlisted to enact such roles.

In Chapter 35, the book points out under 'Distribution of Slaves' that

Persons who are slow moving, very dwarfish, hunch-backed,uncouth, odd-faced and fat, who have motionless eyes, one eye blind, small chin and low nose, ugly raiments, deformed body and are born of slaves should be employed in the role of slaves (dasa). (NS:1951, V 16-17)

The *Vidushaka* should be short in stature, hunch-backed, twice-born, bald-headed and tawny-eyed. (NS: 1951, V76)

Both these verses indicate the intersecting categories of class, caste, disability as rigid and non-negotiable, embedded in socially discriminatory, stigmatizing and prescriptive conventions. The layering of discrimination is dense and the insistence on physical difference as a disabling, disempowering aspect/principle cannot be overlooked. Our classical literatures, whether epics or drama, our performative little traditions whether routed through devotion or entertainment, underscore disability as an incapacitating condition socially and culturally. Disability is not represented as a corporeal difference but as an aberrant, unnatural condition which is manifested as a result of one's past *karma*, as a curse or punishment. Notions of normative body and the deviant body are located in terms of ableist and disabled body. Such a formulation has since long resulted in institutionalizing disability as a socially discriminatory and disempowering condition in our society.

In the epics, yet another category of the disabled emerges in terms of their location in the social matrix. These characters are physically able-bodied, but emerge as disabled owing to a socially disempowering structure that gives primacy to one's caste or gender. The acts of violent, dehumanizing physical mutilation of such individuals are inflicted upon by upper-caste, male, hegemonic groups or by the protagonist embodying 'righteousness'. In *The Mahabharata*, the mutilation of *Ekalavya*, the *nishadha* prince on the devious request of the brahmin tutor Drona, results in his inability to be an archer ever in his life. His physically disabling condition has been enforced upon him on account of his socially disabling location in caste hierarchy and social privilege. The discourse of merit and individual's talent and capability is utterly disregarded by Drona in order to enable the privileged, kshatriya prince Arjuna, who is officially tutored by him. The patronage bestowed on him by the Kuru dynasty pushes Drona to remain complicit with privilege and the ruling elite. The teacher Drona

becomes instrumental in disabling Ekalavya in order to keep him away from the corridors of power and fame. Such a process of institutionalized disempowerment has to be perceived as a variant of disability formulation. This initiates a physical dismemberment, a disabling corporeality as a strategy to perpetuate marginalization and an exclusivist social structure.

The beheading of the Shambuka by the kshatriya ruler Rama, in order to protect the brahminical hegemony, in certain versions of *The Ramayana* is another instance of exclusion of lower castes/shudras who transgressed the prevailing societal codes to gain knowledge of the Vedas and partake in ascetic power. The mutilation of Surpanaka, as discussed above, for transgressing gender codification regarding suppression of desire on the part of widows is indicative of how social codification laid down by patriarchal/hegemonic groups can precipitate the exclusion of transgressive women. It is worth noting that such a code prescribes physical disfiguring of the woman resulting in permanent disability and social stigma as a punishment for violating socially codified behaviour.

Such restrictive social codes may have changed in degree but not in kind in the present times. Various human right violations and victimization of women/marginalized groups bear a testimony to the perpetual discrimination on the basis of gender, caste, creed, sexual orientation and so on. It is such a mindset that is reflected in acts of acid attacks on women who defy/ turn down male offer of desire and possession of their body even in the modern times. Acts of stalking followed by disfigurement or violation of the woman's body or other means of physical assault as a mode of punishment for resistance or defiance shown by women, is represented in glorifying terms modelled on the discourse of romantic love or macho power of the aggressor, in popular cinema in India. These trends have to be located within the larger mode of containing and disabling of the able bodied on grounds of systemic bias. The valorization of ableist as normative corresponds to the stigmatizing of the disabled for its physical difference. A recourse to sculpting of a disabled body through acts of disfigurement, violence on the body – male or female – amounts to allocation of punishment that is at once located in corporeal difference and social exclusion. This aspect has been interrogated in recent years in mainstream cinema by foregrounding the struggles and accomplishments of the disabled, by locating them as protagonists with agency and not as minor characters, dependent on others or as objects of pity.

We can, thus, perceive that representation of disability in literature and art in classical and contemporary narratives reflects disturbing continuities and parallels. In contemporary literary narratives, an awareness of disability as embedded in Identity politics, Rights discourse and Civic agitations are foregrounded. A reading of Dalit literature alerts us to the intersection of disability discourse with other categories of social deprivation that precipitate social disability on the grounds of caste, gender, region, sexual orientation, creed and class. Disability gets further accentuated when it overlaps with other categories of exclusion as detailed above. A critical reading/perspective of literature imbued with disability narratives humanizes disability discourse by politicizing it and locating it in the larger arena of inclusivity, human rights and constitutional guarantees. A Dalit or transgender disabled person, a disabled person from a rural/tribal region, an underprivileged disabled person faces far worse discrimination on grounds of overlapping, exclusionary, discriminatory social, cultural practices that disability activists have begun to recognise and reckon with. A marshalling of solidarity among communities of various categories of the under privileged is likely to strengthen the cause of disability rights movement. Disability can no longer be perceived only as a manifestation of physical deformity that is worth a laugh. Notions of mental health, intellectual impairments, social exclusion, marginalization of minorities have given rise to a forging of bonds amongst diverse groups to strengthen the cause of disability rights movement to usher in an inclusive, non-monolithic rights movement.

However, specific forms of discrimination faced by the disabled cannot be underestimated in the effort to forge bonds with other sections which stand disabled on other grounds. The argument in favour of forging solidarities is aimed at main streaming disability rights movement rather than subsuming them into a homogenizing mass. While difference needs to be recognized, it should rather be celebrated instead of being ridiculed or render the same as a ground for discrimination.

A reading of literary representation of disability that humanizes the disabled by not projecting them as aberrant alerts us to the need for humanizing the disabled and not project them as aberrant, monstrous, punished for their acts in past births or as an act of divine wrath to rationalize a physical difference from a socially constructed notion of a normative body. The binary of pity and piety needs to be replaced with a focus on legal rights and guarantees to ensure dignity and equal opportunities to all, to create an enabling and empowering matrix for every citizen. The ableist worldview, hitherto

held as the privileged, normative perspective has to be decentred to politicize and humanize disability as a differently enabled human community.

In this context, narratives of self-articulation by the disabled have opened up new frontiers in disability discourse. Representation of disability undertaken by the non-disabled and its representation by the disabled themselves indicate a core problematic of Disability Studies. Self-articulation and literary narratives by the disabled subvert the opaque gaze of the non-disabled in their articulation on the subject as well as representation of the disabled subjectivity.

As Tamil epics have been referred to in the paper earlier, it is interesting to take stock of contemporary writers in Tamil who have represented disability as radical, humanized, credible and experiential reality rather than imagined/imaged. Abilash Chandran's novel Kaalgal in Tamil, presents the experiences of a disabled girl from her childhood to university days, her private and public interactions, her aspirations, her confrontations with family, social stereotyping of the disabled and her adventures in the streets, public transport, research centres as well as her affirmation of autonomy, agency and choice in relationships. The writer is an orthopedically challenged academic whose representation of the disabled in his fiction ruptures the ableist gaze that envelops narratives on the disabled. Narratives by the disabled forge a richer layering of disability experience, rights, worldview and critique of ableist world view. Manushya Puthiran's poetry offers a subversive imaging of the wheelchair that the poet had been confined to since his childhood. His negotiations of social barriers and worldly gaze/glare offer a succinct critique on the paucity of public infrastructure that could offer disabled-friendly amenities. Images of stairs, steps, wheelchair, spectacles, pen, love-letters abound in his poetry that spell out possibilities and fulfilments that remain within the reach of a creative writer bound by a restrained physicality but unbound by a personality that rises above challenges and affirms dignity to a disabled body through self-representation. Self-articulation by the disabled offers a critique and corrective perspective to an imagined representation and restricted perception of the non-disabled concerning the disabled body and subjectivity.

In the course of enquiry into representation of Disability in literary narratives, the paper has attempted to historicize and contextualize representation of Disability in Classical literature and found it to be prescriptive, judgemental and discriminatory

towards the disabled. A significant change is outlined in contemporary literary discourse as it seeks to accommodate self-representation and self-articulation by the disabled. The juxtaposition of the experiential and the descriptive explorations of the condition of Disability and its formulation as a social, intersectional category is an emerging and promising trend in the field of Disability Studies in India.

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Women and the Saṃgha: A Comparative Study of the TherīGāThā and the JāTakas

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This paper reviews the rise of Buddhism which emerged in the sixth century BCE in ancient India. Unlike other contemporaneous religious ideologies, it came with several reformative ideas. The opening of Buddhist sampha and the idea of renunciation for all (irrespective of any distinctions based on caste, creed, and gender) were its important legacy. Thus, women emerged as active participants throughout the period and formed their religious order (bhikkhunī-samgha). Both women and men joined the samgha and attained the highest religious goal, and popularly came to be known as therīs and theras respectively. They wrote their experiences of religious achievements that came to be known as the Therīgāthā and Theragāthā respectively. Considering the trends of female participation at such a large scale incited the scholars interested in history to take forth their involvements and practices. This paper is an attempt to represent the subject of women especially the bhikkhunīs. The purpose is to delve into the lives of these female disciples as represented in the *Therīgāthā*. This will be explored by using another Buddhist text i.e. the Jātakas. Throughout the study, both texts will be compared with an effort to discern common paradigms and to highlight the differences between them. The life of bhikkhunīs will be discussed in detail to represent the extent to which Buddhism is marked with egalitarianism in its perpetuation.

Keywords: Therīgāthā, Jātakas, Bhikkhunīs, Samgha, Nibbāna

The article, by utilizing the $Ther\bar{\imath}g\bar{a}th\bar{a}$, attempts to discuss the bhikkhun $\bar{\imath}$ s' life in the $samgha^2$ including problems faced by them in the samgha; their companionships; daily routines; clothes; begging; meditation, and so forth. Further, the same subjects are looked upon in the $J\bar{a}takas^3$ to demarcate the identical and dissimilar congruities.

The Buddha is remarked as the one who invented monastic life i.e., life in the *samgha* (Gombrich, 1998: 19). According to Gombrich, the Buddhist *samgha* was organized as a community unlike among the Jains and other renouncers. It was instituted to preserve the regulated way of life and formulated scriptures in the age where writing was not known.

The *Therīgāthā* and the *Jātakas* provide us with a vivid description of the prior lives of bhikkhunīs. Largely it was the individual circumstances⁴ causing them to forsake their home and join the saṃgha. An instance serving for this illustration includes either the death of a child and the relatives or a person's personal predisposition towards religiosity. Nevertheless, sometimes engrossed by pleasures of sense, they joined it just to move beyond the secular life. For example, Sujātā (Tg 145-150), staying happily with her husband, once saw the Buddha in a festival. Thereafter, she desired to be a recluse. Eventually, she was allowed both by her parents and husband (Hallisey, 2015: 262). Similarly, Bhaddā Kāpilānī (Tg 63-66) also embraced the religious path to get away from the usual worldly existence.⁵

The Jātakas too are pervaded with similar references. The Nigrodhamiga-Jātaka (JA 12) recounts the story of a woman, who to dispel the temporal pleasures of the lay life, wished to be a celibate (Cowell, 2002a: 37). The story of the present in the Chaddanta-Jātaka (JA 514) tells of a female novice urging to take up the holy life as she found her everyday state of being filled with misery and sufferings (Cowell, 2002e: 20). These women betook themselves into the saṃgha and propagated asceticism to set themselves free from the evil consequences related to pleasures of the world.

The *Therīgāthā* unfolds that life of the bhikkhunīs in the *saṃgha* was regulated by several rules and regulations. Nevertheless, renunciation was one of the vital prerequisites to liberation. The *Therīgāthā* brings forth that a bhikkhunī's move towards homelessness meant leaving behind their relatives, slaves, workers, wealth, villages, fields and so forth, for example, Subhā Kammāradhītā (Tg 342-343)

(Hallisey173). It meant a social detachment from familial ties. The verses attributed to Bhaddā Kuṇḍalakesā (Tg 111), represented her as free from all kinship bonds (Hallisey 65). Also, living a holy life was projected as very tough and severe. In this context, conversations between Sumedhā and her parents are very significant. It has been asserted by the latter to the former that living an ascetic life involved keeping moral precepts, detachment from the kin (Tg 466) (Hallisey 219). From the above illustrations, it can be tersely said that domestic life seemed to be more delightful and pleasurable, unlike the rigorous asceticism.

There were some initial rites before being ordained. On admission, all the bhikkhunīs donned robes and removed their hair. It appears from the *Therīgāthā* that an entrant into the *saṃgha* had to shave her head. For instance, the verses attributed to Mittā (Tg 32) mention it. Mittā has asserted that she shaved her head at the time she joined the *saṃgha* (Hallisey 27). Subhā (Tg 351) also referred to her head being shaved (muṇḍam) (Hallisey175). Parallel to such references, there are several other verses like those attributed to Sakulā (Tg 98), Soṇā (Tg 103), Bhaddā Kuṇḍalakesā (Tg 107), Anopamā (Tg 156) and so forth describe shearing of their hair. It was not permissible for the bhikkhunīs to retain long hair and was postulated to maintain them shaved.

Unlike the *Therigatha* which provides us with a complete detailed analysis of ceremonial observance of a bhikkhuni, the *Jatakas* fail to endure these as their subjects to be mentioned.

Both texts (the Therīgāthā and Jātakas), repeatedly refer to the bhikkhunīs' going on daily rounds for collecting alms from the lay followers. For instance – the verses attributed to Mittā (Tg 32) suggest

Today I eat just one meal a day, my head is shaved, and wear the outer robe of a nun. My heart's fear and its sorrow are gone: I don't want a god's body either. (Hallisey 27).

The verses exemplify that one of the habitual features of the bhikkhunīs in the *samgha* was the collection of alms. They ate only once in a day. The alms were collected daily in the alms' bowl and relying upon them, they survived and relished themselves. These references are visible throughout the text, for example, verses attributed to Cittā (Tg 28); Mettikā (Tg 30). Bhadda Kuṇḍalakesā's verses cite her as enjoying the alms of

Ciṇṇā, Aṅga, Magadha, Vajjī, Kāsī, and Kosala for fifty years. The same theme occurs to be the part of the *Cullakālinga Jātaka* (JA 301) that illustrates begging, where the bhikkhunīs are shown as going on alms rounds. Thus, the bhikkhunīs hinged on begging food from the laities.⁶

Symbolically, to designate the bhikkhunīs, it was assigned that they clothed themselves in apparels of a renunciant. In the *Therīgāthā*, the upper robe of the bhikkhunīs has been termed as 'saṅghāṭiṃ' [cited in several gaīthas e.g. Cittā (Tg 28); Mettikā (Tg 30); Mittā (Tg 32)] (Hallisey25-27). They were prescribed to wear yellow robes (Kāsāyacivaram) (Tg 373) (Hallisey184).

The Canda-Kinnara-Jātaka (JA 485) also discusses yellow robes. At the moment, the Buddha (who was in yellow robes) visited the palace, his wife too cladded herself in yellow (Cowell, 2002d: 179). Likewise, the Kesava-Jātaka (JA 346) cites the bhikkhus dressed in yellow robes (Cowell, 2002c: 93). Thus, both the bhikkhunīs and bhikkhus were required to be garmented in the ceremonial dress of yellow robes.

Meditation forms a major subject of interest or concern in the Buddhist texts. But there are no accounts related to meditation in Vedic literature (Gombrich 44) (Vedic age – a period contemporaneous to the Buddha). The life of an individual in the sampha before being enlightened involved meditational assignation. Buddhist texts contain some discussion on the subject of meditation (Gombrich 44). It was the main soteriological activity where renouncing the world was its practical necessity. It is because meditation requires peace and privacy (Gombrich 75).

There are two kinds of meditation mentioned in Buddhism. The first comprises of achieving the stillness of mind and is the preliminary state. It aims to realize the inevitable truth (like impermanence). This stage finally progresses towards awareness, i.e. the second part of meditation. Richard F. Gombrich has marked this stage of meditation distinctively as Buddhist. Buddhists consider morality a prerequisite for meditation. Meditation is viewed as a process encompassing the action of the mind. Thus, it has been identified as purifying one's state of mind (Gombrich 65-69).

It emerges that the process of meditation requires great strength. It was a continuous process that often took several days or years. It involved sitting in a fixed position,

keeping the legs crossed (narrated in the verses ascribed to Vijayā) (Tg 174) (Hallisey 90-91). It was the action of withdrawing oneself from all kinds of distractions. The verses attributed to Sumangalamātā (Tg 24) in the *Therīgāthā* mention her meditating at the foot of a tree. Finally, she with her austerity and devotion, attained nibbāna (Hallisey 21).

In one of the other verses attributed to a bhikkhunī named Uttamā (Tg 44), we find further descriptions related to meditation. She had to sit in one posture with crossed legs for a very long duration. She meditated for seven days in that particular stance and on the eighth day attained liberation and was enlightened (Hallisey33). Vaḍḍhamātā (Vaddha's mother) (Tg 209) too made repeated efforts and meditated to attain nibbāna (Hallisey 109). The verses uttered by Subhā (Tg 365) depict her practicing religious contemplation at the foot of a tree (Hallisey 181).

Sīhā's (Tg 79-81) account unfolds how she wandered for seven years. She laboured for several days and strived to concentrate but could not succeed. She was disturbed because she was unable to control her senses and thoughts. ⁷Sīhā lacked mental peace and was deprived of spiritual progress. This discouraged her and she considered herself defeated. Unable to attain nibbanā for several years, she attempted suicide by taking a rope and moving towards the forest. She looped the rope around her neck (Tg 77-81) (Hallisey53).

This demonstrates the hardships, adversities, and discomforts involved in austerity. It gives us aglimpse of the bhikkhunīs' physical and mental suffering. This eventually resulted in their physical weakness and they became thin and pale.

While meditating, if any bhikkhunī lacked concentration then remembering the verses (spoken by the Buddha to them) improved her focus. ⁸ Muttā was permitted by her husband to go forth and renounced the world. To refurbish her unstable mind, she repeated the verses uttered by the Buddha (Hallisey250). When she attained nibbāna, she repeated it (Hallisey 250). Here, the bhikkhunī who was in a lost and distracted condition, incapable to divert thoughts thus imitated the verses uttered by the Buddha to make her mind stable.

Thus, during meditation when corruption streams in a bhikkhuni's mind, she found no further delightin spending a solitary life at the foot of a tree. Eventually, it took

many days to attain nibbana. The bhikkhunīs to be trained and mastered were assigned to dwell deep in ecstatic meditation.

The Jātaka, unlike the Therīgātha, briefly speaks of meditation. The Apaṇṇaka-Jātaka's (JA 1) story of the present mentions five hundred friends of the Treasurer Anāthapiṇḍika. They took refuge in the Buddha, Dhamma, and the Samgha. Nevertheless, they were inconsistent and gave up persevering. When the Buddha became aware of it, he taught the discourses and admonished the significance of meditation. He stated meditation on the thought of the Buddha, Truth and Brotherhood gave entry to and fruition of the First, Second, Third, and the Fourth Paths to Bliss (Cowell, 2002a: 2). The Nanguttha-Jātaka (JA 144) describes meditation in the context of assisting a person to acquire knowledge and to achieve religious attainments(Cowell, 2002a: 307-8). In the Jātakas, meditation is illustrated as a path to reach the graded series of religious advancements leading to the fruition of the highest goal.

Thus, exercising meditation requires complete solitude. It entails that an individual be both socially and psychologically free from all kinds of ties and anxiety. Significantly, here both texts do not share a like features of meditation. Unlike the *Therīgāthā* that demonstrates meditation citing several difficulties faced by the bhikkhunīs; we find positive dimensions of it in the *Jātakas*, that too in the context of the bhikkhus rather than bhikkhunīs.

Unlike the pre-Buddhist epoch where women were minimally engaged in the religious domain, during Buddhism they made a remarkable contribution. The bhikkhunīs played a significant and major role in converting people. In the *Therīgāthā* several bhikkhunīs like Therikā, Puṇṇā, Muttā, and others were ordained by Mahāpajāpatīgotamī (Hallisey 249). The bhikkhunīs, like Dhammadinnā, have been shown as preaching sermons to her husband (Hallisey 250). Thus, the bhikkhunīs spiritually stimulated common people yearning to be celibate.

This too is a visible feature in the *Jātakas*. The *Suvannamiga-Jātaka* (JA 359) recounts the story of an unmarried girl who was the daughter of a servitor (he was the servitor of the two chief disciples at Sāvatthī). The girl was a faithful believer, attached to the Buddha, his dhamma, and the *saṃgha*. She was a devoted laywoman who used to give alms and was involved in good works. One day a marriage proposal came for her from

another family of Sāvatthī holding heretical views. The offer for marriage was accepted by her parents only after the groom's parents promised that her devotion and belief in Buddhism would not be restrained. Finally, the marriage took place between the two families. Later on, the girl with her determined faith in the Buddha, the dhamma, and the samgha was able to change the heretical views of her husband and his family members. Consequently, she, together with her husband, entered the samgha and attained the fruition of the First Path (JA 359) (Cowell, 2002c: 121).

A congruous feature familiar in both the texts is showing Uppalavaṇṇā playing the role of a preceptor. In the *Therīgāthā*, she taught the dhamma to Subhā (*Tg* 366) (Hallisey181). In the *Cullakālinga-Jātaka* (JA 301), she converted the four female ascetics Saccā, Lolā, Avavādakā, and Paṭācārā. They were all ordained and attained Sainthood (Cowell, 2002c:2).

The Therigatha and Jatakas give us a detailed account of the problems faced by the bhikkhunīs in the samgha. In the Therigatha, a bhikkhunī named Subhā Jīvakambavanikā (Tg 376) was going to the forest at midday and encountered a young man who followed and tried to seduce her. The man got infatuated with Subhā's beauty (Hallisey 272). The former tried to terrify the latter stating that it would be unsafe for her to move alone towards the forest. The man talked about the wild beasts and dangerous animals in the forest (Hallisey 185). The rake sought to entice Subhā by emphasizing her youth and beauty (Hallisey 185). Thus, in the forest the bhikkhunīs confronted many obstacles, deterring them from acquiring nibbana.

The *Therigatha's* verses repeatedly mention Māra ¹⁰ (superhuman figure in Buddhist mythology) obstructing the bhikkhunīs from their paths. For instance, a bhikkhunī named Selā (*Tg* 57) was enticed by him. The latter disguised himself as a stranger aiming to seduce her. Māra bided to persuade her to move out of the religious path and to enjoy the pleasures of the world (Hallisey43). Māra requested another bhikkhunī called Somā (*Tg* 60-62) to seek frivolous enjoyment of day-to-day life (Hallisey 45). He too went after Cālā to discourage and distract her (Hallisey 264). Māra beseeched the bhikkhunīs with luscious ideas trying to trap and ruin them. This shows the bhikkhunīs' holy life was arduous, accosting a rogue who bided to divert and trouble them by alluring them a pleasant diversion. But the latter abided in religiosity refused to be intimidated by his threats.

In like manner, the Jātakas bring out several difficulties met by the bhikkhunīs. In the Nigrodhamiga-Jātaka (JA 12), a bhikkhunī was questioned before the sampha to

prove her celibacy. In the story, an investigation was held to confirm whether she (mother of elder Kassapa) conceived before or after joining the *samgha* (Cowell, 2002a: 37-38). Here, we see a humiliation faced by a bhikkhunī to prove her chastity.

The bhikkhunis as well as laywomen have been projected as obstructers for several other religious applicants. In the *Vātamiga- Jātaka* (JA 14), a 'laywoman' enticed a monk (Elder Tissa) into the bonds of craving, causing him to move back to worldly existence (Cowell, 2002a: 44).

In the Jātakas, bhikkhunīs are displayed as less meticulous observers of the prescribed rules and regulations. The Tipallattha-Miga-Jātaka (JA 16) tells while the Master dwelt in the Aggāļava Temple near the town of Āļavi, several female lay-followers and bhikkhunīs often gathered to hear the religious sermons. Once the preaching was in the day time, but as time went on, only bhikkhus and laymen followers appeared there. Not a single woman, neither the bhikkhunī nor laywoman, came to hear the discourses (JA 16) (Cowell, 2002a: 47-48.). The above description delineates both laywomen and almswomen as tardy and transgressors of the rules.

The story of the present in the *Kumbha-Jātaka* (JA 512) describes five hundred women who were friends of Visākhā. At Sāvatthī, once a drinking festival was organized. At the end of the festival, the Buddha was offered a fiery drink. Those five hundred women consumed strong drink and tried to persuade Visākhā to drink up in front of the Buddha, but she (Visākhā) resisted. Some women danced, a few of them sang, some got involved in disputation, while a number of them made vulgar body gestures. This infuriated the Buddha and he disappeared from there. The Buddha through his abstract power awakened all those five hundred women. Eventually, each of them obtained the fruition of the First Path (Cowell, 2002e: 5-6). Here, women have been presented as insensible and shameless. These women and their acts in the *Jātakas* are depicted as disgraceful and contemptible.

The Anusāsika-Jātaka (JA 115) exemplifies the gluttonous spirit of the bhikkhunīs. The story refers to a bhikkhunī as covetous. Her overwhelming greediness warned other mates to avoid seeking alms in those quarters of the city from where she used to collect by highlighting possible danger and problems (Cowell, 2002a: 257-58). The craving for alms of a bhikkhunī caused disruption and misled the other bhikkhunīs of the samgha.

Likewise, the Suvannahamsa-Jaīaka (JA 136) recounts a story of a bhikkhunī named Fat Nandā possessing grudging spirits that embarrassed other moderate bhikkhus and bhikkhunīs (Cowell, 2002a: 292-93). The story of the present commences describing a layman at Sāvatthī who offered garlic to all the bhikkhunīs. He also sent one of the agents to convey the message to the bhikkhunīs of giving two or three handfuls of garlic when they would come to his house (Cowell, 2002a: 292). Therefore, the bhikkhunīs used to get garlic from there. But on a certain day, the supply of garlic fell short. The bhikkhunīs were informed about this and were told that if they wished to get garlic, they would have to reach the field. Therefore, Fat Nandā went there and collected a large amount of garlic. This annoyed the agent and in an act of response he called them avaricious (Cowell, 2002a: 293). The longing for garlic of a particular bhikkhunī brought dishonor to other mild members. Thus, a bhikkhunī's greediness marred the existing integrity of the saṃgha and was unethical and unrespectable.

In the Bandhanamokha- Jātaka (JA 120) a female ascetic was suborned by Gotama's enemies to simulate pregnancy and tricked him into a false accusation of paternity (Cowell, 2002a: 264). The Mahā-Paduma-Jātaka (JA 472) mentions a certain bhikkhunī in Savatthī whose name was Cincamaṇavikā. The story describes the Dasabala, who after attaining the supreme religious goal gathered a large number of gods and men. They claimed themselves to be the Buddha, to get honor and gifts from people. But unable to be successful in their attempts, they secretly planned to dishonor the Buddha. The heretics, to succeed in their plan,asked a bhikkhunī named Cincamaṇavikā to defame the Buddha. Cincamaṇavikā started to spend her night in the heretics' monastery close to Jetavana. In response, when somebody asked about her previous night, she used to say that was none of his matter of concern. She gave the same reply for the next six weeks.

There after, she continued to say that she spent the previous night with the Buddha in one fragrant cell. After three or four months, Cincamaṇavikā roped a bandage around her belly to look pregnant. She repeatedly accused the Buddha of paternity. After the ninth month, Cincamaṇavikā cleverly produced swellings in a few parts of her body by causing her to be beaten by the jawbone of an ox. The Buddha got infuriated when he came to know about Cincamaṇavikā's intentions. He came to the four gods. The gods disguised themselves as mice and gnawed the robe of Cincamaṇavikā. The truth was finally revealed, and the lady was driven out of Jetavana (JA 472) (Cowell, 2002d: 117).

In the *Therīgāthā*, we find the bhikkhunīs practically encountered and sustained several problems and difficulties. But in the *Jātakas* women are projected as grudging against not only the temperate bhikkhunīs and bhikkhus but even against the Buddha.

Historians like Uma Chakravarti have designated the *samgha* as a 'confederate institution' and termed it as a federal organization. It signifies federation within the *samgha* and between the monastic members (Chakravarti 55). It was one of the significant features responsible for the popularity of the *samgha* (Chakravarti 56). The strong federation between the members of the samgha maintained internal harmony by resolving conflicts related to leadership (Chakravarti 56).

Further, the existing concord between the bhikkhus and laity is described. The latter either invited the former for special meals at their homes or offered them alms. The bhikkhus in return preached to them the religious discourses (Chakravarti 58). Scholars like Gombrich have said the meaning of *samgha* signifies community, whose members meet regularly and thus share some qualities of a family (Gombrich91-92). Moreover, I.B. Horner has mentioned the daily meal in the *samgha*, taken in common before midday (Horner 219). This also brings to light the prevailing social bonds in the *samgha*.

In this context, the texts (the *Therīgāthā* and *Jātakas*) contain several instances that highlight friendship and comradeship among the members of the *saṃgha*. They represent a strong affinity. Therefore, the relationship of the bhikkhunīs with other monastic members of the confraternity is significant as they shared their joys and sorrows with their allies. They spent their time together with each other at the moment of need and support. Therefore, their happiness, difficulties and death affect them too.

The *Therīgaītha* brings forth the elements of good faith and rectitude among the bhikkhunīs. The bhikkhunīs named Sāmā (Tg 37-8) and Aparā Sāmā (Tg 39-41) (before they joined the saṃgha) had a common close friend named Sāmāvatī. Unfortunately, Sāmāvatī died and the news of her death wrought havoc on them. They were unable to get over their grief for her. They finally entered the *saṃgha* and were enlightened. It is mentioned that Sāmā was enlightened very soon but Aparā Sāmā struggled for twenty-five years to win nibbāna (Hallisey 254). The latter's mind lacked concentration, as she failed to subdue her grief which resulted in her slow religious advancement.

Further, the verses attributed to a group of thirty nuns i.e. Timsamatā (Tg 121) offered an honorable position to Paṭācārā and equated her with the thirty deities. They, in reverence, worshipped Paṭācārā's feet (Hallisey 71). It exemplifies the essence of strong bonds between the *samgha's* members.

The verses of the *Therīgāthā* delineate the prevalence of social relationship and humility. For instance, the verses attributed to Uttamā (Tg 43) mention a certain bhikkhunī and describe her as righteous and honest (Hallisey 33). Similar references are found in the verses attributed to a certain nun (Annatarā) (Tg 69) (Hallisey 49). Similarly, the verses ascribed to Mittā (Tg 8) purport the same ideas

The name you are called by means friend, Mitta, you became a nun out of faith, now be someone who delights in friends, become morally skillful for the sake of that unsurpassed safety from all that holds you back. (Hallisey 9)

Such references in the *Therīgāthā* indicate that these bhikkhunīs might not have found their husbands or other members of the family to be trustworthy. Thus, dwelling in the saṃgha and finding someone truthful appeared to be delightful and amiable.

Such alike narrative is found in the *gaīthas* ascribed to Kisāgotamī (Tg 213-14). She (Kisāgotamī) refers to the Buddha, recollects the memories and expresses her gratitude towards him. Kisāgotamī, by underlining the significance of having a friendship with the Buddha, asserts that by keeping company with a wise and intelligent person even a fool could become wise (Hallisey 111). Similarly, Subhā Jīvakambavanikā (Tg 387) calls herselfa daughter of the Buddha (Hallisey191). The attainment of nibbāna often built a new concord between teacher and disciple identical to that of father and daughter. Thus, on the one hand, a move towards homelessness means breaking of older relationships. On the other hand, it symbolizes the fabrication of a relationship that seemed to be endurable and loyal.

The story of Isidāsī (Tg 403-450) is an excellent example. She was exasperated by her husband's behavior towards her (Hallisey 274). When she joined the *saṃgha*, she shared her past with another bhikkhunī named Bodhī (Tg 406) (Hallisey197). The verses show them as good friends who enjoyed each other's company. They are shown eating their alms and washing their bowls together. They sat happily in a secluded place and shared their prior experiences (Hallisey197). This appears as one of the

visible features where a bhikkhuni found several true-hearted and faithful mates in the sampha.

The *Therīgāthā* describes Vijayā and Khemā as friends. After the former learned of the latter's ordination she also desired to go forth. Therefore, Khemā acted as an instructor and assisted her. Thereafter, Vijayā also attained enlightenment (Hallisey 263-64).

The bhikkhunīs appeared to be sympathetic and compassionate not only in the *saṃgha* but also outside of it. For instance, Candā lost her all relatives and family members when epidemic broke out. She was completely withered and was in great sorrow. She was alone, unable to manage food for herself, and was surviving by begging. One day Candā came to a place where Paṭācārā and other bhikkhunīs having their meal. When they saw her miserable condition, they offered their food to her. They affectionately showed their generosity and succored her. When Candā heard their discourses, she was drawn towards religiosity and thus entered into the *saṃgha* (Rhys Davids, 1964: 75).

Identical narration of membership fraternization is apparent in the *Jātakas*. In the *Suppata Jātaka* (JA 292), the elder Sāriputta gave a meal mixed with ghee and redfish to a bhikkhunī named Bimbādevi having stomach pain (JA 292) (Cowell, 2002b: 295). This underlies the perseverance of sodality among the bhikkhus and bhikkhunīs.

The Mahā-Ukkusa-Jātaka (JA 486) tells a story of a layman named Mitta-Gandhaka who sent a companion one day with an offer of marriage to a young gentlewoman. The woman asked a question related to Mitta-Gandhaka's company before accepting the proposal. Afterwards, the latter set a bond with the King, Elder Ānanda, and the Buddha along with the four gatekeepers. Eventually, both of them got united into wedlock. Here, his wife's advice proved a boon for him and he developed acquaintance with several people. Further in the story, he received great honor at the king's hand. In due course, both husband and wife joined the samgha and gained the Fruit of the First path (JA 486) (Cowell, 2002d: 183).

The texts' discussion on companionship displays a perfectly harmonious scenario. It portrays a picture of deep concern for each other and the essence of togetherness. The members were delighted to stay together in amity. It appears that the bhikkhunīs were serviceable to each other. There was established communion not only among the

bhikkhunīs but also with the bhikkhus. In the *saṃgha*, they associated with virtuous friends and happily shared their prior experiences. They seemed to be gratified by developing concordance with their fellows and enjoyed the happiness of asceticism. We get glimpses of a happy concord of fraternity among bhikkhunīs and bhikkhus not only inside but also outside of the *saṃgha*.

Conclusion

In attempting a sketch of the bhikkhunīs' life in the saṃgha, the texts give an account dealing with their lives. But unlike the *Therīgaītha* that specifically throws great light on them, the *Jaītakas* seldom givesuch illustrations. Nevertheless, the outpouring of bhikkhunīs' stories in both texts is centred on their struggle and hardships with differences in the frame of its reference.

Regardless of a few similarities between the texts, the *Jatakas* run so remarkably distinct from the *Therīgatha*. A close examination of the life of bhikkhunīs discusses an account instilling dissimilar experiences in two different Buddhist texts. In the *Jatakas*, it is indeed the most striking fact that it represents a disgraceful remark for women. They are humiliated on several grounds and accosted with indignity. It exhibits the prevalence of gender-related issues.

Further, the texts manifest significant distinction in emphasis. While the *Therīgaīthā* unearths a bhikkhunī's consistent and effectual struggle for nibbāṇa,it seems worthwhile to note that the bhikkhunīs in the *Jaītakas* restrain the spiritual progress of a person intending to attain liberation. Moreover, they (bhikkhunīs) themselves failed to realize the topmost Fruition (i.e. nibbāṇa). They are shown as surpassing a few steps to Sainthood (i.e. either First, Second, Third Paths, or the next) but not obtaining it. The reason of such representations might be that like many others of the time, the composers of the text imbibed sexist views that were part of society then.

However, a rigid view of this sort is still widely held and propagated. Scholars like Tessa J. Bartholomeusz have mentioned the existence of such derogatory attitudes towards female renunciants in contemporary Sri Lanka. They come up against several troubles because of their gender (1994: 6-9).

Notes

¹The *Therigaīha* and its male counterpart i.e. *Theragaīha* are the texts in the Pali Canon that contain verses attributed to the elder bhikkhunīs and bhikkhus respectively. The terms *theri* (feminine) and *thera* (masculine) mean 'elders', who have attained the highest religious knowledge, and 'gaīha' means verse, stanza, or song. The *Therigaīha* and *Theragaīha* contain 73 and 1279 gaīhas respectively (see Blackstone, 1998:3; C.A.F. Rhys Davids, 1964: xiii).

²It was the Buddhist religious order, arranged for the monastic members comprising the bhikkhunis and bhikkhus. An association of the monastic members to stay together. Bhikkhunis and bhikkhus were the female and male followers of the Buddha respectively. Their name derives from how they got their food. They wandered from place to place and collected alms. Both bhikkhus and bhikkhunis were obliged to join the *samgha* to win the nibbana (the supreme goal in the Buddhist ideology, known as arahantship). The monastic life was very busy maintained with strict rules and regulations.

³These are the texts describing the Buddha's former birth stories, where he is identified as Bodhisatta (see Cowell, 2002a:; and Roy, 2010: 290). The stories in the *Jatakas* are arranged in 22 nipatas or books (see Cowell, 2002a: ix).

Here, those women whose individual circumstances were unfavourable, expressed their achievements of religious attainment as freedom, comfort and end of craving, or as rest, for example, Therika (Tg 1), Mutta (Tg 2), Tissa (Tg 4), Mutta (Tg 11), Dhammadina (Tg 12), and so forth. And who willingly joined the order described it as happiness, peace and self-mastery (See Horner, 1975: 209).

⁵Leading a lay life in the Buddhist ideology is highly criticized and is projected as full of depravities. This turns a person back from the pious path. On the contrary, winning nibbana means the end of every form of cravings and thus sets free from the cycle of rebirth (see Hallisey, 2015: 5-11).

⁶Includes both male and female followers of Buddhism, who used to provide the alms to the bhikkhus and bhikkhunīs, and in return, they taught them the religious sermons.

⁷Perseverance in controlling one's desire and anguish is highly commendable that results in achieving the state of mindfulness and thus leading a recluse to the right ladder of religiosity.

⁸See Hallisey 250.

Except for this reference, we do not get any such examples in the entire *Jalakas*, narrating bhikkhunīs attaining nibbana. They did join the order but are only shown as reaching the First, Second, or of the next states of the Buddhahood (i.e. nibbana).

¹⁰See about Mara (Hallisey 278).

¹¹A very famous laywoman repeatedly mentioned in several Buddhist texts.

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Assessing Empowerment of Women in Sikkim: Milestones and Challenges

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Sikkim, the former Himalayan Buddhist Kingdom has witnessed many development initiatives since its incorporation with Indian Union in 1975 and has made considerable progress in terms of development indicators in recent times. Empowerment of women has always been one of the central focuses of the state, and the state has come out with various women-centric policies and programmes for bridging the gender inequalities in socio-economic spheres. Evaluating various parameters of women empowerment, the paper attempts to assess how the women in the state responded to the state's initiatives and opportunities of women empowerment and appraise the achievement and challenges. The paper concluded that despite socio-cultural and structural constraints, women in Sikkim have come a long way in empowering themselves although there are several challenges to be addressed.

