

Chapter 2

Review of Literature

This segment summarizes the review of literature. The aim of literature review is to provide a holistic understanding about the mobile phone and its usage for development. The review comprises studies that reorganize the use and acceptance of mobile phone into a comprehensive discussion of Information and Communication Technologies. Few studies have used new media and Information and Communication Technologies (ICT) as one interrelated group (Castells et al. 2005; Walsham and Sahay, 2006; Samarajiva and Gamage, 2007). However, some of the studies underline conceptual differences in usability and symbolic value between Personal Computer or the internet and portable mobile phone (Katz and Aakhus, 2002; Hampton and Wellman, 2003; Leung, 2009).

The review has set the scope of the study by applying various tactics to trace available texts and literature, including books (edited), online bibliographies, electronic databases, articles, newspapers and in some cases, word of mouth with authors and experts. The resulting searches exposed to texts and literature available across several disciplines and publication sites. Pure technical/engineering studies are not included in the review. The review comprehends mostly English-language sources. The review includes the literature: books, journal articles and book chapters that are primarily peer-reviewed. Reports from the institutions such as DoT, TRAI, World Bank have proved to be valuable source of information in the study. Review also includes seminal papers presented at the conferences. The review has exemplified roughly more than 300 available literatures. In addition to set the scene and the scope of the study, the review of literature has been dissected into the appropriated sections based on thematic grouping.

Sections of the review chapter are framed up theme wise.

Accordingly, the first section (2.01 and 2.02) of the review is centered on the uses and impact studies of mobile phone across different countries. The review of numerous sources that addressing the role of mobile phone and its related innovations in solving people's problems and needs, existing uses in daily life, social role of the mobile phone, the theoretical formulation applied in the studies are organized in this section. A few place bound studies on uses perspective of mobile phone e.g. India, Romania

Philippines, and African continent, exploring the social and economic context of small businesses and impact of mobile phone on economic development of the nation. Role of mobile phone in improving market performances, improving government services and administrative reform, relationship between mobile phone and economic growth in low income countries, concept of shared phone are some major highlights of this section of reviewed literature. Apart from that, the literatures that demonstrate the promise and the complexity of designing alternative modes of mobile phone are reviewed.

Second section (2.03 and 2.04) of the review travels through the literature on uses of mobile phone from the perspective of Gender and of Young. While delineating the uses of mobile phone technology, the review of literature has discussed critical issues related to consumption of mobile phone technology and services by putting it within the frame of young users.

Two reasons to consider the review of bulk of literatures on youth (1) There are comparatively vast literatures in my search that exploring the various aspects of use of phone by young, than the uses of the same by women cohort. (2) Young users are different from the previous generation in their extensive use of new media such as mobile phone and internet. Therefore, studying and reviewing literature specific to the use of phone by young cohort could explore possibly new dimension of habits, customs of mobile phone uses which would be different from uses by women but would possibly be implied favorably as well as critically with women's practices and acceptance of mobile phone.

The distinct homological connection between youth groups and the mobile phone, symbolic interactionism of self and shaping of identity around consuming practices of mobile phone rendered services have been explored in this section. Skyrocketing popularity of new mobile apps helps users to navigate through plurality of 'identities' which seems liberating as well as constraining. Based on the theoretical insights of Neo-Marxian school, this section attempts to provide a thread between virtue and vice of consuming practices related to mobile phone. Further, the review centers on the facilitating conditions and behavioral intention of the user, consumption practices and hedonic motivation specially of youth, purchase decision of a product and personal environments ; what determines the social utility of feature rich phone; skillful and technologically savvy attitude of the user and so on.

Third section (2.05 and 2.06) of the review has brought into attention the issues of women from feminist perspective and patriarchal structure. The review includes the distinctiveness of Indian feminism because of its multifaceted perspective; patriarchy, a system that is male dominated, male identified and male centered and a system where ideologies and institutions of female subjugation have a long history; the endorsement of Third Wave feminism by a group of younger feminists from diverse backgrounds of class, cultures, gender and sexuality. Further, the review of literature, in order to contextualize the study searches and assesses the literatures that find the distinction between voluntary organizations (VOs) and Non-Governmental Organizations; expansion of NGO sector through the NGO ization of social movements; as massive numbers of NGOs came into being after 1975 emergency with a political orientation, then the empowerment of women through these organization and the importance of an autonomous space for women are some central issues that are reviewed in this section.

Fourth section (2.07 and 2.08) of the review emphasizes on global digital divide, role and performances of regulatory structures (particularly liberalization) to universalize the telecom services in India and the effort to increase penetration of mobile phone in rural areas. The study investigates the gap after liberalization, the existing policy, technical interventions and various Governments' measures towards improving rural tele density to close the gap by reviewing various government reports on telecommunication and tele-density in India.

2.01 Uses, Impact and Role of Mobile Phone

Research in the past recorded to center around engineering and policy aspects of the mobile phone technology. Studies on the social aspects of mobile phones have got attention in the last decade with an upsurge of researches on the uses of mobile phone, its diffusion and impacts on the day to day life and its relationship with the users. Traditional studies of communication technologies are addressing the role of technological innovations in solving people's problems and needs. The theoretical formulation of Blumer and Katz's (1974) studies has been applied to the landline telephone and to the mobile phone (Leung, 2009). The difference between the purpose and the actual use of mobile phone was also noted by Palen et al. (2000). The early use

of mobile phone emphasized more on issues such as safety and security, and less on business or job. The socio-economic role of mobile phone such as mobile phone as a tool to increase social capital, mobile phone for economic development has gained attention in the later studies (see Donner, 2004; Molony, 2008; Maroon, 2006; Samuel et al, 2007). The work of Katz and Aakhus (2002) revolves round distinguished Apparategeist Theoretical formulations to find the nature of use of mobile phone technology by people in daily life, their relationship with the technology, and social role of the technology. Various other works of Katz identify with the behavior associated with the use of mobile phone (Katz and Sugiyama, 2005) and the use of phone for relationship maintenance and increasing social capital (Katz, 1999). Katz mentioned about several levels of effects of the use of mobile phone technology. The most direct effects are ‘first-order effects’ that are immediately perceived by users, while the ‘second-order effects’ or indirect effects are observed or experienced by the users in others (Katz, 1997). Use of mobile phone for uncertainty reduction, personal security and personal efficiency are the first-order effects of mobile phone on user’s lives. Use of mobile phone for increasing domestic production, information immediacy, and contact-ability are some obvious second-order effects. On the other hand, the ‘third order effects’ are the least direct effects that are observed not by the users of mobile phone but by outside observers. Innovative use of mobile phone, mobile phone induced social interaction, social control of mobile phone information infrastructure are some instances of third-order effects.

The history of media is never more or less than the history of their uses as it is based on the ways in which technologies have rearranged themselves around social imperatives (Williams, 1974). The noticeable determinist trends in earlier studies demonstrated technologies as a physical extension of the body which enables the user to overcome space and time constraints (Mcluhan, 1964). Accordingly, mobile phone technology represents not only functional attributes of a communication device, but also symbolic features of communication such as attitude, identity and emotions of the user. Medium itself does not determine how does a society should behave rather the users of the media while adopt and domesticate a technological innovation, often negotiate and re-negotiate its role in their everyday aspect of daily life.

Most of the modern studies have turned attention to the symbolic and affective gratification of the uses of mobile phone. For example, the study of Vincent (2004)

depicts the close emotional attachment of the users with mobile phone, as for instance, saving an old message or keeping an old phone. Various studies encompass different scales of the use of technology (Burton-Jones and Straub, 2006); variety of use (Thong, 1999); extent of use (Venkatesh and Davis, 2003); breadth of use; user's cognitive absorption into the system (Davis, 1989) etc.

Katz describes various non-uses of mobile phones which indicate a type of mobile communication behavior represent the social shaping of mobile telephony (Katz, 2006; Geser, 2005). People pretend to be on phone in order to avoid talking to someone that they do not wish to have a conversation with, or to escape from embarrassing or dangerous situations signaling strangers to keep away. Studies found close emotional attachment that many people have with the mobile phone. Mobile phones are not only seen as communication tools, but as an icon for the users. While explaining domestication of mobile phone, Katz argues that people reconfigure and recalibrate the technology that is originally designed for one reason to another one in order to serve their needs and requirement (Katz and Aspden, 1997).

Various researches in the past studied the effects of cell phone/mobile phone use and found that mobile phones are forming particular subcultures among youths in many different countries. Hollingshead (1949) discusses specific use of mobile phone by teenage users through a series of focus group interviews. The findings strengthen the argument that the adoption of mobile phones result in new forms of interaction called 'micro-coordination', i.e. to coordinate the meeting time and place as the need arises and hyper-coordination, i.e. emotional and social communication among group members and development of group norms for appropriate self-presentation. The domestication framework has been occupied a prominent position in social shaping of technology literature. Haddon (2005) , in his studies applied domestication framework to describe the way innovative technologies are adopted by society and incorporated into daily life of users. Domestication framework priorities the realities surrounding everyday uses of devices and the related symbolic aspects embedded in the context of society or social settings and human communication behaviors.

The existing literatures on the use of mobile phones expose limitations and developments of three distinctive aspects of mobile phones which include the attributes of personality,

mobility and accessibility of the device. The experiences of time and space associated with the use of phones have also been highlighted in this review. There are studies that center on the use of mobile phone to reconcile with the display of imagination, expression, experience and communication of feelings and emotions (Katz and Sugiyama, 2005; Pertierra, 2007; Matthews, 2004). Another line of studies reflect upon the paradoxical aspects of the use of phone. For example the dichotomy between utilitarian use-leisure use, autonomy-dependency, freedom-control, richness of interaction-introversion, private-public represent the parallel and opposite meanings as derived from the use of mobile phone. The ambiguity and versatility of uses are the result of mutual shaping between the phone and its social uses.

Many literatures are addressing the cross cultural comparisons in relation to negotiation between public and private spaces and the etiquette of mobile phone use in social spaces (Kopomaa, 2000; Katz and Aakhus (eds.), 2002; Katz, 2006; Katz and Sugiyama, 2005; Gergen, 2002). A few empirical studies concerned with what teenagers do with mobile phones (Weilenmann and Larsson, 2002; Taylor and Harper, 2004; Lobet-Maris, 2003; Weilenmann, 2003; Ling, 2000).

Adoption of many new technologies produces certain amount of 'moral panic'. The phenomenon, moral panic has been discussed in detail by Gopalan Ravindran in the book 'Moral Panics and Mobile Phones: The Cultural Politics of New Media Modernity in India' (Ravindran, 2009). The side-effects and the negative implications of using mobile phone include resultant threats to the health, danger of addiction, the decline of traditional interactions, loss of interest in taking part in social activities or inconsiderate behavior and so on.

2.02 Uses, Adoption and Socio-Political Position of Mobile Phone

Some studies explicitly incorporate the larger dimension of uses, adoption and sociocultural position of mobile phone technologies into its fold. Kumar and Thomas (2006) in their study have made a comparative evaluation of the adoption and use of mobile phone in India and China. A few place bound studies on uses perspective of mobile phone e.g. India (Mukherjee, 2002) Romania (Bonciu and Williams, 2006),

African continent (LeMaire and Kyem, 2006) represent the geographic specificity and socio-economic context of those countries. These studies examine interrelationship between the context and active uses of mobile phone. There are vast range of studies that assess the design, politics and economic development in relation to mobile phone. Kavoori and Chanda (2006) express concern about the popular and unquestionable representation of mobile phone as a desirable item in Indian advertisements, noting instead that the mobile phone is a capitalist device, masculine in look, corporatist in orientation which ultimately displace a socio- cultural technology. Tall (2004) identifies a process of informal globalization in rural Senegalese driven by the arrival of mobile phone by the exiles of the village.

Pertierra (2005) explores how mobile phone uses in Philippines create hybrid spaces of local and global nature, which has in turn mediated participation in and against globalization. Zhao (2004) consider mobile phone as a dystopian tool to ruin individual user and families. The politics of mobilization and resistance is another domain in which the interrelationship approach to mobile use is proving fruitful. Rheingold's article on 'Smart Mobs' represents popular faith of the Philippines in dethroning of Estrada (Rheingold, 2002).