Keywords: women empowerment, human development, gender equality, gender parity index, Sikkim

Introduction

The demand for gender equality and women empowerment is ever-growing across the globe and is considered a fundamental human right that is critical to achieving development objectives. The United Nations Development Programme (UNDP) Human Development Report (HDR),1995 holds women empowerment as a core issue in the development discourse and states that investing in women's capabilities and empowering them to exercise their choices is not only valuable in itself but is also the surest way to economic growth and development. The centrality of women's empowerment and gender equality emphasising inclusive policies and actions has also been an integral part of contextual policy discourses as reflected in Sustainable Development Goals (SDGs) of 2015.¹

Empowerment is a multidimensional social process and it is about participation that

enables an individual to take control and ownership of their lives through expansion of their choices (UNDP-HDR, 1995). The International Conference on Population and Development (ICPD) 1994 focuses on three variables: political power or decision-making, education, and health as crucial parameters of women empowerment as well as Gender Empowerment measure (Chandra, 2007). Equal access to participation and decision making of women in the socio-economicand political life of the nation was also a major component of Millennium Development Goals (MDGs), which would enable women to stand on their own by providing access to freedoms and opportunities and enhancing their position in the power structure of the society. However, despite many initiatives, there still exists a huge gap between the objectives and the situational reality, and women are under-represented in socio-economic and political decision-making processes. Deeply rooted in social structure, women suffer from a lack of access to decent work, are denied access to basic education and health care, and often are victims of violence and discrimination. ²

In India, the spirit of gender equality is enshrined in the Indian constitution, hence the state is empowered to enact legislation and adopt policies and programmes for the empowerment of women. The constitutional provisions are further mandated by ratification of various international conventions like Convention on Elimination of All Forms of Discrimination against Women (CEDAW) 1979, the Beijing Declaration and the Platform for Action (1995), the MDGs 2000 and SDGs 2015 for appropriate follow up for ensuring equal rights of women. The 73rd and 74th Amendments (1993) to the Indian Constitution have been such milestones for the political empowerment of women. Since then, India has come a long way and has made considerable progress in terms of women empowerment indicators.

Sikkim: A Brief Background

Sikkim, a Buddhist kingdom till 1975 is the 22nd state of India located in north-eastern Himalaya. Predominantly inhabited by three major ethnic groups viz; Lepcha, Bhutia, and Nepalis, the state comprises a total population of 610,577 (2011 Census) with 47.09% of the female population. The traditional Sikkimese society being patriarchal, gender-based division of labour has been deeply embedded in the socio-cultural milieu and gender-based exclusion is legitimised. In recent times, the development initiatives of the state in the quest of human and sustainable development goals led to

the formulation of inclusive policies resulting in considerable progress towards women empowerment as evident in Sikkim among holding top two positions in North-Eastern states (NES) in Women's Empowerment Index (NFHS 4, 2015-2016). The sharp rise in terms of the Gender Development Index from 0.445 to 0.528 (1991-1998 (Thapa, 2009) and its maximum acceleration made Sikkim among the top six Indian states (Sikkim Human Development Report (SHDR), 2014).

Against this backdrop, based on various indicators like literacy rate, access to education, health, decision making, work participation and review of secondary information and pieces of literature, the paper attempts to examine how the women in the state have responded to various development initiatives of the state, particularly in terms of empowerment indicators viz; education, political participation, access to health facilities and economic participation.

Education

Literacy level and educational attainment are key variables in measuring the development index. Sen and Dreze (1999) focused on empowerment and distributive roles of literacy and educational achievement that provide an individual with "human capabilities", the power to reflect, make choices and seek a voice in society. The Beijing Platform for Action and MDGs (1995) highlighted education as a human right and an essential tool for achieving social justice and gender equality. SDGs further reiterated education for ensuring inclusive and equitable quality education and promote lifelong learning opportunities.

Retrospectively, girls' education in Sikkim can be traced back to 1912, when the first girls' school was established at the primary level by Christian missionaries. With the history of traditional religious-based monastic education, exclusion of girls in education was a common phenomenon and bridging the gender gap had remained a challenging task for many years (Thapa and Yumnam, 2020). With the state prioritising social sector, Sikkim made considerable progress which is reflected in the improved literacy rate and indicators of educational achievement, ranking fourth among all states of India on the Composite Educational Development Index in 2012-13, a significant jump from the 12th position in 2011-12 (SHDR, 2014).

In terms of literacy rates, the state has been able to bridge the gender gap in literacy and education to a considerable extent. The literacy rate has made a significant jump from 34.05% in 1981 to 82.20% in 2011 as against all India literacy of 74% (2011 Census), ranking 7th in the country and 3th among the other NES of India. The female literacy rate in the state also shows an encouraging trend that has risen from 22.20% in 1981 to 76.43% in 2011, which is much higher than the national average of 65.5%. The gender gap in literacy rate for the state has narrowed down significantly from 21.75% in 1981 to 10.86% as against all India's gender gap of 16.5% (2011 census). The trend is similar both in rural and urban areas. As per NFHS (4) 2015-16, 87.9% of women are literate and 41% of women (15-49 years) in the state have 10 or more years of schooling, an improvement from 22.5% in NFHS (3). The corresponding all-India average stands lower at 36%. Further 79.7% of the female population in Sikkim above six years attend school, a significant improvement from 65.4% (NFHS-3, 2005-06).

Level	Boys %	Girls %	Total %
Primary	116.95	108.05	112.57
All India	98.85	101.43	100.08
Upper Primary	133.96	147.67	140.66
All India	87.71	95.29	91.24
Secondary	104.11	118.51	111.26
All India	78.13	78.94	78.51
Senior Secondary	60.61	76.66	68.55
All India	54.57	53.81	54.21

Table 1: School Level Gross Enrolment Ratio (GER) (2014-2015) Source: https://data.gov.in/node/4251881/download

The school-level Gross Enrolment Ratio (GER)⁴ from 2014-15, which represents the general level of participation in a given level of education, shows that Primary, Upper

Primary, Secondary and Senior Secondary levels in Sikkim in general, and in women, in particular, is encouraging with higher percentage as compared to all India Scenario. In fact, the GER for girls at Upper Primary, Secondary and Senior Secondary levels stands higher than the boys in 2014-15 (Table 1).

Net Enrolment Ratio (NER), which indicates the enrolment of the official age-group for a given level of education (UNESCO, 2009), is higher among girls in Secondary (27.4%) and Higher Secondary level (18.19%) than their respective figure of 24.90% and 14.48% among boys (U-DISE, 2013-14). In general, with NER of 26.14% and 16.32% respectively in Secondary and High Secondary, Sikkim ranks lower than all India average with respective figure of 45.63% and 30.43%. The low NER indicates that a large proportion of children in the 16-18 age group is out of education, which needs critical attention and policy intervention. The state government is trying to address the problem with the proper implementation of Sarva Shiksha Abhiyan and Rashtriya Shiksha Abhiyan which recently has been subsumed under Samagra Shikshya Abhiyan.

States	All (Categori	es %	SC %			ST%			
State	M	F	Т	M	F	T	M	F	Т	
Sikkim	36.7*	38.5*	37.6*	36.2	22.5	29.1	20.0	28.8	24.5	
Arunachal Pradesh	28.8	28.5	28.7				34.4	33.2	33.8	
Assam	16.2	14.7	15.4	17.5	16.0	16.8	20.8	18.0	19.3	
Manipur	35.3	33.1	34.2	57.8	47.8	52.8	20.9	18.5	19.7	
Meghalaya	20.4	21.1	20.8	55.3	44.3	50.1	15.7	18.4	17.1	
Mizoram	25.2	23.0	24.1	192.6	96.7	158.0	25.6	23.5	24.5	
Nagaland	14.2	15.6	14.9				13.5	14.8	14.1	
Tripura	19.9	14.0	16.9	18.0	11.3	14.6	12.9	9.1	10.9	
All India	25.4	23.5	24.5	20.8	19.0	19.9	15.6	12.9	14.2	

Table 2: GER in Higher Education for the age group 18-23 years among North-Eastern states & all-India average (2015-16)

Source: All India Survey on Higher Education (AISHE), (2015-16, Provisional).

In terms of GER in higher education (Table 2), Sikkim ranks highest (37.6%) among all NES and holds a higher percentage than all India average (24.5%) as per AISHE, 2015-16. While Sikkim ranks fourth among Scheduled Castes (SCs), next to Mizoram, Meghalaya and Manipur, among Scheduled Tribes (STs), the state occupies second position among NES next only to Arunachal Pradesh. Among the females, GER in higher education stands higher among all categories and STs, while it is lower (22.5%) compared to males (36.2%) among SCs.

Gender Parity Index(GPI) measures ratio of female to male and indicates their relative access to education (UNESCO, 2009). A GPI of one indicates parity between the sexes whereas GPI of less than one suggests a disparity in favour of males. A greater than 1 GPI indicates a disparity in favour of female⁶. GPI in the upper primary level gives a better picture than the primary level which stands at 1.05 and is higher than all-India average of 0.95 & in 2013-14. Sikkim ranks third among NES, next only to Meghalaya (1.13) and Assam (1.07). The relatively better GPI in the upper Primary level is a positive indication of better access of education to girls. At Secondary and High Secondary levels, Sikkim presents a favourable GPI with 1.15 and 1.24 respectively which is higher than corresponding all-India figures of 0.90 and 0.89. Among the NES, Sikkim, along with Meghalaya has the highest GPI in Secondary while it stands 2nd in High Secondary level. This basically indicates that girls score higher than boys in terms of access to Secondary and Senior Secondary level education.

In terms of Higher Education, Sikkim has a GPI of 1.05 next only to Nagaland (1.10) among the NES which is higher than the all-India average of 0.92. At 1.44, GPI among STs stands highest among NES and relatively higher than all India figure while among the SCs, Sikkim with 0.62 ranks fourth and lower than National figure of 0.91 (AISHE, 2015-16). The statistical indicators make it amply clear that over the years, the state has been able to bridge the gender gap in higher education to a considerable degree.

In addition to the above macro-level statistics, the fact that girls are fast coming forward in the field of higher education is also evident in the nomination of students to various professional and non-professional courses. The record from 2001 to 2014 shows, that tentatively 41.3% of the total nominated students (4599)⁷ were female. Streamwise analysis indicates that girls are breaking the gender stereotypes in the

selection of streams and have been venturing into the non-conventional areas of studies as well, which were rarely opted for by women in the past. An examination of the beneficiaries of Comprehensive Educational Loan (CELs)⁸, government-sponsored financial assistance for higher and professional studies indicates that although male beneficiaries constitute 51.70%, female candidates (50.38%) have outscored them in terms of the total loan amount sanctioned. Such inclusive policies of the state government have contributed to addressing the gender gap in education to a significant extent.

The educational indicators reveal an encouraging trend so far as enhancement of women's control over human resources and capacity building is concerned, which is directly correlated to their empowerment process. Yet, there are several challenges concerning quality and infra structural constraints that need the state's intervention.

Political Participation

The entry of women into the public sphere and participation in decision-making is a major turning point and crucial in redefining gender roles. However the sociostructural constraint based on the patriarchal social structure in India acts as obstacles to the political participation of women (Thapa, 2009). In Sikkim, the 73rd Constitutional Amendment Act, 1993 and the Delimitation of Gram Panchayat and Reservation of Seats in Gram Panchayat and Zilla Panchayat Rules, 1997, mandated 1/3rd of the seat reservation for women in local self-government which was increased to 40 % in 2007. The Sikkim Panchayat (Amendment) Bill, 2011 further increased the seats to 50%, thus becoming the first NES to raise women's reservation. The proportionate reservation is aimed to constitute women in the post of Sabhapati and Up-Sabhapati in Gram Panchayats and Adhaksya and Up-Adhaksya in Zilla Panchayats, thus enabling women in political participation and decision making processes at the grassroots level (Subba, 2014). Consequently, women now constitute morethan 52% of the total elected Panchayat members in the state. Although initially there were reported cases of surrogate Panchayat (SHDR, 2001), women are now gradually coming up and making their presence felt in terms of decision making in the local bodies, which has reinforced the empowerment process.

Despite the fair representation of women in the panchayat, the trend is not reflected at the macro-level and women representation in state polity is still relatively low. The 1st Legislative Assembly that was formed in 1974, after Sikkim became an associate state

of India, was marked by the presence of one woman legislator, while the subsequent two assemblies had no representation of women legislators. The scenario changed marginally after the 7th Legislative Assembly (Thapa, 2009) and currently, in the tenth Legislative Assembly, three women legislators comprising 9.37% represent in the 32-member state assembly.

The low level of participation of women in state politics is primarily attributed to socio-cultural constraints. The trace of patriarchal domination does find the reflection as Rai (2020) argues that the paucity of women in Sikkim is primarily due to the reluctance of political parties in fielding women candidates, which is reinforced by the traditional gendered role. Consequently, women are not keen to take office and may fail to attract sufficient support to win. The ideological beliefs and argument against women's right to participate in politics have created a barrier to their political participation and despite legal provisions, their ability to make decisions in politics continued to be questioned theoretically and practically.

Health Indicators

Good health is central to the empowerment process of women. An improved health status enables one to actively participate in collective action for social construction, and healthy women are likely to have greater bargaining power and greater control over resources within the household (ICPD,1995). Inter-Ministerial Conference on Promoting women's Empowerment for better health outcomes for Women and Children acknowledges that greater gender equality can lead to improvements in health and quality of life for women's. Women with a greater agency are more likely to have fewer children, access to health services and have control over health resources, which further fortifies their agency and empowerment (PPD, 2013).

In terms of health indicators, witha per capita health expenditure of Rs. 1,507, Sikkim ranks highest among the NES and higher than the all-India figure of Rs. 1,201 (SHDR, 2014). In addition to centrally sponsored schemes, the government of Sikkim has introduced several programmes like Chief Minister's Comprehensive Annual and Total Health Check-up for Healthy Sikkim (CATCH), Janani Surakshya Yojana, and so on. Accordingly, the state has witnessed substantial improvement in the key health indicators of women. The female infant mortality rate of 27 per 1,000 live births in Sikkim, is lower than the national average of 44. Similarly, the proportion of women whose Body Mass Index (BMI) is below normal is 11.2% in Sikkim, the lowest among

NES and considerably lower than the national average of 35.6% (57). Among maternal health indicators, Maternal Mortality Rate (MMR) and Child Mortality Rate (CMR), which were reported to be acute problems in Sikkim in the past have shown steady improvement. MMR in Sikkim which was reported 540 (per 1,00,000 Live births) as against the all-India figure of 407 (1998)¹⁰ has drastically come down to 25/10,000 live births (absolute number)¹¹ in 2011-12 to 19/10,000 in 2012-13.99.1% of pregnancies are registered and the mothers who had three Ante Natal Care check-up has shown improvement from 47.4% as per National Family Health Survey (NFHS)2 to 87.3% in NFHS-4. While the mothers who received postnatal care from health personnel within 2 days of delivery have gone up from 44.9% to 74.2%, the institutional delivery has drastically improved from 39% to 94.7 in between NFHS 2 to NHFS 4. Among other indicators, the percentage of women (15-49 years) with anemia has also shown a decrease from 76.5% to 34.9% during the same period. As per the Coverage Evaluation Survey (CES), 2009, delivery attended by skilled personnel has gone up from 35% in 1988-89 to 70% in 2009 (SHDR, 2014). The improvement in health indicators presents a positive trend; however, what is more required is the need to address the existing gap by strengthening the health infrastructure to ensure the access of health facilities to all sections.

Women and Work Participation

Social transformation has impacted all aspects including gender relations and this is also reflected in women's participation in economic activities. Women's education, their participation in paid employment and decision-making are the inducing forces that contribute to economic empowerment. As is the trend in NES of India, there is no social bar for women in economic participation and there is an active contribution made by women in all sectors. Women's participation in the workforce is more than 50% according to gender budgeting report of 2005 (Thapa, 2009).

In addition to participation in non-remunerative household work, women are actively engaged in agricultural operation and allied activities in rural areas like animal rearing and livestock, collecting fuel and water, poultry farming, bee-keeping food processing, etc. and along with the male counterpart women are equally contributing in other activities like small trading and vending, constructions sites etc. Tribal women, mostly Lepchas and Bhutias have retained their traditional skills and involve themselves in spinning and weaving contributing to the subsidiary income of the family (Diyali: 2005).

According to the 2011 census data, the work participation rate of Sikkim stands at 50.5%, while the women's work participation rate stands at 39.6% which is much higher than the national average of 26%. A comparative analysis of main workers of four decadal years from (1971-2011) indicates that there has been a shifting trend and occupational diversification.

Table 3 indicates the percentage of the working population in agriculture as cultivators have decreased drastically from 81% in 1971 to 38.1% in 2011. Similarly, the percentage of female cultivators has gone down considerably from 92% to 47.5% during the same period. The increase in the proportion of the population engaged in the non-agricultural sector from 15.1%¹² to 53.5% (2011) during the intervening period is evident of the shifting trend from the primary to the secondary and tertiary sectors. This shift is also manifested among female workers with a rise from 5% to 40.9% in the non-agricultural sector. With the development of human resources and the opening of new employment avenues in the state, the dependence on a primary sector like agriculture has decreased substantially during the last forty years. However, despite the shift in occupational pattern, combining both agricultural laborer and cultivators' category, 59% of women workers are still engaged in agriculture-related work indicating that agriculture has still retained a predominant position as a source of employment for rural Sikkimese women.

The trend in occupational diversification has been observed both in rural and urban areas. Rural women started engaging themselves in income-generating activities like food processing, trading agricultural products and production of handicrafts and weaving, etc. There has been a recent trend of urban women engaging in non-conventional enterprises viz; trade and business, consultancy, marketing, interior decoration, beauty clinics, catering, handicrafts, food processing, readymade garment, boutiques, travel agencies, tourism, travel agency and hotel industry, etc. According to a survey conducted in 2013¹³, travel agencies in Gangtok town comprised a total workforce of 303, out of which 15.5% were women. Although relatively low percentage, venturing in non-conventional fields shows that women are breaking gender stereotypes in terms of occupational choices.

Main Workers category	Percentage distribution of working population														
	1971 198			1981	: •		1991			2001			2011		
	М	F	Т	М	F	Т	М	F	Т	М	F	Т	М	F	Т
Cultivators	74.5	92.19	80.98	50.15	79.5	60.10	50.96	71.7	7.80	35.7	58.0	42.6	32.6	47.5	38.1
Agricultural labourers	4.12	3.16	3.77	3.45	3.06	3.31	8.03	7.37	7.80	3.4	4.3	3.7	6.6	11.5	8.4
Household Industries	0.50	0.13	0.36	1.24	0.74	1.07	1.00	0.33	0.80	1.4	1.1	1.3	1.5	1.9	1.7
Other Work	20.8	4.52	14.8	45.1	16.6	35.52	40.00	20.5	3.60	59.4	36.6	52,3	59.3	39	51.8
Total main workers	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 3: Working Population in Sikkim from 1971 to 2011

Source: Census of India, 2011, Primary Census Abstract, Directorate of Census Operation, Sikkim

SHDR, 2001 highlighted that women in Sikkim are more visible in the public sphere than is the norm for India and South Asia and the number of women in government employment in Sikkim is greater than that of men. There servation of 30% job for Sikkimese women under the State Government in Public Sector resulted in fair representation of women representing 34.4% of State civil service cadre (Thapa, 2014) thus reinforcing the process of socio-economic empowerment of women. Although the representation of women in the highest level of bureaucracy is relatively low, the Sikkimese women can boast of breaking the glass ceiling as evident in 12.2% of women representing as Head of the Department/Secretary in 2011 (Thapa, 2009) and having a women Chief Secretary in the recent past.

Women are also benefitting from various policies of the state government. One such programme Chief Minister's Self Employment Scheme (CMSES) which has been in operation since June 2002. The programme targets local unemployed Sikkimese youths having minimum qualifications up to class X were given financial assistance, to start up self-employment ventures in business, services and industrial activities. An analysis of beneficiaries from 2002-03 to 2014-15 indicates that out of 7,728 young entrepreneurs, who availed the financial assistance for micro-enterprises, female entrepreneurs accounts for 35%, which corroborates that women have been

breaking the traditional roles and gender stereotypes and experimenting their hands in micro-enterprises, which itself indicates the empowerment process.

The participation of rural women in Self Help Groups (SHGs) under Swarna Jayanti SwarojgarYojana is also commendable and outscores men as more than 70% of SHGs are run by women (SHDR,2014). The active participation of rural women under the Mahatma Gandhi National Rural Employment Guarantee Act is indicated by the fact out of total enrolled workers of 163,593 in the state, 47% were women workers which are proportionate tothe state's female population. The emergence of developmental projects, private industries and establishments has also opened up employment avenues and witnessed the entry of women in these areas as evident in 36% for women workers in various industries and establishments in Sikkim.

VII. Challenges

Despite the considerable progress made in gender development indicators, the primary role of women continues to be that of homemakers in Sikkim. The increased work participation, particularly in the informal sector could subject them to exploitation both at home and at the workplace. Almost 24% of the women continue to be illiterate. The gender gap in education, employment and decision-making still persist. Despite the extension of the Hindu Marriage Act of 1955 in Sikkim, the Bhutias and Lepchas of Sikkim are still governed and guided by their customary laws concerning succession, inheritance, and marriage. Women have no legal rights in family property, except their personal belongings and ornaments. Although Bhutia and Lepcha women may acquire property by way of gift or under a will from their parents, the traditional patriarchal social system is reinforced by the Married Women Property Regulations Act, 1962, by which Bhutia or Lepcha women shall forfeit their rights over property in case they marry outside their community (SHDR 2014). The Sikkim Succession Act, 2008 which is a progressive step gives unmarried daughters the right of inheritance to an equal share to the father's property, however, the Act fortifies the traditional practices of inheritance by stating that "where female heir or descendent marries a person who does not possess Sikkim Subject Certificate / Certificate of Identification or has acquired foreign citizenship, such female heir/ descendant shall follow the personal law of her husband and as such shall not acquire any interest in property" (SHDR 2014: 60), which comes in the way of the economic empowerment of women.

Despite the structural constraints, there is no denying the fact that the intervention and pro-women approaches of the state government have contributed immensely in ensuring substantial differences in the status of women in the state. The state initiatives and positive response of the Sikkimese society have already left their mark in empowering women and in bridging gender disparity. Women are breaking gender stereotypes and making their presence felt in different walks of life. In response to the state's investment in social sectors, women in the state are now gearing up to make the most of new opportunities available and place gender relations on egalitarian terms which paves the way for the empowerment process. With the greater assertion of the women, the state will gain an active agency that reinforces social transformation and further consolidates the empowerment process and gender equality in consonance to Sustainable Development Goals.

Notes

https://www.iied.org/why-womens-empowerment-essential-for-sustainable-development

²https://www.womenalliance.org/the-empowerment-of-women-and-sustainable

³National Policy for the Empowerment of Women, 2001

⁴Number of students enrolled in school calculated by the number of children of the ^{*}corresponding school enrolment age (UNESCO, 2009)

⁵Expressed as percentage of the corresponding population

⁷Directorate of Technical Education, Human Resource Development Department Government Of Sikkim

⁸Implemented in 2007, State government provides interest free loan during course duration plus one year or six months after getting job.

922nd-23rd October, 2013

¹⁰Sikkim: A Statistical Profile, 2004-05

"MMR in Sikkim is calculated in absolute numbers since the state does not record 100,000 live births every year (SHDR, 2014).

¹²1971-Combined figure of household industries and other work category

⁶https://www.drishtiias.com/

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Synthesis and Analysis of Factors affecting Environmentalism: A Meta-Analysis Approach

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The world today is witnessing the devastating impact of climate change. Unplanned development, selfish economic activities and irresponsible actions of businesses and consumers have made environmental degradation a serious problem that requires active and concentrated efforts from all stakeholders. Though a number of academic studies have identified and examined various factors for their role in mitigating environmental problems and inducing pro-environment behaviour, a consensus with respect to the nature and impact of factors is majorly lacking. Using meta-analysis approach, the present paper makes a contribution in this regard by analyzing and synthesizing the results of 31 previously undertaken research studies. Of the eight factors examined, the findings of the current work establish a positive and significant impact of three factors namely, product characteristics, organizational characteristics and environmental awareness in affecting environmentalism. At the end, the paper outlines the ways in which the remaining factors can contribute in infusing pro-environment behaviour.

Keywords: environmental degradation, environmentalism, green adoption, heterogeneity

Introduction

Haphazard developments and unsustainable economic activities have resulted in environment problems of global warming, rising sea level, ozone layer depletion, environmental degradation, uncontrolled GHGs emission and decertification. The changing environment has also brought about a change in the agricultural patterns, weather conditions and food habits, introduction of new deadly diseases, drug resistant bacteria and viruses. In response, countries come up with rankings and

indices every year to show their environmental performances. Numerous conventions, agreements and protocols related to environmental protection have been formulated and laws and policies concerning environment have been framed in the last one decade to address the problem of environment dilapidation. Not only this, active measures in the direction of imposing fines and taxes on offenders, exploring renewable sources of energy, introducing innovative and energy-efficient technologies, forming NGOs and other associations to fight climate change and create awareness among people are continuously being undertaken to arrest the increasingly deteriorating situation.

However, a faster transition to a low-carbon emission and sustainable development requires not only technologies, but also policies, user practices, information diffusion, market efficiency, and finally behavioral change among people. While work culture and corporate values accelerate or inhibit the level of environmentalism (or proenvironment behavior) in organizations, it is seen that the level of environmentalism among consumers is influenced by motivational, contextual and habitual factors such as consumers' general environmental beliefs and attitudes, environmental laws, drivers and barriers, monetary and non-monetary costs and benefits, social influence and government policies. In other words, it can be said that the mitigation of environmental degradation is possible only through collective participation and understanding of factors that affect the phenomenon of 'environmentalism'.

On the research front too, though numerous studies have examined multitude of factors for their impact on green adoption and environmentalism, a holistic analysis of the findings of research conducted in this area is lacking. Further, the application of meta-analysis has largely been confined to medical sciences and some related fields of hard sciences (Borenstein et al., 2009) and has not been used much in the field of marketing. It is in this regard that the present study makes an attempt to contribute to the available literature by providing a comprehensive view of the impact of various factors that affect pro-environment behavior of a country and its citizens using meta-analysis technique.

Understanding 'Environmentalism' and its Drivers: Review of Literature

In simple terms, 'environmentalism' can be understood as a pro-environmental behavior. According to (Fabi et al., 2017), the probability of an individual displaying a pro-environmental behavior depends on his pro-environmental attitudes, personal

effort and on the difficulty of the behavior. Thus, the phenomenon is measured in terms of aspects such as change in behavior and attitude towards environment, level of awareness among people, change in production and operation process to more efficient and environment-friendly method and sustainable consumption (Chen and Chai, 2010).

The extant literature on environmentalism explains the relationship between environment, individuals and the society through two dominant and contradictory theories. One, the environmental deterministic theory (given by Friedrich Ratzel in 1882), which states that physical environment (particularly climatic conditions) influence an individual's psychological mind-set, which in turn shapes the behaviour and culture of the society (Gallup, Sachs, and Mellinger, 1999). For example, while the tropical climates (region between tropic of Cancer and tropic of Capricorn) with stable climatic conditions were said to cause laziness, relaxed attitudes, promiscuity and generally degenerative societies, the frequent variability in the weather of the temperate regions is believed to result in a more determined, ethics-driven, more civilized and 'stronger' societies. Two, the environmental possibilism theory (given by French geographers Vidal de la Blache and Jean Brunhes), which believes that the physical environment only sets certain constraints or limitations, but does not define culture. It is the opportunities and decisions that humans make with respect to physical environment that provides ways for culture to develop (Matthews et al., 2012); for instance, plans to build the longest indoor ski slope in Dubai, even though snow skiing in the Middle East is not prevalent.

A middle path of neo-deterministic or stop-and-go determinism theory is the most accepted one. A reflection of this is seen in the form of corporate environmentalism which provides superior and sustainable capabilities to the organizations through implementation of green organizational values and business practices(Chan et al., 2018). In fact, it is the best strategy that an organization can adopt to become a market leader in the field of environment protection and can earn a reputation in the society. As the society is becoming aware of the changes in the natural environment, businesses have started modifying their behavior (Boztepe, 2012). This is evident in their adoption of environmental management systems, green supply chain management, waste reduction and recycling practices (Yoon, 2018). Further, modern organizations are re-evaluating traditional approaches and ascertaining the impact of their business practices on the environment and have started incorporating

environmental and social costs into the economic costs of business decisions (Banerjee, Iyer and Kashyap, 2003). At a broader level, society at large comprises of environmental stakeholders – all of whom are affected or can be affected by the organization's environmental strategies and actions and as such have the responsibility to embrace the challenge of environmental degradation and act sensibly to protect it (Orhan, 2008). For consumers too, environmentalism gives an environmental identity that expresses a progressive relationship of an individual with nature (Thomashow, 1992), wherein an environmentally aware consumer displays environmental concerns, behaviour and attitude which distinguish him/her from rest of the consumers (Arnocky, Stroink and DeCicco, 2007).

Over the years, researchers have identified and classified multitude of factors that affect the phenomenon of environmentalism. These factors, generated from extensive review of literature, are discussed below.

- i. Industry characteristics: One of the most important factors affecting the adoption of green strategies by the business organizations is the industry characteristics, measured through aspects related to the type of industry (manufacturing, services sector, polluting, non-polluting), concentration of industry to a particular location, efficiency of supply chain and production logistics, pattern of vertical and horizontal integration, size of the industry and amount invested by industry in research and development activities. Concentration of industries in western European countries with strict environmental laws and regulations pressurizes industries to adopt ecofriendly technologies to reduce their carbon foot prints (Steg and Vlek, 2009). Similarly, industries with efficient supply chain network and strong integration (both vertical and horizontal) areable to reduce the logistic and transportation costs (Adnan, Nordina, and Rahmanb, 2017). However, the adoption of green strategies in business operations requires huge investment on research and development (Chan et al., 2018) that often acts as a barrier in the adoption of eco-friendly technologies by the industry (Davis, 2017).
- ii. Market Area Characteristics: Any market area is characterized by its size, level of competition, and purchasing power of consumers (including wealth, household and location) within meta-spatial system. It can be physical or virtual market. Studies have reported that people with similar socio-economic

- and demographic characteristics tend to cluster (Liu, Roberts, and Sioshansi, 2017) and get influenced by the buying behavior of their neighbours (the proverbial 'keeping up with the Joneses'). Since green products and services come with a premium price their demand is generated by households that have high income and financial ability to afford new products (Mahapatra and Gustavsson, 2008).
- iii. Product Characteristics: Studies have opined that a product's characteristics, defined in terms of its relative advantage (including price, productivity and performance), compatibility with innovative products, simplicity and user-friendliness, testability before mass adoption, observability (or uniqueness) and perceived risk impacts consumers' adoption and purchase decision concerning green innovations (Jansson, 2011; Guagnano et al., 1986). Studies (Deel, 2012; Claudy, Michelsen and O' Driscoll, 2011) have posited that the likelihood of adoption is lesser in case of lesser relative advantage perceived by the consumer. Similarly, the higher the perceived risk of the eco-friendly products, higher is the chance of its rejection.
- Organizational Characteristics: Various literatures suggests that the size of iv. the firm based on annual turnover, organizational capacity and human resources, corporate culture defined by the top-level management, research and development investment, competitors green practices and technology readiness are some of the important aspects of the organizational characteristics that affect the adoption of eco-friendly practices by the firms. It is posited that the ability to finance the implementation of greener solution directly depends on the size of the firm due to which small-scale manufacturing firms are less likely to introduce eco-friendly production technologies (Luthra et al., 2016; Sommerfeld, Buys, and Vine, 2017). Further, employees' lack of awareness on the issue of climate change and lack of adequate skills or training also hinders the implementation of a firm's related green solutions (Yang et al., 2017). However, in the presence of management commitment, the green practices of competing firms may result in a top-down effect and persuade people at lower levels to improve the organization's image by adopting greener and eco-friendly solutions (Schofer and Granados, 2006).

- v. Public Policy: Laws and regulations, government stimulus expenditure, green ratings and certification, utility rebates for using green technologies, state and local grants, interest subvention, subsidize loans and other public incentives are some of the ways through which government and policy makers promote the adoption of eco-friendly technologies (Zhai and Williams, 2012; Sommerfeld et al., 2017).
- vi. Socio-Economic Factors: Marketing literatures have well instituted the role of personal, cultural, social and psychological factors in influencing consumer behavior (Gadgil, 2016; Noonan et al., 2011). It can thus be inferred that individual differences, social influences, beliefs, attitudes and situational influences are some important drivers which exert an impact on proenvironment behaviour of consumers and should be considered by firms while designing their green product offerings. In this regard, Agyeman (2014) suggests inclusion age, gender, income level, education, reference groups and self-image as some of the important variables that can be used by researchers to capture the effect of socio-economic factors on environmentalism.
- vii. Environmental Awareness: The available literature reports that an individual's awareness of issues concerning environmental degradation such as global warming, rising sea level and increasing pollution motivates him to display certain eco-friendly behaviours (Mishra et al., 2014). For example, an individual who is aware about rising air pollution and decreasing water table is more likely to prefer a public transportation system and would attempt to minimize water wastage, thereby exhibiting his concern and proenvironmental behaviour. The existing academic literature also suggests environmental awareness to have direct linkages with educational qualification (Dietz and Kalof, 1992; Florenthal and Arling, 2011).
- viii. Climatic Conditions: Last but not the least; studies have established the direct impact of climate and geographical conditions of a place on the adoption of green technology. For instance, Queensland in Australia receives sufficient amount of solar insulation throughout the year due to its location between the equator and the Tropic of Capricorn. As reported by Agnew et al. (2018), this has changed the energy consumption pattern of the households in Queensland where the PV installations increased from less than 1000 in 2008 to more than 400,000 in early 2016, equating to nearly 1.5 GW of capacity.

Methodology

Meta-analysis is a statistical method of synthesizing the quantitative outcomes of all the relevant studies to measure the effects of independent variables (such as industry characteristics, market area characteristics, product characteristics, organizational characteristics, public policies, socio-economic factors, environmental awareness and climatic conditions in the present study) on a dependent variable (Hak, Rhee and Suurmond, 2018), and is considered as one of the strongest ways of presenting the empirical research findings (Miller, Fredericks, and Perino, 2008). Since a large number of studies have examined the impact of above-mentioned factors on environmentalism, the present work aims to draw a conclusion by synthesizing the outcomes of independent primary studies from the analysis of limited ones. The use of meta-analysis approach in the present work thus seems appropriate and relevant (Wampold et al., 2000). The step-wise methodology followed for conducting meta-analysis in Review Manager (RevMan) version 5.3 is discussed below.

Screening and Selection of Studies

Research papers from all possible sources and electronic databases such as Google Scholar, Research Gate, Scopus, Science Direct, and JSTOR were collected to conduct an exhaustive and in-depth literature review. This provided a literature base of 1498 papers. The abstract of these papers were read to get a brief idea about the context, statistical method used and outcome of the study. A selection criterion was also developed for the next stage of screening in which each paper was examined in terms its relevance, methodology, sample data, statistical analysis, intervention and comparison group, and finally the outcome.

A total of 1238 papers were not in accordance with the above criteria and hence were excluded. Detailed reading of the remaining 260 papers resulted in further exclusion of 229 papers that had missing data, incomplete information or invalid outcome. A set of 31 remaining papers were used for final meta-analysis.

Codification and Extraction

Codification helps in explaining the nature of the study and the variations that are present in the analysis outcome. In the present work, 31 papers finalized for meta-analysis were coded on the basis of multitude of characteristics such as sample size (discrete or continuous variable), population characteristics, methodology, type of moderator (dichotomous, quantitative or mixed), dependent variable and independent variables.

Research Objective and Hypotheses

The objective of the present paper is to synthesize the findings of previous independent studies with respect to the impact of various factors (identified through an extensive review of literature) on environmentalism. Meta-analysis is conducted to combine the findings of the following hypotheses:

- H₁: Industrial characteristics have a positive and significant effect on the level of environmentalism
- H₂: Market area characteristics have a positive and significant effect on the level of environmentalism
- H₃: Product characteristics have a positive and significant effect on the level of environmentalism
- H₄: Organizational characteristics have a positive and significant effect on the level of environmentalism
- H₅: Public policy has a positive and significant effect on the level of environmentalism
- H₆: Socio-economic factors have a positive and significant effect on the level of environmentalism
- H₇: Environmental awareness has a positive and significant effect on the level of environmentalism
- H₈: Climatic factors have a positive and significant effect on the level of environmentalism
- All the hypotheses (H0: \overline{T} :=0 were tested at 95% confidence interval for the random effect weighted mean, given by the formula: $T = 1.96(\sqrt{v_*})$
- Were \overline{T} : is the random-effects weighted mean and v is the variance of the random-effect weighted mean.

Analysis Procedure

Estimation

The first step in data analysis is to select the summary effect model. Of the two models of estimating summary effect i.e. fixed and random, the present work has estimated

the mean effect size using random effects model. The decision is based on the two-stage assumption that each study's effect size is randomly drawn from some underlying population of effect sizes having mean, θ and variance τ^2 (tau square) and the variation is due to the fact that the samples drawn for the study effect size vary from the mean effect size by the sampling variance vi.

Since the focus of the current work is to approximate reliable outcome on the basis of evidence-based research, the effect size is estimated based on the objective of the study and the hypotheses formulated for the estimation. Accordingly, the dependent variable reflects the level of environmentalism and the eight factors identified from literature review constitute the independent variables. Further, the outcome variable is considered as dichotomous (such as yes/no, success/failure, affected/unaffected) and is presented with odds-ratio using logarithmic scales where the distance between 0.1 and 1 on the horizontal scale is equivalent to the distance between 1 and 10 (Pigott, 2012; Ried, 2006).

Though meta-regression is also an important part of meta-analysis but is useful only when there is sufficient number of studies with effect size through which the influence of multiple moderators on effect size can be estimated. Due to lesser number of studies finally included for analysis in the present work, meta-regression would have given a less precise result and hence has not been conducted. Another reason for not using the meta-regression technique is that unlike the case of medical science research where meta-regression on similar sets of observations (such as impact of a particular vaccine on males and females, young or old patients) predicts accurate relationship between two variables; research is the field of social sciences (including marketing studies) is based on a diverse or heterogeneous set of observations and so weakens the feasibility of using meta-regression approach to accurately predict the relationship between independent and dependent variables.

Forest Plot

To present the effect size estimation of each of the study included in the present work, forest plots were prepared. Working on the approach stated by (Matysiak and Vignoli, 2008), weights were assigned on the basis of study sample size and precision level.

Greater weight signified higher influence of the study on the overall results. While the numerical result (or the effect size) of each study was depicted in the form of oddsratio (or relative risk) and confidence interval, the significance of analysis has been expressed by p value, where the overall effect is considered significant if the p value<0.05.