Paragas (2003) in his studies describes the reforms in telecommunication, impact of liberalization on telecommunication markets while explaining the reciprocal interrelationship between technology and democracy and ensuing text-revolution. There are many literatures on the significance of SMS uprisings. A good number of studies underline the role of mobile phone in controlling communication agendas while identifying and examining the data communication or communication through text messaging (Pertierra, 2007; Pertierra et al. 2006; Solis, 2007; Uy-Tioco, 2007).

Many studies have claimed that the texting produced political change by identifying the role of text messaging in persuading and expanding social networks in Filipinos. Some readings (Mudhai, 2006; Obadare, 2006; Arsenault, 2006; Gordon, 2007) conclude on a positive light and optimistic tone, arguing that mobile phone is an instrument of the voiceless marginalized one who lack access to other ICTs. Rafael (2003) is very cynical with the expression of empowered partakers of the anti-Estrada uprising and his doubtful gesture reflects on the fetishism of the aphorism- 'communication-as-empowerment'.

Rafael questions if the calls for reform and transparency represent the demands of a subjugated and excluded group. He argues that technology mediated activism signifies the anxieties of stable middle class as the SMS-driven protest represents Filipinos new individualist, urban, postmodern lives. Yu et al, (2003) offers a utopian view regarding different interpretation of political text messaging during the epidemic of SARS (severe acute respiratory syndrome). The event illustrates how text messaging can be used in a form of appropriation, rather than outright resistance, to support civil society in a time of crisis.

Kolko et al. (2007) explore how cultural factors and economic constraints influence patterns of mobile phone use in Uzbekistan as an extension of everyday behaviour, and yet also posit ways in which the technology might be transforming social relationships by fostering dependence on the device. Paragas (2003) focuses on how the norms of mobile phone use have emerged in busses in Philippines due to constant threat. Other explorations of the role of mobile phone in (re)constructing urban spaces and social interactions in the developing world are in Indonesia (Lim, 2002) and Morocco (Maroon, 2006).

Few impact studies are specially designed for rural areas where the arrival of mobile phone has anticipated changes (Seshagiri, et al. 2007).The innovative uses of mobile phone have been replicated in the studies (e. g. Donner ,2004; Sey, 2006) that demonstrated the practice of beeping or leaving intentional missed-calls. Batson and Savage (2007) address entwined role of mobile phone in dating in the pop culture in Jamaica. Text messaging allows controlling the romantic agendas by carrying over innovative, rich, playful-flirtatious dialogs.

The mobile phone has indeed become interwoven with many fundamentals of social life. There are researches which describes the enabling role of mobile phone to alter religious and spiritual practices. Horst (2006) mentioned communal and personal use of mobile phone by Jamaicans to extend socio-economic networks. Horst and Miller (2005) link the use of mobile phone by Jamaicans with their religious practices. Idowu et al (2003) describes the supernatural rumors in Nigeria and its related phenomenon of killer phones which bring adversity and misfortune to the owner when they receive calls from specific numbers. The mobile handset is used not only as a medium for the transmission of rumor

but also the subject of the rumor itself. Ellwood-Clayton's (2003) study finds the evolution of folk Catholicism, a cyber-enabled phenomenon which involves Filipinos in texting each other about religion.

In regard to mobile phone uses in households, the uses intersect the personal and economic relationships among and between households. Uy-Tioco examines the reconstitution of mother-child relationship over distances by the use of mobile phone. Mobile phone has in fact improved and preserved the relationship of working parents and children (Uy-Tioco 2007).

A couple of studies have explored the social and economic context of small businesses which is surrounded in mobile phone use. In the construct of mobile phone use for economic survival, the key concept is tactics not impact. Molony (2006) examines the use of mobile phone as an instrument to build virtual offices along with a fax machine by small businesses in Tanzania. In fact, in business, mobile phone is used to maintain appearances, manage reputation and continue informal economic interactions.

Many of the studies make it clear that people working under economic constraints adopt and use mobile phone in different ways. Missed call is one example of an adaptation and appropriation of the mobile phone functionality (Sey, 2006). The study of Castells et al. (2005) extend further, illustrating how a whole class of ICTs (phone cards, SMS, internet cafes, and limited-mobility little smart phones) have emerged to serve the needs of the information 'have-less' in China. Ethnographies of mobile phone use by the urban migrant working class in China give a rare glimpse into how (still expensive) mobile phone can be both an advantage and a burden to these users (Chu and Yang, 2006; Law et al , 2006).

Impact of Mobile Phone Uses in Economy and Society

Most of the earlier studies identify interconnection between telecommunications and economic development, considering mobile phone to be the enabler of economic growth or larger well-being of the society (Hardy, 1980; Norton, 1992; Saunders et al. 1994; Sridhar and Sridhar, 2006). Increasing numbers of literature on impact of mobile phone

in economy and society have employed survey approach. Most of the impact studies demonstrated the use of mobile phone as a substitute for travel, its contribution to start and maintain a business, and to keep in touch with friends and family.

Thompson and Garbacz (2007) use random variables to measure the role of mobile phone in increasing productivity of a nation. Famous Vodafone report, a study in the African continent has identified the impact of mobile phone on economic development of a nation and generated dialogue within the ICTD (information technology for development) community.

Jensen highlights the role of mobile phone in the improvement of market performance of the South Indian fisheries that brings welfare of the fishermen (2007). Five years long study tracks the microeconomic impact of mobile phone (Jensen, 2007) in coordinating fishermen community with buyer's expectation results subsequent rise in efficiency in their business and has increased income. Abraham (2006) in his study concludes that mobile phone makes fisherman to become equipped with better information. Mobile phone not only increases responsiveness of the fishing communities but also reduces the amount of wastes in the fishing system. Donner highlights strong connection between business (instrumental) and personal uses of the mobile phone among small business owners (Donner, 2004). A survey of urban micro- entrepreneurs in Kigali and Rwanda, finds that 3/4 calls were with friends and family to amplify strong ties with existing personal relations rather than to customers or suppliers (Donner, 2004). The findings of two report on the impact of mobile use on rural livelihoods in Africa and in India by the Gamos consultancy (2005), indicate the predominance of relational use of mobile phone e.g. for kinship maintenance, use during emergencies than for any dedicated economic activity (McKemey et al, 2007).

Studies from Tanzania (Kasumuni, 2011) and Thailand (Whattananarong, 2005) consider mobile phone as an instrument for learning called M-learning. Mutula's (2002) study finds the implications of mobile phones in libraries of Southern Africa. The ease, portability makes the mobile phone an appropriate device for education in a resource scarce situation of no or lack of PCs and internet connectivity. Another study during the last decade (Idowu et al. 2003) describes the use of mobile phones by doctors in Nigeria to communicate among themselves, with nurses and patients during emergencies or

when they are offsite. Agar's (2003) study is one of the specific studies on the use of mobile phone during emergency that is the eruption of a volcano in Eastern Congo.

There is a growing body of literature on ICT for development (Walsham and Sahay, 2006; Eleana, 2010; Saravanan, 2010; Courtney et al., 2013) but most of the literature does not address the problem of digital divide in society. During 2003 to 2008, many studies appear that involves the use of ICT for the improved government services and district-level administrative reform; e-government service delivery and land management through geographical information systems (GIS) (Samuel et al. 2005; Molony, 2006, 2008; McNamara, 2003; McNamara, ed. 2008). Zainudeen et al. (2006) explain the need for strategic use of telecom services in the financially constrained South Asia. Kyem and LeMaire (2006) demonstrated the exponential growth of mobile phone in Africa by explaining the conditions to transform the existing digital divide into digital opportunities. The study of Aker et al, (2010) investigates the market benefits of mobile phone despite of the existing disparities in Nigar. The study of Souter et al (2005) centered on the rural communities of Gujarat, while showing the role of telecommunication in poverty reduction and to create a sustainable livelihood for the community residents. Walsham and Sahay (2006) investigate the existing use of information technology in developing countries and attempt to find out the future prospects of information technology for development.

Gibbs (2007) uses quantitative approach to find out if the cost of adopting new techniques reduces the market cost of a product in rural markets in Puno, in Southern Peru, thus, generate higher profit. The study explores the disparities in the use of mobile phone in rural and urban areas as well as in household and in market. The kinship and interpersonal relation is strengthened by the use of mobile phone which is not much used in expanding business networks in rural areas. The investigation states the difficulty of determining the productivity and utility of phone in contributing to business outcome. This study examined the contribution of mobile phones to rural livelihoods and poverty reduction in Morogoro region of Tanzania.

The study of Waverman et al. (2007) comprehensively examined the relationship between mobile phone and economic growth in low income countries. The study makes a comparative assessment of mobile phone penetration and its related impact on

economic growth. The data collection from 92 high-income and low-income countries during 1980 to 2003 substantiated the progressive impact on economic growth of countries such as Philippines and Indonesia. The study concluded that higher the level of diffusion of mobile phone, higher the rates of GDP growth among low-income developing countries (Waverman et al. 2007). Owing to greater penetration of mobile phone with 27 percent rate in Philippines in 2003, the average per capita income growth is registered to be 1 percent higher than penetration rate of 8.7 percent in Indonesia. Kumar's (2002) and Aminuzzaman's (2002) analysis revealed that about one third of economic growth could be attributed to investments in ICT in OECD countries. Anderson (2006) underlines the connection between pre-paid and lower-income users in Philippines. Mahan (2003) expresses concern about pre-paid approach in spreading the universal telecom service.

Designing Mobile Phone for Development

The majority of studies concentrated on the interplay of social, economic, and cultural factors with existing patterns of mobile phone use. Studies related to design perspective of mobile phone are generally drawn from computer science instead of the traditional social sciences, thus emphasize on mobile communication systems or applications. The intertwine relationship between mobile phone technology and the cultural context it posited build the base of design studies of mobile phone. Any cross-cultural differences could be reflected in the requirement of changes in the hardware itself. For instance, different text messaging interfaces are determined by language preferences. Many studies show challenges posed by the language factor to universalize the access to mobile phone (Batanov et al. 2001; Lin and Sears, 2005). Even different cultural conditions lead to different attitudes towards mobile handsets and influence the usage pattern of mobile phone (Blum et al. 2005; Yan and Gu, 2007), hence, will require different marketing approaches (Wang, 2005). Konkka (2003) stresses on employing collectivist approaches while manufacturing mobile phones for Indian consumers, accordingly integrate *Hinglish* embracing Hindi and English into the user interface.

Many of these studies emphasize on the use of mobile phone technologies and applications to address needs related to education, health, governance, livelihoods, etc. (Wang et al. 2005; Traxler and Leach, 2006). A few studies propose for mobile phone

applications designed for microfinance in low income setting while others have assessed the viability of such applications (Sathe and Desai, 2006; Parikh et al. 2003; 2006; Parikh, 2006). A couple of studies centered on the usability of m-banking in rural vicinity (Cracknell, 2004; Ivatury, 2004; Sihvonen, 2006); functioning of m-commerce (Dholakia and Kshetri, 2004) and m-government (Narayan, 2007) ; operation of rural supply chain management (Parikh et al, 2006); functioning of agricultural information systems (Maumbe, 2012).

Some researchers investigate beyond particular development challenges and focus on advance mobile phone applications to address the broader context of users in developing countries, such as mobile web standards (Parikh, 2006) ; mobile social software (Kolko et al. 2007); digital libraries (Marsden, 2003) etc. Deepak and Bhamidipaty (2007) describe about mobile phone software that allows user to monitor their expenditures, an interface application that is dedicated towards the condition of low-literacy and low-resource situations.

Courtright (2004) highlights the need for designing programs on rural connectivity by the established institutions like the World Bank and argues to consider local socio-cultural and institutional conditions in policy making. A growing body of studies intersect analyses of context, needs, and choice from an explicitly, Information and communication technology for Development (ICTD) perspective. The study of Samarajiva and Gamage (2007) demonstrated the role of civil society in ICTD policymaking to ensure transparency and an improved analytical capacity. Alhassan's (2004) work raises concerns about the interaction between communication technologies and globalization. He argues for the importance of ICT induced policy discourse for the development and meaningful participation of rural communities. By describing a mobile phone specific case study in Ghana, he criticizes the policy paradigm that is centered on economic fundamentalism and neo-liberal market values, which has subsequently excluded rural communities.