Heterogeneity

Heterogeneity measures the diversity or variance between studies and can be tested through Cochran's Q statistic and I_2 index. Ranging from 0 to 100%, the value of $I^2 \le 25\%$ indicates homogeneity (in which case fixed effect model can be used for analysis) whereas the value of $I^2 \ge 75\%$ denotes large heterogeneity (wherein the use of random effect model is preferred). I^2 index of all the forest plots in the present work revealed high level of heterogeneity, probably due to the availability of vast and diverse literature related to the topic of research. Further, due to biased estimates of I^2 reported if the number of studies is small; the present study also tested heterogeneity through the overlap of confidence interval lines in the forest plot. The test once again depicted high heterogeneity.

Overall Results and Hypotheses Testing

Finally, the chi-square test is used as a measure of the relationship between independent factors and the level of environmentalism. On the basis of the results compiled in Table 1, it is evident that product characteristics, organizational characteristics and environmental awareness lie to the right side of the neutral point on x-axis and thus are important and significant factors (p<0.05) affecting environmentalism.

The factors related to industrial characteristics, market area characteristics, public policy and socio-economic factors are also found to influence environmentalism. However, few studies have reported that the impact of these factors on environmentalism is not significant. The last factor concerning climatic conditions lies very close to neutral point 1 and hence does not play an important role in affecting environmentalism.

Drivers	Summary Effect	Prediction Interval	F	leterogeneit	Overall Effect	p-value	
	0-12-04.30.3		Tau ²	Chi ²	I ²	(Z)	
Industrial Characteristics (H ₁)	3.33	0.55-20.03	5.64	437.16	99%	1.32	0.19
Market Area Characteristics (H ₂)	2.72	0.36-20.63	6.24	1597.30	100%	0.97	0.33
Product Characteristics (H ₃)	9.54	2.52-36.19	4.05	732.87	99%	3.32	0.0009*
Organizational Characteristics (H ₄)	9.61	3.01-30.70	2.92	978.36	99%	3.82	0.0001*
Public Policy (H ₅)	1.24	0.25-6.21	5.29	1520.56	100%	0.26	0.79
Socio-Economic Factors (H ₆)	3.47	0.20-59.17	29.03	35002.88	100%	0.86	0.39
Environmental Awareness (H ₇)	3.58	1.28-9.99	1.99	327.31	98%	2.43	0.02*
Climatic Conditions (H ₈)	1.05	0.07-14.62	7.18	2351.08	100%	0.03	0.97

*p<0.05

(Source: Prepared by Authors)

Table 1: Meta-Analysis Results

The above results lend support to the acceptance of hypotheses H_3 , H_4 , and H_7 in establishing the positive and significant impact of three factors namely, product characteristics, organizational characteristics and environmental awareness, on proenvironment behaviour, while rejecting the hypotheses (H_1 , H_2 , H_5 , H_6 , and H_8) concerning the remaining factors.

Conclusion and Limitations

The present study makes a contribution to the existing literature by applying metaanalysis to relate, integrate and interpret the results of studies previously undertaken in the domain of green marketing and pro-environment behaviour. In all, the synthesis of the findings of 31 selected research papers with regard to the impact of various factors on environment provides useful inputs for all stakeholders. For instance, due to their strong impact on environmentalism, factors related to product characteristics, organizational characteristics and environmental awareness should be strengthened further in terms of making people aware about the environmental problems and encouraging them to adopt eco-friendly product offerings. Continuous research and development in the direction of green technology adoption and product modification would enable the firms in replacing conventional products with green offerings in future.

Even though the remaining factors do not exert a significant impact on proenvironment behaviour, yet due emphasis on these aspects may help in infusing such behaviour by bridging the gap between demand-side and supply-side constraints. For example, public policies act as an enabling factor and can be formulated to promote environmentalism among consumers as well as producers. At the same time, the minimization of demand-supply gap also requires due coordination between government, businesses and consumers. Thus, while the organizations must adopt eco-friendly strategies in their business operations through energy saving production processes, green supply chain management, efficient recycling and recovery mechanisms, marketers should use effective marketing strategies to promote their green offerings. Similarly, government must promote environmentalism among organizations and consumers by offering various monetary and non-monetary incentives such as utility rebates, tax concessions, interest subventions on loans, and green certifications. Apart from this government must also promote the culture of extended producer's responsibility among businesses along with efficient reporting and monitoring mechanisms. Lastly, despite being largely uncontrollable and found to be having no influence on environmentalism, climatic conditions play a pivotal role in changing the consumption pattern of people residing in any particular area and channelizing them towards eco-friendly and sustainable consumption behavior.

In sum, it can be concluded that the need of the hour is for all the stakeholders to exhibit a high level of Environmental Intelligence Quotient (EIQ) that would require them to not only perceive, evaluate, and understand environmental issues but also take stringent actions to protect the environment.

•Some of the limitations of the present work can be addressed by future researchers. Firstly, the papers selected in the present work were quite diverse, resulting in high heterogeneity in the outcome. Future research may aim at selecting a more

•homogeneous sample of studies. Secondly, only the published literature has been used for the synthesis. An attempt to include the findings of unpublished work in the analysis may provide a different perspective. At the end, through the use of meta-analysis, the current paper has opened a new dimension in the field of marketing research, leaving the scope for further exploration and improvement by researchers in future.

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Poetics of the Anthropocene: Sympoietic Poems and Fables of Suniti Namjoshi

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This paper argues that Suniti Namjoshi's poetry and fables, by their association with nonhumans, birds, plants and flowers generate 'poetics of the anthropocene' indicating the human turn marked by 'Great Acceleration,' and in doing so she exquisitely conveys the human-nonhuman encounter. The 'nonhuman turn' becomes apparent in her *Poems* (1967), *Sycorax: New Fables and Poems* (2006), and The Fabulous Feminist (2012). Namjoshi meditates over the human-nonhuman relationship, the anthropocentric approach, anthropormorphous representations and the 'othering' of the nonhuman in the human world. She draws attention to this unequal relationship between the human being and the planet earth. She revisits mythic characters and animals to examine the normative and suggest new possibilities for a dying planet.

Keywords: Suniti Namjoshi, anthropocene, sympoiesis, human-nonhuman encounter, poetry, fable

This paper attempts to situate selected poems and fables of Suniti Namjoshi within the recent developments in the fields of humanities and sciences, especially those related to the anthropocene, and steering in the direction of limiting the damage done by humans to the planet. In this era of the anthropocene, the earth has reached the "point of no return" (Angus, 2016; Figueroa, 2017; Denny, 2017; Fremaux, 2019; Reiss, 2019; DeLoughrey, 2019; Hornborg, 2019). The proponents of the anthropocene contend that the extreme importance given to humanistic ideals has resulted in the formation of tight, suffocating, narrowed, artificial and isolated human identity, alienated from nature. The literature of the anthropocene can be marked by an attempt at re-establishing the lost link with nature and the nonhuman.

Suniti Namjoshi's poems and fables depict the struggles of breaking free from this constrained human identity limited by a capitalist, patriarchal and consumerist perspective. Her writings may be seen as an attempt at carrying on a dialogue with her surroundings which contain both the natural and the mythical. They depict an element of sociability and a sense of identification with plants and animals, treating them as an extension of human self, thereby subverting the hierarchy of the life-pyramid where humans are on the top followed by animals and plants at the bottom. This indicates a shift from autopoietic to sympoietic approach, as M. Beth L. Dempster explains:

Autopoietic (self-producing) systems are autonomous units with self-defined boundaries that tend to be centrally controlled, homeostatic, and predictable. Sympoietic (collectively-producing) systems do not have self-defined spatial or temporal boundaries. Information and control are distributed among components. The systems are evolutionary and have the potential for surprising change. Since they cannot be identified by boundaries, sympoietic systems must be identified by the self-organizing factors involved in their generation. (v)

Moreover, Namjoshi engages in expanding self and "amorphous poetics" correlating, displacing, replacing, allegorizing and alluding to the experience of this evolution. Her poems are, to use the concept of Donna Haraway: "about rehabilitation (making livable again) and sustainability amidst the porous tissues and open edges of damaged but still ongoing living worlds, like the planet Earth and its denizens in current times being called the Anthropocene" (2016a: 37). The planet's life was threatened by the avaricious exploitation of global resources that began in the Age of Exploration in the 15th century and accelerated in the 17th century with the Industrial Revolution, and resulted in a Eurocentric control of natural resources throughout the "old' and the 'new' world. The mark of the anthropocene is struck in Namioshi's poem "Cain." Its biblical reference connecting to Adam and Eve and the first human descendants creates the picture of the beginning of human race. Cain was a farmer while his brother Abel was a shepherd. Cross referring to these Biblical characters creates an image of two human activities that affected the quality of life on earth. Both farming and domestication of animals are believed to set the stage for the contemporary geological era or the anthropocene. "The Great Acceleration" as it has been termed was set in with "domestication of land" and "defaunation" (Ellis, 2018: 56, 79). Domestication of land meant that "Homo sapien brought plants under his control" (Walker, 2012: 94).

In the story, both Abel and Cain make sacrifices to Yahweh with their own produce but Yahweh bestows Abel over Cain and so, in jealousy and rage, Cain murders Abel. As a

result, Yahweh chastises Cain by condemning him to a life of wandering. Cain then dwells in the land of Nod, where he builds a city and fathers a line of descendants beginning with Enoch. Namjoshi's "Cain" opens with "Listen, my brother, variation of self." This variation is a reference to discordant views that can "split the hemisphere." To the closed world of his brother where he stays "undisturbed" in his "little kingdom," this new Cain asserts the existence of "Two worlds: unshared, unnatural" which he declares to divide "with the surgeon's knife," referring to the division of the globe into the West and the rest (Namjoshi, 1967: 14).

In "The Unicorn," Namjoshi carries on her attempt to understand the beginning of the disconnect of the natural and the non-human from the human, by exploring the mythological world. The unicorn is a symbol of the bond among nature, human and the nonhuman. From an anthropocentric point of view, riding the unicorn suggests taming of the "wild unicorn." Unicorn then becomes a symbol for nature. When the speaker rides the unicorn s/he has actually tamed its spirit. This taming shows the colonial and anthropocentric point of view in the attempt of taming Nature as the speaker is able to pass "leaves and silver thorn" and "foul weather" (1967: 11). The taming of a wild and free creature symbolizes the domestication of the nonhuman by humans. The unicorn, when ridden, comes in the category of horse, along with donkey, mule and zebra. These were used as a means of transportation before the coming of motor-cars. Therefore, the unicorn serves as a symbol of man's conquest of nature. But the industrialized world is further fractured from the living natural world, as the automobiles are fuelled by petroleum, which is the remains of living creatures long dead. The unicorn can thus be seen not only as a mythic animal but also as an extinct animal. Studies indicate that the sixth wave of extinction in the history of the earth eliminated plants and animals due to deforestation of tropical rainforests, overhunting, overfishing and loss of habitats (Barnosky et al., 2011; Schwägerl, 2014: 43).

From a modernist perspective this poem conveys a nostalgia for human-animal bond. Human beings do not exist "as separate entities in perpetual antagonism with a nature that is external to them" (Pepperell, 2003: 22). So beyond the critique of the modern, Namjoshi uses the unicorn to symbolize the prehuman existence in the same way that "Byzantium" is an objective correlative for a mythical past for Yeats, in "Sailing to Byzantium," where he expresses his desire to go back to Byzantium because he does not find himself compatible with the world around him.

In The Fabulous Feminist (2012) Namjoshi continues her identification and engagement with nonhumans at the mercy of growing scientific enquiry and warring with religious determinism. In "Meat Eater's Poem" the speaker claims as "though I mattered" and presents the picture of "fur and feathers/glowing, gashes still showing,/ exactly where I had maimed or murdered them" (2012). "Neither Mr. Darwin nor the Farmer' is strongly inclined to show how humans look at the job of animal farming. This is conveyed through a conversation among sister geese as to how the old goose survived despite human-centric approach of the farmer. Mama Goose says, "I have survived...because of my genes."Life is earnest. Life is brutal." But then an old sister glares at her and retorts, "You're neither the fittest nor the fattest of us all. You've survived because you are too skinny to kill" (2012). This places the focus on the question of survival of the old geese: Has she survived because she is the fittest, as Darwin proclaimed, or due to chance, or because she appears to be unpromising to the farmer? Namjoshi appears to maintain the ambiguity suggested in the title that the answer lies neither in the theory of evolution nor the inclination of the farmer, a human being who has appropriated the role of God.

Anthropocentricism suggests that anything or any being will survive only if it is of certain use to the human being. As the fourth goose sister says, "The farmer is our Master. He feeds and protects us because each of us in her own way does very best to serve him faithfully"(2012). The survival of nonhuman species is predicated upon serving human concerns and motives and looking at nonhumans from human-centric point of view. All the geese explain the bases of their importance to the farmer and are allowed to live. The first goose says that she "lay[s] golden eggs," another says she "lay[s] proper eggs and raise[s] proper gooslings," the third one says that she is being fattened for a grand feast. Then all of them together ask the old goose "why does the Farmer permit you to live?" She simply says perhaps it is "chance" (2012). The human approach to nonhuman becomes apparent as whatever serves humans is bred, multiplied and consumed, and whatever is left and is alive is only so because humans have not felt the need for them or noticed them. This encounter is shown in "Animals" as Namjoshi writes how animals are caged and controlled.

You Spoke and the animals returned to their cages though all they had done was stand and look. (2012)

The patriarchal dispensation that has marred the harmonious co-existence of creatures is marked responsible for the fate of the earth: the Master Spoke, as once God had spoken, an obedient and vulnerable world into existence, an existence that has become a punishment for the less privileged, where the strong still feed on the weak.

This profound realization of the reversal of fortune of the planet is clearly attributable to a nature-human disjunction where humans have exchanged the natural for the 'manufactured.' The imagist construction of the thought that rises in the human mind in some of Namjoshi's poems marks her attempt to work out the beginning of the end of nature in the human world. The poem "When I Die I Might Be Rich" is a realization of the materialism of the human world. The speaker asserts "When I die I might be rich" and "an inventory, a collection of records" should be made of everything that she has, namely, "stately home," "paintings, tables and chairs," an indication of the human desire for accumulation (1967: 16). But then the poet expresses her realization of the hollow ownership of these man made things that she claims as hers to leave behind. In contrast there are other things on which she "had a less hold.... Trees, grass, and blue sky... clear water and sun", that are not considered as wealth because they are consumed for free. But now she understands that these are her true inheritance and legacy: "Through my wealth, I acknowledge my debt" (1967: 16).

On a similar note, "The Flea-Bitten Monkey" is a satire on people that "suck" and who may act as parasites on the riches of the earth. The speaker here says:

I've a fondness for it, my fur and bone,

My flea-bitten monkey.

But it must be put away.

Old friend, old skeleton, you're really a worm

And you'll eat away the rest of me

Before I'm dead. Farewell worm. (1967: 11)

In "Parable" the culpability of human avarice is finally equated with the "capitalocene" or the "capitalistic Anthropocene." Moore (2016) and other theorists have talked about the connection that anthropocene has with capitalism. Not all the

people on earth equally affect the quality of life. Those with wealth and power can affect the earth in a much more drastic manner than those who are poor. The poem begins with a sense of realization of wasting money and time, as the speaker says:

Came to my Father's house,
The money spent.
So He gives me eternal life.
Profligate, I say, "Here's a pickle,
How shall I spend eternity? (1967: 13)

Reference to the profligate is clearly an indication to the human race as it has exploited its resources. Spending life till eternity is a pickle because it is unimaginable to continue living on this dying planet where resources are exhausted and that which remains is acidic, decomposed, sour, piecemeal and scarce.

"Terra and the Spectator" emphasizes this notion of "dying planet" as proposed by anthropocene thinkers and schoalrs (Tsing, et al. 2017; Shellenberger and Nordhaus, 2011). The speaker in the poem fails to look at "the stains on her dress," that are the wounds on her body. He says, "You're a lovely planet. / All your children are such good-looking youngsters.... But she didn't answer/ And the observer fell asleep on her breast" (Namjoshi, 1967: 8). The rapacious unconcern of the human in the enjoyment of the earth's body is an attempt at 'shaming' the exploitation of the 'other,' the captive of history.

Roy Scranton writes in *Learning to Die in the Anthropocene* that global warming is "not the latest version of a hoary fable of annihilation. It is not hysteria. It is a fact. And we have likely already passed the point where we could have done anything about it" (2015: 17). In "Sycorax," Namjoshi describes the purpose behind the entire collection, *Sycorax: New Fables and Poems* (2012) with its association with Shakespeare's The *Tempest*, and expresses "the Orbis Spike" marking anthropocene initiated by "the Columbian Exchange":

...in which the 'collision of the Old and New Worlds' marked humans as not only a global species, but now also a global system and a global force with geologically unprecedented consequences, including the global interchange and homogenization of Earth's biota. Moreover, the unprecedented scales of social change, resource extraction, and commercial land use unleashed by Europeans in the Americas ultimately fuelled the development of industrial societies. The emergence of Earth's first global human system unfolded over hundreds of years, leaving a permanent, though mostly diachronous, record in

the global homogenization of flora and fauna together with the usual material evidence of transformative social-environmental change (Ellis, 2018: 96).

The poem "Red Flower" projects this encounter of human and nature as the speaker says: "It is with scientific fingers that I touch/ The part of a red flower." The flower is used for testing fidelity or as an instrument of "Love me/ Not." However, it shows how nature is used by human:

...I hold

Away from me, in my hands and examine.

Strip the petals one by one

Till you come to the private parts. (1967: 8)

With clear historical hindsight, Namjoshi focuses, even more deeply, on the impact of all human enterprise on life and ecology, and emphasizes that despite all ambitions and desires what remains is the theme of "taking stock towards the end of one's life." In "Once I saw," the speaker shows how s/he had played with her brothers on the banks of the Ganga oblivious of the fact "that the throng in the temple/ Was us, never guessing that the corpse/ In the river was us" (1967, 10). This realization of wastefulness, dying and death instills the sense of uncertainty and concern for what human race has left for them. Similarly, in "Twelve Ways of Looking at a Giant," she writes about the end: "after all his acquisition of power and his loss of it, what the giant thinks about is the light filtering through the leaves" (2012).

Namjoshi attempts to harmonize the natural, the rational, the emotional, the human and the nonhuman worlds as interconnected and one in spirit in "Disturbance" and "Angler." In "Angler," she talks about the concentric circles in the pool, "I thought a profound thought may lie" in the centre of the pool. But even that ends with the "pitiless search for epithets of life" and what one is left with is "the carcass, / Finger, hand and body" (1967: 16). She creates another image of an undisturbed, clear pool where mud is settled and even the sky gets reflected in the poem 'Disturbance.' She coincides the experience of human encounter with the emotional one. This poem projects the picture of silver-fish that often appears on the surface when things are disturbed. Here thought itself is projected as silver fish that is noticed when the debris in soul is stirred. The pool is disturbed by "an idle stone" but the impact remains as "the pool has buried" the "image under the unwrinkled glass" (1967: 15). The fate of the creatures in 'Angler,' and in 'Disturbance,' is that of shift of perspective, from

human to nonhuman. Namjoshi's comparison of thought with silver fish can be seen as a probable solution for the anthropocene crisis by embracing all the 'critters' on Earth, which, according to Haraway "requires learning to be truly present, not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings" (2016b: 1).

There is an optimistic turn in her reflections as she attempts to undo the 'othering' of the nonhuman in the poem "Beauty and the Beast." This fairy-tale at one point of time was made to reiterate the difference between culture and 'unculture,' further widening the chasm between the human and the animal world. The cultures which were closer to nature were seen as inferior and primitive. Jens-Christian Svenning in his article "Future Megafaunas" states:

Today, the biggest wild animal in most places would be a kangaroo or a deer. This is a novel situation on time scales of thousands to millions of years. Wildernesses and other natural areas around the world are haunted by ghosts of giant animals: mastodons, ground sloths, and tapirs in the Appalachian forests; giant wombat-like marsupials in Australia; and elephants, rhinos, and aurochs in Europe. These giants occurred all across the world until recently, and their disappearance—which continues today, as seen in the rhino-poaching crisis in Africa—is tightly linked to us, *Homo sapiens*. (2017: G67)

Namioshi once again hints at the anthropocenic aspects concerned with the loss of megafauna. One of the compulsions in the original story of 'Beauty and the Beast' was about the anthropomorphing of the beast. The beast had to turn back into the human form to claim its position in the human world. As Carlo Brentari marks, the "hierarchical situation of the biotic community in contemporary times, the Anthropocene, pivots on the principle of the superiority of man over non-human animals; on this principle is based the claim that only humans are worthy of moral consideration and legal protection" (2016: 127). Namjoshi reverses this principle as her poem adds a twist to this popular fairy-tale. When the beauty in her poem married "the ugly beast" she waited for him to change his shape but she found that "there were two beasts in bed" (1967: 12). This change in the poem is an alternate possibility: the unconditional acceptance of nonhumans as equals. The literary twist of Beauty herself transforming into the Beast rather than the Beast transforming into the human suggests an optimistic model for a more inclusive world, where the binaries between the human and the nonhuman world are not so entrenched that there is no way out of the anthropocentric disequilibrium.

After cogitating about the human control over the planet in *The Fabulous Feminist* (2012), Namjoshi stops to question why "do poets write about animals"? The answer to this is the "silence" of the animals. Since this subalterned creature does not share human speech, and the world has neglected to learn her language, it is the human speech that has to defend the silence of animals (Namjoshi, 2012). This is how Haraway also emphasizes that staying with the trouble would mean taking conscious decisions and transforming "in our times for learning again, or for the first time, how to become less deadly, more response-able, more attuned, more capable of surprise, more able to practice the arts of living and dying well in multispecies symbiosis, sympoiesis, and symanimagenesis on a damaged planet" (2016b: 98).

Namioshi's poems affect the poetics of the anthropocene and try to address them through a sympoietic approach. Her poems are not about escaping but facing the consequences of human action, especially in the face of death, reality and stark harshness of life. At the same time, for her, nature is a vital part of identity and serves not merely as means or model for allegorical representation or objective correlative for human feelings, but also as an expansion of self and an exploration of identity. Her connection with nonhumans in her fables shows a genuine concern for these animals who have suffered extinction with rapid industrialization, urbanization, consumerism and increasing commercialism. Stevens et al. point out that environmental issues and gender inequalities that persist in the twenty-first century demand an intervention of ecofeminist thought, its histories and its activism to connect the intersecting "global debates about environmental catastrophe as a product of global corporate capitalism and neoliberalism" (2018: 17). Namjoshi's poetry thus becomes a multivalent text addressing separate identities that sometimes coincide, intersect and overlap or come in conflict with one another. Her poetic metaphors become signifiers of a meditative self-awareness as the destroyers of the planet, creating a reflective praxis that combines thought with feeling so that an empathetic conversation can become the starting point of the change that occurs at the moment of 'Anagnorosis' in the dismayed acceptance of the damage done in the era of anthropocene, and may affect a 'Reversal' of planetary fate. Namjoshi's poems and fables break the confines of how identities may be perceived and philosophized, and, in turn may address the issues of nonhuman turn in the twenty-first century.

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Diversity of birds in Jalandhar region of Punjab, India

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The present study documents different bird species present in Jalandhar, Punjab, India. This study was carried out at 11 different sites. The time duration of this study was two and half years (January, 2018-July, 2020). The local and migratory bird population of the area was studied for two hours each in the early morning during sunrise and in the evening during sunset. Each site was visited twice a week during the whole tenure of the study. The bird species observed were photographed using Nikon camera model d5600. The observed bird species were identified following the description of birds given in Dr. Salim Ali's book *Birds of India*. This study validates 84 different species of birds, from 40 different families and 16 different orders. Out of the 84 different bird species, 82 were found to be of least concern and two were nearly threatened according to IUCN list.

Keywords: species, Jalandhar, birds, diversity, IUCN

Introduction

Birds are living beings with feathers and wings that help them to fly in the sky. Birds have always been a part of human life from the prehistoric era. In earlier times, they were used as food and for communication and decoration purposes (Tabur and Yusuf,

2010: 560-565). Bird species play an important role in balancing the ecosystem and can be studied for multiple purposes. As birds perform numerous ecological functions in their habitats, they are considered as bio indicators of ecosystems (Mistry, Berardi and Simpson, 2008; Slabbekoorn and Ripmeester, 2008: 17). The increasing pace of urbanization poses a serious threat to the existing bird fauna of the world (Marzluff and Ewing 2001: 9; McKinney, 2002: 883-90). There are about 18,000 different bird species that are found in deserts, oceans, mountains, and urban areas (Barrowclough, 2016). The Avibase database showed that the total number of bird species recorded by Punjab in August, 2020 was 665 (Avibase, 2020). Punjab is among the leading states in agriculture and birds have a great impact on agriculture (Tabur and Yusuf, 2010:560-565). Jalandhar is a region of Punjab which is rich with respect to agriculture as well as industries. In fact, Jalandhar was ranked 82 in the list of World's most polluted cities given by WHO in 2018 (WHO, 2018). It is relevant to study the impact of bird fauna which thrives in a region which supports it by its huge agricultural produce and at the same time threatens it by its industrial pollution. The agricultural crops provide nourishment to the birds and industrial pollution poses threat to their existence. Only those bird species which have the potential to adapt to such conditions are likely to survive. Therefore, the current study was designed with an aim to record the bird fauna of Jalandhar city.

Material and Methods

Area of study: Jalandhar cityis spread in a total area of 110 square kilometres. From this area, eleven observation sites were selected as shown in Table 1. The crops planted in these observation sites were paddy (September-February), sugarcane (September-March) potato (September to March), wheat (October- April), and mustard (October- March). Besides crops, these sites were also inhabited by plants like Sesame, Populus, Eucalyptus, Plum, Rubber, and Firewood trees. These plants serve as habitats for many bird species and provide food to them. Many small water canals also pass through these regions which fulfill the requirement of water for these birds. Many of these canals are still unnamed but Bist Doab Canal near Dera Santa Shahid acrosses some of these sites and serves as an attraction for bird fauna. Many industries like petroleum and sports industries are also present nearby.

S.No.	Observation sites	Latitude DMS	Longitude DMS	Elevation
1.	Kishangarh		75°36'43.48"E	241.46 Meters
2.	Sarmastpur	31°25'0.58"N	75°37'4.44"E	239 Meters
3.	Reru	31°21'35.67"N	75°35'27.54"E	239 Meters
4.	Devi Talab	31°20'36.77"N	75°34'58"E	240 Meters
5.	Railway station	31°19'52.31"N	75°35'26.6"E	238 Meters
6.	Chowgiti	31°19'10.33"N	75°36'50.62"E	238 Meters
7.	GurunanakPura	31°19'20.17"N	75°36'38.25"E	239 Meters
8.	Kishanpura	31°20'22.34"N	75°35'24.91"E	240 Meters
9.	Model Town	31°18'25.52"N	75°34'32.53"E	239.16 Meters
10	Surya enclave	31°19'48.01"N	75°36'17.3"E	238 Meters
11.	Kartarpur	31°26'10.94"N	75°29'44.3"E	231.3 Meters

Table 1: Different observation sites in the study, where the research work was carried out

Duration of the study: This study was conducted for about two and a half years starting from August, 2017 to March, 2020. During this duration, the study area was visited twice a week and the observations were made for two hours during sunrise and sunset.

Material used: The photographs of the birds were captured using Nikon camera model d5600 with 70-300 mm lens f4.5-6.3 ED VR Lens and Nikon Coolpix P510.

Identification of species: The different species of birds were identified based on the description given in the book *Birds of India* (Ali, 1996). The android app Merlin Bird ID by Cornell Lab was also used for the identification of the birds. IOC World bird list was followed for nomenclature and classification of birds in different orders and families (Gill, Donsker and Rasmussen, 2020).

Results

This study reports 84 different species of the birds from 11 different observation sites of Jalandhar region in Punjab. These are listed in Table 2 which depicts their

vernacular names and IUPAC name. The table also shows the IUCN conservation status of every bird species. The bird species found in these different observation sites belong to 40 different families'and16 different orders (Fig 1). Out of the 84species reported, 82 are of least concern, and 2 species are near threatened. The two species which are near threatened are from Threskioranithidae and Pasittaculidae families. All the photographs of the birds captured by the authors are given in Figures 2-11.

S.No.	Common Name	Scientific Name	Order	Family	Conservation Status
1	Indian Peafowl	Pavo cristatus	Galliformes	Fasianidae	Least Concern
2	Grey Francolin	Francolinus pondicerianus	Galliformes	Fasianidae	Least Concern
3	Large Egret	Ardea alba	Pelecaniformes	Ardeidae	Least Concern
4	Indian pond heron	Ardeola grayii	Pelecaniformes	Ardeidae	Least Concern
5	Cattle Egret	Bubulcus ibis	Pelecaniformes	Ardeidae	Least Concern
6	Black Crowned Night Heron	Nycticorax nycticorax	Pelecaniformes	Ardeidae	Least Concern
7	Asian Openbill Stork	Anastomus oscitans	Ciconiiformes	Ciconiidae	Least Concern
8	Black Headed Ibis	Threskiornis melanocephalus	Pelecaniformes	Threskioranithidae	Near Threatened
9	Black Ibis	Pseudibis papillosa	Pelecaniformes	Threskioranithidae	Least Concern
10	Glossy Ibis	Plegadis falcinellus	Pelecaniformes	Threskioranithidae	Least Concern
11	BrahminyShelduck	Tadorna ferruginea	Anseriformes	Anatidae	Least Concern
12	Lesserwhistling Duck	Dendrocygna javanica	Anseriformes	Anatidae	Least Concern
13	Common Moorhen	Gallinula chloropus	Gruiformes	Rallidae	Least Concern
14	White Breasted Water hen	Amaurornis phoenicurus	Gruiformes	Rallidae	Least Concern
15	Black Winged Stilt	Himantopus himantopus	Charadriiformes	Recurvirostridae	Least Concern
16	Red Wattled Lapwing	Vanellus indicus	Charadriiformes	Charadriidae	Least Concern
17	Yellow wattled Lapwing	Vanellus malabaricus	Charadriiformes	Charadriidae	Least Concern
18	Green Sandpiper	Tringa ochropus	Charadriiformes	Scolopacidae	Least Concern
19	Rock pigeon	Columba livia	Columbiformes	Columbidae	Least Concern
20	Yellow Legged Green Pigeon	Treron phoenicoptera	Columbiformes	Columbidae	Least Concern
21	Eurasian Collared Dove	Streptopelia decaocto	Columbiformes	Columbidae	Least Concern
22	Spotted Dove	Spilopelia chinensis	Columbiformes	Columbidae	Least Concern
23	Rose Ringed Parakeet	Psittacula krameri	Psittaciformes	Pasittaculidae	Least Concern
24	Alexandrine Parakeet	Psittacula eupatria	Psittaciformes	Pasittaculidae	Near Threatened
25	Asian Koel	Eudynamys scolopaceus	Cuculiformes	Cuculidae	Least Concern
26	Greater coucal	Centropus sinensis	Cuculiformes	Cuculidae	Least Concern

27	Lesser Coucal	Centropus bengalensis	Centropus bengalensis Cuculiformes Cuculidae		Least Concern
28	Common Hawk Cuckoo	Hierococcyx varius	Cuculiformes	Cuculidae	Least Concern
29	Indian Grey Hornbill	Ocyceros birostris	Bucerotiformes	Bucerotidae	Least Concern
30	Shikra	Accipiter badius	Accipitriformes	Accipitridae	Least Concern
31	Black Shoulder Kite	Elanus axillaris	Accipitriformes	Accipitridae	Least Concern
32	Black Kite	Milvus migrans	Accipitriformes	Accipitridae	Least Concern
33	Besra	Accipiter virgatus	Accipitriformes	Accipitridae	Least Concern
34	Common Kestrel	Falco tinnunculus	Falconiformes	Falconidae	Least Concern
35	Spotted owlet	Athene brama	Strigiformes	Strigidae	Least Concern
36	Long Tailed Shrike	Lanius schach	Passeriformes	Laniidae	Least Concern
37	House Crow	Corvus splendens	Passeriformes	Crovidae	Least Concern
38	Indian treepie	Dendrocitta vagabunda	Passeriformes	Crovidae	Least Concern
39	Eurasian Golden Oriole	Oriolus oriolus	Passeriformes	oriolidae	Least Concern
40	Black Drongo	Dicrurus macrocercus	Passeriformes	Dicruridae	Least Concern
41	White Throat Kingfisher	Halcyon smyrnensis	Coraciiformes	Alcedinidae	Least Concern
42	Small Bee Eater	Merops orientalis	Coraciiformes	Meropidae	Least Concern
43	Flame Backed Woodpecker	Dinopium benghalense	Piciformes	Picidae	Least Concern
44	Ноорое	Upupidae	Bucerotiformes	Upupidae	Least Concern
45	Jungle Babbler	Turdoides striata	Passeriformes	Leothrichidae	Least Concern
46	Jungle Prinia	Prinia sylvatica	Passeriformes	Cisticolidae	Least Concern
47	Ashy Prinia	Prinia socialis	Passeriformes	Cisticolidae	Least Concern
48	RufouFronted Prinia	Prinia buchanani	Passeriformes	Cisticolidae	Least Concern
49	Zittingcisticola	Cisticolaj uncidis	Passeriformes	Cisticolidae	Least Concern
50	Plain Prinia	Prinia inornata	Passeriformes	Cisticolidae	Least Concern
51	Yellow bellied prinia	Prinia flaviventris	Passeriformes	Cisticolidae	Least Concern
52	Common Tailorbird	Orthotomus sutorius	Passeriformes	Cisticolidae	Least Concern
53	Indian Robin	Saxicoloides fulicatus	Passeriformes	Muscicapidae	Least Concern
54	Siberian stonechat	Saxicola maurus	Passeriformes	Muscicapidae	Least Concern
55	Pied Bushchat	Saxicola caprata	Passeriformes	Muscicapidae	Least Concern
56	Indian Chat	Cercomela fusca	Passeriformes	Muscicapidae	Least Concern
57	Bluethroat	Luscinia svecica	Passeriformes	Muscicapidae	Least Concern
58	Desert Wheatear	Oenanthe deserti	Passeriformes	Muscicapidae	Least Concern
59	Red Breasted Flycatcher	Ficedula parva	Passeriformes	Muscicapidae	Least Concern
60	Common Redstart	Phoenicurus phoenicurus	Passeriformes	Muscicapidae	Least Concern

61	Tree Pipit	Anthus trivialis	Passeriformes	Motacillidae	Least Concern
62	Paddy field Pipit	Anthus rufulus	Passeriformes	Motacillidae	Least Concern
63	White Wagtail	Motacilla alba	Passeriformes	Motacillidae	Least Concern
64	Yellow Wagtail	Motacilla flava	Passeriformes	Motacillidae	Least Concern
65	Citrine Wagtail	Motacilla citreola	Passeriformes	Motacillidae	Least Concern
66	Large Pied Wagtail	Motacilla maderaspatensis	Passcriformes	Motacillidae	Least Concern
67	Wire Tailaiwallow	Hirado smithii	Passcriformes	Rafinesque	Least Concern
68	Indian Cliff Swallow	Hirundo fluvicola	Passeriformes	Rafinesque	Least Concern
69	Red Vented Bulbul	Pycnonotus cufer	Passeriformes	Pycnonotidae	Least Concern
70	White Eared Bulbul	Pycnonotus leucotis	Passeriformes	Pycnonotidas	Least Concern
71	Common Myna	Acridotheres tristis	Passeriformes	Sturnidae	Least Concern
72	Bank Myna	Acridotheres ginginianus	Passeriformes	Sturnidae	Least Concern
73	Asian Pied Starling	Gracupica contra	Passeriformes	Sturnidae	Least Concern
74	House Sparrow	Passer domesticus	Passeriformes	Passeridae	Least Concern
75	Common Chiffchaff	Phylloscopus collybita	Passeriformes	Phyloscopidae	Least Concern
76	Sulphur belied Warbler	Phylloscopus griseolus	Passeriformes	Phyloscopidae	Least Concern
77	Hume's Warbler	Phylloscopus humei	Passcriformes	Phyloscopidse	Least Concern
78	Lesser Whitethroat	Sylvia curruca	Passeriformes	Sylviidae	Least Concern
79	Scarlet Minivet	Pericrocotus speciosus	Passeriformes	Campehagidae	Least Concern
80	Spotted Munia	Lonchura punctulata	Passeriformes	Estrildidae	Least Concern
81	Indian Silverbill	Evodice malabarica	Passeriformes	Estrildidae	Least Concern
82	Purple Sunbird	Cinnyris asiaticus	Passeriformes	Nectarniidae	LeasConcem
83	Baya Weaver	Ploceus philippinus	Passcriformes	Polceidae	Least Concern
84	Indian White Eye	Zosterops palpebrosus	Passcriformes	Zosteropidae	Least Concern

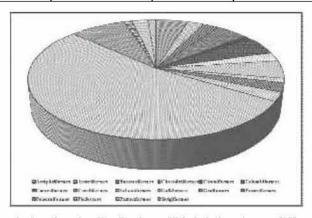


Fig 1: Graph showing the distribution of Birds belonging to different orders

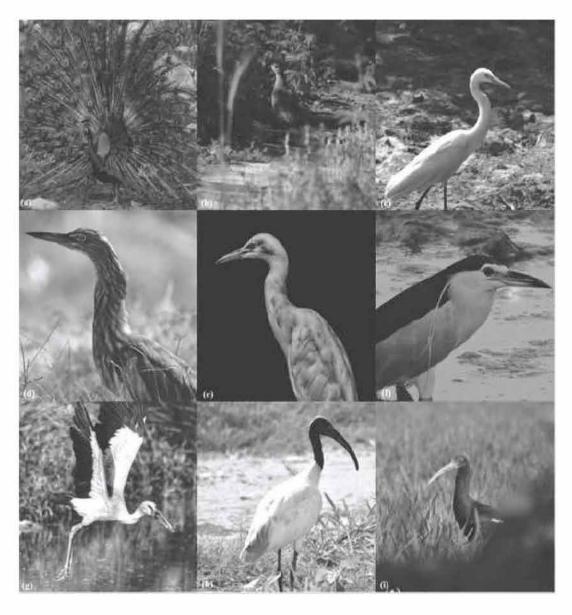


Fig 2: Photographs of Birds observed in the study area (a) Pavo cristatus (b) Francolinus pondicerianus (c) Ardea alba (d) Ardeola grayii (e) Bubulcus ibis (f) Nycticorax nycticorax (g) Anastomus oscitans (h) Threskiornis melanocephalus (i) Pseudibis papillosa



Fig 3:Photographs of Birds observed in the study area (a) Plegadis falcinellus (b) Tadorna ferruginea (c) Dendrocygna javanica (d) Gallinula chloropus (e) Amaurornis phoenicurus (f) Himantopus himantopus (g) Vanellus indicus (h) Vanellus malabaricus (i) Tringa ochropus



Fig 4: Photographs of Birds observed in the study area (a) Columba livia (b) Treron phoenicoptera (c) Streptopelia decaocto (d) Spilopelia chinensis (e) Psittacula krameri (f) Psittacula eupatria (g) Eudynamys scolopaceus (h) Centropus sinensis (i) Centropus bengalensis



Fig 5: Photographs of Birds observed in the study area (a) Hierococcyx varius (b) Ocyceros birostris (c) Accipiter badius (d) Elanus axillaris (e) Milvus migrans (f) Accipiter virgatus (g) Falco tinnunculus (h) Athene brama (i) Lanius schach



Fig 6: Photographs of Birds observed in the study area (a) Corvus splendens (b) Dendrocitta vagabunda (c) Oriolus oriolus (d) Dicrurus macrocercus (e) Halcyon smyrnensis (f) Merops orientalis (g) Dinopium benghalense (h) Upupidae (i) Turdoides striata



Fig 7: Photographs of Birds observed in the study area (a) Prinia sylvatica (b) Prinia socialis (c) Prinia buchanani (d) Cisticola juncidis (e) Prinia inornata (f) Prinia flaviventris (g) Orthotomus sutorius (h) Saxicoloides fulicatus (i) Saxicola maurus



Fig 8: Photographs of Birds observed in the study area (a) Saxicola caprata (b) Cercomela fusca (c) Luscinia svecica (d) Oenanthe deserti (e) Ficedula parva (f) Phoenicurus phoenicurus (g) Anthus trivialis (h) Anthus rufulus (i) Motacilla alba



Fig 9: Photographs of Birds observed in the study area (a) Motacilla flava (b) Motacilla citreola (c) Motacilla maderaspatensis (d) Hirundo smithii (e) Hirundo fluvicola (f) Pycnonotus cafer (g) Pycnonotus leucotis (h) Acridotheres tristis (i) Acridotheres ginginianus



Fig 10: Photographs of Birds observed in the study area (a) Gracupica contra (b) Passer domesticus (c) Phylloscopus collybita (d) Phylloscopus griseolus (e) Phylloscopus humei (f) Sylvia curruca (g) Pericrocotus speciosus (h) Lonchura punctulata (i) Euodice malabarica

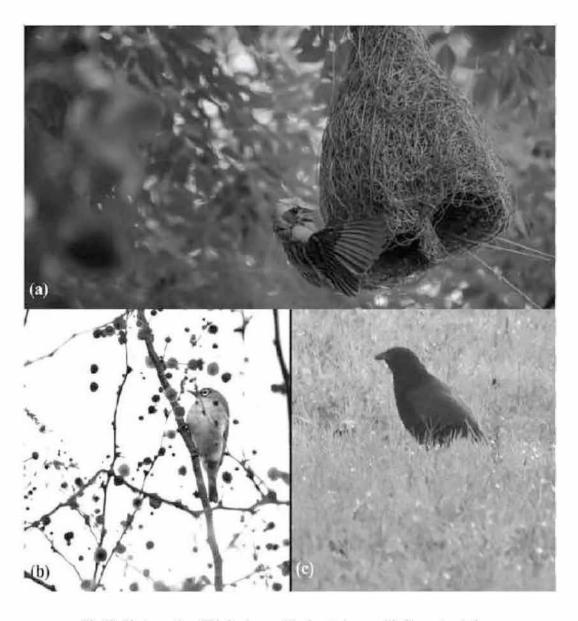


Fig 11: Photographs of Birds observed in the study area (a) Cinnyris asiaticus (b) Ploceus philippinus (c) Zosterops palpebrosus

Discussion

Jalandhar region has humid subtropical climate with summer temperature ranging from 25°C to 48°C and winters may be 7°C to 19° Coold. This temperature range attracts different species of birds in different climatic conditions. The study of bird species in the selected sites have not been conducted so far to the best of our knowledge. Jalandhar is a region which on one hand is known for its agriculture and on the other hand, it houses many industries also. The environmental conditions impact biodiversity of a region. Agriculture is known as the largest contributor to biodiversity and urbanization is considered as the biggest threat to the same. In the current study, we have chosen eleven different sites which contain both industries and agricultural land. The environmental conditions are a blend of rural and urban settings. We report 84 different species of birds, maximum of which are of least concern as far as the IUCN status is concerned. The maximum number of species belonged to family Passeriformes. A similar study conducted in Punjabi University, Patiala revealed 54 species belonging to 11 orders and 24 families with maximum species belonging to Passeriformes (Singh, 2016). In a previous study, 25 avian species with maximum 17 in Begowal and 15 in Balachaur towns of Punjab were reported (Kler, Vashishat and Kumar, 2015). In another study, a total of 146 species belonging to 38 families were reported from Keshopur wetland in Gurdaspur, Punjab (Mehta, 2014). The analysis of all the previous studies on Bird fauna in Punjab clearly shows the negative impact of urbanization on the bird fauna. This is the reason why green campuses like Punjabi University, wetlands like Keshopur, agricultural land of Jalandhar reveal greater number of bird species in comparison to the urban regions of Begowal and Balachaur. Only a little has been done and a lot needs to be done to understand the impact of urbanization on the bird population.