Concept of Shared Mobile Phone

Grameen's Village Phone brought the micro entrepreneurs of a village to light by aiding them to borrow money for a special mobile phone configured for multiple user accounts. Grameen model represents a picture of empowered women of the developing countries

who become entrepreneur to purchase minutes in bulk and to re-sell to customers of the village. The Grameen model has been rolled out beyond Bangladesh and many villages of Uganda, Rwanda are served. The utility of Grameen model in increasing productivity, ensure sustainability, empowering gender and for bringing over all social transformation has been evaluated (Aminuzzaman, 2002; Bayes, 2001). Many studies explain the utility of the shared phone concept (Konkka, 2003; Donner, 2004; Goodman, 2005; Samuel et al. 2005; Souter et al. 2005; Seshagiri et al.2007; Chavan, 2007). Most of the studies conceptualized around the shared phone involved development perspective in viewing its applicability to those who cannot afford a handset of their own. Majority of shared calls are found to make for personal purpose instead of business networks and it involves extended network of family and friends. Contrary to this, Strom's (2002) study reveals worsening condition of income divides with the introduction of shared phone which is later exacerbated by maintenance issue such as lack of capability to manage and maintain a shop in Filipino.

2.03 Mobile Phone Uses from Gender and Technology Perspective

Various studies have exposed the blessing of Information and Communication Technology (ICT) facilitating communication and creating an enabling environment for economic growth and to improve education, business, and employment opportunities. The existing gender inequalities between men and women exacerbates digital divide in relation to patterns of ICT usage between men and women (DiMaggio et al, 2002). Lee (2005) mentioned how social influence and family environment shape women's unfriendly attitudes towards technology and their fear of embarrassment. The commonality of gender bias in societal attitude towards women is reflected when women are treated as ignorant of or incapable of dealing with a technology. Instead, technical ability to operate a machine is considered to be essentially a masculine characteristic. Gender is not conceived to be existing independent of technology. According to social shaping of technology, the domestication and uses of technology determine the users' agency the way they define, interpret and appropriate a technology in everyday life. This reconfigures gender bias of technology or vice versa (Wajcman, 2004). As techno feminism exposes, women have been excluded from the practice of designing and innovation of a technology. Access to ICT is the right of an individual (Ahuja, 2002). It

is imperative that women are involved throughout the process and practice of technological innovation. Feminist approaches of 1990s and today share the optimism of information and communication technology in transforming gender relations. Manuel Castells (1996) and Nicholas Negroponte (1995) reinforce the potentialities of information and communication technologies (ICTs) in rooting out the knowledge and information barriers and to create a free space for women. Digital technologies have configured women's identities, needs and priorities (Butler, 1999).

Meyrowitz (1986) suggests the similarity in the media consumption pattern between men and women. Hall et al (1980) explains how do the schedules of broadcasting program help housewives to structure the day between works and other activities coincide with the programs. Techno-feminist writers (Wajcman, 1994) have stressed upon the technology induced changes in households, for instance, changes in the proportion of time to be distributed in domestic work and child-care. Different class backgrounds influence the income earning capacity and degree of infirmity of the young elderly women and at times class backgrounds provide constraints to maintain balance between work, employment and domestic work. The perceived active pursuits of women of households includes seeking more contact with extended family, extending social networks, following up hobbies and interests, educational and self-development opportunities, taking on more or less formal voluntary work or organizational roles. On the other hand, age group and class influence the responsibility taken by women and their experience of caring for elderly and more infirm parents (Lee, 2005; 2009; Graham, 2012).

Woman uses mobile phone to connect with likeminded others and to develop social capital. The study of Geser argues that mobile phone is perceived as an empowering technology, the difference in psychology leads to variation in action as male conceive independence by exploring the new functional features of mobile phones. The rhetoric of empowerment can be perceived in practice by woman with increasing connectedness with the external social environment although the use of mobile phone by woman is narrower and exclusively limited to communication (Geser, 2004).

Studies that centers on gender based conventional use of mobile phone finds that average women users tend to use mobile phone as a medium for private personal talks and

emotional exchange, male users are found to stress on functional and instrumental uses of the mobile phone (Lee, 2009; Hampton and Wellman, 2003). Feminists embrace the capital-labour relation of Marxist framework to question the control over the labour practice that runs independently of the gender. Domestication theory (Berker, 2005) underlines the significance of 'home' as one such important context to comprehend the ways of ICT use.

The new technologies such as internet and mobile phone are known as 'labor-saving' devices. Information and communication technologies have offered new employment opportunities for women in call centers, software industry and help them to be self-employed. Liberating power of ICTs has been highlighted by many studies (Goldin, 1999; Hafkin and Taggart, 2001; Mpogole, et al. 2008). The Government of India has various ICT initiatives such as personal computer for every home, free Internet initiative and e-strategies and so on.

Working women are beneficiaries of ICT as computers are introduced in offices to perform simple tasks. Gillwald et al. (2011) argues over the conditions on which a mobile phone can contribute to gender equality when both men and women have equal access to education, employment and income. Lee (2009) points out that women can leverage the portability features of mobile phone and can easily report domestic violence. Dependent housewives often face challenges in regard to long distance travel owing to gender based barriers and concerns, heavy domestic workload etc. Access to mobile phones certainly expands their array of choices to obtain information within the limits of home. According to Lee (2009), access to and owning a mobile phone ease fear, isolation, loneliness and boredom of women by helping them to adjust within the confinement at home without worrying much about physical separation from the near and dear ones to them.

However, the mobile phone can be an instrument through which men reinforce their control over women and assert unequal gender relations within the household. Accordingly, this study recognizes the fact that within the context where women are financially autonomous or have the financial capability has a co relation with the benefits earned through mobile phone.