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वृद्ध विमर्शः वृद्ध वर्ग का पैरोकार

सुनीता कुमारी सहायक प्राध्यापिका मेहर चंद महाजन महिला महाविद्यालय ,चंडीगढ़

साहित्य और सांसारिक यथार्थ का गहरा संबंध है । समाज की प्रत्येक समस्या पर गहन चिंतन करना एवं उसका समाधान प्रस्तुत करना साहित्य का दायित्व है । भूमंडलीकरण के इस दौर में हमारे नैतिक मूल्यों का क्षरण बड़ी तीव्र गित से हो रहा है। वृद्ध विमर्श इसका उदाहरण है । यह विमर्श 21 वीं सदी की देन है । विष्ठ नागरिक और उनके जीवन अनुभव किसी भी सभ्य समाज की बहुमूल्य विरासत होते हैं, इसलिए उनकी समस्याओं के प्रति समाज का जागरूक एवं संवेदनशील होना आवश्यक है। तभी वृद्ध वर्ग समाज में विशिष्ट इकाई के रूप में अपना स्थान स्थापित कर पाएगा। साहित्य के माध्यम से वृद्ध विमर्श की प्रासंगिकता को रेखांकित करना अति आवश्यक है । कृष्णा सोबती, निर्मल वर्मा, काशीनाथ सिंह, गोविंद मिश्र, पंकज विष्ट आदि साहित्यकारों ने बुज़ुर्गों के जीवन का सूक्ष्मता से चित्रण किया है तथा उनकी संवेदनाओं, अंतर्द्धन्द्व और जिटलताओं से पाठक को अवगत करवाने का प्रयास किया है । इस शोध पत्र का ध्येय साहित्य के माध्यम से वृद्ध वर्ग के प्रति सम्मान और सौहार्द का भाव जागृत करना है ।

मूल शब्द : भूमंडलीकरण, वृद्ध विमर्श, नैतिक मूल्य - क्षरण

निसदेह साहित्य समाज का दर्पण है । प्रेमचंद के शब्दों में 'साहित्य जीवन की आलोचना है' । साहित्यकार सामाजिक होने के नाते व्यष्टि और समष्टि की समस्याओं के प्रति अपनी कलम उठाता रहा है। यह साहित्यकार का दायित्व भी है और नैतिक जिम्मेवारी भी। वह सामाजिक, राजनीतिक, धार्मिक, प्रत्येक समस्याओं के प्रति सचेत रहें और अपनी लेखनी के माध्यम से पाठक में भावात्मक व संविगात्मक मनोभावों का संचार करें, अन्यथा साहित्य अपने उद्देश्य से भटक जाएगा। डॉ. सुशील कांत सिंह के शब्दों में ''साहित्य समाज का दर्पण ही नहीं वरन् संवेदक, शुभचिंतक तथा अन्य सखा भी है । मनुष्य का सुख, वैभव साहित्य का वैभव है। मनुष्य के आंसू, पीड़ा साहित्य की कसक चुभन है ।

मानव कल्याण के लिए अनथक संघर्ष करना ही पड़ता है। साहित्य केवल शांत निश्चेष्ट मूकदर्शी ही नहीं वह साक्षात क्रांति बन बैठता है। ""

साहित्य की मनुष्य हित की प्रवृत्ति के कारण आधुनिक समय में कई गहन समस्याओं के प्रति विमर्श चलते रहते हैं। फिर बात चाहे नारी विमर्श की हो, दलित विमर्श की हो या किन्नर विमर्श की प्रत्येक समस्या के प्रति साहित्य ने अपना दायित्व न केवल पूर्ण रूप से निभाया है अपितु समस्याओं के निवारण के लिए निश्चित समाधान भी प्रस्तुत किए हैं। 21 वीं सदी में साहित्य के सामने एक ऐसी ही समस्या उभर रही है जिस पर विचार – विमर्श होना अति आवश्यक है। भूमंडलीकरण के इस युग में नैतिक मूल्यों का क्षरण होता जा रहा है। जिसके कारण संयुक्त परिवारों का विघटन हो रहा है और बुज़ुर्गों के प्रति परिवार में अवहेलना, अपमान व दुर्व्यवहार बढ़ता जा रहा है। परिणाम स्वरूप वृद्ध अत्यधिक कुंठित हो गए हैं। वृद्धावस्था में एकाकीपन उन्हें मानसिक रूप से शिथिल बना देता है। उनमें तनाव और चिड़चिड़ापन उत्पन्न होने लगता है। ''वृद्धावस्था में मानसिक स्थिति को भावात्मक ग्रंथि प्रभावित करने लगती है जिसके कारण हीनता की भावना एवं असहायता जैसे अलग – अलग लक्षण देखे जा सकते हैं, जिसमें व्यक्ति को किसी न किसी मनोग्रोंथ का शिकार हो सकने का खतरा रहता है।

भारत के स्वर्णिम इतिहास में जहाँ 'मातृ देवो भवः पितृ देवो भवः' जैसी अवधारणा सर्वोपिर रही है वहीं आज वृद्ध अपमान और अवहेलना का शिकार हो रहें हैं । मनोविज्ञान की दृष्टि में 60 के बाद की अवस्था वृद्धावस्था है ''वृद्धावस्था प्रायः थकान, कार्यशीलता में कमी रोगों की प्रतिरोधक क्षमता की कमी से संबंधित होती है।" विमर्श से तात्पर्य है चिंतन मनन एवं तर्क के आधर पर वास्तविकता का अवलोकन करना । इस प्रकार विमर्श के माध्यम से युवा पीढ़ी को संवेदनशील बनाया जा सकता है । बुज़ुगों की समस्याओं के अनेक आयामों (पारिवारिक, मनोवैज्ञानिक, शारीरिक, आर्थिक, सामाजिक, राजनीतिक और मूल्य आधारित) पर विचार किया जा सकता है । समीक्षक चंद्रमौलेश्वर प्रसाद के अनुसार "बुढ़ापे को एक नई दृष्टि से देखने की आवश्यकता है – एक ऐसी दृष्टि से जिसमें संवेदना हो और बृढ़ों के लिए आदर व सम्मान हो।"

भारत ही नहीं वैश्विक स्तर पर यह समस्या उभर रही है और वैश्विक स्तर पर कई प्रयास भी किए जा रहे हैं। सर्वप्रथम अर्जेटीना ने विश्व का ध्यान इस समस्या के प्रति आकर्षित किया। 1982 में विश्व स्वास्थ्य संगठन ने 'वृद्धावस्था को सुखी बनाइए' नारा दिया और वृद्धों को खुश रखने का एक अभियान चलाया । संयुक्त राष्ट्र ने वृद्ध वर्ग के प्रति हो रहे अन्याय व दुर्व्यवहार को समाप्त करने हेतु 14 दिसंबर 1990 में यह निर्णय लिया कि प्रत्येक वर्ष 1 अक्टूबर को अंतर्राष्ट्रीय बुजुर्ग दिवस मनाया जाएगा। वर्ष 1999 को अंतर्राष्ट्रीय बुजुर्ग वर्ष के रूप में मनाया गया ।⁵

भारत में केंद्र सरकार ने वरिष्ठ नागरिकों के आरोग्य और कल्याण को बढ़ावा देने के लिए वर्ष 1999 में वृद्ध सदस्यों के लिए राष्ट्रीय नीति तैयार की है। इस नीति का उद्देश्य व्यक्तियों को स्वयं के लिए तथा पित या पत्नी के बुढ़ापे के लिए व्यवस्था करने हेतु प्रोत्साहित करना है। इसके साथ ही माता – पिता एवं वरिष्ठ नागरिक भरण – पोषण विधेयक संसद में पारित किया गया। इसमें माता – पिता के भरण – पोषण, वृद्ध आश्रमों की स्थापना, चिकित्सा सुविधा की व्यवस्था और वरिष्ठ नागरिकों के जीवन और संपत्ति की सुरक्षा का प्रावधान किया गया है।

इसके इलावा कई प्रकार के जागरूकता कार्यक्रमों के माध्यम से समाज में बुज़ुर्गों के प्रति संवेदना व सम्मान के भाव उत्पन्न करने के प्रयास किए जा रहे हैं। लेकिन आज भी वृद्ध वर्ग समाज में वह सम्माननीय स्थान नहीं प्राप्त कर पाया है जो उनका अधिकार है। एक परिवार को संरचनात्मक आकार देने वाले व्यक्ति घर के वे वयोवृद्ध होते हैं जिनसे परिवार बनता है और आगे बढ़ता है। विडंबना यह है कि आज का युवा वर्ग वृद्ध वर्ग को हेय दृष्टि से देखता है। भूमंडलीकरण के प्रभाव में आधुनिक पीढ़ी अपने जीवन के आधार के प्रति स्वार्थी दृष्टिकोण अपना रही है। जिसके कारण वृद्ध वर्ग को दोयम दर्जे का जीवन जीना पड़ रहा है। तेजी से होने वाले सामाजिक परिवर्तनों के दौर में घर के बड़े बूढ़ों की जगह आधुनिक तकनीकी साधनों ने ले ली है। बच्चों को लोरी से लेकर कहानियाँ तक अलेक्सा सुनाती है वह संवेदना शून्य, तकनीक मात्र है। वह बच्चों में प्रेम, सौहार्द जैसे सद्भाव उत्पन्न नहीं कर सकती। शहरों में नैतिक पतन चरम पर जा पहुँचा है। आज का युवा सोशल मीडिया पर जितना सामाजिक है वास्तविक जीवन में उतना ही असामाजिक, परिवार के बुज़ुर्गों से दूर जिसके कारण वरिष्ठ वर्ग में बेगानापन, अकेलापन जैसी समस्याएँ बढ़ती जा रही हैं।

एक तरफ वैज्ञानिक उन्नित के कारण व्यक्ति की औसत आयु बढ़ रही है तो दूसरी तरफ वृद्धों की संख्या भी बढ़ रही है। युवा वर्ग और वृद्ध वर्ग के बीच कम होती संवेदनात्मकता आसन्न संकट की सूचक है। वृद्धों की समस्याओं को केंद्र में रखकर पर्याप्त साहित्य सृजन हो रहा है। साहित्य के माध्यम से इस समस्या के संभावित उपाय खोजने के प्रयास किए जा रहे हैं। हिंदी उपन्यास वृद्ध विमर्श को केंद्र में रखकर न केवल उनकी समस्याओं पर विचार कर रहे हैं बल्कि वृद्धों में जीवन के प्रति नवीन

चेतना का संचार कर रहे हैं। इस श्रेणी में निम्नलिखित उपन्यासों को शामिल किया जा सकता है 'शाम की झिलमिल' (गोविंद मिश्र) 'दूसरा ना कोई' (बलदेव वैद) 'उस चिड़िया का नाम' (पंकज विष्ट) 'रेहन पर रम्धू' (काशीनाथ सिंह) 'चार दरवेश' (हृदयेश) 'समय – सरगम' (कृष्णा सोबती) 'अपने अपने अजनबी' (अज्ञेय) 'दौड़' (ममता कालिया) इन सभी उपन्यासों के माध्यम से आज की पीढ़ी और वृद्धों के बीच बदलते संबंधों को दर्शाया गया है। इस शोध पत्र में 'समय – सरगम', 'गिलगडु', 'अंतिम अरण्य' और 'रेहन पर रम्धू' के माध्यम से विखंडित मूल्यों के कारण वृद्धों के प्रति बढ़ती संवेदनहीनता का सूक्ष्म विश्लेषण किया गया है।

'वृद्ध विमर्श की साहित्यिक विरासत को देखें तो सिमोन – द – बुआ ने सन् 1950 से ही वृद्धावस्था की संकल्पना पर विचार शुरू किया था । सन 1970 में प्रकाशित उनकी फ्रेंच रचना ला विएलेस्से वृद्ध विमर्श की नींव है। इसका अंग्रेजी में पैट्रिक ओ ब्रेन ने 'ओल्ड एज' नाम से सन् 1977 में अनुवाद प्रकाशित किया । सिमोन का वृद्धों को लेकर किया यह चिंतन वैश्विक बना और यही रचना वृद्ध विमर्श की गीता बन गई।''

कृष्णा सोबती द्वारा रचित 'समय सरगम 'उपन्यास बुजुर्गों की समस्याओं का आकलन करता है। यह उपन्यास भारतीय परिवार में बुजुर्गों के अकेलेपन के कारणों का प्रत्येक स्तर पर विश्लेषण करता है। दमयंती, प्रभुदयाल और कामिनी उपन्यास के गौणपात्र हैं। इनके माध्यम से बुजुर्गों के अकेले होने के कई स्तरों को दिखाया गया है। दमयंती अपने परिवार में रहकर भी अकेली है। आधुनिक विचारों की होने पर भी वे अपने बहू बेटे द्वारा तिरस्कार सहने को मजबूर है। "मैं ड्राइंग रूम में नहीं बैठ सकती मेरे मेहमान नहीं बैठ सकते जबिक वहाँ का सब फर्नींचर साज सामान मेरा अपना बनाया हुआ है और मैं किसी बेजान काठ की तरह देखी जाती हूँ।" कामिनी परिवार ना होने के कारण अकेलापन झेलने के लिए विवश है जबिक प्रभुदयाल की स्थिति भी कुछ ऐसी ही है पत्नी के मर जाने के बाद उनके जीवन में अकेलापन पसर गया है। जिस परिवार को उन्होंने सारी उम्र पाला आज उसी परिवार के लिए वह बोझ बन गए हैं। मृत्यु के बाद भी बेटे में पिता के प्रति सवेदनाएँ नहीं बची। "लड़के ने सूत में पिरोई ताली गले से उतार ली, बाप का इससे बड़ा अपमान क्या हो सकता है।" प्रभुदयाल समय से पहले गुजर गए और पोस्टमार्टम में गला घोटने की बात सामने आई। ऐसे युवा वर्ग में भारतीय संस्कारों का खंडित रूप और भूमंडलीकरण का विकराल प्रभाव सामने आता है। आरण्या और ईशान इस उपन्यास के मुख्य पात्र हैं जो अकेलेपन का जीवन जीने के लिए अभिशप्त हैं, लेकिन जीवन को भरपूर जीने में

विश्वास रखते हैं। अपने इसी विश्वास के कारण दोनों एक दूसरे के करीब आ जाते हैं और जीवन की सरगम का आनंद लेते हैं। आरण्या और ईशान के माध्यम से कृष्णा सोबती वृद्धों में जीवन के प्रति नवीन आनंद और उत्साह भरने का प्रयत्न करती है। "उदात्त – अनुदात्त और त्वरित। इस जीवन की अनेकों अनेक स्वर संज्ञाएँ, स्वराविलयाँ और श्रुतियाँ और हर एक के आलाप में से बहते भिक्त भाव राग – विराग, प्रेम – अनुराग, पीड़ा – दर्द, स्मृति – विस्मृति, तृष्ति – तन्मयता, उल्लास, दु:ख – सुख, शोक – विषाद, आनंद – अहलाद। संचित जीवन का यही राग"। यही हमारे जीवन का धर्म होना चाहिए तभी जीवन का आनंद उठाया जा सकता है। इस प्रकार यह उपन्यास बुजुर्गों को उनकी उपादेयता से अवगत कराता है उनमें जीवन के प्रति नवीन दृष्टि का संचार करता है।

निर्मल वर्मा एक संवेदनशील समाज के सरोकारों के प्रति सचेत रचनाकार हैं। इन्होंने अपनी लेखनी के माध्यम से मानवीय संवेदनाओं को स्पर्श किया है। 'अंतिम अरण्य' इसी श्रेणी का उपन्यास है, जो मानवीय संवेदना को छूता है। उपन्यास के मुख्य पात्र मेहरा साहब है उनकी पत्नी दीवा और बेटी दिया है। उपन्यास में पात्र जीवन और मृत्यु के रहस्य में उलझे दिखाई देते हैं । "मनुष्य की असली यात्र मृत्यु से पहले शुरू होती है , जब वह जीने की पक्की सड़क छोड़कर किसी अनजानी पगडंडी की ओर मुड़ जाता है , जो जीने और मृत्यु से अलग किसी और दिशा की ओर जाती है ।" "मृत्यु क्या है? क्या इसके साथ जीवन का अंत हो जाता है ? क्या जो आदमी मरता है, वह वही होता है, जो पैदा होता है? जो जीवन हम जीते हैं वह क्या अपनी इच्छानुकूल अपनी शर्तों पर जीते हैं ? ऐसा तो नहीं होता । वह तो ऐसे संयोगों से रचा जा रहा होता है, जिसके तर्कों पर हमारा वश नहीं होता ।' "इस प्रकार वृद्धों की अतंर्दृष्टि का यथार्थ, दार्शनिक प्रश्नों के माध्यम से प्रस्तुत किया गया है। 'अंतिम अरण्य' उपन्यास वृद्धों की स्थिति एवं उसकी नियति से सम्बंधित है । साथ ही साथ व्यक्ति की असीम कल्पनाओं एवं अपेक्षाओं से युक्त है। क्योंकि उम्र का यह पड़ाव अपने से अधिक अपनी अगली पीढ़ी से अपेक्षाएँ कर बैठता है परन्तु जब उनकी अपेक्षाओं की कसौटी पर नई पीढ़ी नहीं उतर पाती है तभी यह मानसिक टकराहट की स्थिति उत्पन्न होती है। इसमें ऐसे चरित्र भी है जो अँधेरे की यातना से घिरे इस धरती के अध्रे आत्मखंडित व्यक्तित्व है। जिसकी पूर्णता को कलाकृति अपने सत्य से निर्मित करती है । मेहरा साहब एक ऐसे ही पात्र है जो कि द्वन्द्वात्मक परिस्थितियों से घिरा हुआ है। वे औरों की तरह कमजोर, खासते हुए चरित्र वाले व्यक्ति नहीं है बल्कि उस सघन यात्री के समान है जिनके जीवन में स्मृतियाँ उनका पिछा नहीं छोड़ती । इसके बावजूद भी अनकही यातनाएँ उन्हें स्पर्श कर ही जाती । अत: मूल रूप से इसमें वृद्ध जीवन की स्मृति, इतिहास, प्रकृति, जीवन, मिथक, आदि जैसे शांत भाव है। 18

इसी कड़ी में 'गिलगड़ु' उपन्यास संवेदनशीलता के धरातल को कहीं गहरे तक छूता है। यह उपन्यास सेवानिवृत्त सिविल इंजीनियर जसवंत बाबू की कहानी पर आधारित है। आज के बदलते जीवन मूल्यों को परिभाषित करता है। उपन्यास में जसवंत सिंह के माध्यम से वृद्ध अवस्था में प्रवास की समस्या को चित्रित किया गया है एक व्यक्ति जिस समाज में रहता है उससे जुड़ा रहता है और उस समाज से अलगहोने का ख्याल भर उसे सामाजिक मृत्यु के समीप ले जाता है। जसवंत बाबू पत्नी की मृत्यु के बाद कानपुर छोड़कर दिल्ली जाने को विवश हुए लेकिन वहाँ कभी भी खुश नहीं रहे "इस घर में एक नहीं दो कुत्ते हैं – एक टॉमी, दूसरा अवकाश – प्राप्त सिविल इंजीनियर जसवन्त सिंह! टॉमी की स्थिति निस्सदेह उनकी बनिस्बत मजबूत है। उसकी इच्छा – अनिच्छा की परवाह में बिछा रहता है पूरा घर। उनके लिए किसी को बिछे रहना जरूरी नहीं लगता। टॉमी अच्छी नस्ल का कुत्ता है। सोसाइटी में उनके घर का रुतबा बढ़ाता है।" ¹⁴

वर्तमान में बुजुर्गों की स्थिति के सन्दर्भ में लेखिका क्षमा शर्मा लिखती है – "अपनों द्वारा ठुकराए जाने का जो मलाल होता है, उसका क्या कोई इलाज है ? उस अकेलेपन और अपमान के अहसास का क्या जो उनके करीबी जन उन्हें कराते हैं? वे बार – बार यह अहसास दिलाते हैं कि उनकी जरूरत अब घर में तो क्या इस धरती पर ही नहीं रही। उन्होंने जिनके लिए अपनी उम्र और अपने सारे संसाधन लगा दिए, वे ही दो जून की रोटी के लिए दुत्कारते हैं।" ¹⁵

साहित्य अकादमी से पुरस्कृत, काशीनाथ सिंह द्वारा रचित, ख्याित प्राप्त उपन्यास रिहन पर रम्यू' में लेखक ने भूमंडलीकरण की मृग मरीचिका के कारण एकाकीपन की ओर अग्रसर हो रहे मनुष्य का सूक्ष्म विश्लेषण किया है। भौतिकवादी लालसाओं के कारण नैतिक मूल्य खंडित होते जा रहे हैं। सामाजिक संबंध बिखरते जा रहे हैं। इस उपन्यास का मुख्य पात्र रघुनाथ है। रघु की तीनों संताने पूंजीवाद के प्रभाव में अपने परिवार से कट जाती है। परिवार में एक बिखराव आ जाता है। बेबस रघुनाथ अपनी पत्नी से कहते हैं "शीला हमारे तीन बच्चे हैं लेकिन पता नहीं क्यों कभी – कभी मेरे भीतर ऐसी हूक उठती है जैसे लगता है मेरी औरत बाँझ है और मैं नि:संतान पिता हूँ।'' इस उपन्यास के माध्यम से लेखक ने भूमंडलीकरण के षडयंत्र का खुलासा किया है। इस प्रकार भूमंडलीकरण का यह प्रलोभन हमारे सामाजिक व पारिवारिक जीवन को मिटाता जा रहा है। सम्वेदनाओं और सम्बंधों का विनाश कर रहा है। 'रिहन पर रम्घू' जिसे बुढ़ौती दंश पर केन्द्रित उपन्यास कहा जा सकता है किन्तु अपने विस्तार में जाता हुआ उपन्यास अपने को वैश्विक समस्याओं से जोड़ता है कथानायक रघुनाथ का जीवन विस्तार जो बनारस के समीपस्थ पहाडपर गाँव से अमेरिका तक फैला हआ हैं।"

आज के समय में वृद्ध की समस्या एक सामाजिक समस्या बन गई है। वृद्ध अपने ही परिवार में हाशिये पर है। युवाओं में संस्कारों का अभाव है, आधुनिकता की दौड़ में, वह घर के बड़े – बुज़ुगों को बाहर का रास्ता दिखाने से भी नहीं चूक रहे हैं। आपसी रिश्तों में बढ़ती कड़वाहट के कारण पारिवारिक विघटन तेजी से बढ़ रहा है। इसके समाधान के लिए परिवार, समाज और सरकार को सामूहिक प्रयास करने की आवश्यकता है। आज सही अथों में मनुष्य बनने के लिए मूल संस्कारों के संवर्धन, बुज़ुगों के प्रति मानवतावादी दृष्टिकोण, कर्तव्य बोध तथा सेवा भाव की आवश्यकता है। साहित्यकार अपनी लेखनी के माध्यम से पाठकवर्ग को एक तरफ वृद्धों के प्रति सम्वेदनशील बनाने का प्रयास कर रहा है तो दूसरी तरफ नैतिक संस्कारों एवं मूल्यों का बीजारोपण एवं संवर्धन कर रहा है, ताकि भटकी हुई नयी पीढ़ी पाश्चात्य दिखावे को छोड़ कर पारिवारिक मूल्यों की रक्षा कर सके और वृद्धों को आदर, प्रेम व सम्मान दे सके।

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Who introduces the Elderly to Social Media, and What is its Impact?

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Social media has become an integral part of life of people and has changed the way they connect with the world. The elderly are also increasingly making social media a part of their lives and adapting themselves. Existing studies have shown that use of social media has a positive impact on their overall quality of life and reduces the level of isolation experienced by them. This paper looks at the adoption of social media by the elderly (people beyond the age of 60). It focusses on who introduces them to social media viz. family (children, grandchildren), friends, colleagues or self-exploration. The paper studies the impact of who introduces the elderly to social media to its usage. A close ended questionnaire was given to 542 respondents above the age of 60 years who were using at least one of the social platforms like Facebook, WhatsApp etc. The findings reveal that respondents who had explored social media on their own were present on more social networks and were active on more platforms. Further they had lesser apprehensions than those who were introduced to social media by children or grandchildren.

Keywords: elderly, social media, demographics, apprehensions, social networks

Introduction

Social media refers to interactive tools based on the internet. They can be accessed through websites and applications on personal computers, laptops, mobile phones and tablets. It allows users to create and share content quickly, efficiently and in real-time. This content may include photographs, videos, posts, comments etc. Users create specific profiles on social media and develop online social networks by connecting with other individuals or groups whom they know to have similar interests. Thus,

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social media is an internet-based application that creates links among users and usergenerated content in online environments. Facebook, Twitter, Instagram, Snapchat are very popular social media tools across the world. WhatsApp, though a mobile instant messenger, is often considered as a social media tool as all the functions mentioned above can be carried out on WhatsApp as well.

These social media tools are extremely popular in the age group of 18-24 years; older people are also fast catching up with technology and are increasingly using social media for various purposes. Social media is seen as a solution for the elderly to connect with people and a solution for social isolation often faced by them. Younger people are keen on exploring this online world of social media and make new connections, however the older generation that has not been exposed to social media during their youth, may need some guidance on the same. This paper looks at who introduces the elderly to social media and what is the impact of this on the extent of usage and their apprehensions on the use of social media.

Literature Review

India has seen a rapid growth in internet penetration in the last 10 years and now has the second largest number of online users in the world though the internet penetration stands at only 50% as per report from Datareportal (Kemp, 2020). India had 574 million active users in 2019 and the number is estimated to reach 639 million by end of 2020 (Kantar ICUBE, 2019).

One of the reasons for growing internet penetration is the exponential growth in smartphones and easy availability of affordable data in India. The smartphone user base reached 500 million in December 2019 and is expected to reach 830 million by 2022 (Indian Cellular and Electronics Association, 2020). India is the second largest smartphone market in the world after China. Not surprisingly, 97% of users access the internet on their mobile device (Kantar ICUBE, 2019).

This rapid penetration of smartphones as well as internet has been triggered by the availability of highly affordable mobile data. As per research by price comparison site cable.co.uk, India has the cheapest data in the world with 1GB costing just USD 0.09 as compared to global average of about USD 5.09. This is far lower than price of 1 GB data in UK and US which is USD 1.39 and USD 8.00 respectively (cable.co.uk).

This increased internet penetration, rise in the number of smartphone users and availability of affordable data has resulted in a large number of Indians using social networks. The number of Indians using social network have increased from 351 million users in 2019 to 448 million users in 2021. The three most popular social networks and messaging apps in India are Whatsapp, Facebook and Instagram. Whatsapp had more than 400 million active users in India by July 2019 thereby making it the country with largest user base for the portal (Banerjee, 2020). Facebook had 260 million users in India in April 2019 ("With 260 mn users", 2019). Instagram had around 69 million Indian users in August 2019 making India the third largest user of Instagram (Iqbal, 2020).

Social networks are extremely popular in the lower age groups viz. 18 to 24 years, however there has been a trend of senior citizens also embracing this technology with open arms and are increasingly using WhatsApp and social media at global level as well as in India("Why grandmom is always on WhatsApp", 2018). The use of social media by senior citizens is significant at the global level. In USA, the number of citizens in the 65+ age category having social media account has grown from 6% in 2010 to 40% in 2019 (Pew Research Center, 2019).

In USA, 34% people in the 65+ age group use Facebook, 8% use Instagram, 7% use Twitter while 4% of the people in age group 56+ use Snap Chat. (The social media demographics guide, 2020). In India these numbers are relatively low, for Facebook 3.7% of users are above 55 years of age, 1.5% of Instagram users are above 55 years of age, while 3.9% of messenger users are above 55 years (Napoleoncat.com).

Though use of social media by senior citizens is on the rise, they might find it challenging to adopt new technologies and may not feel confident about using them. They sometimes feel that they are too old to learn new things and may even experience computer-related anxiety. Smaller screens and complicated websites may further make things difficult for senior citizens. Hearing-related problems may also pose problems in use of social media by senior citizens as videos are often a shared on these platforms. A solution to this could be use of headsets, however a study conducted in Finland in 2005 found that 15% of those over 75 years of age with hearing disabilities do not use headsets due to the inability to understand how they work, or because they are not devices they would normally choose, due to either in shape or size (Lupsakko et al., 2005).

Use of Social Media tends to have positive impact on the well being of the elderly as seen in the studies below. Majority of older people interviewed in East York use digital media, to connect with friends and family. However, the telephone remains the preferred choice after in-person contact for this purpose (Quan-Haase et al., 2017).

Perceived likelihood of senior citizens (age>65) engaging with others via social media is not significantly different from those of younger users. However, older users have a greater number of self-reported "actual" friends on Facebook and have positively predicted perceived support (Yu et al., 2018). Further examination of Facebook users across age groups indicates that older people have a smaller group of friends on Facebook but the proportion of actual friends to total friends Facebook is higher. This higher number of actual friends is associated with lower levels of social isolation and loneliness (Chang et al., 2015). In Israel, the rate of Internet access and digital use increased amongst senior citizens between 2003 and 2012 (Lissitsaand Bolotin, 2015). Gunerand Acarturk (2018) compared adoption of ICT by senior citizens and younger adults in Turkey. Though both groups confirm technology adoption model in a similar way, this was accompanied by elderly citizen's need for assistance, encouragement and friendlier design interfaces.

Study of 140 elderly citizens in Bangalore, India revealed that 82% of the sample were nonusers of social media and these required assistance and motivation for usage of social media (Jaiswal et al., 2015). Senior citizens can remain in touch with their children with access to new media and thereby live an enriched life (Dhar, 2017). Study of perception of older adults to social media revealed that privacy was the most important perceptual barrier to adoption of social media (Xie et al., 2012). Chou et al. (2013) proposed a social media website with design factors suitable for the elderly.

Studies have indicated that use of social media is a good solution for the problem of isolation faced by the elderly and can boost their overall wellbeing. Internet usage has a positive correlation with quality of life and males use internet more than females as per a study carried out among 100 senior citizens in Madhya Pradesh, India (Farkiya et al., 2018). Study of 5203 senior citizens indicates that more frequent use of Internet has an indirect influence on the psychological wellbeing of older adults. Further social networking can be an important tool for restoring and maintaining social relationships (Heo et al., 2015). Wright (2000) studied the social support amongst elderly citizens and found that greater involvement with the online community was predictive of

lower perceived life stress. Regular users of internet were found to be less depressed, less lonely and had a positive attitude towards computers (White et al., 2002).

Elderly people who use internet feel less depressed and lonely, more in control and more pleased with their quality of life as compared to those who are involved in non-internet related activities, as indicated in quasi-experimental research design used by researchers (Shapira et al., 2007). Higher frequency of use of internet is associated with lower levels of loneliness but not with lower levels of social isolation. Further self-motivated internet users agreed that internet usage had a positive effect on social relationships, making it easier to remain connected with family and friends (Cotten et al., 2013). Study of Thai senior citizens by Rachtham (2014) demonstrated that use of social media has positive and significant effects on overall life satisfaction in the domains of community, consumer, family, health and work domains

Gaps in Literature

Social media is a widely researched topic, but the extent of use of social media and messaging applications by senior citizens has been limited. A large part of research is devoted to technology adoption model and effect of use of social media on senior citizens. Though the main users of this media are youngsters and adults in the age group 24 to 39 years of age, there is an increase in the use of social media by senior citizens as well. Though the purpose of using social media may differ for senior citizens, as they may use it for remaining in touch with friends and family and not essentially make new friends as do their younger counterparts. An interesting area of research is, how senior citizens are introduced to social media, as the existing research mentions that they need encouragement for use of social media. There are several ways by which they may have started using social media like introduction by family, friends, colleagues or even self-exploration, however this aspect of social media usage has not been studied in the existing body of research. In India, only 5% of elderly live alone (National Sample Survey Data, 2016) and a significant number live with spouse or children, hence it is common that they have an influence on each other. So this paper looks at who introduces senior citizens to social media and what is the impact of this on usage of social media by them in terms of confidence levels and apprehensions.

Objectives

- to examine adoption of social media by the elderly in terms of who introduces them to social media
- to study variation in presence of the elderly on different social media applications depending on who introduced them to this online world
- to study the relationship between apprehensions of the elderly while using social media and introduction to this medium

Methodology

This exploratory research used survey method to understand usage of social media by elderly. This is a quantitative research, and a questionnaire was designed to understand their presence on social media. The focus of the questionnaire was on understanding who introduced them to social media and what is its impact on their engagement with it. The primary aim is to understand who introduces senior citizens to the social media/messaging apps and to find whether the activity level of elderly on social media varies because of it. The level of activity was captured by determining how many different social media they had an account on and were they active on these accounts. Being active implied that they accessed the account at least once a week. In addition, the research also investigated the apprehensions faced by senior citizens while using social media and do the number of apprehensions vary depending on who introduced them to this world of social media.

Data was collected by the survey technique and the questionnaire was distributed among elderly citizens visiting parks, temples and senior citizen clubs. The qualifying criteria for senior citizens were that they had to be above 60 years of age and should be users of at least one social media application like Facebook, Twitter etc., or instant messenger like WhatsApp. In some cases, it was also shared via Google forms but the researcher provided assistance to them while filling the form. A combination of convenience sampling and snowball sampling was used during data collection. Total of 565 responses were collected, however few had to be discarded as the responses were not complete.

Data Analysis

Descriptive Statistics

The total usable sample size was 542 of which 57% were males while 43% were females. In terms of age, 61% of the sample belonged to 61 to 65 years of age and 23% to 66 to 70 years of age.

A closer look at the data reveals that 42% of the elderly were introduced to social media by children, 19% by friends and 18% by grand children. It was observed that only10% had explored social media on their own. Hence it is relevant to study who introduces them to Social Media and its impact on usage of Social Media

Hypotheses: The relevant hypotheses were written and tested using appropriate statistical techniques.

Introduction to Social media and its impact on usage

In addition to WhatsApp senior citizens may also have accounts on social media like Facebook, Twitter, Snapchat etc. The study captured the number of different social networks on which senior citizens have accounts and how many are active users (those who access these accounts at least once a week). The number of social network platforms on which senior citizens have accounts and the ones on which they are active users differs depending on who introduced them to social media. Further the study also captured various apprehensions held by senior citizens while using social media. Their apprehensions were checked for differences depending on who introduced them to social media. Accordingly hypotheses H_{0.1}, H_{0.2} and H_{0.3} were formulated as given in table below. These hypotheses were tested using one way ANOVA. The F value and significance level is given in Table 1 below.

Null Hypothesis	Alternate Hypothesis	F Value	Significance level
$H_{0.1}$ = There is no	$H_{1.1}$ = There is a	9.26	0.00
significant variation in	significant variation in		
number of social media	number of social media		
accounts of elderly and	accounts of elderly and		
who introduces him to	who introduces him to		
Social Media	Social Media p		

H _{0.2} = There is no significant variation in number of active social media accounts of elderly and who introduces him to Social Media	H _{1.2} = There is a significant variation in number of active social media accounts of elderly and who introduces him to Social Media	10.96	0.00
H _{0.3} = There is no significant variation in number of apprehensions during use of social media accounts of elderly and who introduces him to Social Media	H _{1.3} = There is a significant variation in number of apprehensions during use of social media accounts of elderly and who introduces him to Social Media	2.73	0.01

Table 1: Hypotheses testing

Since the significance level is less than 0.05, there is a significant difference in the number of social media accounts that senior citizen have depending on who introduced them to it.

In terms of different social media on which respondents had accounts, it was seen that respondents who had introduced themselves to social media had greater number of social media accounts (mean =2.36) as compared to those who were introduced to social media by children (mean = 1.73) or grandchildren (mean =1.51) (refer Table 2). This difference was significant as confirmed by Bonferoni test. In addition to self, if they were introduced by friends, they had more social media accounts (mean =2.25).

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Friends	104	2.25	1.33	0.13	1.99	2.51
Children	225	1.73	0.74	0.05	1.64	1.83
Grand Children	99	1.51	0.84	0.08	1.34	1.67
Colleague	39	2.21	0.89	0.14	1.92	2.49
Self	53	2.36	1.37	0.19	1.98	2.74
Spouse	20	1.45	0.76	0.17	1.09	1.81

Table 2: Number of Accounts on various Social Media sites vs Introduction to Social Media

In addition to accounts on Social media, the researcher was keen to see how many accounts the elderly citizens were active on (checked at least once a week), and if that varied depending on who introduced them to the online world. This was checked using one way ANOVA. As seen in Table 2 above, the significance level is less than 0.05, hence we reject the null hypothesis and conclude that there is a significant difference between number of active social media accounts and who introduces them to social media.

Similarly, number of active social media accounts is higher if a respondent has introduced himself to social media. This is followed by friends, if they have introduced him to WhatsApp. This is significantly different than if they were introduced by children or grandchildren as indicated by Bonferoni test.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Friends	104	1.96	1.17	0.11	1.73	2.19
Children	225	1.54	0.64	0.04	1.46	1.63
Grand Children	99	1.36	0.75	0.08	1.21	1.51
Colleague	39	1.95	0.86	0.14	1.67	2.23
Self	53	2.26	1.30	0.18	1.90	2.62
Spouse	20	1.15	0.37	0.08	0.98	1.32
Total	540	1.67	0.92	0.04	1.60	1.75

Table 3: Number of Active Social Media Accounts vs Introduction to Social Media

The survey also checked the apprehensions that senior citizens have while using social media. These included sending messages to wrong person, offending others, sending factually incorrect messages, fraud etc. They were also given an option to mark 'No apprehensions'. The biggest apprehension that senior citizens have is about being exposed to fraud, followed by fear of sending a message to a wrong person. The number of apprehensions mentioned by them was added together and it was checked whether the number of apprehensions varied depending on who introduced them to social media. This was checked using one way ANOVA.

Since the significance value is less than 0.05, the null hypothesis is rejected, the number of apprehensions of respondents vary depending on who introduces them to social media.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Friends	104	0.88	1.06	0.10	0.68	1.09
Children	225	0.96	1.11	0.07	0.81	1.10
Grand Children	99	1.37	1.42	0.14	1.09	1.66
Colleague	39	1.03	0.99	0.16	0.71	1.35
Self	53	0.85	1.32	0.18	0.48	1.21
Spouse	20	1.30	0.80	0.18	0.92	1.68
Total	542	1.03	1.19	0.05	0.93	1.13

Table 4: Number of Apprehensions vs Introduction to Social Media

The mean value indicated that number of apprehensions are the least (0.85) for respondents who had themselves explored social media, i.e. they had introduced themselves to social media.

Conclusion

The data analysis reveals that who introduces senior citizens to social media has an important role to play in terms of their extent of usage of social media and also their confidence levels as reflected in number of apprehensions.

Interestingly, if we study the relationship between who introduces them to social media and the different platforms on which they have accounts, it is seen that those who explore the world of social media on their own have the highest number of accounts (mean = 2.36) followed by those who were introduced to social media by friends (mean =2.25) and colleagues (mean = 2.21). This means that those who are introduced by children and grandchildren do not explore platforms other than the ones introduced by the latter. Further it was checked as to how many social media accounts were the respondents active on. Here also a similar pattern was observed i.e. those who had introduced themselves and explored their way had the highest number of active social media accounts (mean = 2.26) followed by those introduced by friends (mean = 1.96) and colleagues (mean = 1.95). This further strengthens the case that if children and grandchildren introduce an older adult to social media, the extent of use is limited to probably only those platforms that are introduced by them and exploration is limited. The number of apprehensions is also least (mean =0.85) for those who introduced themselves to social media followed by those introduced by friends (mean =0.88). This again indicates that those who introduce themselves are more confident in the use of social media as against those introduced by children or grandchildren.

This indicates that senior citizens need to be encouraged to explore social media on their own for higher usage. If they are introduced to these tools by family members viz. children or grandchildren, then they tend to become reliant on them and this leads to lower usage of social media and also higher number of apprehensions.

Applications of Research

This research will help understand the process of adoption of social media by senior citizens in urban India. Though children and grandchildren introduce senior citizens to social media, it does not make them confident as indicated by number of platforms on which they have accounts, social activity on these platforms and number of apprehensions. The research indicates that children and grandchildren should encourage them to use social media but allow them to explore it on their own. This will make them more confident and comfortable using social media.

Limitations and Future Areas of Research

The research was based on senior citizens residing in Mumbai, hence a survey on larger geographic area would further validate these findings at the national level.

Further in terms of scope, one can look at their confidence while shopping via social media. In terms of apprehensions, the ranking of apprehensions was not carried out, which could be an area of future research on this topic.

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Moby Dick and Heart of Darkness: Exploring Facets of Darkness across Continents

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Darkness, whether real or metaphoric, is an undeniable reality of human existence, irrespective of race, class, region, or the historical period. Greed, lust, envy and other negative traits comprise the dark psyche of humans that get expressed in various forms at different places and times. Since literature is a reflection of the society, literary writers and critics have time and again utilized and analyzed the dark side of human existence in their works. This paper intends to examine how two great nineteenth-century classics, namely, Herman Melville's Moby Dick and Joseph Conrad's Heart of Darkness, explored various facets of darkness. While Melville experienced the uncertainties of residing in an independent but yet-to-be-stable New World, Conrad carried the baggage of the Old World hypocrisies and corruptions. Again, while Moby Dick tells a frenzied tale in the mid-Pacific ocean, Heart of Darkness makes the readers aware of the horrific realities in central Africa. The secluded, unexplored and mysterious settings are enough for the anticipation of eerie incidents, but the crazy protagonists of the two fictional works with their sinister characteristics enhance the darkness of the plots all the more. Therefore, a comparative study of the topographical, political, cultural, metaphorical, psychical and literal darkness in the two texts is worth scholarly interest and attention.

Keywords: darkness, evil, psyche, colonialism, native, Ahab, Kurtz.

Herman Melville's (1819-1891) novel *Moby Dick* (1851) is one of the greatest American classics of all times. Written by the 'man who lived among the cannibals'1, *Moby Dick* – the "black tragedy of the melancholy ship" (Melville, 2008: 387) – retains almost all the characteristics of dark Romanticism. Melville, along with Poe and Hawthorne, criticized the earlier reform writers and had a pessimistic view of the world. These Dark Romantics perceived the natural world as "dark, decaying, and mysterious; when it does reveal truth to man, its revelations are evil and hellish"

("Dark Romanticism"). With its cynical attitude, sense of isolation, human fallibility, self-destruction, terror, torment, guilt, sin, imperfection, anthropomorphized evil, dark, sinister and ominous mood, *Moby Dick* is no doubt Melville's *magnum opus* and a perfect tale of darkness.

Just about four decades later, Joseph Conrad (1857-1924) emerges with his ultimate tale of horror and darkness. What should a fiction do—"make you see" (qtd. in Watt 101) was Conrad's answer in his 'Preface' to *The Nigger of the 'Narcissus'* (1897). However, with 'darkness' in the title itself, *Heart of Darkness* (1899) implies at the very outset that this seeing will not at all be comfortable. The novella first appeared serially in 1899 in *Blackwood's Magazine*. In his letter to Mr. Blackwood on 31 December, 1898, Conrad hinted about the dark theme of this novel as he wrote, "The criminality of inefficiency and pure selfishness, when tackling the civilising work on Africa is a justifiable idea" (Karl, 1992: 139-140). Truly, throughout the text we see humanity brutally thrashed and extensive misanthropy reigning high.

It is worth noting that rejecting the Victorian trend of depicting external social realism, both authors show a shift from external commentary to individual consciousness – a shift from social realism to psychological realism, from outer reality to inner reality, from narrative method to symbolic method, from conscious mind to the subconscious and unconscious self. Both authors establish a male-dominated world where women have nothing to do with the darkness involved in colonial adventures, imperial businesses, hazardous navigations and startling explorations. In line with the psychoanalytic theories of Freud and Jung, both works frequently incorporate ideas of repression, mental aberration, exhibitionism, auto-eroticism, narcissism, sadomasochism, ego-id-superego and existential crisis. While Captain Ahab illustrates a peculiar kind of morbidity, Kurtz establishes another facet of horror. Therefore, it can be presumed that irrespective of white and black, European and American, darknessis inherent in the psyche of human beings.

Melville embeds the novel with innumerable Biblical allusions and analogies. Even the names of his characters are taken from the *Bible*. By doing this, Melville almost thrusts upon his characters their pre-destined doomed fates. There are innumerable references to the Dooms Day and the Judgement Day throughout the narrative. But the novel tells a dark tale, all the more so because the hope of salvation present in the *Bible* is not anywhere perceivable in *Moby Dick*. As stated by Stephen J. Bennett, Melville

resonates with the "pessimistic and sceptical tones of Ecclesiastes" (2013: 50). For instance, Ahab by no means possesses the faith of Jonah which saved the latter, and therefore has no hope of salvation. Instead of trusting and submitting to God like Jonah, Ahab fights till his last breath. Melville has thus modernized his text and made it applicable to the contemporary age of mistrust and material-moral decay, violence and an overshadowing darkness.

Moby Dick being written during the period between the Mexican War and the American Civil War indicates the general cynical atmosphere throughout the country. To quote from D. H. Lawrence's 'Herman Melville's Moby Dick', "Melville knew. He knew his race was doomed. His white soul, doomed. His great white epoch, doomed. Himself, doomed. The idealist, doomed. The spirit, doomed" (1995: 173). Ahab's rigid quest is comparable to the Puritan rigidity of the Old World from which America should shake itself free. Otherwise, Ahab's doom may be extended to the doom of the New World. Conrad's Heart of Darkness is written in a similarly pessimistic background of intra-European rivalries. The British colonizers reached Africa rather late and by the end of the 19th century, about three quarters of the African continent was occupied by other European nations such as Belgium, France, Germany, Portugal, Italy, Spain and England (Hyam, 1993: 214-15). England too, was not lagging much in the race, and "the inevitable result of the rivalry was the Boar war in South Africa" (Biswas, 2007: 197).

It may here be mentioned therefore, that the 'darkness' of the mind perceived in both narratives is essentially rooted in political darkness in their echo of capitalist hegemony', much before the term is intensively discussed by the Italian Marxist philosopher and politician Antonio Gramsci (1891-1937). In *Keywords*, Raymond Williams (1921-1988) defines 'hegemony' as "a political predominance, usually of one state over another" (1983: 144). However, the desire of the ruling class to dominate and exploit the masses, as reflected in Melville and Conrad, extends more subtly from political dominance to cultural consent via identification with a 'false consciousness'-the deliberate misrepresentation of reality in the consciousness of the dominated classes by the dominant classes so as to perpetciate the act of domination & exploitation. This is equivalent to 'social hegemony' which is described by Gramsci as "the 'spontaneous' consent given by the great masses of the population to the general direction imposed on social life by the dominant fundamental group" (1971: 12). Hegemony, according to Gramsci, refers to a subtle process of political domination in

terms of ideological domination. The aim of ideology is to make a particular distribution of power seem natural, normal or inevitable and therefore beyond questioning. The ruling idea operative in most instances of absolute monarchy is the divine right of the king to rule, accepted as obvious and commonsensical by the subjects. Similarly, the moral and intellectual leadership of the capitalist nations since the 1870s all over the world with the false ideology of enlightenment, civilization and economic affluence pertains to Gramsci's idea of 'hegemony', a paradoxical predominance by consent, resulting in the unscrupulous deviousness of the dominators like Kurtz and Ahab, and the unsuspecting blindness of their victims.

This political darkness is intrinsically connected to the darkness rooted in cultural materialism because of the constant interaction and complex relationship between culture and economic structures. Culture presumes and promotes ideology. Every culture has its own underlying power structure and represents the relationship of power. In actual social existence, as Simon During, the editor of *The Cultural Studies Reader*, opines, "messages have a 'complex structure of dominance' because at each stage they are 'imprinted' by institutional power relations" (1993: 90). And to quote the Marxist sociologist and cultural theorist Stuart Hall:

Before this message can have an effect (however defined), satisfy a 'need' or be put to a 'use', it must first be appropriated as a meaningful discourse and be meaningfully decoded. It is this set of decoded meanings which 'have an effect', influence, entertain, instruct or persuade, with very complex perceptual, cognitive, emotional, ideological or behavioural consequences. (1993: 93)

As we can realize, the nineteenth-century nation-state imperialism is meant to be decoded as a nationally driven endeavour, a missionary project for the enlightenment of the African subjects, while in reality it is encoded as a private profit enterprise of the Belgian Limited Company for Trade in the Upper Congo in Conrad's *Heart of Darkness*. Similarly, Ahab in *Moby Dick* encodes his monomaniacal quest with a gold doubloon which allures the crew to decode it as prime fortune. Thus, even though Ahab's obsession rejects any pursuit of wealth, the "greed of the crew causes them to participate in Ahab's quest and thus in his demise (and theirs)" (Bennett 53). However, many a time, messages are not decoded in the same terms as they are meant by the encoders. As Hall notes, these "so-called 'misunderstandings' arise from the contradictions and disjunctures between hegemonic-dominant encodings and negotiated-corporate decodings" (102-3). On such occasions, hegemony needs to be protected by the armour of coercion, as we can clearly see from the heads on stakes outside Kurtz's hut.

In the words of Stephen Ross "Conrad's conception of, and engagement with, his contemporary culture – may best be delineated in relation to the dominant social, political, ideological, and economic force of at least the last 150 years: capitalism." (2004: 68).

Heart of Darkness is layered in darkness, the most explicit being its exposure of the dark reality of colonial exploitation. It questions European colonization of Africa, its ideology and effects, and "Marlow is often found to be apparently critical or disapproving of the way in which the colonial missions are conducted in Africa" (Biswas, 2007: 197). Under the guise of the philanthropic missions of enlightening and civilizing, there lie crude colonial domination and commercial exploitation. The grim truth of the dangers, hypocrisy and hollowness of the colonial activities is exposed when Marlow exclaims, "It (Imperialism) was just robbery with violence, aggravated murder on a great scale, and men going at it blind – as is very proper for those who tackle a darkness" (Conrad, 2001: 27).

The character of Captain Ahab, the most important and interesting figure in Moby Dick is itself an emblem of darkness, which interestingly coincides with the ungodly god-figure of Kurtz (*Heart of Darkness*) in the natives' eyes in the interior of Africa, as Melville posits:

He's a grand, ungodly, god-like man, Captain Ahab; doesn't speak much; but, when he does speak, then you may well listen. Mark ye, be forewarned; Ahab's above the common; Ahab's been in colleges, as well as 'mong the cannibals; been used to deeper wonders than the waves; fixed his fiery lance in mightier, stranger foes than whales. (Melville, 2008: 78)

The first description of Ahab almost equates him to the Greek tragic hero. In fact, he is a gothic anti-hero whose blind ambition, madness, cruelty and defiance of God lead him to his inevitable tragic end. In stark contrast to the optimism and celebration of human life by the earlier transcendentalists, Melville reveals the dark side of the human soul. The other side of human existence is driven by Freud's 'id' or Schopenhauer's 'will', and manifests in hubris, obsession, revenge, and homicide. According to Schopenhauer, 'will' is "a primitive force inaccessible to rational admonishment. Being unassuageable and endless, restless, tormented, striving for satisfaction the will is the chief source of the pain and suffering of life" (Gupta, 2004: 1). Throughout the novel, Ahab's dialogues depict the ferocity of his emotions:

I see in him outrageous strength, with an inscrutable malice sinewing it. That inscrutable thing is chiefly what I hate; and be the white whale agent, or be the white whale principal, I will wreak that hate upon him. Talk not to me of blasphemy, man; I'd strike the sun if it insulted me. For could the sun do that, then could I do the other...jealousy presiding over all creations...more intolerable than fiends' glarings is a doltish stare...thou reddenest and palest; my heat has melted thee to anger-glow. (Melville, 2008: 142)

Ahab's quest is, in many senses, similar to the story of Man's as well as Satan's fall. A lot of metaphors parallel the white whale with God. Thus, Ahab's craziness to grab and take revenge against that which is inscrutable, incomprehensible, ubiquitous, unattainable, indecipherable, mammoth, immortal and far more powerful, dwelling in an endless, fathomless and mysterious region is a forbidden quest which results in his fatal fall. He is 'demoniac' and 'madness maddened', "That wild madness that's only calm to comprehend itself! The prophecy was that I should be dismembered; and—Aye! I lost this leg. I now prophesy that I will dismember my dismemberer" (Melville, 2008: 145). Quite in contrast with the classical quests of heroes that led to self-introspection and glory, Ahab's monomaniacal quest is driven by Thanatos from the very beginning.

With the end of Ahab as well as the novel, one realizes the transient nature of materialistic pursuits and pleasures. Melville was writing at a time when the first phase of Industrial Revolution boosted the Americans with a crazy drive for materialism as explained by Ishmael in the context of the bursting whaling industry. The whale itself is a symbol of American capitalism. The economic epic written by Melville is an allegory of capitalist industry where "individualism, accumulation and economic enterprise are viewed as dysfunctional" (Ruggiero, 2002: 96). In this context, it will not be irrelevant to mention Melville's "father's fruitless pursuit of wealth as an importer of fancy goods, a pursuit that ended in his bankruptcy and death" (Bennett 53). Therefore, chasing the whale in a sense equals the corporate sector's profit-seeking attitude, denying the very essence of human existence. In Chapter XXX, with the tossing away of the pipe into the sea, Ahab is gradually losing simple enjoyments of life under the shadow of his obsession. Again in Chapter XXXVII, his melancholy musings strike sharply,

Oh! time was, when as the sunrise nobly spurred me, so the sunset soothed. No more. This lovely light, it lights not me; all loveliness is anguish to me, since I can ne'er enjoy. Gifted with the high perception, I lack the low, enjoying power; damned, most subtly and most malignantly! damned in the midst of Paradise! (Melville, 2008: 145)

While the negativities of American capitalism are indicated by Melville in the mindless pursuits of the whaling business, Conrad effectively reminds the contemporary readers of the white-collar crimes committed in the European corporate culture by using the term "Company" (Conrad 29) and its profit-driven hegemony where crude managers like Kurtz occupy significant posts. Multinational capitalism is inherent in the materialistic operations of commodities such as whale skin in Moby Dick and ivory in Heart of Darkness, thereby highlighting the exploitation of nature, power and hierarchy. Conrad, in fact, mocks the materialistic pursuit of the capitalist colonizers by showing the horrific fate of Kurtz. As Chinua Achebe rightly observes, "Heart of Darkness projects the image of Africa as 'the other world', the antithesis of Europe and therefore of civilization, a place where man's vaunted intelligence and refinement are finally mocked by triumphant bestiality" (1988: 252). Kurtz has rightly been depicted in the novel as villainous and morally degraded, who is "stripped of his acquired (hence artificial) European habiliments" and becomes a "conscienceless pillager, an ivory-obsessed automata' who has gone savage and has adopted the ghastly tribal customs and practices" (Biswas, 2002: 38). The Africans are the ultimate 'others' belonging to the "land of the savages", the "country of impenetrable darkness, of cannibals, and fierce animals" (Biswas, 2007: 196). This image of Africa, as presented in *Heart of Darkness*, is "created by the 19th century Europe for its own imperial and colonial interests" (200). Unfortunately, this technique of 'othering' only exposes the civilized people, the "emissaries of light" as "low, hypocritical, hollow, morally degraded, and evil natured" (204). As anyone can clearly perceive, the darkest character in the novel is undeniably Kurtz, a civilized European, who as Melville describes "has a perverse sense of humour, the darkness has metamorphosed Kurtz into the object for which he craves, the ivory, and has infiltrated itself into his blood and bones" (Cox, 2003: 39). The natives may be "fiendlike and cannibalistic", but Kurtz transgresses "all forms of traditional morality" (Biswas, 2002; 41). He is an "extreme example of a degraded Western individual" who echoes Ahab in his evil transformation:

Kurtz is that 'wandering European' in the novel who in the Congo Africa 'enters into his peril'. His European civilisation fails to save him...Once Kurtz is in the dark jungle away from the restraints of European society, the evil lurking within him is freely released, and he is soon engulfed by the African wilderness. He turns savage. (Biswas, 2007: 205)

The only surviving person in Moby Dick is Ishmael, whose preoccupation with sorrow, destruction, decay and death is reflected throughout the novel, making Moby Dick an epitome of darkness and evil, such as, "All is vanity.' ALL" and "For all men tragically great are made so through a certain morbidness...all mortal greatness is but disease" (Melville, 2008: 340, 74). The ship itself is a moving coffin, or the 'second hearse' as described by Ahab on the final day of the chase. The novel features several prophets - Tistig, Father Mapple, Elijah, Gabriel, Fedellah - all prophesying the inevitable doom in the near future. Death being the destiny of Pequod (named after the annihilated Algonquian tribe) is referred to in the text about fifty times. Ahab's broodings must also be taken into consideration in this context, "Born in throes, 'tis fit that man should live in pains and die in pangs" and "Here now's the very dreaded symbol of grim death...So far gone am I in the dark side of earth, that its other side, the theoretic bright one, seems but uncertain twilight to me" (345, 414). Finally, the fact that the blacksmith of Pequod can smooth "all seams and dents but one" (385), that one being theribbed eyebrows of Ahab's forehead, points to the finality of death in everyone's life.

Finally, the descriptions of the surrounding atmosphere thriving over the crew members throughout the novel testify *Moby Dick* to be a tale of darkness and horror. The predominance of evil is felt when Ishmael states, "Though in many of its aspects this visible world seems formed in love, the invisible spheres were formed in fright" (Melville, 2008: 165). Starbuck also feels likewise when he exclaims, "Oh, life! 'tis now that I do feel the latent horror in thee" (146). Moreover, "the rushing Pequod, freighted with savages, and laden with fire, and burning a corpse, and plunging into that blackness of darkness, seemed the material counterpart of her monomaniac commander's soul" (339). The tainted "vile wind that has no doubt blown ere this through prison corridors and cells, and wards of hospitals," blow as if they "whip it about me as the torn shreds of split sails lash the tossed ship they cling to" (441). The sea itself becomes the source from which the unknown terror originates. To quote Gupta, "Ishmael draws repeated attention to 'the full awfulness of the sea', its 'universal cannibalism', which, in turn, becomes symbolic of 'the demonism in the world'...The tranquil beauty of the sea only conceals 'the tiger heart that pants beneath it'. The capture and killing of the whale brings out the full horror and pity of the exercise" (3). According to John T. Matteson, Melville shows that the natural world in Moby Dick is "just a screen for pervading, all-consuming death" (qtd. in Gupta 3). In

Moby Dick, Melville proves Schopenhauer's argument that "the life of every individual, if we survey it as a whole and in general, and only lay stress upon its most significant features, is really always a tragedy" (3). One can understand this darkness of Melville's mind which gets expressed throughout the novel from his declaration, "never again can such blights be made good; they strike in too deep, and leave such a scar that the air of Paradise might not erase it" (Melville, 2003: 28).

If Kurtz echoes Ahab in his dark character, Marlow arguably echoes Ishmael in reflecting the darkness that overshadows the text. Both the narrators have faced evil destruction with only an inch of spirit left in them with which they return to their worlds. While each word of Ishmael throughout the novel bears a tinge of horror in the secluded ocean, Marlow takes up the yarn of the narrative to relate his spine-chilling and nerve-shattering experiences in the heart of the Congo Africa. His voyage up the Congo to bring Kurtz back from the inner station of the Belgian Trading Company is actually a voyage to the innermost part of the self, the unconscious id, which expresses the primal instinctual elements of an individual. Id is suppressed by ego and superego as the blacks are oppressed by the so-called civilized Europeans. But Kurtz's fate is symbolic of the 'return of the repressed' (here repressed being the dark psyche of the white Europeans), which can never be kept suppressed forever, and returns in the most unexpected manner.

The inhuman exploitation, the miseries and agonies of the natives in the hands of the colonizers prove that the latter's mind is metaphorically much darker than the former's skin. At the first station of the Company, "They (natives) were dying slowly – it was very clear. They were not enemies, they were not criminals, they were nothing earthly now – nothing but black shadows of disease and starvation, lying confusedly in the greenish gloom" (Conrad 38). The picture is equally grim in the 'Central Station' where "a nigger was being beaten" (45) without any proof of his guilt. The worst situation, however, is in the 'Inner Station' where Kurtz placed himself as the lord, very like the tyrannical monomaniacal Captain Ahab, and "the poor niggers only became, in their own home, the helpless victims of his 'lust' for ivory. They were simply tyrannised by Kurtz and were compelled to give away their stock of ivory at the face of Kurtz' bullets" (Biswas, 2007: 203-4). The proof of this dark violence is again exposed when Marlow points out that "he had no goods to trade with by that time" and the Russian harlequin meaningfully replied, "There's a good lot of cartridges left even yet" (Conrad 81).

Significantly, both Ahab and Kurtz's life-styles are self-chosen and self-imposed. They reached their respective fatal positions by following their own chosen paths. But the drives behind the choices might have been, as Biswas rightly says:

...dread and anxiety, the two major emotions mentioned in the existentialist philosophy as the important guiding forces of an individual. In the wild Congo-Africa among the cannibal tribes, the inner station of the company where Kurtz is placed must have remained a horrible place for a European...Kurtz's anxiety, dread, and immense tension might have inspired him to tackle the wild situation in two chief ways - by being absolutely cruel to the opponents on the one hand and, on the other, by getting himself tribalised. (2002: 39-40)

Similarly, Ahab forced everyone to participate in his crazy revenge against the almost supernatural whale because of his recognition that he must "dismember my dismemberer" (Melville, 2008: 145) in order to keep himself alive in the ocean. Both the novels thus explore dark existentialism long before the concept developed, in their "preoccupation with nightmarish absurdities, and the nothingness or meaninglessness of existence" (Biswas, 2002: 40). Marlow's arduous voyage up the river Congo ends in nothingness with his disillusionment and Kurtz's death. Ahab's fatal ambition similarly ends in nothingness and remains unfulfilled forever with his death in the jaws of Moby Dick. Their dark finality proves that beneath the surface of civilized life there are "vital energies which were wild, primitive and completely merciless" and they "will be released in revenge, and produce a new barbarism" (Bradbury and McFarlane, 1991: 446). "The horror!" of Kurtz's death perfectly describes the horrific death of Ahab as well (Conrad96). And thus, both the texts become tales of "essentially moral-ethical-psychological darkness" (Biswas, 2007: 202).

Notes

¹The twentieth-century biographer-poet Laurie Robertson-Lorant calls Herman Melville 'The Man Who Lived Among the Cannibals' in her poetic memoir entitled *The Man Who Lived Among the Cannibals: Poems in the Voice of Herman Melville*. She is also the author of *Melville: A Biography*.

²False consciousness is the deliberate misrepresentation of reality in the consciousness of the dominated classes by the dominant classes so as to perpetuate the acts of domination and exploitation. For further details, refer to *History and Class Consciousness: Studies in Marxist Dialectics (1923)* by György Lukács, *The Mystified Consciousness* (1936) by Henri Lefebvre and Norbert Guterman and *Marxism and Literature* (1977) by Raymond Williams.

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Sea Unites where Land Divides: A Transcultural Reading of Flood of Fire

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Flood of Fire is the last novel of the Ibis trilogy written by Amitav Ghosh. This novel is concerned with the 19th century opium trade between British India and China. Following the crackdown on opium smuggling by Beijing, the tensions and uncertainties between the two nations escalate. With no resolution in sight, the colonial government decides to wage a war against China. The main objective behind the war is re-opening of the opium trade and restitution of past losses. The tumultuous historical events shaping the history and geography of the Asian continent result in the tossing up of the characters much to their discomfort and agony. In the midst of mayhem and unrest, the only succour these characters derive is by striking lasting bonds of friendship with one another. The present paper is an attempt to prove that the divisions of society on the basis of race, religion, nationality and culture stifle the blooming of relationships between human beings on land, whereas, the sea does not recognize rules of the land and renders them meaningless as the novel illustrates. Compelled by circumstances, the characters of the novel belonging to diverse cultures and nationalities forge deep-rooted bonds of trust and friendship with one another. Ghosh, through the novel, guides humanity to believe in the universal virtues of tolerance, fraternity and camaraderie to make the world a better place to inhabit.

Keywords: opium, Britain, China, colonialism, free trade, love, fraternity.

Introduction

Amitav Ghosh's *Flood of Fire* chronicles the turbulent history of opium trade with China culminating in the first Opium War in 1839. Deeti, a female protagonist occupies an important place in the previous two novels of the Ibis trilogy. She is married to Hukam Singh of Ghazipur, the nephew of Nirbhay Singh, a Subedar in the army of the East India Company. Though she does not appear in this novel in person and only finds mention towards the end of the novel, she is conspicuous by her absence. Her formidable persona hovers over the narrative, as her pictograms and her oral recitation of the Ibis(ship) family saga mark the beginning and the end of the trilogy. Kesri Singh, her brother, joins the army of East India Company as a sepoy. He is told by Subedar Nirbhay Singh that Deeti has eloped with a low-caste driver Maddow, post her husband's (Hukam Singh's) demise and has brought shame and dishonor to her matrimonial home. Zachary Reid, a black American sailor passes off as a white and enters the lucrative opium business under the tutelage of Mr Burnham and his gomusta, Baboo Nob Kissin. Shireen Modi, a Parsi woman and courageous widow of the opium trader Bahram Modi, leaves for China in search of her late husband's illegitimate son Freddie and to claim her husband's seized cargo of opium in Canton. In an unfortunate incident, Neel Rattan Halder, once a king of the erstwhile Raskhali Estate is separated from his wife and son since his arrest by the British officials two and a half years ago. He absconds from the ship Ibis and remains a fugitive in order to avoid conviction on the false forgery charges. Meanwhile, the First Opium War commences and the characters find themselves in the midst of these events.

As the novel opens, one finds havaldar Kesri Singh leading his *paltan*, Bengal Native Infantry from Assam to Calcutta for an upcoming expedition which is to be launched by the army of the East India Company against China with India as its base. In the initial pages of the novel, Mr Benjamin Burnham, a ruthless British trader finds mention. He is one of those callous British merchants who has amassed huge wealth by sucking the blood of the downtrodden of the society and is a staunch votary of colonialism. The novel reports that he is in China due to the mounting opium crisis and is offering Her Majesty's representative, Captain Charles Elliot, guidance as to what is to be done next. Mr Justice Kendalbushe of the Supreme Court presiding over Zachary Reid's hearing showers praises on Mr Burnham as the leading businessman of the city, passionate advocate of free trade and a philanthropist to the core and Mrs Burnham as

the one who devotes herself to alleviate the societal ills. So it is noticeable how the predators of people feign themselves to be their well-wishers and even the jury lends support to them.

Colonialism-Capitalism Nexus

It is a myth to believe that there ever existed an egalitarian society. Nations and kingdoms with power have always dominated and will continue to dominate the powerless, "Domination and inequities of power and wealth are perennial facts of human society" (Said, 1994: 19). This is also one of the forms of colonialism. But what differentiates this colonialism from European colonialism, is the fact that earlier ones were pre-capitalist whereas modern colonialism was established alongside capitalism in Western Europe. Colonialism brutally reshapes territories and social terrains as well as human identities, and involves a wide range of practices including trade, settlement, plunder, negotiation, warfare, carnage and enslavement. Economic imbalance is the direct result of European colonialism and it is the prerequisite for the growth of European capitalism and industry. Thus, it can be said that colonialism is the midwife that assisted the birth of European capitalism. In the wake of colonization, not only are the colonized robbed of their economy, polity and cultural values, but it also has pernicious effects on their mental health. As the Caribbean novelist George Lamming puts it: "The [colonial] experience is a continuing psychic experience that has to be dealt with long after the actual colonial situation formally ends" (qtd. in Hulme, 1993: 120). The English ventures in the East are 'purely' for trade. Flood of Fire is a classic vignette of these misadventures.

Amitav Ghosh in the present novel delineates the capitalist imperial rule of Britain. The motto of Free Trade rights becomes the driving force which aids Britain in becoming a colonizing capitalist empire by the mid-nineteenth century. Flood of Fire teems with these features of European colonialism. The novel finds the strongest proponent of Free Trade in Mr Burnham. It is through the trade of Indian opium in exchange of Chinese tea that Britain endeavours to tilt the imbalanced trade in its favour. China attempts to put an end to the inflow of opium in the nation by appointing the formidable Commissioner Mr Lin Zexu who tightens the noose around the drug peddlers: "The methods employed by Lin to attain this goal were considered radical by the Company and countered with 'barbaric and decisive force' and resulted in opium wars" (Mishra, 2016: 10).

Opium, an instrument of Oppression

With the colonization of India, the East India Company through sheer dominance wrests control of the Indian agricultural system. Kesri's father Ram Singh grudgingly tells that Company's opium factory in Ghazipur is sending its agents "to press loans on farmers, so that they would plant poppies in the autumn" (Ghosh, 2015: 52). Handsome profits are promised to the farmers but when it is time to pay them, the Company tampers with the prices and they go deep into debts. Mr Burnham, ever interested in widening the circle of Free Traders, welcomes Zachary Reid in this enterprise with open arms. It is clear that Mr Burnham's unquenchable greed for money makes him say: "Every chest would fetch a fortune" (Ghosh, 2015: 282).

After the colonization of India, poppy cultivation is imposed on the poor Indian peasants by the colonizers and they use treacherous means to mint wealth at the expense of the helpless peasants. "Opium is the driving force in the Britain-China-India trade triangle and it is used both as a generator and transmitter of British fortune" (Tan Chung, 1974: 424). Marx famously uses opium as a metaphor for religion, yet he also analyzes the commodity's formative role in global financial markets, noting how the East India Company "was rapidly converting the cultivation of opium in India, and its contraband sale to China, into internal parts of its own financial system" (1951: 55). Similarly, Aime Césaire, in the book Discourse on Colonialism, claims that colonialism not only exploits but dehumanizes and objectifies the colonized subject, as it degrades the colonizer himself. He explains this by a stark "equation: colonisation = 'thingification'" (1972: 21). Ghosh painfully points out that the entire operation of empire is bathed in the blood of the poor peasants whose labour and drudgery involved in producing this cash crop (opium) goes unacknowledged. Indian peasants are forcibly sent to the distant plantation sites like Mauritius to serve as indentured labour to ensure the prosperity of the British Empire. Therefore, travel gets initiated as the poppy cultivation is imposed on India.

In an attempt to control all domains of the colonized country, the East India Company also starts interceding in the job sector, especially in the field of defence. Its agents do not let the youth of the village join the army of their choice but only the army of East India Company i.e. Bengal Native Infantry. British colonialists for their Asian campaigns including Burma, Arakan and Persian Gulf depend on Indian sepoys. This

is what leads Kesri Singh to join the army of the Company much against the wishes of his family. But it is disheartening to learn about the highly discriminatory attitude of the British army officers towards Indian soldiers. This discrimination derives from the 'us' versus 'they' attitude ingrained in the psyche of British colonists. "The construction of vast numbers of people as inferior, or 'other', was crucial for constructing a European 'self' and justifying colonialist practices" (Loomba, 2007:112).

In the novel there are many natives who are associated with Britishers for their vested interests and draw privilege from it. They collude with them against their own men and are as guilty as the Britishers in committing atrocities on them. They are Subedar Nirbhay Singh, Bahram Moddie, Zachary Reid, Dinyar Ferdoonjee, Bengali zamindaars and other Parsi merchants from Bombay. Later on, it is also learnt that Subedar Nirbhay Singh levies baseless allegations against Kesri in connection with his sister Deeti. He makes Kesri leave the *paltan* ignominiously declaring him an outcast.

The novel is also replete with instances of caste-based discriminations. Hindu fanatics brag of their association with Britishers, consider society as their fiefdom and discriminate against low-caste Hindus. An instance of such discrimination comes to the forefront when Deeti's new husband Maddow, an untouchable is bullied and humiliated by high caste Hindus like Nirbhay Singh and others. They do not accept the marriage and are after their lives. Kanchallaiah, in his book titled *Why I am not a Hindu*, reminds us that the castes excluded as 'backward' or 'untouchable' by Hinduism are alienated not merely from the colonial or neo-colonial western culture, but also from the dominant postcolonial 'Indian' one (1996: 15). Hence, we see that the downtrodden members of society are not only subjugated and exploited by the colonialists but also by indigenous native elites. " 'Colonialism' is not just something that happens from outside a country or a people, but a version of it can be duplicated from within" (Loomba, 2007: 32).

As the novel proceeds, it becomes apparent that China wants to curtail opium inflow in their country but the British want to continue with it in the name of Free Trade. All deliberations and negotiations to effect reconciliation fail as both countries are firm on their stand. Commissioner Lin is of the opinion that it will not lead to war. But in conceiving this, Lin proves wrong as the British declare war on China.

Porosity of cultural boundaries

If we rethink culture ... in terms of travel, then the organic, naturalizing bias of the term culture – seen as a rooted body that grows, lives, dies, etc. – is questioned. Constructed and disputed historicities, sites of displacement, interference, and interaction, come more sharply into view. (Clifford, 1992: 101)

Colonialism expands the contact between Europeans and non-Europeans. As the people of these antagonistic civilizations come into contact with each other, they don't remain unaffected. Infact, they influence each other significantly. It results in 'transculturation', a term coined by the Cuban anthropologist Fernando Ortiz in 1947. The result of such transculturation is a mixing, a hybridity, which has become an important issue in colonial discourse theories. Flood of Fire is peopled with characters who undertake numerous migrations (forced or voluntary) and disrupt the settled discourses of stable and distinct cultures and identities. The characters in the novel occupy the 'in-between' spaces and are hybrid, and the purity of race, culture and language fall flat: "Encounters with what lies outside its own boundaries are central to the formation of any culture: the line that separates inside and outside, the 'self' and the 'other' is not fixed but always shifting" (Loomba, 2007: 83).

The meaning of the term 'culture' is not fixed but fluid. It is not easy to define culture. Of all its definitions, the most popular one is advanced by the British anthropologist Sir Edward Burnett Tylor who defines culture as "that complex whole which includes knowledge, belief, art, morals, law, custom, and any capabilities and habits acquired by man as a member of society" (1871: 1). Cultures are man-made constructs. All nationally defined cultures aspire to be sovereign and dominate other cultures. But the idea of a pure and fixed culture seems to be a myth. Culture dwells in travel and gets refurbished each time.