Blumenstock and Eagle (2010) positively explains how mobile phone has become the lifeline of the poor and gives them a voice. Compared to other forms of communication technology, mobile phone is relatively affordable in developing countries (Goggin and Clark, 2009), which serves as a decent substitute for computers for the poor (Mpogole et al. 2008). Rottach et al, (2010) mentioned in the study about the effective role of mobile phone in creating new avenues for empowering women of poor rural communities. Studies also found that women's access to mobile phone increases their income generation opportunities thus, gives them a sense of economic and social empowerment (Aminuzzaman et al. 2003). By making women economically independent, mobile phone increases women's autonomy in family and in community (Lee, 2009).

Socialization of rural households begins at home with a strong family and kinship relationship (Aminuzzaman et al. 2003). Mobile phone is an instrument to build a necessary support network for women and provide them a safe and private means to maintain relationships and contacts (Rottach et al. 2010). The mobile phone has enlarged social circle by being an instrument of expression and sociability (Balasubramanian et al, 2010).

Gender, Consumption, Age, Hedonic Motivation

Most of the early studies perceived the masculine identity of the technology observing the fact that home computers are adopted by male computer hobbyists and games-players (MacKenzie and Wajcman, 1985). The argument has been more reinforced by the literature that demonstrates the challenging dimension of mobile phone use by women (Hafkin and Taggart, 2001); women's reticence towards the technology (Ahuja, 2002). The study of Deaux and Kite emphasizes on the gender differentiation in social roles as performed by men and women and its effects on price value and behavioral intention of users moderated by age, gender and experiences (Deaux and Kite, 1987). These literatures demonstrate comparative qualities of men and women when women prefer to be interdependent, cooperative in performing a task or taking a decision compared to independent and competitive men. Men use to apply common sense in taking a decision and often use selective information while women tend to consider diverse aspects of an issue in taking a decision (Deaux and Kite, 1987). Slama and Tashchian (1985) in their

study assume that women as a consumer are more cost conscious than men, thus, more sensitive and careful with monetary matters while purchasing.

The society induced gender based role differentiation is stereotypical. Few studies observe the engaging role of older women in families, thus, of the controlling dynamics of age and gender on the behavioral intention and the price value of the product. Older women are profound in family expenses and the price or cost of a product and service (Deaux and Kite, 1987). Featherstone (1991) perceived consumption as a moment rather than practice which is intertwined with several mundane practices of everyday life.

Markus and Robey discussed the interconnection between information technology and management practices in organizations. Markus and Robey (1988), while putting their perspective of organizational management in the classified studies of information and communication technology consider the difference between (1) the use of technologies by the people in organizations (information technology works as a dependent variable) (2) impact of the technology on the people of the organization (information technology work as an independent variable). Markus and Robey's classification has not only provided the basis for key aspect of the review, but also extended the scope of the emerging interdisciplinary discussion around mobile phone uses and impact. There are many studies representing the distinctive nuances between use and impact, however, the treatment is halfway and leave many scope for the making of the targeted intervention scheme. The study of Castells et al. (1996) features similarities and differences in mobile phone use in the developing countries and the developed countries. Castells has made a comprehensive treatment of worldwide mobile phone use and its implications by taking references from different regions across the world such as from China, Finland and Tokyo to support broader assertion of distinctive use of mobile phone in everyday life.

2.04 Social Utility, Consumption and Feature Seeking Attitude

A good deal of researches center on the use of feature based artifact and appraisal of pre-purchase judgments at the individual level (Meyer, et al. 2008; Thompson and Garbacz, 2007). These studies examine the feature-seeking behavior of the consumers and the social aspects of choosing products that offer a higher number of capabilities. Surowiecki

described a trend “feature bloat” or “feature creep” by referring to the feature seeking attitude of the consumers while choosing to purchase a mobile phone (Surowiecki, 2007). Consumers while choosing one among mobile phones decides on the available features if the mobile phone can play music, take pictures, and record video and so on. On a positive note, the study of Carpenter et al (1994) concludes that the increased numbers of features in mobile phone not only give clear advantage to a product over competitors but also increase capability of the users by providing the opportunity to perform multiple desired functions. Nielsen highlights the negative consequences of preferring feature rich cell phone or a feature bloat consumers which result in decrease usability of the cell phone. He argues that each additional feature can possibly render supplementary values and benefits to consumers, however, must not translate into precise benefits in utilitarian sense. Rather superfluous features tend to create confusions among users instead of learning (Nielsen, 1993). Thompson et al. (2005) emphasized in their work that feature rich products can lead to dissatisfaction or feature fatigue. The additional numbers of features will lead to complexity of products which is detrimental to the usability or ease of use of the product (Page, 2009).

Works of Burroughs et al. (1991), Gosling et al. (2002) too suggest that purchase decision of a product and personal environments such as work, personal living spaces support to judge personalities, values, and habits of the user (Burroughs et al, 1991). Individual through consuming practices not only reinforces their beliefs and attitude but also influence others by their beliefs, attitudes, and social identities (Belk, 1988). Social benefits from the number of features expand beyond mere wealth inferences to include horizontal distinctions that can more subtly differentiate consumers within a given socioeconomic class, such as consumers’ relative level of ability and expertise. In support of this hypothesis, previous research on consumer–product skill matching has demonstrated that consumers match their product choices to their perceived relative ability (Burson, 2007) and additional features increase the perception of difficulty of use (Thompson et al, 2005). The social utility of features is associated with greater skills and technologically savvy attitude of the user. Feature-seeking behavior can also signal specific personality traits, such as a person’s openness to new experiences. Dickerson and Gentry suggested that consumers with high levels of creativity and curiosity are more likely to adopt new technologies (Dickerson and Gentry, 1983). Bennett and Kahn (2004) show that consumer imbued with greater variety of collections in their choices

expected others to evaluate their product choices as more interesting, creative, and risk seeking.

Uses of Technology and Facilitating Condition

There are studies (Ajzen and Fishbein, 1980; Palen , 2000; Lin and Sears, 2005) centering on the relationship between support mechanism or facilitating conditions and behavioral intent of the users which is further influenced by gender, age, and experiences. Some studies (Venkatesh, 2003; Andrew and Lyn, 2013) articulate that older consumers look for support or assistance to learn a new technology. Pantano and Di Pietro (2012) attribute the gradual decline of cognitive and memory capabilities of old consumers which leads to difficulty in processing new or complex information.