Postmodern as well as post colonial theory of culture considers it a fluid idea; it is not a confined concept resisting change (for culture cannot remain unchanged), but it changes with the passage of time as well as through the confluence of different cultures. Cultural boundaries tend to lose their divisive quality as Bhabha rightly sums up that it "is the trope of our times to locate the question of culture in the realm of the beyond" (1994:1). The term 'beyond' shows the postmodern desire to connect across borders. It is a place of intervention where diverse cultures meet across spatial and temporal barriers.

Amitav Ghosh is conscious of the cultural context in which he places his writings. As a postcolonial writer, Ghosh has an avid interest in cross cultural communication and explores a "cultural space [which] is a vast, borderless region with its own hybrid languages and practices which circulate without national or religious boundaries" (Dixon, 2003: 10). In all his novels, Ghosh manifests his deep interest in the plight of migrants, diasporic and displaced persons. He attempts to locate them and tries to achieve a historical perspective that regards 'movement as a mode of being in the world' (Paul Carter, 1992:101). The importance of such a perspective lies in its ability to contest and dismantle notions of fixed and separate cultures, identities and landscapes.

Ghosh has a penchant for the Indian ocean, and in the present novel he exploits its diasporic space. By frequently referring to the Indian Ocean in almost all his novels, Ghosh wants to highlight that it as a marker of unity and fraternity in contrast to the divisions that manifest human civilization on land. He employs the metaphor of ocean to connote unity between human beings/civilizations: "For most of recorded history, cultures, civilizations and economies are better defined by oceans than by land masses. Until very recently the sea connected where mountains and deserts divided" (Howe, 1992: 48). This maritime surveying questions the partitions that took place in the past under nationalistic discourses where 'culture' and 'identity' are determined by the fixed geographies of land and not by the fluid, open spaces of the ocean, always in a state of flux. This rigid determination of national identity in terms of fixed geographies complicates the notion of identity because in the contemporary times people are always on the move and this movement unsettles the rhetoric of nationalist discourses. K.N. Chaudhuri holds the opinion: "The Indian Ocean can be said to be constituted by four great civilization fields:the Iranian-Arabic, the Hindu, the Indonesian, and the Chinese" (1985: 21). In the present novel, the Indian Ocean is crisscrossed by journeys undertaken by numerous characters as discussed below: British merchants like Mr Burnham's ships, *Ibisand Anahita*, and Parsi merchants' ships carrying opium consignments shuttle between Bombay and Canton (China); the transportation of the soldiers of the British Indian army to China on the ship Hind in the wake of increasing hostilities between Britain and China; and the voyage undertaken by the indentured Indian labourers and convicts serving the British Empire in its plantations. Ghosh's imagining of the Indian Ocean in this way reminds one of Paul Gilroy, who depicts 'Black Atlantic' similarly and portrays a counter

history of modernity represented by characters belonging to diverse professions shuttling back and forth amongAfrica, America, and Europe. Nothing illustrates this more than the act of physical movement which unsettles those discursive formations that seek to root one's identity in one place: "Identity thus emerges through the interplay between 'roots' and 'routes'" (Gilroy, 1993: 19).

Due to opium production in India, a trade route to China is established and it results in the global flow of capital, goods, people, industry and workers in the novel. Merchants from all over the world invest in this remunerative trade and for business purposes travel in so many directions that the idea of being rooted in one place loses ground. Indian Parsi traders are also lured by the opium business and the hefty profit which it ensures. For trading purposes, they travel to other countries and carry their indigenous language, culture, tradition, customs and religion to a place where different language, culture and religion are practiced. Hence, the space for interaction between different cultures gets created. Ghosh analyzes this space minutely and reaches the conclusion that in the wake of inter-cultural interactions, the borders between nations and cultures are violated as the borders also act as hinges to facilitate the interaction between the two sides.

Recent post colonial criticism has started paying attention to the 'nativization' of the colonists, an often-ignored aspect of colonial practice. During colonialism, there was a mass exodus of European population towards the colonies. It results in the interaction between the colonizers and the colonized. This prolonged contact with each other leads to the intermingling of the two diverse cultures. Both sides assimilate some elements of each other's culture. It is noteworthy that this assimilation is not voluntary on the part of both the colonizer as well as the colonized. Initially, an element of hesitation persists between them, but being exposed to each other's culture for a long period weakens their defences and they succumb to cultural assimilation. The binary of inferior/superior gets subverted as the colonized also threaten the European discourse in their own ways. In the present novel, there are many instances of cultural assimilation taking place.

As the narrative traverses Nayanpur, Calcutta, Hong Kong, Guangzhou, Baltimore and Le Morne Brabant, Ghosh lays bare the history of transnational contact and moves post colonial writing beyond imperial geographies to scrutinize other nodal points for trade, where dispossessed migrants endure the vagaries of life and remake

themselves. The novel reports that there are many characters namely Kesri, Maddow, Jodu, Neel and Freddie who, compelled by the forces of colonialism and capitalism, leave their hometown in search of green pastures. These hapless individuals run from pillar to post to ensure their well-being and safety in alien lands.

In Flood of Fire, cross cultural dialogue and transregional friendship emerges out of the concept of 'love of the other, the affinity for strangers' (Ghosh 'Confessions'). It is noteworthy that characters forge solidarity with one another in foreign lands brushing aside all man-made divides. Neel, who is made to leave his country (India) on the false charges of forgery, is sentenced to serve as a labourer in British plantations abroad. He moves to Canton's Fanqui from Hong Kong Bay and meets his old friend Compton, a publisher and translator. He does exactly what a man who is caught in highly uncertain and fearful times should do, and revives the old bonds of friendship. His friendship with Compton is not inspired from some selfish interest but is based on the mutual love for languages: "The novel's 'love of the other or affinity for strangers' reconfigures borders and offers multiple alternative perspectives that disrupt the grand imperial narrative of the Opium War (Gopinath, 2016: 155)".

The novel has many such instances where 'love of the other' overshadows all societal restrictions which police human behavior and interaction. There are other instances that bear testimony to the cross cultural interactions. Kesri's relationship with Captain Mee, the British commanding officer of the B company, is full of love and respect and differs from the hierarchical relationship between a sepoy and an officer. When Kesri feels betrayed by the *paltan*, he is soothed and reassured by Captain Mee. Kesri feels:

It was a fact that after having spent almost two decades in the *paltan*, none of his fellow sepoys had uttered a word of sympathy to him; the only man who had put a friendly hand on his shoulder was not someone of his own caste and colour but rather an Angrez on whom he had no claim whatever. (Ghosh, 2015: 179)

The foregoing quote reveals the essence of human relationships. Vico, the secretary of the late Parsi opium trader Bahram Moddie, arranges Shireen's voyage from Bombay to Canton (China). Shireen boards the ship Hind bound for Canton along with Rosa, Vico's cousin from Macau. Rosa remains by her side throughout the journey and plays an important role in launching Shireen into a new European 'avtaar'. The novel reports that Shireen shares a bond full of love with Rosa, it is as if "Widowhood created an

instantaneous bond between the two women" (Ghosh, 2015: 154). Robert Dixon aptly comments that characters 'dwell in travel' (2003: 10).

In the wake of increasing threats to the foreigners in China's Guangzhou province, Neel moves to the Honam island. His chance visit to the local monastery results in his meeting with Tarnathji, an elderly lama. They soon become good friends. As the lama starts speaking in Bhojpuri, Neel is rendered speechless. Lama confides in Neel that he is a globe trotter and has also visited Buddhist holy places in India like Gaya and Sarnath. Ghosh gives due credence to the Chinese translator Tarnathji as he is the fountain head of knowledge and feeds Neel's mind with vital information on the current Chinese debacle in the opium war. He also informs Neel of the important links that exist between China and Nepal: "Ghosh excavates the multilayered cultures that rim the Indian Ocean, predating the arrival of Europeans, as well as the autonomous worlds dialectically forged across cultures and regions in response to the European presence." (Gopinath, 2016: 155).

The 'love of the other' stands true as far as the relations between Indian and Chinese characters are concerned. They eat, dance and walk together. Jodu, a Muslim lascar from India works for the British merchant Mr James Innes. When Mr James'sship carrying opium is seized by the Chinese, he (Jodu) along with others lascars is taken prisoner and endures much torture in the Chinese prison. Jodu and his friends, during their stay in Guangdong's prison, strike a friendship with other Muslim prisoners of China. Their paths, which would have never crossed otherwise, now get entwined and they welcome Jodu and the party in their fold: "These prisoners welcomed the lascars into their midst as if they were brothers ..." (Ghosh, 2015: 290).

Equally painful is the fate of little Raju, Neel Rattan's son who gets separated from his father due to the machinations of Mr Burnham. With the motive of uniting him with his father Neel in Macau, Baboo Nob Kissin assigns him to Zachary Reid as a ship's boy on the *Hind*. Raju's bond with Zachary Reid on board the ship makes Reid hug the poor little boy out of compassion. On reaching Macau, Raju learns that his father has left the place, which leaves him shattered. The only consolation that comes to Raju is from his friendship with the British boys on the ship. When Baboo Nob Kissin offers Raju to accompany him on Ibis, he declines his offer saying "I have friends on the *Hind*—why should I leave them? Isn't it enough that my father isn't here? Do you want me to lose my friends too?" (Ghosh, 2015: 358). This conveys how desperately Raju wants

to make friends with strangers as he is bedeviled by a deep sense of loss and abandonment.

It is common knowledge that the illegitimate offspring of an individual are not treated with respect and thus are not entitled to the family lineage in the Indian social set up. Shireen's relationship with Freddie, the illegitimate half Chinese son of her husband, defies all such taboos. Her desperate attempts to meet Freddie, and similarly his desire to be recognized in his father's family in Bombay convey the impression that both sides want to engage in a lifelong relationship. This is a stark example which proves that the rules of land are no longer valid on the sea and they are not potent enough to inhibit the growth of cordial relationships between human beings. Freddie comes to see Shireen while she is sailing to China on the Hind and says complainingly "I have been waiting for you, lah" (Ghosh, 2015: 323). Shireen showers motherly love on Freddie and he too reciprocates her love.

Similarly, Freddie and Paulette's (a French orphan and botanist) friendship that springs up on the ship Ibis, flourishes transcending the parochial concepts rooted in nationalist discourses. Freddie, dejected with life, thinks of drowning himself in the Pearl River but is prevented from doing so by Paulette who says: "That the bonds of the Ibis are very strong ... we all need each other" (Ghosh, 2015: 454). The relationship between the two overrides national, racial and religious constraints and echoes belief in the universal brotherhood of human beings.

Mrs Cathy Burnham, an equally shrewd wife of opium tycoon Mr Burnham is an important character in her own right, as well as in launching Zachary Reid into the world of wealth. As the novel proceeds, she does not remain a true European, mellows down and starts developing fellow feelings towards other human beings like Shireen and Freddie. Her friendship with Shireen makes her share the innermost secrets of her life as if they were soul sisters. Mrs Burnham also attends Freddie's funeral. These instances of cross-cultural friendships stimulate the urge to redefine constricting concepts of nation, race, religion and culture along more human centric lines. All the above discussed instances bear ample testimony to the fact that human relationships are not governed by divisive man-made barriers, but by the desire to live in harmony and tolerance with one another.

The English characters in *Flood of Fire* get influenced by the indigenous culture which is particularly noticeable in their frequent use of native vocabulary in their daily

speech. Among the characters who use this mixed language are Mrs Burnham, Mr Doughty and Captain Mee. They speak heavily Hindustan-ized English much to the amusement of the readers. Nevertheless, the use of Anglo-Indian language by Ghosh offers not only a comic effect but also to give astrong message of crossingthe linguistic barrier. In this novel, he continues to experiment with a variety of what might be called 'Englishes'—that is, various forms of spoken English that are inflected by local languages and professional practices, including sailor's argot, Cantonese pidgin, and the dialect of the lascars.

The postmodern critique that subverts the notion of a pure and homogeneous culture applies equally to that of language. It is impossible to think of a language which is pure or virginal – untouched by the influence of other languages. (Laskar, 2012: 83)

Ghosh takes us into an interesting linguistic voyage. Apart from providing the glimpses of British speaking semi-nativized English, Ghosh also introduces words and phrases from Bhojpuri to justify the novel's setting, and the characters (Nirbhay Singh, Kesri, Maddow) who belong to Bihar and its surrounding areas where Bhojpuri is spoken. Bengali phrases also make their appearance because Neel, an important character belongs to Bengal. Gujarati words and phrases too adorn the narrative in their own way especially with reference to Shireen and her nephew DinyarFerdoonjee. Cantonese, with special reference to the conversation of Neel, Compton and Zhong Lou-si, is also discernible in the narrative as most of the action takes place in Canton (China). All this intermixing of diverse languages results in linguistic hybridity. Such hybridity may be studied from the lens of Mikhail Bakhtin'sconcepts of polyphony and dialogism developed in his Problems of Dostoevsky's Poetics. Polyphony means the presence of multiple voices in a narrative anddialogism implies mutual difference at the heart of all speech/language. Bakhtin averred that novels are not univocal but dialogic. Flood of Fire explicitly foregrounds this dialogic aspect of speech where characters belonging to diverse castes, classes, gender and socio-cultural backgrounds engage in dialogue and debate. The presence of multiple voices in the narrative undermines the centrality of any privileged point of view and any dominating language (English). These voices are not subordinate to a single dominant perspective and have their own validity in the novel.

The English language used in the novel is interspersed with Indian words from Bengali, Bhojpuri, Gujrati, Cantonese and Laskari. Linguistic polyphony, an

important aspect of the novel, helps in subverting the binary of superior/inferior languages and allots an equal narrative space to the supposedly less privileged ones (Eastern). It helps the reader to consider and explore the conflicting points of viewand question the dominant point of view in the novel. By employing linguistic hybridity, Ghosh helps his characters communicate their emotions and points of view.

As the novel begins, readers feel delighted as they come across words from Hindi, Bhojpuri, Bengali, Cantonese, Gujarati and Lakari languages. Thus, Ghosh fully exploits the linguistic resources of the Indian ocean. By peppering the narrative with vernacular, Ghosh provides a sense of time and place to the multilingual universe of the Indian ocean and characters feel quite comfortable in interacting in these languages. Ghosh has done a great service to the marginalized characters of history by providing a voice to them. Linguistic hybridization resulting from multiculturalism is the Ghoshian way to spread the essence of tolerance and universal brotherhood.

Apart from crossing the linguistic borders, colonizers and colonized influence each other in other realms of culture too. They are also found to eat and drink together. Captain Mee shuns his superior attitude aside and shares food and drinks with his orderly Kesri Singh as Captain thinks "but this was a fine opportunity to flout the rules of his caste and he did so not only in the matter of food but also drink" (Ghosh, 2015: 198).

Cultural experiences are hybrid, they partake of many often contradictory experiences and domains, cross national-boundaries, defy the police action of simple dogma and loud patriotism. Far from being unitary or monolithic, or autonomous things, cultures actually assume more "foreign" elements, alterities, differences, than they consciously exclude (Said, 1994: 14).

Cultures are hybrid and never pure.

It is important to point out that cultures are not necessarily different, they can have commonalities between them also. Once on a visit to Macau's Misericordia hospital, Kesri Singh by chance gets an opportunity to visit the temple of A-Ma, 'the goddess of the sea' (Ghosh, 2015:404). He feels amazed by the striking similarities that the temple bears with his own Hindu dharma.

It is important to note that Ghosh gives due importance to fairs and festivals of all religions. While in India people celebrate Holi, Nag Panchami, and Chinese people

celebrate Chinese New Year and Lantern festival with enthusiasm, Britishers too observe their festivals like New Year, Christmas and Queen Victoria's birthday. Similarly, Musim festivals like Eid, Bakreed and Ramzan are also solemnized. By talking about these festivals, Ghosh promotes the beliefs and the practices associated with each religion rather than looking askance at them. He does not want to segregate people along religious, national and cultural lines but loudly voices out the message of religious and cultural solidarity.

It is a fact that as compared to men, women have been the least represented lot in official Western history, because they are expected to conform with the traditionally assigned gender roles of being caretakers of the family and carriers of tradition and family values. So, they are deemed as unworthy of representation. Amitav Ghosh, a writer devoted to the cause of the marginalized, abhors this disparity between the sexes and is highly critical of the stereotypical representation of women. Flood of Fire provides women characters the space and agency that is due to them. It is noteworthy that some part of the narrative follows the point of view of Deeti, a subaltern woman. She is a gifted woman endowed with extraordinary qualities. The only information that the readers have about Deeti is that she resides in Mauritius and has built a shrine called 'Memory-Temple' devoted to the Fami Colver clan and that shrine is thronged by these people every year. She represents the oral-pictorial traditions of storytelling. The novelist empowers Deeti by providing her a vantage point from where she keeps an eye over all the characters and the happenings of the novel. Ghosh chooses his historical area carefully keeping some part of it silent and invisible. He then meditates on the silence as it is believed as a fictional and historical necessity. Silence, as adopted by Deeti in the novel, acts as a subaltern tool employed against the mainstream and is a potent weapon which ironically enables Deeti to articulate her views that challenge the dominance of her tormentors, and she in turn also becomes an important female presence in the novel. People of her clan holdher in reverence and look up to her for guidance. Ghosh achieves this articulation through her neatly painted images on the walls of her 'Memory-Temple' in Mauritius. She does not utter a word but communicates through her drawings with the members of Maddow Colver clan. Her images depict the final journey of the migrants namely Neel, Raju, Serang

Ali, Jodu, Kesri and Maddow back home, bringing together all the "ship-siblings —jahaz-bhais and jahaz-bahens" (Ghosh, 2008: 356). It is astounding that she traces the movement of the boat that she is never on and recounts events that she never experiences as constitutive of the FamiColver's history. The novel marks the happy and the richly deserved ending for all those characters who endured the vagaries of life by successfully beating the dark and hostile forces of colonialism and capitalism.

Conclusion

To conclude, a close study of Flood of Fire proves to be an enriching and enlightening experience. Ghosh successfully employs the travel motif to develop a neutral zone without barriers and border(physical as well as mental) as they are rendered meaningless and constantly spill into one another. In a world crisscrossed by multiple comings and goings, it is erroneous to believe in the classical anthropological notion of the fixity of cultures as roots give way to routes and consequently everything becomes hybrid. Bhabha's insights in this regard can prove to be highly illuminating. Bhabha's term hybridity refers to the creation of new transcultural forms within the contact zone produced by colonization. His analysis of the interaction between colonizer and colonized in the contact zone stresses their interdependence and the mutual construction of their subjectivities. He contends that all cultural statements and systems are constructed in a space that he calls the 'Third Space of Enunciation' (1994:37). So, it can be inferred that cultural identity always emerges in this contradictory and ambivalent space, which for Bhabha makes the claim to a hierarchical purity of cultures untenable but hybrid. Drawing from Bhabha, Ghosh's ideas dislodge the western totalitarian notions about the fixity of identity and culture asrooted in one place. In his views, migration, travel and diaspora have become the tropes of the present times. He is keenly interested in the plight of the migrants and marginalized of the society and through his oeuvre tries to foreground their concerns. All these issues make his narratives brilliant to address the complexities of the contemporary lives of human beings. Flood of Fire emphasizes the need for coexistence among human beings and promotes strong humanitarian ties across cultures overlooking personal, regional and political considerations.

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Attachment and Autonomy as Predictors of Career Decision Making

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Career certainty involves the ability to make decisions and commit to decisions about career, whereas career indecision involves inability to decide and commit. In the late adolescence period, individuals suffer a lot of uncertainty about their career, and parental attachments become less influential as they move more towards social attachments. The quality of attachment relationship with parents as well as peers has an effect on career decision making. The current project is designed to study the relationship of parent and peer attachments (communication, trust and alienation) and dimensions of attitudinal, functional and emotional autonomy with career decision and indecision. The objective is to assess which variables predict career certainty and career indecisiveness in adolescents. For this purpose, a sample of 140 adolescents has been taken with an equal number of males and females in the age group of 16 to 19 years. The psychological tools used are IPPA (Armsden and Greenberg, 1987), Adolescent Autonomy Questionnaire (Noom et al., 1999) and Career Decision Scale (Osipow, 1987). Statistical Analyses is employed to study the relationship of all the variables with career certainty and career indecisiveness. Results show that parent attachment components of trust and communication increase career decision making, where as parental alienation increases career indecision. Autonomy dimensions are found to be negatively associated with career indecision.

Keywords: adolescents, career decision, indecision, autonomy, parent attachment, peers

Introduction

A major challenge during late adolescence and early adulthood, which can add to the turmoil and chaos of the period, is that of the exploration, selection and commitment to a career. In the current times however, parents attach prime importance to issues related to career planning of adolescents. Adolescents undergo uncertainties because of their life goals, preferences, expectations and the kind of relationships they have

with their parents. Choosing a career is more than simply deciding what one will do in life to earn a living. The nature and purpose of one's work is associated with one's sense of well-being and self-esteem. Selecting a career is a process that is unique to an individual as it is influenced by one's personality and life.

Career indecision means being unable to make a choice regarding one's career. Tokar et al. (2003) define indecision as "the inability not only to select a career choice but also to commit oneself to a career choice". Career certainty involves decision ability and commitment to career decision, whereas career indecision involves inability to decide and commit (Guay et al., 2003). Career certainty requires stability in one's choices, understanding one's own aptitude, value and personality in relation to work and is most importantly related with resourcefulness and resilience (Alexander et al., 2011; Page et al., 2008).

Career indecision is considered a very normal response and may occur at any time. But it needs to be contemplated. It is a developmentally appropriate experience, which may fluctuate depending upon situational factors, personal disposition and supportive conditions. This process begins in primary school when students develop an interest in the field of work. It is estimated that at least 50% of the students experience career indecision and the reason can be a shift from lifestyle of dependency to a life where autonomy and self-reliance is expected (Kalyanil et al., 2018).

Super (1990) states that "career is the course of events which constitute life" the sequence of occupations and other life roles which combine to express one's commitment to work in his total pattern of self-development" (358-59). Career indecision is an important construct in the field of career development.

Review of Literature

Research states that adolescents undergo a state of indecision which is considered a normal process (Germeijs and Verschueren, 2007) but career indecision can be chronic, if it stems from personality issues and emotional difficulties. Marcionetti (2014) states, "Career indecision can push students to avoid decisions or to make wrong decisions which can affect their professional life, both in the short and the long term". Therefore, it is very important to gain maturity to make effective decisions.

Career certainty and indecision are also related to identity achievement and identity

diffusion in Marcia's stages of Career Development (1993). Bowlby's (1982) attachment theory states the positive influence of secure attachment on adjustment. Secure attachment to parents provides a strong foundation on which individuals are able to explore and master various tasks. Autonomy development and supportive relationships also create an environment which enables the individuals to explore. According to Blustein et al. (1995), attachment security promotes adaptive ego identity development by facilitating risk taking and exploration processes that are central to identity formation and career development. Vignoli et al. (2005) discuss the importance of parental attachment and parenting styles in relation to career exploration and career satisfaction among adolescents. Research reveals that inadequate family support and problematic interactions can lead to career indecision (Downing and Nauta, 2010).

Apart from parenting, peer support and role of friends has also been widely acknowledged as an influential factor of career decision making. Peer attachment is likely to be an important factor in career decision making for both males and females (Wolfe and Betz, 2004). Stărică (2012) reported that parents' involvement in the vocational decisions of adolescents boosts their academic self-esteem and leads to a reduction in career indecision and subsequently, a successful career choice. Most of the adolescent decisions are dependent upon the level of counseling given during school years along with their peer group. Creed et al. (2011) found that adolescents who lived in alternative care arrangement had fewer career planning, faced more career obstacles and had lower academic aspirations in comparison to adolescents who lived with their families and parents. Friends and peers are potential sources of influence in the area of job search and joining of organizations.

Autonomy development is considered as a prerequisite for reaching adulthood. A positive relationship has been found between autonomy development and work orientation by researchers. Autonomy also enables an individual to achieve direction in their life. The three components of autonomy as stated in the theoretical model of Noom et al. (1999) are:

- 1) Attitudinal autonomy, which means to specify several options and to take a decision.
- 2) Emotional autonomy, which is the ability to feel confident about one's choices.

 Functional autonomy, which is the ability to develop a strategy to achieve one's goal.

Hence, an individual with an autonomous personality will think about career preferences in a different way as compared to one who is not autonomous from parental attachments. The Self Determination Model states that the interaction with peers and parents predicts career indecision through perceived competence and autonomy. The environment should offer conditions in which people can perceive themselves as autonomous and should minimize the use of pressure and control.

Review of literature helps us to understand different aspects of gender differences in career indecision and certainty. Studies have found that boys are more confident about achieving their goals than girls. Boys are socialized and encouraged to think more about their future than girls. However, Salami (2008) found no gender differences with regard to career indecision. Sharma (2014) reported significant gender differences in his study and found females to be higher on career decision making.

In the Indian society, traditional interdependent relationships hold prime importance. Adolescents in their exploratory stage look out for various areas and dimensions related to the world of work. Dependency continues and it becomes difficult for adolescents to sever close ties with their parents.

The societal roles are changing and women are effective in the contemporary society but we cannot neglect the role of gender and socialization practices in traditional families. Chetana and Mohapatra (2017) discuss the status of Indian women and how their career decisions are molded by compulsions and compromises. In India, with caste-based occupational role system breaking down in the urban areas (Arulmani and Bakshi, 2011), and with the emerging occupations and startups, the choice of career has become a more complex decision for youth and families to make. Most of the settings in which adolescents participate are dependent on the choice of parents. The decision and choice of where to live, what is provided materially and relationally at home, which school to enroll their children in, how to structure out-of-school time for children is decided by the parents and other family members. The family is acknowledged as the main context of socialization for adolescents (Parke and Buriel, 2006).

The objective of this study is to find out the association of parent and peer attachment and autonomy in relation to career decision making and indecision. Adolescence is a period of chaos and mental confusion for youth and there is lot of pressure and expectations from the parents too. Adolescents undergo identity crisis and the process of vocational choices becomes very stressful. Hence, the key is to understand what can make these decisions easier or perhaps less stressful. In light of its importance during this period, the study of parent and peer attachment becomes pertinent. In the Indian context, are the adolescents able to detach from their parents and achieve autonomous development? Are they able to sever the ties with their parents? Is autonomy actually helpful for adolescents to decide their career or do they continue to stay in the indecisive mode? This study aims to understand these questions. The variables of attachment and autonomy will be studied as predictors in association with career decision making and indecision in adolescents.

Hypotheses

The following hypotheses were framed for the purpose of the study:

- There will be a significant positive relationship of trust and communication dimensions of parent and peer attachment with career certainty. There will be a negative relationship of alienation dimension of attachment with career certainty.
- 2) There will be a significant negative relationship of trust and communication dimensions of parent and peer attachment with career indecisiveness. There will be a significant positive relationship of alienation dimension of attachment with career indecisiveness.
- 3) Autonomy dimension will have a positive relationship with career certainty and negative relationship with career indecisiveness.
- The variables of attachment and autonomy will significantly predict career certainty and career indecisiveness.

Methodology

Sample

A sample of 140 adolescents including 70 males and 70 females within the age group of 16 to 19 years was taken for this study. The mean age of the female adolescents was 17.2 years and male adolescents were 17.8 years respectively. In the present study,

students from public schools and colleges of Amritsar were taken as subjects. The choice of the sample was based on the convenience of availability of the subjects and the co-operation extended by authorities as well as students. Subjects who did not give consent for participation were not included. Thus, incidental sampling was employed in this study.

Procedure

Informed consent was obtained from the students. They were also assured of the confidentiality of their responses. Questionnaires were distributed in the classrooms in groups of 15 to 20 students each. There was no time limit to complete the questionnaires. However, administration took around approximately one hour to complete. Incomplete questionnaires were excluded from the study.

Psychological Tools

The following tools have been used for the purpose of study:

Adolescent Autonomy Questionnaire (Noom et al., 1999): This is a self-report questionnaire with 15 items based on the ability to exercise control over one's life. The items are related to perception of goals by means of opportunities, perception of independence through self-confidence and individuality and perception of strategies through self-control and self-regulation. The responses are given on a 5 point scale. The test has shown high internal consistency as reported by authors, and reported Cronbach's alpha is 0.63.

The Inventory of Parent and Peer Attachment (Armsden and Greenberg, 1987): The IPPA is a self-report questionnaire that includes 25 items designed to measure adolescent attachment to parent (mother), adolescent attachment to parent (father) and adolescent attachment to friends (peers). The measure assesses both positive and negative affective and cognitive dimensions related to attachment. The three dimensions used to measure attachment are communication, trust and alienation. Questions are answered on a 5-point Likert scale, ranging from "Almost Never or Never True" to "Almost Always or Always True." Cronbach's alpha is 0.87 for mother attachment, 0.89 for father attachment and 0.92 for peer attachment. A three-week test-retest reliability for parent attachment was 0.86, and for peer attachment it was 0.93.

Career Decision Scale (Osipow, 1987): The CDS provides an estimate of career indecision and its antecedents, as well as an outcome measure to determine the effects of relevant interventions. Students indicated on a scale of 1 to 4 how closely each statement describes their own thinking process regarding their educational and occupational plans. The CDS comprises of 19 items. The Certainty scale (items 1 and 2) measures the degree of a certainty a student feels about his/her decision about a college major and/or a career. The Indecision scale (items 3-18) provides a measure of career indecision. Item 19 is open-ended, allowing the student to clarify or provide additional information about his or her career decision making. Betz and Voyten (1997) reported an internal consistency of 0.89 for the indecision scale. Alexander et al. (2011) found reliability of 0.93 for Career Indecision and 0.69 for the Career Certainty Scale.

All these tests have been used on the Indian sample by different authors (Dhillon and Kanwar, 2017; Kumar et al., 2017; Shashikant, 2007). The tests have been used on Indian population because of their good psychometric properties and because of their wide applicability.

Results and Discussion

In this study, correlational analysis was applied to study the relationship among variables. The analysis was done separately for males and females. Attachment and autonomy were correlated with both career certainty and career indecision.

Males

The correlation analysis for males has been reported in Table 1.Results showed significant relationship of career certainty with trust in mother (r=0.42), communication with mother (r=0.43), trust in father (r=0.39) and communication with father (r=0.31). The dimension of career indecisiveness also showed significant positive relationship with alienation with mother (r=0.25), alienation with father (r=0.29), alienation with peers (r=0.35). A significant negative relationship was reported between career indecisiveness and trust in father (r=-0.22), attitudinal autonomy (r=-0.25) and functional autonomy (r=-0.27).

The results have been in line with the existing studies which state the importance of secure attachments which result in adolescents deciding a good and secure career for them. In case of male adolescents, trust and communication with father and mother have showed a significant positive relationship with career certainty. However,

Indecisiveness has a positive relationship with all the three components of alienation, hence supporting the idea that alienation is significantly contributing toward indecisiveness in careers. Attitudinal and functional autonomy are the dimensions of autonomy and they state that person high on these two variables will be able to make decisions in their life and they will develop strategies to achieve their choices and goals. In the present study, we can see that these two dimensions correlate negatively with career indecisiveness suggesting that career indecisiveness decreases when individuals get autonomous. Guerra et al. (1999) reported that students who had a secure relationship with their parents were likely to have less career indecision. In another study it has been suggested that authoritative parenting style has significant relation with exploring career options (Kracke, 1997).

Variables	Career certainty	Career indecisiveness
Trust with mother	0.42**	-0.14
Communication with mother	0.43**	-0.08
Alienation with mother	-0.14	0.25*
Trust with father	0.39**	-0.22*
Communication with father	0.31**	-0.14
Alienation with father	-0.12	0.29**
Trust with peers	0.01	0.03
Communication with peers	0.03	0.12
Alienation with peers	0.03	0.35**
Attitudinal autonomy	0.10	-0.25*
Emotional autonomy	-0.09	-0.16
Functional autonomy	0.13	-0.27*

^{*}value of r is significant at 0.05 level

Table 1: Inter correlations of Career Certainty and Career Indecisiveness in Males

^{**} value of r is significant at 0.01 level

Females

The correlations of career certainty and career indecisiveness with attachment and autonomy in females have been reported in Table 2. Results show that career certainty has a significant positive relationship with trust in mother (r= 0.28) and communication with peers (r=0.27). Career indecisiveness correlates positively with alienation with mother (r= 0.42) and negatively with trust in father (r= -0.30), communication with father (r=-0.28), trust in peers (r=-0.32), attitudinal autonomy (r=-0.30), emotional autonomy (r=-0.27) and functional autonomy (r=-0.30). In females it can be clearly seen that trust in mother and communication with mother contributes toward career decisions. Career indecisiveness also shows significant relationship with alienation with mothers proving that insecure attachments will increase career indecisiveness. Trust in fathers and peers is negatively related with career indecisiveness in females which shows that among females trust is an important factor. Therefore, in order to enhance career decisions, it is pertinent to increase trust in father and peer group. Autonomy was significantly negatively related to career indecisiveness and this pattern was found in males too. However, in females all three components of autonomy had a negative relationship with career indecisiveness. Autonomy is concerned with enhancing and giving direction to one's life. The more autonomous adolescents are, the clearer and more focused they are in finding a direction in their life. The self-determination perspective hypothesizes that autonomy, competence and relatedness are motivational antecedents to behavior and that individuals who are intrinsically motivated, confident and receive support from others have less career indecision (Guay et al., 2003). According to Dietrich and Kracke (2009), parents have a lot of influence on adolescents' career decision making. Slaten (2011) examined the relationship between career decision making difficulties and family belongingness. Subjects from 436 college students at an urban university completed measures of belongingness, psychological distress, academic motivation and career decision-making difficulties. It was reported that family belongingness specifically has a powerful relationship with career decision-making difficulties.

Variables	Career certainty	Career indecisiveness
Trust with mother	0.28*	-0.16
Communication with mother	0.22	-0.10
Alienation with mother	-0.12	0.42**
Trust with father	0.25	-0.30*
Communication with father	0.23	-0.28*
Alienation with father	-0.23	0.22
Trust with peers	0.25	-0.32**
Communication with peers	0.27*	-0.24
Alienation with peers	0.11	0.13
Attitudinal autonomy	0.02	-0.30*
Emotional autonomy	0.21	-0.27*
Functional autonomy	0.05	-0.30*

^{*}value of r significant is at 0.05 level

Table 2:Intercorrelations of Career Certainty and Career Indecisiveness in Females

Stepwise Regression Analysis

Stepwise regression analysis is applied to study the variables which predict career certainty and career indecisiveness. Table 3 reports regression coefficients which predict career certainty in males. These will be the important predictors for career certainty in males.

Coefficients									
Model	В	Std Error	Beta	Т	Significance				
1 (Constant)	2.50	0.81		3.05	0.01				
Mother communication	0.10	0.02	0.43	4.16	0.01				
2 (Constant)	1.54	0.93		1.64	0.10				
Mother communication	0.07	0.02	0.32	2.74	0.01				
Father trust	0.04	0.02	0.23	1.99	0.05				

Table 3:Regression Coefficients which Predict Career Certainty in Males

^{**} value of r significant is at 0.01 level

In Table 3, regression coefficients show that communication with mother is the most important contributor of career certainty. Trust with father is the second most important predictor of career certainty. This shows that when male adolescents have to decide on careers, parental support of communication and trust is considered as very important. These results are in line with the correlational analysis and support our hypothesis that attachment with parents is a must for making career decisions. In a meta-analysis done by Wright and Perrone (2008), it has been suggested that attachment is the most important factor in career decision making. Relationships are used as base to explore the world of work, and if the foundation is strong with parents, the exploration of the world of work will be easier. Whiston (1996) finds a negative relationship between authoritarian parenting style and career indecision.

Coefficients										
Model	В	Std Error	Beta	t	Significance					
1 (Constant)	26.19	3.47		7.54	0.01					
Peer Alienation	0.61	0.18	0.35	3.28	0.01					
2 (Constant)	37.41	5.49	:	6.80	0.01					
Peer alienation	0.60	0.17	0.35	3.38	0.01					
Functional Autonomy	-0.65	0.25	-0.27	-2.57	0.01					
3 (Constant)	47.55	6.76		7.03	0.01					
Peer alienation	0.62	0.17	0.36	3.59	0.01					
Functional Autonomy	-0.66	0.24	-0.27	-2.68	0.01					
Father Trust	-0.26	0.10	-0.24	-2.42	0.01					
4 (Constant)	43.23	6.83		6.32	0.01					
Peer alienation	0.62	0.16	0.36	3.69	0.01					
Functional Autonomy	-0.77	0.24	-0.31	-3.16	0.05					
Father Trust	-0.31	0.10	-0.29	-2.89	0.05					
Peer Communication	0.27	0.11	0.23	2.29	0.05					

Table 4: Regression Coefficients which Predict Career Indecisiveness in Males

Table 4 shows that there are four variables which predict career indecisiveness in males. Alienation with peers has emerged as the most important predictor in males. This indicates that as peer alienation increases, indecisiveness in men increases. Functional autonomy and trust in father are the next two important predictors and this shows that lack of autonomy and trust in father would increase indecisiveness. The last predictor is peer communication, indicating that as peer group members interact and discuss career options, clarity regarding career increases. But at the same time it can cause confusion and lack of clear goals, hence increasing indecisiveness. These four predictors show that indecisiveness is most importantly associated with peers and social interactions in male adolescents. Parental perception plays a dynamic role in adolescents' education inrelation to academic performance, vocation choice and eventually influences behavior of children towards career choice (Nawabi et al., 2019).

	Coefficients										
Model	В	Std Error	Beta	t	Significance						
1 (Constant)	4.68	0.65		7.10	0.01						
Communication with	0.04	0.02	0.30	2.42	0.01						
peers											
2 (Constant)	2.27	1.21		1.87	0.06						
Communication with	0.05	0.31	0.31	2.60	0.01						
peers											
Mother communication	0.05	0.02	0.28	2.40	0.05						

Table 5: Regression Coefficients which Predict Career Certainty in Females

In Table 5, regression coefficients show that communication with peer group and mother are important predictors for career certainty, hence indicating that female adolescents are closer to their mother and friends. Therefore, their support helps them in career decision making and career certainty improves due to communication with peers and mother. Research by Wolfe and Betz (2004) finds that parental attachment, positive support and parental support to autonomy is significantly related to better career decision making. More cohesive and supportive parental relationships are

related to more achievement orientation in the family environment and stronger communication networks are related to better career decision making. In family systems theory, parents are conceptualized as providers of opportunities, who regulate and mediate the choices of their children (Parke et al., 1994).