Some studies (see Notani, 1998; Venkatesh et al, 2003) highlight the role of user experience in controlling the relationship between facilitating conditions and behavioral intention of the user. More exposure or prior or frequent experience of using a technology and feature seeking attitude reduce the need of a facilitating condition or user's dependence on external support (Meyer et al, 2008). Some other studies brought into attention the determining role of the variables such as age and gender with the innovative use of consumer technology (Venkatesh et al, 2003; Lee, 2005). Consumers' attitude towards seeking innovation or unique features while choosing a technology (Blas et al, 2006) is influenced by age, gender, and experience. The study of Palen, Salzma and Youngs centers on younger users specially men who are novelty seekers or looking for unique features or innovative use of a new technology (Palen et al, 2000).

Increasing experience has a negative impact on the hedonic motivation to determine the technology use. The charm of the novelty in contributing to user's hedonic motivation on technology use tend to diminish with increasing experiences and consumers start to use the technology for more pragmatic purposes, such as gains in efficiency or effective uses.

Consumption practices, Hedonic Motivation and Youth

Bauman suggests that experimentation of individuality through mobile phone allows individual to present situational 'self', independent of conventions. Different others, who

are ridiculed and shamed such as homosexual, disabled black, single parent, have been experimenting with their own lifestyles through network media such as internet and mobile phone. Mobile phones by its capacity to connect with similar others over distance by continuous connectivity, help to acknowledge their identity. Formation and perception of 'other' (Goffman, 1959; Paragas, 2003) has been shaped and altered, over the years, on the basis of its relationship with the 'self'.

Steven Miles (1998) in his literature on 'the consuming paradox' argues that consumerism not only fulfills the desire of an individual but also ideologically controls everyday life of that person. The release of hi-end applications of mobile phone in the market by the capitalist has expanded consumer culture. According to Lefebvre (1981) from Frankfurt School, capitalism encroaches upon everyday aspect of lived experience. Consumerism ideologically rules over and manipulates the needs of people by producing and promoting artificial or false needs. As a result, controlled section of society lacks the radical will for change in the absence of adequate consciousness. The appeal of capitalist induced consumerism is such that the consumer is unable to identify any alternative mode of living beyond the controlled and manipulated needs for a new range of service solutions. Willis (1978) and Hebdige (1979) argue for apparent homological connection between youth and mobile phone. Typical attitudes, feelings and concerns of youth represent archetypal homologies of styles, music and values associated with mobile phone device and rendered services.

Unlike Frankfurt School, Willis (1990) disagrees with the pessimistic aspect of capitalism. He differs to criticize consumerism as a propeller to capitalist which disarms consumer to get a sense and meaning in goods they consume rather put them into a race to acquire and to consume more, leaving them lost in a sea of depthless signs and symbols. Alternatively, Willis (1990) proposes that consumption is not simply the site of manipulation and deception but the location of active and emancipating practices. Neo-tribe, a term as coined by Michel Maffesoli's (1996) is developed around collective sense of 'being-together' amongst youth that brings affective warmth among the members and emancipate them from reckless race for accumulating wealth. Membership of neo-tribe does not allow youth to become ideologue by endorsing a specific set of beliefs, values and reason which can set them apart. Rather consuming youth converges around the peer feelings and interests through postmodern sociality instead of individual

identity. Hebdige (1979) argues that youth while dispensing styles live with symbolic challenges of new industries and commodities around. Youth negotiates with symbolic pressures of consumption practices by establishing new set of conventions in their everyday life. Cultural practices of youth cannot be dissociated from Martin's (2004) reference of 'mundanity' of everyday experiences of young. Martin argues that the apparently routine use of mobile phone represent the dynamism of youth culture, make youth an active recipients of commodity culture, an active participant in the creation of cultural meaning.

Neo-Gramscian cultural analysis suggests that the active consumption of cultural commodities produces popular culture or vice versa. Urban youth are transfused into media images of cinema, advertising and dwell more in sites of consumption such as theme parks, shopping centers, which refocus the attention to the experience of consumer culture. Consuming activity of youth is one of the pleasure activities that can be simply defined as the minor moments of relief (Fiske, 1989a). Thus, the everyday consuming activity represents the acceptance of subordination of youth, instead of challenges to the dominant structures of power. Hollingshead (1949) has described the predominance of class consciousness in the attitude and behavior of youth. Antonio Gramsci argued that the exertion of hegemonic power was a negotiated process between dominant and subordinate groups (Adamson, 1980). Gramsci highlighted the augmented role of cultural institutions such as education, media, and family in reproducing the power relations between dominant class and subordinate class. Latest mercantile ventures of operators, manufacturers and service providers maintain the consent through processes of negotiation and regulation as asserted by Gramsci.

Mobile Phone and Symbolic Expression of Identity

There are studies that highlight the shaping of self by the use of mobile phone. Goffman's work on 'Presentation of Self in Everyday Life' involves the use of props and tools in order to express the most appropriate projection of the desired self of the audience. Mobile phone represents both the Goffman's classification of embodied information in the presence of 'body' and disembodied information without the presence of body when messages are received from 'distant bodies' (Goffman, 1959). Symbolic interactionism of mobile phone such as use of emoticons, stickers, themes, moods etc.

tarnishes the limit between embodied and disembodied information. Denzin argues that social interaction gives meaning to things and its further interpretation modifies the meaning. Interaction involves self-reflective individuals who symbolically interact with one another with signs and forms (Denzin, 1992). According to Martin (2004), interaction with significant others helps to form person's identity. People then, learn to adopt the role of others by adjusting themselves to other's environment. Lobet and Moris study is basically on youth and use of mobile phone that young and adolescents often have affective and symbolic connection with the ownership of mobile phone (Lobet-Maris, 2003). Netsafe's study states that around sixty percent of adolescents use mobile phone as other personalized fashion accessories (Netsafe, 2005). Youth upgrade their cell phone as per their choice of wallpaper, ring tones, phone cover and so on. Youth consumer emphasizes on the physical appearance of a mobile phone that represents their concern about social status and epitomizes their peer group affiliation. Owning a mobile phone signifies the young one's admission to the peer group (Srivastava and Sasikumar, 2003).