Coefficients										
Model	В	Std Error	Beta	Т	Significance					
1 (Constant)	57.72	5.95		9.70	0.00					
Functional Autonomy	-1.18	0.33	-0.37	-3.49	0.001					
2 (Constant)	46.95	6.62		7.08	0.01					
Functional Autonomy	-1.01	0.32	-0.32	-3.12	0.01					
Mother Alienation	0.570	0.18	0.31	3.08	0.01					
3 (Constant)	52.18	6.80		7.67	0.01					
Functional Autonomy	-0.81	0.32	-0.25	-2.48	0.01					
Mother Alienation	0.57	0.17	0.32	3.19	0.01					
Emotional Autonomy	-0.54	0.23	-0.24	-2.35	0.01					
4 (Constant)	60.33	7.57		7.96	0.01					
Functional Autonomy	-0.76	0.31	-0.23	-2.39	0.01					
Mother Alienation	0.55	0.17	0.31	3.16	0.05					
Emotional Autonomy	-0.58	0.22	-0.25	-2.58	0.01					
Peer Communication	-0.25	0.11	-0.21	-2.22	0.05					

Table 6: Variables that Predict Career Indecisiveness in Females

Table 6 shows that the variables that best predict career indecisiveness in females are functional autonomy, alienation with mother, emotional autonomy and communication with peers. Female adolescents are unable to decide about their career if their mother's support is lacking and if they feel alienated from her. Also, as career indecisiveness is predicted by communication with peers, it helps us to understand

that peer group plays the most important role incareer decision making and its unsupportive behaviour can cause indecisiveness in female adolescents. It also enables us to understand that female adolescents are dependent on their peers when it comes to decision making. High level of peer pressure and forced compliance can lead to indecisiveness. Lastly, lack of functional autonomy and emotional autonomy or confidence in taking decisions predicts career indecisiveness in females. A study conducted by Mojgan et al.(2013) reveals that a significant negative relationship is found between career indecision and attachment to mother, while the relationship between career indecision and attachment to father is not significant. Parents influence through modeling, guidance and involvement, parental support and shared activities. Career decision making takes place in relational context. High parental control restricts adolescents in decision making. Therefore it is important to have a good degree of trust and communication with parents so that adolescents can explore the environment with supportive relationships. Experience of felt security provided by secure attachment relationships facilitates exploration of self and environment, and progresses through career decision making and commitment processes. In a broader sense, the role of the family is the most important as it influences ontogenetic development including career development (Kerka, 2000). Family members are role models for specific competencies and challenges related to particular career choices and for general work competencies and risks.

Conclusion

Results clearly suggest that parent and peer attachments are the important predictors for career decision making in both males and females. Parental attachment components of trust and communication increase career decision making. Parental alienation increases career indecision in adolescents. Autonomy dimensions are negatively associated with career indecision. Thus, the hypotheses in the present study are supported which is line with review of literature.

Implications of the study

This present study would be helpful for vocational counselors who can assist young adolescents in choosing careers and enhancing their decision making by studying their home environment and their level of autonomy. They can even enhance autonomy development in adolescents so that they are more equipped to choose the right career. Parental counseling can be done to identify trust and communication

levels to initiate healthy decision making. Adolescents require supportive relationships to enhance career decision making. Indecisiveness can increase if the adolescents are alienated from their parents and peers. It is important that parents need to understand this attachment theory to build a strong foundation in the early years so that later adolescents can flourish in the adulthood years.

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A Comparative Study on Profitability of Selected FMCG Companies in India using Step Regression Analysis

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Financial Performance analysis investigates the performance of the organisation. This study focusses on FMCG companies like Britannia, Dabur, Godrej, HUL, ITC, Marico and Nestle. Profitability ratios (NPM, OPM, ROE, CPM), structural ratios (DER, EM, TATR) and efficiency ratios (DTR, ITR, CTR) etc. have been used in this study. For calculating ROE, DuPont 5 point's analysis has been used. Among the selected companies ITC and Godrej are the profitable sectors. After considering the joint effect of ratios Godrej is the risky profitable concern among the selected companies. Britannia, Marico and Nestle are not able to reach the profitable position due to high efficiency and structural position, though, significant impact of variables on ROE has been noticed.

Keywords: performance analysis, profitability ratios, structural ratios, efficiency ratios, step-wise regression analysis.

JEL Code: G32, G33, G35

Introduction

In Profitability Analysis, profitability refers to the efforts to get the goals or targets efficiently and effectively, or achievement. For achieving the targets it is necessary to properly utilize human, financial and natural resources. Analysis, in the term, refers to critical investigation of efforts for increasing activities. In this regard we have to compare actual performance with the standards, then identify variations and finally make necessary corrections. Profitability analysis not only evaluates the profit

earning ability of the company but also provides additional information regarding profit earning capability of the company, such as that relating to operational efficiency, managerial efficiency, structural efficiency and solvency or liquidity position. From profitability analysis we also predict the growth of the company.

The present study is an analytical, conclusion-oriented and hypothesis-testing type of research study. In this study we used different ratios like total assets turnover ratio (i.e. net sales / total assets). The efficiency of a business can be measured with the help of this ratio. To measure the solvency position of a business i.e. the capability of the company to meet its long term debts, we used interest coverage ratio (EBIT / Interest Expense) and equity multiplier (total assets / total debt). To measure the profitability of a company i.e. the company's ability to generate revenue / earnings as compared to its expenses, we used net profit margin (net profit / net sales), return on equity (net income / average shareholders fund) and operating profit margin (EBIT / net sales). Other profitability ratio, like cash profit margin of the selected companies, has been considered for performance analysis. For structural efficiency we considered debtequity ratio and equity multiplier. For judging the efficiency position of the company we used debtors' turnover, inventory turnover and creditors' turnover ratios.

Du Pont analysis: In our study we used Du Pont's 5-point model to calculate ROE of the selected companies. ROE has been computed by multiplying 5 ratios with each other to get a composite ratio. Such ratios are Total assets turnover ratio, Equity multiplier, Operating profit margin, Tax retention rate and Interest expense rate. The joint effect of five ratios can nullify the effect of one or two ratios and help investors to take appropriate decision.

Fast-Moving Consumer Goods (FMCG) industry is the fourth largest sector in India contributing nearly 3% of India's GDP. FMCG sector includes food, beverage, healthcare, personal care and household products. In India FMCG sector includes foods, chocolate, batteries, pharmaceuticals, packaged foods, plastic goods, toiletries and non-durable consumer products. There is a high growth in FMCG sector. Generally, FMCG sector focuses on urban areas. Most of the middle-income group people are working in this sector. Agriculture, healthcare, education, MSMEs, infrastructure and employment are direct influence companies in FMCG sector. Financial Performance analysis of the companies in this study is discussed from three aspects: profitability, financial position and efficiency position.

About the Companies

Britannia: Britannia Industries Limited manufactures food products in India. From 2004 to 2018 the market capitalisation of the company moved from Rs. 2,400 crore to Rs. 76,000 crore. In 2017-18 the net sales of the company were Rs. 9,905.60 crore. The net profit of the company in the year 2017-18 was 1,777.40 crore.

Dabur: Dabur India Limited is a well-known FMCG company in India. In 2014, Dabur launched India's first Ayurvedic Medical journal. In 2015 there was an agreement between Dabur and Starcom Media Vest Group (SMG). On 26th September 2017 Dabur announced its alliance with Amazon to make its product global. From 2018, Dabur is manufacturing products like cosmetics, body and health products.

Godrej: Godrej is a famous FMCG company in India. It has been serving Indian consumers for over 122 years. This group enjoys the patronage of 1.15 billion consumers globally. Now Godrej has expanded its products to the emerging markets of Asia, Africa and Latin America.

HUL: Hindustan Unilever Limited is the largest FMCG company in India and has been functioning for over 80 years. Around 18,000 people are working in the company. HUL is the subsidiary of Unilever, the largest supplier of food. Now HUL sells its products in 190 countries. The FMCG sector has around 67% shareholding in HUL.

ITC: ITC Limited is another popular FMCG company in India. ITC produces foods, personal care products, education and stationery products, agarbaties, cigarettes etc. It is one of the leading marketers in FMCG. Its market capitalisation is nearly US\$50 billion and gross sales value US \$ 10.8 billion. 6 billion people's livelihoods is associated with ITC.

Marico: Marico Limited is another leading consumer goods company providing consumer products and services in the areas of health, beauty and wellness. It has ventured into emerging markets in around 25 countries in Asia and Africa. In 2017, it instituted its own Flame award after its own International business PR awards in 2016. Marico's market capitalisation is 25,000 crore.

Nestle: Nestle India is a consumer goods company, whose famous product Maggi completed 35 years of business in India on 8th March, 2018. It produces milk and

items of nutrition, beverages, chocolates and confectionery items. Marico sells products in many countries in Asia and Africa.

Literature Review

Sharma and Grover (2017) studied Financial Performance Analysis through Position Statements of selected FMCG companies. The objectives of the study were to analyse the profitability and financial position as well as to measure the impact of profitability and efficiency variables on return on investment. They argued that the financial performance of ITC was good. Their study depicted that Net Profit margin has greater impact on ROI.

Chakraborty (2017) conducted a study on Performance evaluation of leading FMCG firms. In this study he selected 5 FMCG companies. The objective of the study was to analyse the financial position of the companies. For analysing the differences in mean value of the selected ratios of companies one way ANOVA test was used. From profitability analysis, liquidity as well as structural point of view, ITC was in the top position. In terms of rate of return HUL was the best. Bansal and Singh (2017) conducted a study on Indian FMCG companies to examine the fundamental analysis of selected FMCG companies. In this analysis they used one way ANOVA test. They found that there is significant difference between selected variables (net profit margin, ROCE, EPS, DPS, dividend pay-out ratio) of the selected companies.

Puwar and Jalan et al. (2017) conducted a study on financial analysis of 12 pharmaceuticals Indian companies using Du Pont analysis with 3-points model and 5-points model. The reaults showed that the growth in ROE value of Torrent Pharmaceuticals was tremendous even though Sun Pharma, the leading company in India having highest assets making, bore losses for its investors.

Desai made a study on earning per share in FMCG sector of India. In this study earning per share ratio of 14 FMCG companies for a period of 10 years (2005 to 2014) from annual reports was collected. The Mann-Kendall trend detection test was used.

In 2017 Haque and Afzal conducted a study on two FMCG companies. The study period was 2011-12 to 2015-16. The objective was to evaluate the financial performance of the selected companies. The results of the study were sound return for shareholders, satisfactory liquidity position, firms were not in trading on equity and liquidity and profitability are positively associated with sales.

Khamrui (2012) studied two popular FMCG companies – ITC and HUL. In this study he computed different profitability ratios and made a comparison between them considering ROI as the dependent variable. The study revealed that both profitability and liquidity have significant impact on profitability.

Joshi (2013) conducted the study on three major FMCG companies – HUL, Colgate Palmolive & ITC-Agro Tech Foods. He focused on various profitability ratios like net operating profit, net profit margin, PAT to net worth, cash profit to net profit etc. He used mean and ANOVA test. He concluded that there have been vast differences among the selected ratios.

Research Gap

From the previous studies it was observed that there is different relationship in FMCG companies performance. Analysis of financial performance or profitability using DuPont analysis was not covered in previous literature. In this study 5-points DuPont analysis has been used, and to measure the degree of impact Step Regression analysis has been used.

Research Methodology:

Research Statement

The present study focuses on the comparative profitability of selected Indian companies in FMCG sector for a period of 15 years from 2004 to 2018. One of the important factors affecting the functioning of the companies is the size of the unit. I have tried to use Du Pont model to analyse profitability of selected FMCG companies. In this study my focus is on difference in profitability, return on investment, structural efficiency and solvency variables of the selected companies. For visualising the impact of different variables, Step Regression Analysis through SPSS has been used.

Hypothesis of the study

 $\rm H_{o}$ - There is no significant impact of variables (ratios) on ROE of the selected FMCG companies.

H₁- There is significant impact of variables (ratios) on ROE of the selected FMCG companies.

Objectives of the Study

- i. To analyse the profitability of selected FMCG companies of India by comparing different profitability ratios.
- ii. To analyse the financial position of selected FMCG companies of India by comparing different structural and leverage ratios.
- iii. To analyse the efficiency position of selected FMCG companies of India by comparing different turnover ratios.
- iv. To analyse whether there is any difference between variables (ratios) of selected FMCG companies.

Nature and source of data

The present study is based on the secondary data and such data has been collected from Capitaline database from the University of Burdwan. Other information has been collected from annual reports of the company and also from internet as per requirement. The present study covers a period of 15 years from 2003-04 to 2017-18. In the present study purposive sample technique to select leading FMCG companies has been employed.

For the present study, 7 FMCG companies have been selected as sampling units. These companies are listed in the BSE and/or NSE in India. The units of population are classified on the basis of size of the company. In the present study ratio analysis and different techniques of average (mean) and standard deviation have been used. For evaluating the impact of various selected financial performance measurement variables, Step Regression analysis has been done. For multi collinearity, Durbin Watson test has been used. In this analysis bar diagram has also been used.

Findings of the Study

Profitability Position

Net Profit Margin (NPM): It is the ratio of net profit after tax and net sales. It portrays that how much the company earned from its net sales. Higher net profit margin indicates the efficiency of management in transforming sales into profit. From Table1 it is clear that ITC registered the highest mean net profit margin (NPM) among the selected companies under study. It depicts good management of the company and helps the company to maximise its shareholders' profit. The variation of NPM is also

minimum in case of Nestle than other companies. The alarming fact is that Britannia registered the lowest mean net profit margin among the selected companies.

	Table 1: Net Profit Margin (NPM)									
YEAR/ COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE			
2018	9.37694234	16.01687	15,34447	12.66911	25.87808	14.24838	10.88534			
2017	7.0287166	14.14289	14.45505	11.8308	25.73563	11.66773	12,02333			
2016	5.93969931	13.54598	13.53681	12.55075	25.77663	15.45883	12.17376			
2015	3.87998198	13.31106	14.13564	12.35573	24.24422	11.47105	12.81332			
2014	3.37482083	13.1139	15.3063	11.40287	23.9497	11.36493	12,84921			
2013	3.07137175	14.1716	16.28418	10.64432	22.94401	11.37972	13.17944			
2012	4.2503805	14.74986	19.46083	12.03279	22.32704	11.60555	12.81188			
2011	6.13197696	14.80494	14.84545	12.27411	20.82178	9.177766	12.38519			
2010	6.89631181	14.83681	16.67493	12.60044	22.33887	9.054112	12.20488			
2009	4.6458194	15.23278	16.08759	12.79435	22.28656	7.778839	11.61977			
2008	7.97982864	13.93665	18.22702	12,31725	23.25476	10.67173	12.49813			
2007	6.4606258	11.77593	14.82081	12.23691	24.194	7.795682	11.31683			
2006	7.09562246	9.107872	13.23476	17.6799	24.87273	6.898546	12.23185			
2005	6.20606098	7.277402	11.31675	17.63965	22.88615	7.13685	10.71122			
2004	5.78615813	5.62771	9.027748	14,98293	23.60107	7.366507	9.596919			
MEAN	5.8749545	12.77682	14.85056	13.06746	23.67408	10.20508	11.9534			
STD DIV	1.75926599	3.055944	2.555369	2.073609	1.47913	2.605941	0.971479			
MAX VALUE	9.37694234	16.01687	19.46083	17.6799	25.87808	15.45883	13.17944			
MIN VALUE	3.07137175	5.62771	9.027748	10.64432	20.82178	6.898546	9.596919			

Operating Profit Margin (OPM): Operating Profit Margin is the ratio between earnings before interest, tax and net sales. Operating profit margin is a more meaningful parameter to judge the company's earning ability to pay off its actual expenses because in it interest and tax deductions are included. From Table 2 it is clear that the mean operating profit margin of ITC is highest and of Britannia it is lowest. The variation of operating profit margin of Godrej, HUL and Nestle is similar. Due to higher interest charges the operating profit margin of Britannia is lowest. Hence importance should be given towards the improvement of their revenue as compared to their expenditure, otherwise the company will be incurring loss in future.

	Table 2: Operating Profit Margin								
YEAR/ COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE		
2018	15.3461921	22.52852	21.33503	19.35626	43.60996	20.88241	14.24019		
2017	13.950549	19.37646	20.48648	21.0706	41.19085	17.14859	21.57437		
2016	9.69402558	19.19003	19.33164	19.00477	40.86412	21.55905	22.46422		
2015	7.60396688	18.787	19.07697	20.22087	38.74635	18.16207	22.27324		
2014	6.79025128	17.75124	26.907	16.67778	38.54862	15.48249	20.57821		
2013	6.63901201	20.70947	23.31848	16.00212	37.33696	18.45508	20.36759		
2012	4.88943604	20.04335	24.96687	17.20132	36.98689	16.60236	20.07358		
2011	9.05690811	19.48451	19.22041	15.94219	34.735	11.31497	20.02972		
2010	10.4727928	19.2877	22.00342	18.26614	36.26253	13.51041	20.11626		
2009	6.9361979	19.55787	21.71349	19.28254	35.60197	15.01673	19.41181		
2008	13.2765625	17.84642	22.34374	15.95064	36.55718	14.08925	21.25688		
2007	16.1687787	15.23124	19.11221	17.47851	44.64907	9.788124	19.57812		
2006	14.784457	12.63371	18.01041	23.34224	40.49748	9.056038	20.89874		
2005	14.2348919	11.73324	17.25558	23.45687	39.71864	11.20381	19.05807		
2004	21.2755004	11.16835	16.69391	19.92524	40.94497	11.22785	17.0889		
MEAN	11.4079681	17.68861	20.78504	18.87854	39.08337	14.89995	19.93399		
STD DIV	4.59235356	3.415103	2.850079	2.456126	2.905172	3.915076	2.063131		
MAX VALUE	21.2755004	22.52852	26.907	23.45687	44.64907	21.55905	22,46422		
MIN VALUE	4.88943604	11.16835	16.69391	15.94219	34.735	9.056038	14.24019		

Cash Profit Margin (CPM): Cash profit margin is the ratio of Profit after Tax (PAT) and Depreciation and Gross Profit. It measures the operating performance of the business. From Table 3 it is clear that the mean CPM of ITC is the highest and the same in case of Britannia is lowest. The variation in CPM in case of Dabur is maximum and in case of Nestle the variation is minimum.

	Table 3: Cash Profit Margin (CPM)							
YEAR / COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE	
2018	10.22	17.36	15.38	12.79	20.94	15.66	14.59	
2017	8.46	15.05	14.8	12.01	20.98	12.79	14.96	
2016	6.74	14.74	13.96	13.97	20.58	16.9	15.36	
2015	5.1	14.55	14.34	12.55	19.51	13.56	15.61	
2014	4.28	13.94	15.54	12.55	19.48	12.41	14.48	
2013	4.1	16.36	17.91	12.24	18.31	12.55	14.84	
2012	5.32	16.16	20.23	13.11	17.78	12.85	14.67	
2011	6.8	16.54	15.56	12.45	16.48	10.06	14.01	
2010	8.41	16.17	17.83	12.64	16.66	10.33	13.4	
2009	5.74	16.74	18.16	12.86	15.87	11.02	12.95	
2008	9.25	15.2	19.07	12.81	15.83	13.83	13.86	
2007	7.21	13.01	16.03	12.13	16.11	9.01	12.69	
2006	8.47	10.19	13.53	17.11	15.53	8.1	13.57	
2005	7.89	8.68	11.74	17.42	14.59	10.12	12.26	
2004	7.23	7.4	9.87	15.19	14.11	9.46	11.28	
MEAN	7.01466667	14.13933	15.59667	13.45533	17.51733	11.91	13.902	
STD DIV	1.82313257	3.054932	2.771195	1.73862	2.315875	2.486144	1.217768	
MAX VALUE	10.22	17.36	20.23	17.42	20.98	16.9	15.61	
MIN VALUE	4.1	7.4	9.87	12.01	14.11	8.1	11.28	

Return on Equity (ROE): We know that ROA=Net Income/Sales*Sales/Total Assets=Net Income/Total Assets. In Du Pont model the first shifts from ROA to ROE was made. ROE is one of the powerful indicators of profitability. In this study we used Du Pont 5-points model. For computing ROE we multiplied equity multiplier (i.e. Total assets/Total equity or Financial leverage), Total assets turnover ratio, Operating profit margin, Tax retention rate (i.e. Subtracting tax rate from 1) and Interest expense rate (i.e. EBIT*TART/ Interest coverage ratio). From Table 4 it is clear that Godrej scored the highest mean ROE and ITC registered lowest ROE. The variation in ROE in case of Dabur is minimum whereas the same in case of Godrej is highest. The result of ROE is different from other profitability ratios discussed earlier may be due to incorporation of various aforesaid factors.

		T	able 4: Ro	ЭE			
YEAR/ COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE
2018	5.22093831	15.08287	26.03733	0.524854	16.14791	17.98655	1.93971
2017	10.7734356	19.18153	29.1278	63.13289	20.98584	18.39167	19.01248
2016	34.4069867	44.1029	30.95862	137.3239	8.090096	39.53935	<i>7</i> 2.11871
2015	194.471802	51.34098	14.83678	115.6215	44.45231	66.22923	82.54388
2014	235.458258	38.38049	33.33646	3.285029	45.85062	74.80297	39.81389
2013	297.959859	69.211	30.14984	1.010932	47.94072	187.6972	22.07019
2012	35.9252519	105.8014	20.73107	29.49966	47.14195	136.8731	42.78293
2011	66.3107193	158.3917	109.0332	158.0521	28.00953	261.444	60.51776
2010	56.7492181	203.5039	618.8818	171.9646	26.70422	421.2101	29.6657
2009	52.4545562	127.0563	1206.213	49.09011	14.57726	471.1981	14.21152
2008	47.4222851	89.46386	1630.973	44.31616	21.04634	95.66132	8.400263
2007	90.9526449	92.91054	1174.068	302.0352	93.17619	70.78525	24.8536
2006	53.3281441	83.02786	1039.619	205.5175	65.67452	53.17824	60.75386
2005	104.401057	123.2941	817.7361	18.91367	92.09235	49.33269	149.0666
2004	632.903421	186.6205	4151.74	21.85477	249.1087	121.4465	278.367
MEAN	127.915905	93.82466	728.8961	88.14286	54.73323	139.0517	60.40787
STD DIV	163.537041	57.81191	1099.046	90.15103	59.82942	140.9437	70.90162
MAX VALUE	632.903421	203.5039	4151.74	302.0352	249.1087	471.1981	278.367
MIN VALUE	5.22093831	15.08287	14.83678	0.524854	8.090096	17.98655	1.93971

Financial Position:

Debt-Equity Ratio (DER): Debt-Equity ratio is computed by dividing the company's total liabilities by its shareholders fund. This ratio is the measure of financial leverage of the company. It is also known as risk, gearing etc. From Table 5 it is clear that the mean debt-equity ratio of Marico is highest whereas the same in case of ITC is lowest. The variation in DER in case of Marico and Britannia is maximum and the variation in DER in case of ITC is minimum.

	Table 5: Debt-Equity Ratio (DER)								
YEAR / COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE		
2018	0	0.04	0.04	0	0	0.1	0.01		
2017	0	0.04	0.09	0	0	0.19	0.23		
2016	0.14	0.08	0.1	0	0	0.32	0.54		
2015	0.56	0.18	0.1	0	0	0.42	0.66		
2014	0.89	0.22	0.13	0	0.01	0.56	0.46		
2013	1.02	0.2	0.12	0	0.01	0.64	0.01		
2012	0.37	0.17	0.06	0.09	0.01	0.73	0		
2011	0.08	0.13	0.29	0.15	0.02	0.95	0		
2010	0.08	0.04	0.95	0.04	0.02	1.02	0.02		
2009	0.01	0.05	0.63	0.03	0.02	0.85	0.04		
2008	0.02	0.09	0.09	0.35	0.02	0.58	0.03		
2007	0.05	0.15	0.33	0.75	0.03	0.18	0.02		
2006	0.24	0.22	0.48	0.3	0.02	0.05	0.11		
2005	0.45	0.4	0.41	0.02	0.04	0.04	0.37		
2004	0.59	0.54	0.43	0.04	0.15	0.02	0.43		
MEAN	0.3	0.17	0.283333	0.118	0.023333	0.443333	0.195333		
STD DIV	0.33558052	0.140763	0.259716	0.207233	0.036968	0.345536	0.232498		
MAX VALUE	1.02	0.54	0.95	0.75	0.15	1.02	0.66		
MIN VALUE	0	0.04	0.04	0	0	0.02	0		

Equity Multiplier (EQM): Equity Multiplier of selected FMCG companies has been shown in Table 6. It indicates the financial risk that the company has taken by employing debt or fixed interest bearing capital in its capital structure. Higher equity multiplier is good from the shareholders point of view because it increases their assets over investment. Higher equity multiplier means greater financial risk and it is riskier for the company. The mean equity multiplier of Marico is the highest and of ITC is the lowest. The variation of equity multiplier of ITC is minimum and of Nestle is maximum.

		Table 6:	Equity Mul	tiplier (EQN	(1)		
YEAR/ COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE
2018	1.01275969	1.045804	1.001431	1.364113	1.005151	1.079625	1.573099
2017	1.01661569	1.07359	1.078323	1.302423	1.005231	1.11645	1.496343
2016	1.02240772	1.044382	1.097075	1.36704	1.006916	1.284812	2.005965
2015	1,36465067	1.179687	1.115957	1.442252	1,009261	1,363277	2.148203
2014	2.09843474	1.240748	1.099357	1.283706	1.011131	1.51378	2.456875
2013	2.26326169	1.560718	1.186875	1.332041	1.013404	1.632788	1
2012	2.08418927	1.146748	1.014985	1	1.007658	1.659343	1
2011	1.03052611	1.191506	1.117131	1.204675	1.012927	1.837063	1
2010	1.1403792	1.032821	1.894286	1.061512	1.017784	2.090497	1.006859
2009	1.00777463	1.049803	2.017764	1.026657	1.019247	1.911494	1.041837
2008	1.01704639	1.045929	1.063953	1.024696	1.013213	1.805343	1.04038
2007	1.0138438	1.143846	1.122969	1.702974	1.031075	1.292976	1.024733
2006	1.09092386	1.148185	1.571766	1.796883	1.018853	1.052131	1.015224
2005	1.39485121	1.267599	1.391877	1.015934	1.021802	1.054593	1.216765
2004	1.49933753	1.532432	1.422983	1.027513	1.064463	1.025723	1.527347
MEAN	1.33713348	1.180253	1.279782	1.263495	1.017208	1.447993	1.370242
STD DIV	0.45052153	0.166559	0.319349	0.250834	0.014853	0.356881	0.485562
MAX VALUE	2.26326169	1.560718	2.017764	1.796883	1.064463	2.090497	2.456875
MIN VALUE	1.00777463	1.032821	1.001431	1	1.005151	1.025723	1

Total assets Turnover Ratio (TATR): Total assets turnover ratio is the ratio between Total assets and Net sales of the company. It indicates the efficiency of the company to convert their assets into sales. Higher total assets turnover ratio signifies that the company is more efficient in converting their assets into sales. Contrarily, lower assets turnover ratio indicates the inefficiency of the company in managing their assets properly. From Table 7 it is clear that Nestle depicted the highest mean assets turnover ratio among the selected companies. On the other hand, ITC registered the lowest mean assets turnover ratio. In case of Godrej more variation in assets turnover ratio is observed and in case of ITC the variation is lowest.

Table 7: Total Assets Turnover Ratio (TATR)								
YEAR/ COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE	
2018	5.48	2.12	1.37	6.97	1.62	1.83	1.95	
2017	6.87	2.45	1.35	7.01	1.76	1.82	2.26	
2016	7.32	2.57	1.34	7.09	1.92	1.41	2.19	
2015	5.79	2.54	1.29	6.52	2.03	1.54	2.46	
2014	4.76	2.28	1.35	5.76	2	1.9	3.86	
2013	4.61	2.56	1.92	6.74	2.03	1.98	8.88	
2012	4.16	3.33	1.8	7.18	1.87	2.49	9.9	
2011	3.78	3.46	2.56	8.62	1.77	3.04	10	
2010	3.65	4.53	3.63	6.8	1.86	3.35	8.83	
2009	4.08	3.9	5.23	5.05	1.95	3.23	7.61	
2008	3.8	3.36	10.1	4.04	1.87	2.67	7.6	
2007	3.85	3.72	9.85	2.94	1.82	4.01	7.11	
2006	3.12	2.8	8.44	2.93	1.97	4.38	6.59	
2005	2.56	2.18	7.67	3.19	2.17	3.69	5.41	
2004	3.11	2	13.74	4.1	2.16	3.57	5.14	
MEAN	4.46266667	2.92	4.776	5.662667	1.92	2.727333	5.986	
STD DIV	1.37056019	0.752197	4.129349	1.817638	0.148997	0.957217	2.895165	
MAX VALUE	7.32	4.53	13.74	8.62	2.17	4.38	10	
MIN VALUE	2.56	2	1.29	2.93	1.62	1.41	1.95	

Efficiency Position:

Debtors Turnover Ratio (DTR): Debtors turnover ratio is the ratio of Net Credit Sales and Average account receivables. Debtors' turnover ratio measures the effectiveness of management to extend credit as well as collect debts. In other words, it is an activity ratio which evaluates the efficiency of the firm's management to use its assets. High Debtors' turnover ratio signifies efficient management of debtors or sales and vice versa. From Table 8 it is clear that the mean DTR of Nestle is the highest and the mean DTR of Dabur is lowest of the selected companies under study. The variation of DTR in case of Godrej is maximum and the same in case of Marico is minimum. Thus we can say that debtors' management of Nestle, Britannia and Godrej are good whereas Marico, HUL and Dabur should give importance to their debtors' management.

Table 8: Debtors' Turnover Ratio (DTR)									
YEAR / COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE		
2018	92.04	15.36	24.38	37.26	30.48	30.71	95.57		
2017	117.83	16.64	33.33	40.92	25.92	33.62	111.01		
2016	98.21	17.03	32.9	35.83	28.28	27.1	109.63		
2015	88.21	18.35	35.02	36.08	39.25	30.33	84.87		
2014	92.01	17.8	31.39	28.58	37.72	26.97	86.14		
2013	87.97	19.8	37.4	25.56	35.05	22.03	100.04		
2012	76.92	23.72	60.26	30.12	33.8	26.04	95.14		
2011	65.52	22.78	102.71	35.28	32.38	37.37	90.25		
2010	69.85	26.24	83.5	33.26	30.57	37.87	66.77		
2009	93.7	37.25	97.63	27.04	31.98	30.23	68.25		
2008	55.8	35.94	118.28	23.64	29.59	21.74	93.28		
2007	50.94	27.78	65.49	22.65	34.24	23.65	82.01		
2006	60.93	14.46	31.25	26.43	51.28	29.04	84.05		
2005	50.75	10.42	24.41	27.57	53.35	27.17	79.07		
2004	51.24	9.03	47.73	34.11	65.56	18.78	63.67		
MEAN	76.7946667	20.84	55.04533	30.95533	37.29667	28.17667	87.31667		
STD DIV	20.7279748	8.255502	31.35338	5.530728	11.00957	5.479301	14.27712		
MAX VALUE	117.83	37.25	118.28	40.92	65.56	37.87	111.01		
MIN VALUE	50.75	9.03	24.38	22.65	25.92	18.78	63.67		

Inventory Turnover Ratio (ITR): Inventory Turnover Ratio is the ratio of cost of goods sold and average inventory. ITR measures how many times inventory is converted into sales. ITR signifies the effectiveness of inventory management of the company. Higher inventory turnover ratio is a sign of efficient inventory management of the company and vice versa. From Table 9 it is clear that the mean ITR of Britannia is the highest whereas the mean ITR of ITC is lowest. The variation in ITR in case of Godrej is maximum and the same in case of ITC is minimum. We can conclude that the inventory management of Britannia, Godrej and Nestle is good. ITC and Marico however need to improve their ITR.

	Table 9: Inventory Turnover Ratio (ITR)								
YEAR / COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE		
2018	22.41	10	9.79	13.42	6.35	6.36	10.19		
2017	20.61	9.93	9.57	12.23	6.63	6.44	12.88		
2016	18.4	9.31	8.35	11.21	6.74	5.37	12.72		
2015	15.97	8.55	7.82	10.82	6.88	5.5	11.64		
2014	14.51	7.68	8.39	8.7	6.46	6.03	11.75		
2013	14.69	8.68	10.76	8.27	6.28	5.71	11.87		
2012	13.13	10.28	8.78	7.73	5.74	6.29	11.19		
2011	11.32	10.47	7.75	7.72	5.35	7.8	10.69		
2010	10.13	11.81	6.51	8.4	5.77	7.57	10.77		
2009	11.58	12	7.77	9.08	6.44	8.7	11.12		
2008	11.38	11.24	8.56	8.54	6.99	9.02	11.26		
2007	12.6	10.68	9.81	7.54	7.55	9.14	10.88		
2006	14.4	7.97	12.68	8.27	8.48	9.29	10.4		
2005	17.59	7.31	15.68	8.68	9.06	8.66	9.48		
2004	18.77	7.81	33.97	9.71	8.46	8.85	9.17		
MEAN	15.166	9.58133	11.0793	9.35467	6.87867	7.382	11.0673		
STD DIV	3.6975084	1.53082	6.72532	1.77285	1.07688	1.47569	1.03891		
MAX VALUE	22.41	12	33.97	13.42	9.06	9.29	12.88		
MIN VALUE	10.13	7.31	6.51	7.54	5.35	5.37	9.17		

Creditors Turnover Ratio (CTR): Creditors' Turnover Ratio is computed by dividing Net credit purchase by average creditors. It measures the number of times creditors or account payable are paid during a particular financial year. It signifies the creditworthiness of the company. A high CTR indicates quick or prompt payment to suppliers from whom goods are purchased on credit. Contrary, low CTR implies delay payment to creditors and it hampers the creditworthiness of the concern. Companies which enjoy longer credit periods allowed by supplier generally have lower credit turnover ratio. From Table 10 we can say that the mean CTR of Britannia is the highest whereas HUL has lowest mean CTR. From the view point of variation, maximum variation in CTR is observed in case of Britannia and minimum variation in CTR is observed in case of HUL. Thus the above discussion depicts that the creditor management of Britannia, Marico, ITC is sound whereas should be given to HUL and Dabur for increasing CTR.

Table 10: Creditors Turnover Ratio (CTR)								
YEAR / COMPANIES	BRITANNIA	DABUR	GODREJ	HUL	ITC	MARICO	NESTLE	
2018	6.77196396	2.768791	3.175074	2.4924	9.125	4.422451	4.393224	
2017	6.89716954	3.373058	2.492075	2.707159	10.13889	5.870063	5.859354	
2016	7.71825213	3.251151	2.354099	2.586185	9.125	5.007756	4.559399	
2015	10.1306308	3.404262	2.826489	2.787748	11.06061	5.298888	4.896193	
2014	9.12292663	4.557376	2.943033	2.566346	10.13889	6.208042	4.030526	
2013	11.4306902	3.493837	4.698771	2.23719	5.447761	7.331546	3.562715	
2012	18.3456759	2.842846	5.732969	1.724851	3.37963	4.381385	3.563939	
2011	22.0975498	3.329887	7.139905	2.887274	3.842105	5.659465	3.558352	
2010	16.2737932	2.877296	3.603003	2.173826	3.509615	4.107564	3.234975	
2009	16.7160336	2.800963	4.694019	2.25886	3.613861	4.539796	2.994109	
2008	11.5714936	3.017739	6.507309	2.194774	3.146552	3.731654	2.876074	
2007	11.9345376	3.141703	3.084256	2.26634	2.016575	5.79794	3.173059	
2006	4.5325257	3.304958	2.935554	2.527719	1.806931	6.323314	3.129114	
2005	3.49360565	5.080808	3.109612	2.187944	1.994536	6.728673	2.996474	
2004	4.36519047	6.369304	3.126302	2.518125	2.401316	6.184318	3.098153	
MEAN	10.7601359	3.574265	3.894831	2.407783	5.383151	5.439524	3.728377	
STD DIV	5.54253938	1.004464	1.507027	0.297696	3.46414	1.048503	0.858634	
MAX VALUE	22.0975498	6.369304	7.139905	2.887274	11.06061	7.331546	5.859354	
MIN VALUE	3.49360565	2.768791	2.354099	1.724851	1.806931	3.731654	2.876074	

From the above discussion we can see that in case of Net profit margin ITC scored highest and Britannia is the lowest among the selected companies in the study. ITC has highest mean operating profit margin and Britannia has lowest mean operating margin. The Cash profit margin of ITC is highest whereas the same in case of Britannia is lowest. In case of ROE using Du Pont 5-points model Godrej registered the highest and ITC registered the lowest mean ROE. From ROE point of view Godrej is the riskier company among those selected.

In case of Debt-Equity ratio and Equity Multiplier, Marico registered the highest and ITC depicted the lowest. The mean total assets turnover ratio of Nestle is highest and the same in case of ITC is lowest. Hence in respect of financial position Marico is best and it followed by Nestle.

From efficiency view point, in case of ITR and CTR, Britannia is the highest and ITC and HUL are respectively the lowest among the selected companies. From Debtors' turnover view point Nestle is the best and Dabur is the worst of the selected companies in the study.

Due to maintaining high liquidity position by Marico and Britannia their profitability position is not good enough. It supported the theoretical implication that the higher the profitability, the lower should be its liquidity. ITC and Godrej maintained their capital structure in such a way that increases their profitability. Hence, the financial performance of ITC, Nestle and Godrej is more notable than the other selected companies. Importance should be given to management of Marico and Britannia for the betterment of their performance in future.

Impact of various factors (NPM, OPM, CPM, DER, EQM, TATR, DTR, ITR and CTR) on ROE:

To measure the influence of different factors on ROE we used regression analysis. In this analysis ROE is the dependent variable whereas Net profit margin, Operating profit margin, Debt equity ratio, Equity multiplier, Total assets turnover ratio, Debtors' turnover ratio, Inventory turnover ratio, Creditors' turnover ratio and Cash profit margin are independent variables.

In this study we applied step-wise regression analysis. We used SPSS software to analyse the above mentioned technique.

$$Y = \alpha 1 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + \beta 7X7 + \beta 8X8 + \beta 9X9 + €$$

Here, $Y = ROE$, $\alpha 1$ =Intercept, $X1 = NPM$, $X2 = OPM$, $X3 = DER$, $X4 = EQM$, $X5 = TATR$, $X6 = DTR$, $X7 = ITR$, $X8 = CTR$, $X9 = CPM$, $€ = error$.

From the above regression analysis, it is seen that ITR has a greater impact on ROE. The value of R in this case is 0.515 which indicates moderate positive relationship between ITR and ROE. The value of R2 is 0.265 which signifies that only 26.5 % of variance is explained by ITR. From Table 11 we can see that ITR and TATR have next greater impact on ROE. The value of R in this case is 0.583 which implies moderate positive relationship between ROE and ITR and TATR. Here R2 is 0.339 which only 33.9% of variation is explained by ITR and TATR. Again we can see that ITR, TATR

and DER have next greater influence on ROE. Here R is 0.652 that signifies moderate positive relationship between ROE and ITR, TATR and DER. The value of R2 is 0.425 which depicts that 42.5% of variation is explained by ITR, TATR and DER. From regression analysis it is clear that ITR, TATR, DER, and NPM have next greater impact on ROE. Here the value of R is 0.749 which implies positive relationship between ROE and ITR, TATR, DER and NPM. The value of R2 is 0.561 which means that 56.1 % of variation is explained by ITR, TATR, DER, and NPM. ITR, TATR, DER, NPM and DTR have next greater influence on ROE. The value or R in this case is 0.780 which indicates the high positive relationship between ROE and ITR, TATR, DER, NPM and DTR. R2 is 0.609 implies that 60.9 % variation is explained by ITR, TATR, DER, NPM and DTR. Again ITR, TATR, DER, NPM, DTR and CTR also have next greater impact on ROE. The value of R is 0.791 which indicates high positive relationship between ROE and ITR, TATR, DER, NPM, DTR and CTR. Here R2 is 0.625 which implies that 62.5 % variation is due to these factors and other 37.5 % will be explained by rest of the variables. In all the cases P value is less than 0.05 (the P value in each cases is 0.00). Hence the null hypothesis is rejected and alternative hypothesis is accepted that there is no significant effect of ITR, TATR, DER, NPM, DTR and CTR. The step regression technique excludes these variables which have less impact on ROE. These variables are known as weakened variables. In our study such variables are OPM, CPM and EQM.

Table 11: Model Summary											
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		Durbin Watson					
					R Square	R Square F df1 df2 Sig. F					
c.	ę				Change	Change			Change		
1	.515ª	.265	.258	406.15591	.265	37.122	1	103	.000		
2	.583 ^b	.339	.326	386.93932	.074	11.485	1	102	.001		
3	.652°	.425	.408	362.74862	.086	15.058	1	101	.000		
4	.749 ^d	.561	.543	318.60291	.136	30.928	1	100	.000		
5	.780°	.609	.589	302.27255	.048	12.097	1	99	.001		
6	.791 ^f	.625	.602	297.42010	.016	4.257	1	98	.042	1.149	

From the analysis it is clear that ITR, TATR, DER, NPM, DTR and CTR have positive impact on ROE. In all cases the P value is less than 0.05 which is statistically significant. The other variables such as OPM, EQM and CPM are excluded from the regression table implies that these factors have not any impact on ROE.

Conclusion

In case of ROE using Du Pont 5-points model, Godrej registered the highest and ITC registered the lowest mean ROE. From ROE point of view Godrej is the risky company among the selected companies. Investors are interested to invest in Godrej at a low interest rate. Godrej confirmed the profitability of the investors. From profitability view point, ITC is the best, followed by Godrej. Importance should be given to Britannia for betterment of its profitability. In respect of financial position, Marico is best and it followed by Nestle. But in all respects of financial position indicators, the condition of ITC is bad among the selected companies. Therefore the management of ITC must take care for betterment of its financial position.

From efficiency view point, in case of ITR and CTR, Britannia is the highest and ITC and HUL are respectively the lowest among the selected companies. From Debtor's turnover view point Nestle is the best and Dabur is the least of the selected companies in the study. Due to maintaining high liquidity position by Marico and Britannia, their profitability position is not good enough. It supported the theoretical implication that higher the profitability lower should be its liquidity. ITC and Godrej maintained their capital structure in such a way that increases their profitability. Hence, the financial performance of ITC, Nestle Godrej are notable in comparison to other selected companies. Importance should be given to management of Marico and Britannia for the betterment of their performance in future. In conclusion we can say that ITR, TATR, DER, NPM, DTR and CTR have positive impact on ROE. In all the cases the P value is less than 0.05 which is statistically significant. The other variables such as OPM, EQM and CPM are excluded from the regression table, implies that these factors have not any impact on ROE.

Implications

Analysis of profitability is one of the important aspects in Corporate Financial Management. We know that for future existence in the competitive market profit plays a very vital role. For any business firm, whether public or private, irrespective of its size, earning sufficient profit is essential. Profitability analysis also measures the

financial performance of the firm. Along with different financial ratios implication of DuPont 5 points analysis strengthen significance of the study. Key profitability ratios are Net Profit ratio, Operating Profit ratio, Return on Equity and Cash Profit margin. Structural ratios like Debt Equity ratio, Equity Margin and Total Assets turnover ratio emphasise on the structural efficiency of the firm. Conversely, Debtors' turnover ratio, Inventory turnover ratio and Creditors' turnover ratios measures the efficiency of the firm. Ratio analysis helps us to focus on inventory management, Debtors' management and Creditor's management of the firm. These structural and financial efficiencies have greater implication on profitability. After studying this research paper companies and their policy makers may understand which factors are more influential in earning profit. Researchers in this field can use the acquired knowledge of how different financial ratios, structural and efficiency measuring ratios are to be applied appropriately. They can also understand how DuPont 5 points analysis is to be used to measure ROE instead of ROA. Other academicians can also use the applied methodology and ratios in their other research work.

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E-waste Awareness among Educated residents of Chandigarh: A Pilot Study

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Electronic waste consists of electric and electronic products that are discarded. These products contain unsafe materials, which require proper collection and disposal methods. The rate of e-waste generation is increasing alarmingly. The paper includes a survey of literature that reports the generation and disposal rate of e-waste in different parts of world, including India. It is found that proper system for collection and disposal of e-waste does not exist. Developed countries are dumping e-waste in underdeveloped countries. There is a need to sensitize people about the potential hazards of e-waste. The paper also covers a pilot study that was conducted to assess awareness about e-waste among the educated fraternity of Chandigarh, who have access to the latest technology. The study reveals that here is a need to take measures to increase awareness among people so as to implement e-waste laws stringently and develop a concrete e-waste collection and recycling plan.

Keywords: electronic waste, refurbishment, recycling, e-waste awareness

Introduction

Electronic waste or e-waste consists of the electric and electronic devices that have been discarded or are no longer used. It can be classified as: house-hold appliances (large or small),information and communication technology devices, toys and sports equipment, medical devices, automobile tools, consumer electronics, and monitoring and control instruments.

There are several harmful chemicals in e-waste like arsenic, beryllium, cadmium, barium, chromium, mercury, lead, nickel and selenium. Some e-waste may also include radio-active substances. These hazardous elements affect the nervous and muscular systems, and/or cause skin, heart, liver and spleen diseases, cancer, irritation in eyes, damage tothe mucous membranes, vomiting, diarrhea, convulsions, coma or even death.

i. Review of e-waste Generation: India and the world

E-waste is generating at an ever increasing rate which is alarming. With upgradation and development in the field of technology, more e-waste is forecast to be generated as old instruments are replaced with new instruments. According to Global E-waste Monitor report of 2017, e-waste of 44.7 million metric tonnes or 6.1 kg per inhabitant was generated globally in 2016 as compared to 5.8 kg per inhabitant in 2014 (Baldé et al., 2017). In 2016, Asia was the largest e-waste generating continent with 18.2 million metric tonnes. The report also discusses the country-wise e-waste generation and transboundary movement of e-waste. Efficient management of e-waste has become a problem for both developed and developing nations. The developed nations dump e-waste in developing nations but in the long run, it is a hazard for the global community.

India was forecast to reach 18.5 lakh metric tonnes of e-waste by 2015 (Vats and Singh, 2014; Lakshmi and Raj, 2017). The top ten states generating e-waste in India are: Maharashtra, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, West Bengal, Delhi, Karnataka, Gujrat, Madhya Pradesh and Punjab.

The method used for disposal of e-waste is to incinerate or dump it in landfills. However before doing this, the harmful chemicals and radio-active material need to be removed from it. E-waste is disposed off by the unorganized sector using unsafe and amateur methods. Rudimentary methods are used to remove chemicals which are harmful to the health of the labor involved in the process. Due to lack of awareness and skills, e-waste is disposed using dangerous methods that pollute the environment. When e-waste is dumped in landfills, they contaminate the air, water and soil. When human beings come in contact with these contaminated elements, it leads to many health problems. These harmful chemicals like cadmium, nickel, lead etc. can be extracted and recycled using chemical and bio leaching (Johnson, Grail and Hallberg, 2013; Liu, Li and Ge, 2016).

ii. Review of Government Policies for E-waste management: India and the world E-waste Management related policy and methods are available for several nations like Portugal, Poland, Philippines, Malaysia, Thailand and China (Marques and Da Silva, 2017; Cholewa, Kulczycka and Marzena, 2016; Celestial, etal., 2018; Suja et al., 2014; Lu, etal., 2015). For most of the nations, the collection of e-waste is a state responsibility and processing and recycling of e-waste is manufacturer and producer's responsibility. This is so because manufacturers and producers have proper methods and resources for disposal of the e-waste without harming the environment and people involved in the process. There is a huge market for refurbished products as well. When an equipment is discarded, not all its parts stop working. The working parts can be separated from e-waste and used to make refurbished devices. Manufacturers and producers of electric and electronic equipmentmust recycle e-waste in accordance with standards set by the World Health Organization.

The rules and regulations in India related to e-waste are: E-waste (Management) Rules, 2015, and E-waste (Management) Amendment Rules, 2017 and 2018 (Government of India, 2016, 2018). These rules were published by the Government of India in the Gazette (Extraordinary). These rules include the definitions of several terms including consumer, end-of-life, authorization, e-waste, e-waste exchange, and extended producer responsibility are included. It fixes the responsibility of stake holder. The manufacturer is held responsible for disposal and recycling of e-waste generated during manufacture, and for keeping record of e-waste collected and recycled. The producer is responsible for collection and recycling of e-waste. Extended producer's responsibility holds the manufacturer, producer and seller responsible for collection and recycling of e-waste. The Methods of Management of ewaste are recommended. For collection and buy-back, exchange scheme or deposit refund system may be used. Similarly the responsibility of dealer, refurbisher, collection center, dismantler and consumer are listed. The treatment, storage and disposal plant of e-waste must ensure its pre-treatment to reduce the harmful effects of chemicals. The directions about plant for e-waste managementmust be made in conformance with standards and not be arbitrary. The directions about use of harmful chemicals is included. The manufacturer and producer has to ensure there is no lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominateddiphenyl ethers beyond a maximum concentration value of 0.1% by weight in homogenous materials in the product. The Extended producer responsibility is included in 2018 amendment. It specifies imposition of fines on producers who do

not meet the minimum quality guidelines about the use of harmful chemicals. The document also talks about collection by producer who can then sell the e-waste for disposal. The collection rate is planned to be increased each year with a plan from 2016-2025.

Methodology

A pilot study was conducted to assess awareness about e-waste and willingness in the society to deal with it. In this study, a questionnaire was shared with people using Google forms. They were asked questions about e-waste. The target population comprised of the residents of Chandigarh city. Chandigarh is an urban city with mostly educated people with a lot of exposure to electronic goods. The questionnaire is adopted from Marques and da Silva, 2017. 87 people responded to the questionnaire. The people belong to educated class in age group of 30-45 years with atleast Postgraduation degree. This sample represents the educated urban population who has high exposure and access to latest technology. The questions asked are given in appendix I.

Results and Discussion

The responses are summarized in Table 1. The first question inquired about the knowledge of people about e-waste. Around 5.7% people did not know what e-waste is. 6.9% people know the term but do not know exactly what it means. 52.9% know what it consists of but do not know its disposal mechanism and only 34.5% know about the disposal mechanism. The statistics reflect that almost 65% of the sample does not know about the disposal methods for e-waste, which is quite alarming. The next question was pertaining to the effects of e-waste on environment and public health. Almost 30% of the sample was found to be unaware of the environmental impact of e-waste. The third question probed if people have knowledge about the laws regarding e-waste in India. 62.1% of the population is unaware of the laws and rules for e-waste. 32.2% do not know the exact rules and only 5.7% know about the policy. People were asked how they disposed their product at the end of its life cycle, 26.4% population did not know what to do with the equipment and kept it at home. 12.6% accept that they threw it with common waste. 31% sold it to other consumers. 25.3% exchanged it for new. 4.6% say that they delivered at e-waste management site. When asked who should have the responsibility for e-waste disposal and treatment, 62.1% feel that local authorities like Municipal Corporation should do it. 27.6% feel it is the

industry's responsibility to process it and 10.3% feelthe responsibility should rest with central government. People were asked whether e-waste should be included in education as a topic for debate and discussion. Only 1.1% believed that it should not be discussed. Rest 98.9% had the opinion that should be included in education. People were asked if they are ready to pay extra if the product is made recyclable. Almost 69% agreed to bear the extra cost. People were asked if they will pay extra tax to develop methods for e-waste disposal and 87.4% agreed for the same. Lastly they were asked if they are willing to exchange their equipment for buying a new one. 100% agreed but 74.7% are willing only if some discount is offered and 25.3% are willing even if discount is not offered.

	The option	The options to the questions mentioned in appendix I								
Question	A	В	C	D	Е					
1	5.7%	6.9%	59.2%	34.5%	-					
2	70.1%	29.9%	-	-	-					
3	62.1%	32.2%	5.7%) -	-					
4	9.2%	90.8%	B	<u>.</u>	=					
5	4.6%	25.3%	31%	12.6%	26.4%					
6	10.3%	62.1%	27.6%	-						
7	1.1%	16.1%	56.3%	26.4%	-					
8	69%	31%	-	3=	-					
9	87.4%	12.6%		i -	-					
10	25.3%	74.7%	0%	.=	<u>-</u> .					

Table 1: Summary of Responses

From the above study, it is clear that people, even when they are not highly aware of ewaste and its effects on environment, are willing to educate their children about it, pay extra taxes and costs and develop methods to deal with it. They want the authorities to take steps to deal with e-waste, want products to be recyclable and are ready to pay extra for it. They are willing to exchange their old products for new but with discount. There is a need to sensitize common people about the hazards of e-waste at ground level. The issue has got a lot of attention from scientific fraternity but no work has been done at the ground level as can be seen from the result of the survey. Some suggested measures to deal with e-waste are:

i. Generating awareness:

- a) Seminars and talks may be organized at universities, colleges and schools so that the necessity of e-waste management is imprinted in the minds of the youth for life.
- b) Radio and Television advertisements may be aired to reach masses and common population.
- c) Instruction about disposal along with user manual may be distributed for the technically aware and educated fraternity. This method is the best as the product itself comes with the details of its disposal.

ii. Reforms and Research:

- a) E-waste collection should be separated from regular household waste. Bins for disposal of the e-waste should be installed near points of purchase.
- b) As greater e-waste is generated by organizations like schools, colleges and companies, appropriate disposal plans should be in place.
- c) More studies must be conducted for assessing the status of e-waste in schools and colleges.
- d) The companies generating e-waste must be made responsible for their electronic product consumption.
- e) Incentives must be given by government for opening e-waste treatment plants.
- f) Researchers must be encouraged to perform research to find better ways of disposing e-waste.
- g) The import of e-waste must be checked.
- h) Use of refurbished electronics products must be promoted.
- Buy-back must be made mandatory for the seller (some e-commerce websites already do this).

Conclusion

E-waste generation is increasing at an alarming rate day by day. There are many government policies and laws in theory but their practical implementation is weak. E-waste is a giant problem waiting around the corner and creating awareness is crucial in dealing with it effectively. In this pilot study, it has been found that awareness about e-waste among educated population of Chandigarh city is very less. There is a need to take steps to create awareness among people, enforce e-waste laws andregulate proper collection and recycling of the e-waste by organized sectors. Methods such as seminars, talks and radio advertisements can be used to create awareness. For collection purposes, methods such as separate collection along with household waste and installation of special bins should be undertaken. There is a need to manufacture electronic goods that meet the government guidelines. The exchange of old product at the time of purchase must be encouraged.

This study can be extended to a broader level by stratified sampling. Separate study may be conducted for different sample groups and measures specific to the groups may be identified. Projects can be undertaken to carry out the awareness programs and training industries about the proper disposal methods.

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Appendix I

Questionnaire

- Do you know what e-waste is? *
 - a) No. It is the first time I read the term electronic waste.
 - b) I've heard about but do not know exactly what it is.
 - c) Just know that consists of electronic materials, computers, and mobile phones.
 - d) I know what it is and I try to be careful in the disposal of this type of material, 48 35.0
- 2. Do you know the consequences of e-waste in terms of natural resources, environmental and public health? *
 - a) Yes
 - b) No
- 3. Do you know what law currently regulates electronic waste in India? *
 - a) No
 - b) I know it partially. I have heard of it, but do not know clearly its content.
 - c) Yes, I know it. I know what it regulates and what responsibilities it attributes to the industry, consumers, retailers and the government.

4.		ou know that in buying electric and electronic equipment you are an eco-tax for the treatment of electric and electronic residue? *
	a)	Yes
	b)	No
5.	Whatd	id you do with your equipment at the end of its lifecycle? *
	a)	Delivered it in an electronic waste recollection site
	b)	Delivered it to the store and bought a new one
	c)	Sold it to other consumers and entities
	d)	Threw it away to common waste
	e)	Kept it at home for lack of a proper disposal area
6.	Whosh	ould have more responsibility for treatment and disposal of e-waste? *
	a)	Central Government - creating entities for proper treatment of e-waste
	b)	Local authorities - municipalities must collect electronic waste in homes or collection points, for the treatment and disposal of this material.
	c)	Trade and industry - manufacturers and traders should be required to receive some of the waste they produce and sell.
7.	Should which	e-waste be debated in the education system? If so, please note in levels.*
	a)	No, the issue should not be debated in schools
	b)	Primary School
	c)	Secondary Education
	d)	Higher Education
8.	Would ;	you be willing to pay an extra 10% on the value of the equipment if it was 100% ble? *
	a)	Yes
	b)	No
9.		you be willing to pay a small tax (2% of the value of the product, nple) to develop methods to make the products 100% recyclable?*
	a)	Yes
	b)	No
10.	Would y	ou be willing to give your former equipment in buying a new one?*
	a)	Yes, without discount
	b)	Yes but with discount
	c)	No

Reviewing Resilience: An Analytical Study of the Effect of Academic Achievement on Adversity Quotient and Self-Esteem in the times of COVID-19 among College Going Girls in Northern India

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In the era of rapid social change where chances and crisis go hand in hand, the existence of moderate adversity quotient, as well as self-esteem in a person, can play a pivotal role in coping up with the needs of the time (Walker et at 2017). The present study is aimed at analyzing the effect of academic achievement on adversity quotient and self-esteem of college-going girl students in northern India during the pandemic of COVID-19. A total of 590 girl students participated in the study. A pre-designed structured questionnaire was used in the study. In the present study, high academic achievement has been found significantly related to high adversity quotient and self-esteem scores of the girl students. However, income and status of accommodation have no significant relationship with adversity quotient and self-esteem of the girl students as per the results. The study recommends that more efforts should be made to enhance academic achievement amongst girl students so that they could be well prepared to cope up with adverse situations in life.

Keywords: adversity quotient, self-esteem, academic achievement, COVID-19

Introduction

Humankind is facing new and unanticipated challenges more often in the 21st century. Almost every two decades, the world is hit by a calamity with a multi-fold impact on human life. In fact, there are more new ones now than ever before: the number of new infectious diseases like SARS, HIV and COVID-19 has increased around four-fold

over the past century. Since 1980 alone, the number of outbreaks per year has more than tripled¹. The global crisis that human civilization has experienced in the past 50 years must have affected the individual as well as the collective capacities and psychological disposition to deal with the situations and environment (Chakraborty and Maity, 2020). Moreover, the pandemic of COVID-19 has profound social and psychological effects and the incidence of isolation, depression, mental disorders and trauma is rising globally especially in students' (Sia and Abbas Adamu, 2020.

Resilience in Modern World

Present-day life is full of uncertainty, pressure, stress and anxiety, which makes the young generation vulnerable to these factors (Sunitha and Gururaj, 2014). Ambition and prevalence of cut-throat competition have deeply eroded the sense of enjoyment and contentment among young minds (Acharya, Jin and Collins, 2018). Today's young adults, known as millennials – that is, those born between 1981 and 1996 – are entitled, shiftless, egocentric, hypersensitive to criticism, and unable to cope with the stresses of real life². The young generation in the modern world has forgotten the essence of life and they are just chasing the race of securing a job, career and status (Sachdev and D'lima, 2009). However, psychologists around the world believe that resilient individuals are better able to handle adversity and are mentally more equipped to rebuild their lives after being hit by a crisis or unanticipated situation.

Resilience can be defined as an individual's ability to withstand and adapt to adverse and traumatic events (Walker et al.). It is the mental stock of strength and capacities that people can use in times of need to sustain themselves without surrendering to the situations.

The present study has tried to examine the adversity quotient and self-esteem among college-going girls in the times of COVID-19. Further, an attempt has been made to examine the relation of academic achievement with adversity quotient and self-esteem, if any.

Conceptual Framework

Adversity Quotient (AQ) is the measure of an individual's potential to manage through with adversities (Stoltz, 1997). The concept of adversity quotient explains how effectively an individual reacts in the face of difficulties or adversities. According to Stoltz (1997), individuals with high AQ manage difficulties more effectively and can change the misfortunes into opportunities. Adversity quotient tells us how well an

individual can survive difficulties, and gives the idea of a person's capability to cope with adversities. AQ explains why certain individuals give up while others face challenges so effectively.

Self-esteem has a significant prospective impact on real-world life experiences and high and low self-esteem are not mere epiphenomena of success and failure in important life domains (Orth, Robins and Widaman, 2012). Self-esteem implies an awareness of one's value system and one's emotional evaluation of self-worth (Schunk, 1985). High self-esteem indicates a high level of social adjustment (Martin, Russel and Seeley, 2014). The relationship between low self-esteem and social adjustment could create a vicious cycle that negatively affects the overall quality of life (Konrad, Moore and Doherty, 2012).

Review of related literature

Some researchers have studied the effect of gender, age, marital status, education and various personal traits on adversity quotient and self-esteem. However, there is less number of studies available in India focussing on the effect of academic achievement on adversity quotient and self-esteem of college-going students especially girls.

In a study, Abejo (2002) examined the adversity quotient of employees of a college and found that gender of employees has no significant relation with their adversity quotient, though older employees have a higher ability to cope with adversities than their younger colleagues. Similarly, a study conducted by Huijuan (2009) showed that gender has no relation with the adversity quotient.

Tjundjing (2001), Amalia (2011), and Hema and Gupta (2015) asserted that there is no relationship between adversity quotient and academic performance. Further, in a study on insurance agents, it was found that demographic characteristics like age seniority, education level, marital status and job designation have a significant impact on adversity quotient (Shen, 2014).

A study conducted by Crocker et al. (2002), found that academic achievement plays an important role in building the self-esteem of students and the success or failures greatly impact their self-esteem levels. Aryana (2010) explored the association of self-esteem and academic performance of high school students of Qaemshahr schools. In total, 100 students participated in the study. A positive correlation was found between self-esteem and the academic achievement of students.

Interestingly Mullis and Chapman (2000) found in a study that adolescents with high self-esteem use problem-solving approach more in comparison to adolescents with low self-esteem. Further, Uraisa and Rungsayatorn (2009) stated that family relationships and adversity quotient have a positive correlation with the prevention of committing suicides. They found that adversity quotient dimension control has significant positive relation and impact on the prevention of committing suicides. Davoodi and Ahmadi (2015) compared mental disorders adversity quotient in prisoners and non-prisoners in Shahrekord and found that adversity quotient of prisoners is greater than that of non-prisoners; it affects mental disorders and is a shielding factor against the pressures or difficulties of life. Putra, Hidayati and Nurhidayah (2016) mentioned the positive association between adversity quotient and achievement motivation of juvenile inmates.

Gaps in the existing literature

A plethora of studies exists on exploring the relationship of adversity quotient with the demographic aspects, academic achievement and gender. However, in the times of pandemic COVID-19, the adversity quotient of the young generation especially women has not been examined so far. Further, there is scant literature on the effect of academic achievement on adversity quotient and self-esteem both taken together among the young college-going girls in India.

Significance of the study

The present study is significant as it has examined the adversity quotient and self-esteem of young minds, particularly college-going girls, in the ongoing global crisis of COVID-19. Women are believed to be capable of influencing the whole family in their multiple roles as mother, wife, daughter and sister. Thus, exploring the capacities and abilities of young girls in the COVID-19 crisis is very significant as they would be laying the foundation for the future of the next generation. Further, various stakeholders must have an idea about the relation of academic achievement with adversity quotient and self-esteem of the young minds so that they can be guided and influenced accordingly to ensure a secure future.

Research Questions

1. What was the adversity quotient score of girl students taking admission in the colleges for various undergraduate classes in the pandemic of COVID-19?

- 2. What was the difference in adversity quotient scores of girl students based on their last academic achievement?
- 3. What were the career plans of girl students based on their adversity quotient scores?
- 4. What was the difference in the adversity quotient scores of girl students across different streams?
- 5. What was the impact of academic achievement on adversity quotient scores and self-esteem scores of girl students?

I. Objectives

- To examine the adversity quotient scores of girl students taking admission in the colleges for the various undergraduate classes in the pandemic of COVID-19.
- 2. To know the difference in the adversity quotient scores based on the last academic achievement of girl students.
- 3. To explore career plans of girl students based on their adversity quotient scores.
- 4. To find out difference of adversity quotient scores in girl students across different streams of education.
- 5. To find out differences in adversity quotient mean scores of girl students based on their annual family income and status of accommodation.
- 6. To find out differences in self-esteem mean scores of girl students based on their annual family income and status of accommodation.
- 7. To know the effect of academic achievement on adversity quotient scores and self-esteem scores of girl students.

Methodology

The present study is exploratory and cross-sectional comparative in design. The primary respondent in the present study is a girl student who has sought admission in the first year of undergraduate classes in the colleges of Union territory of Chandigarh in Northern India. Chandigarh enjoys the position of being one of the most beautiful cities of the country and is an education hub where students pour in from not only adjoining States but also from all over India and even abroad. As students join in from

the various States of Northern India, the cluster of girls studying in the colleges is quite representative of Northern India. With the help of a pre-designed and closed-ended questionnaire, information about the socio-economic profile, adversity quotient score and self-esteem score of the respondents was collected. The adversity quotient profile used in the present study was inspired by Dr. Paul G. Stolz (1997). To evaluate selfesteem among the respondents, the Rosenberg Self-Esteem Scale (1965) was used. The identity of respondents has been kept confidential and informed consent to take part in the study was also taken from thembeforehand. Respondents were asked about their last academic achievement and their career plans so that the association of adversity quotient with the same can be examined for a better understanding. Moreover, scores of adversity quotient are compared across different streams to explore the relation of adversity quotient with the choice of subjects. Further, the association of self-esteem was analysed with the academic achievement and the adversity quotient of students across different streams of education. The statistical tests applied on the data in the present study were Chi-square, Analysis of variance (ANOVA) and Multivariate analysis of variance (MANOVA) using SPSS. Supplementary tables are provided separately to support the findings.

Academic achievement

Respondents were asked about their last academic achievement in aggregate for the present study. Academic achievement was divided into four categories i.e. more than 90 percent, 75 percent to 90 percent, 60 percent to 75 percent and less than 60 percent.

Adversity quotient

The adversity quotient of the girl students was measured through pre-designed questionnaire containing 20 statements as inspired by Stolz's (1997) adversity quotient profile. The responses were taken on a five-point Likert scale (1-5). The aggregate of the responses was multiplied by 2 to get the individual adversity quotient score.

Self-esteem

The Rosenberg Self Esteem 10-item scale was used in the present study to examine the self-esteem score among girl students. It measures global self-worth by measuring both positive and negative feelings about the self. All items were answered using a four-point Likert scale (1-4) consisting of strongly agree to strongly disagree.

Hypothesis for the study

- H₁: There is no difference in adversity quotient scores of girl students taking admission in the colleges based on their experience with the pandemic of COVID-19 in Northern India.
- H₂: There is no difference in adversity quotient scores of girl students across different streams of undergraduate courses.
- H₃: There is no difference in career plans of girl students across different streams of undergraduate courses based on their adversity quotient scores.
- H₄: There is no difference in adversity quotients scores of girl students based on their past academic achievement.
- H₅: There is no significant difference in self-esteem scores of the students based on their past academic achievement and across different streams of undergraduate courses.
- H_6 : There is no significant difference in adversity mean scores of girl students based on their annual family income and status of accommodation.
- H_7 : There is no significant difference in self-esteem mean scores of girl students based on their annual family income and status of accommodation.
- H₈: There is no significant effect of academic achievement on adversity quotient scores and self-esteem scores of girl students.

Socio-Economic Profile of the Respondents

In the present study, a total of 590 girl students participated. A majority (41.5 percent) of the girl students participating in the study were from the Arts stream while 38.3 percent of students were from the Commerce stream. The remaining 20.2 percent were studying Sciences. Further, 49.5 percent of girl students reportedly scored 75-90 percent in aggregate in their last academic achievement whereas 39.2 percent of girl students scored more than 90 percent in aggregate in their last academic achievement respectively. The annual family income of the majority of the respondents (57.1 percent) was up to 5 lakhs in Indian rupees. Interestingly, pursuing a government/public sector job was the most preferred career plan among the respondents (44.2 percent), while 16.6 percent of the respondents wanted to become Chartered Accountants or Company Secretaries. Further, 11.2 percent of girls were

aspiring to start their own business and 10.8 percent had plans to go abroad in the future.

Discussion

The Cronbach alpha for the overall adversity quotient scale (20 statements) used in the study was 0.690 and Cronbach alpha for the overall self-esteem scale (10 statements) was 0.790. Hair et al. (2006) proposed that the Cronbach alpha coefficient of 0.6 is acceptable and it indicates internal reliability and consistency.

As per Table 1, most (89.7 percent) of the girl students across different steams of undergraduate courses i.e., Arts, Humanities and Commerce fall in the category of Campers. Campers, as per Stoltz (1997), are a group of people who have taken on the mountain; they grow, they strive, they improve for years or decades. Campers make up about 80 percent of any given workforce (Stoltz, 1997). In the present study also, Campers make 89.7 percent of the girl students (Table 1). Only 0.3 percent of the girl students in the present study fall in the category of Quitters. Quitters can be described as being lethargic, not motivated, complacent, retired on the job, thinking of themselves as victims, beaten down, exhausted and often in poor health (Stolz, 1997). Further, 10 percent of the girl students fall in the category of Climbers. Climbers are people who are dedicated to a lifelong ascent. They are described as enthusiastic, innovative, energetic, robust, passionate and thriving on change by taking risks (Stoltz, 1997).

In the present study, the adversity score across the different streams of undergraduate courses was not significant (P>0.05 at a 5 percent level of significance). Thus, H2 hypothesis is accepted here. Our findings refuted the study of Huijuan (2009) that mentioned asignificant relationship of adversity quotient with the course studies.

There was no significant difference in career choice among girl students based on their adversity quotient scores (P>0.05 at 5 percent level of significance), however the most popular career choice was job in the government sector (39.8 percent). Others mentioned being a professional (14.7 percent) and going abroad (10.3 percent). Here, our H3 hypothesis that there is no difference in career plans of girls across different streams of undergraduate courses based on adversity quotient is accepted.

In the present study, girl students were asked about their last academic achievement. We learnt that there was a significant difference in adversity quotient scores of girl

students based on their past academic achievement (Table 2, P-value .00<0.05 at 5 percent level of significance). Our study confirmed the findings of Yodsakun (2008) that established a positive relationship between academic achievement and adversity quotient. However, our study refuted those of Tjundjing (2001) and Amalia (2011), whomentioned that there is no relationship between adversity quotient and academic performance. Our H4 hypothesis, stating that there is no difference in adversity quotients based on the last academic achievement of girl students, is rejected here.

The present study tried to examine whether there was a significant difference in self-esteem scores of girl students based on academic achievement. Further, the difference in self-esteem scores across various streams of undergraduate courses was examined. As per Table 4, there was a significant difference in self-esteem scores of girl students based on their past academic achievement (P-value .002<.05 at 5 percent level of significance) and across different streams of undergraduate classes (P-value .002<.05 at 5 percent level of significance). The mean self-esteem scores of girls studying in the Science stream were lowest as compared to those of Arts and Commerce stream girl students (Mean 27.41<28.68<29.2). Further, mean self-esteem score was highest in girls who achieved more than 90 percent at 29.44, followed by mean self-esteem scores of girls who achieved 60-75 percent (28.76). Here, the H5 hypothesis is rejected as there is a significant difference in self-esteem scores of girl students based on their past academic achievement and across different streams of undergraduate courses.

Akee et al. (2010) mentioned a positive relationship between parental income and the outcome of children, thus we presumed in our study that income and place of accommodation might have a significant relationship with adversity quotient and self-esteem among girl students. However, we learnt that annual family income and status of accommodation (either living in owned or rented house) have no significant relationship with adversity quotient mean scores of girl students (Table 5 and 6, P value>.05 at 5 percent level of significance, H6 Hypothesis is accepted here). Further, we found that there is no significant relationship of annual income and status of accommodation on self-esteem mean scores of girl students as well (Table 7 and 8, P value>.05 at 5 percent level of significance, H7 Hypothesis is accepted here).

As there was a significant difference in the self-esteem scores and adversity quotient scores of girl students based on academic achievement, we used MANOVA analysis to

examine the effect of academic achievement on self-esteem scores and adversity quotient scores of girl students. We learnt that there was a significant effect of academic achievement on self-esteem scores and adversity quotient scores of the students (Table 9, P-value .001<.05 at 5 percent level of significance). Thus, H8 hypothesis is rejected here as academic achievement has a significant effect on adversity quotient and self-esteem of girl students.

As Wilk's lambda effect was significant, Univariate ANOVA could also be conducted for each dependent variable. In the tests of Between-Subjects effects (Univariate ANOVA), we get to know that academic achievement had a significant effect on adversity quotient scores (p-value 0.028 < 0.05 Table 10) and self-esteem scores of girl students (p-value 0.002 < 0.05 Table 10).

Conclusion

Adversity quotient and self-esteem may help people to strongly respond to the challenges of life and make appropriate choices in crucial times. Most importantly, we get to know that high academic achievement has a significant impact on adversity quotient and self-esteem among students of undergraduate classes especially girls. Thus, more efforts should be put in by educational institutions to accomplish optimum academic achievement among girl students so that they could be well prepared to confront the adversities of life and make wise choices from among existing options while considering the need of a situation.

Appendix

			Quitters	Campers	Climbers	Chi Square
			(0-94)	(95 - 165)	(166 - 200)	Sig.
Education Stream	Arts	Count	0	221	24	0.173
Stream		% of Total	0.0%	37.5%	4.1%	
	Science	Count	1	111	7	_
		% of Total	.2%	18.8%	1.2%	
	Commerce	Count	1	197	28	_
		% of Total	0.2%	33.4%	4.7%	-
Total		Count	2	529	59	_
		% of Total	.3%	89.7%	10.0%	

Table 1: Adversity Quotient across different streams of Undergraduate Courses

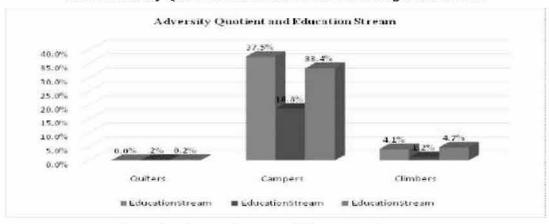


Fig. 1: Adversity Quotient across different Education streams

			Quitters	Campers	Climbers	Chi - square
Last academic	less than	Count	0	6	3	0.00
achievement	60	% of	0.0%	1.0%	.5%	_
acme vement	percent	Total				
	60-75	Count	1	53	4	_
	percent	% of	.2%	9.0%	0.7%	-
		Total				
	75-90	Count	1	262	29	_
	percent	% of	0.2%	44.4%	4.9%	-
		Total			3.2-50. 00	
	more	Count	0	208	23	-
	than 90	% of	0.0%	35.3%	3.0%	-
	percent	Total				
Total		Count	2	529	59	_
		% of	.3%	89.7%	10.0%	-
		Total				

Table 2: Last academic achievement and adversity quotient

		Sum of Squares	df	Mean Square	F	Sig.
Adversity	Between	4976.587	2	2488.29	8.632	.000
Quotient and	Groups			3		
Experience		Control of the contro	north-wishest I			
with	Within	169214.25	587	288.270		
Pandemic	Groups	4				
	Total	174190.841	589			

Table 3: ANOVA (Adversity Quotient and Experience with Pandemic)

		Sum of Squares	df	Mean Square	F	Sig.
Self Esteem Score and Education	Between Groups	250.437	2	125.219	6.458	0.002
Stream	Within Groups	11382.031	587	19.39		
	Total	11632.468	589			
Self Esteem Score and	Between Groups	294.483	3	98.161	5.073	0.002
Academic Achievement	Within Groups	11337.985	586	19.348		
	Total	11632.468	589			

Table 4: ANOVA (Self Esteem Score and Education Stream)

		Sum of Squares	df	Mean Square	F	Sig.
Adversity Quotient	Between Groups	51.470	1	51.470	.174	.677
Score and house	Within Groups	174139.371	588	296.155		
condition	Total	174190.841	589			

Table 5 ANOVA (Adversity Quotient Score and house condition)

		Sum of	df	Mean	\boldsymbol{F}	Sig.	
		Squares		Square			
Adversity	Between	1755.989	2	877.995	2.989	.051	
Quotient	Groups						
Score		009000000000000000000000000000000000000	Name of the last o	2000-00-00 VALUE OF THE OWNER OF THE OWNER OF THE OWNER			
and	Within	172434.851	587	293.756			
annual	Groups						
family	Total	174190,841	589				
income	TOTAL	1/4190.841	367				

Table 6 ANOVA (Adversity Quotient Score and annual family income)

		Sum of	df	Mean	\boldsymbol{F}	Sig.
		Squares		Square		
Self	Between	81.088	2	40.544	2.060	.128
Esteem	Groups					
and	5		Description	2000 No. (100 E00 No.		
annual	Within	11551.380	587	19.679		
amily	Groups					
income	Total	11632.468	589			

Table 7 ANOVA (Self Esteem and annual family income)

		Sum of Squares	df	Mean Square	F	Sig.
Self Esteem	Between Groups	4.498	1	4.498	.227	.634
and House condition	Within Groups	11627.970	588	19.775		
	Total	11632.468	589			

Table 8 ANOVA (Self Esteem and House condition)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.950	5589.667 ^b	2.000	585.000	0.000	.950
	Wilks' Lambda	.050	5589.667 ^b	2.000	585.000	0.000	.950
	Hotelling's Trace	19.110	5589.667 ^b	2.000	585.000	0.000	.950
	Roy's Largest Root	19.110	5589.667 ^b	2.000	585.000	0.000	.950
Last	Pillai's Trace	.038	3.817	6.000	1172.000	.001	.019
academic achievement	Wilks' Lambda	.962	3.816 ^b	6.000	1170.000	.001	.019
	Hotelling's Trace	.039	3.816	6.000	1168.000	.001	.019
	Roy's Largest Root	.028	5.373 ^c	3.000	586.000	.001	.027

a. Design: Intercept + Last academic achievement

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significantevel.

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	ADVERSITY QOUTIENT	2684.176 ^a	3	894.725	3.057	.028	.015
	SELF ESTEEM	294,483 ^b	3	98.161	5.073	.002	.025
Intercept	ADVERSITY QOUTIENT	2493516.756	1	2493516.756	8519.790	0.000	.936
	SELF ESTEEM	93789.751	1	93789.751	4847.492	.000	.892
Last academic achievement	ADVERSITY QOUTIENT	2684.176	3	894.725	3.057	.028	.015
	SELF ESTEEM	294.483	3	98.161	5.073	.002	.025
Error	ADVERSITY QOUTIENT	171506.665	586	292.673			
	SELF ESTEEM	11337.985	586	19.348			
Total	ADVERSITY QOUTIENT	12466676.000	590				
	SELF ESTEEM	495030.000	590				
Corrected Total	ADVERSITY QOUTIENT	174190.841	589				
	SELF ESTEEM	11632,468	589				
a. R Squared :	= .015 (Adjusted	R Squared = .01	.0)				

Notes

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