Katz and Sugiyama assert in their study how different uses of phone signify symbolic expression of social identity. Owing to such motive, users feel no hesitation to trade off certain functionalities for the style of their handset (Katz and Sugiyama, 2005). The use of mobile phone for gratifying the needs related to logistical coordination and safety-security and perception of the owner of phone as a fashion accessory has no relationship in between whereas viewing phone ownership for reinforcing style has established a positive empirical connection with the use of phone for interpersonal relation management (Campbell, 1995).

Baudrillard (1988) elaborates this dialogue when discussing 'neotribalism', a modern fluid tribe which fulfills the desire to be belonged to. Membership in such tribes is not founded on traditional categories of age, class, race and gender, as neo-tribes believe that such pigeonholing is insufficient in defining individual identity. Individuals are free to define themselves through the clothes they wear, the activities they pursue and their bodily disposition (Featherstone, 1991). However, individuals will adopt props in order to create self-identity in the neo-tribes where "the body is adorned only to be made into a spectacle" (Baudrillard, 1988). Such props do not result in greater individualization but paradoxically reinforce the sociality of the neo-tribe. Weilenmann and Larsson (2002), in

their study on Swedish teenagers, have identified different types of sharing such as "minimal forms of sharing" which takes forms of showing, writing or deciphering SMS and "hands-on ways of sharing". The borrowing and lending act make mobile phone a collaborative resource which symbolizes trust and friendship. The sharing of mobile phones, unlike individual uses helps to invigorate and sustain social networks.

Discord around Mobile Sociality and Construction of Others

Fox argues the capacity of mobile phone to liberate users from "an alienating and fragmented" community (Fox, 2001). Fox equates mobile phone to new 'garden fence', which represents the sense of community that a mobile phone can provide to users in today's fast-paced city life (Fox, 2001). Considering the debate between the uses of mobile phone verses alienation from the social life, mobile phone enables youth to organize their social life by allowing phone mediated interpersonal interaction muting the barriers of face to face communication (Martin, 2004). The mobile phone allows users to experience the coveted flexibility and spontaneity in their lives by eliminating spatial immobility and constraints of physical proximity. Users can enjoy more freedom in coordinating their needs in the 'fluid culture of information social interaction' (Geser, 2004) led by mobile phone and mobile enabled value added services. Intertwine use of functional and relational dimension of mobile phone by users; free use of phone with less or no adult interferences has gradually increased the demand for adjustments for youths in social regulatory institutions such as family, school and adolescents' peer group (Ling, 2000). Adolescence experiences an age transition and increasing influence of the peer group (Ling and Helmersen, 2000) and thus communication amongst peer group members is central to the identity of the individual. The adoption and use of the mobile phone has transformed the peer group relationships into a wider networked society (Horst and Miller, 2005).

The controversy between the dichotomous use of personal technologies that involves antisocial (Ling, 2005; Geser, 2004) or pro-social (Gergen, 2002; Katz and Sugiyama, 2005) attitude typifies most of the studies during early 21st century. Use of personal technologies in public place embodies increasing individualization of 'self' and simultaneous erosion of 'public self'. The practice of autonomy while navigating phone applications represents an introverted self, who is self-serving and less tolerant of other

people and of society (Ellwood-Clayton, Bella. 2003; Paragas, Fernando, 2003). Maffesoli (1996) refers to 'multi-media generation' in his studies on the relationship of youth to media uses in the light of the interrelatedness of different and a wide range of media technologies.

The blurring of boundaries between public and private spaces produced anxiety in some respondents. The "structures of feeling" includes the anxiety, embarrassment and showiness which represent the emotional states of the users of mobile phone in public place has accompanied mobile phone use. Few consider it breaking of social rule, a disruption, and even as aggression when they feel like "hostages", the unwanted witnesses of other people's business. Ling's empirical findings suggest that the use of mobile phone in restaurants as a violation of the normative expectations peculiar to that context (Ling, 2005). Ling observes that the ringing of a mobile phone and the consequent talk were not yet the part of the routine disturbances that one might expect in a restaurant. The accessibility aspect of mobile phone makes it to be considered as the technologies of "surveillance," allowing people to be monitored (Green and Smith, 2004). Green suggests the practices of mutual monitoring via information and communication technologies which have brought in changes in many contemporary theories of surveillance.

Ling and Helmersen (2000) argued that some mobile media utilized their music devices to turn "unproductive" travel time into soothing pass time. Those mobile music users are depended on their devices to "kill time." Wang (2005) argued that mobile music devices enabled their users to feel empowered, in control, and self-sufficient in public spaces.

Rheingold coined the term 'smart mobs' to identify the activities of users of the mobile phone by signifying Spain incident (Rheingold, 2003). Supporters use SMS to support their leaders of the rightwing Popular Party. Supporters use SMS to organize meetings after elections and to boycott the last Almodovar's film. Taylor and Harper (2004) noted that people use mobile phones, especially their text-messaging feature exchanged in performances that have specific meanings in user's daily lives and are played out with the intent to cement social relationships. Green stated that the obligation of accountability and trust towards those on the phone seems to be stronger than those who are close to or nearby (Green, 2002). The study on the clubbers shows how mobile phone

has become a part of the friendly atmosphere of dance clubs, as punters exchange numbers with strangers (Miles, 1998). Mobile phones are used to prepare night out, to make arrangements to meet other people, and to communicate with those absent from the club. Stephen Miles (1998) further discusses in the clubbers study on the use of SMS by youth to flirt and to communicate with strangers.

Family, Parenthood and Mobile phone

Williams (1995) and Flichy (1995) have deliberated on the adoption of a technology in a contemporary social condition. Graham (2012) argues how uses of mobile phone are not a static experience and in turn helps to theorize lone parenthood in transitional phases. Arber and Evandrou (1993) discuss the different modes of interactions between individual, cohorts and family at different moments of history although not specifically in relation to the use of ICT. The study deliberated on the phenomenon such as teleworking, lone parenthood and retirement that are historically shaped social constructions, regulated by policy, economic factors and changes in expectations, institutions and wider social discourses (Arber and Evandrou, 1993).

Joint family can provide wider social and emotional support to the adolescents and help family member's personality integration which is absent for the children of nuclear families. Studies on households suggest that factors such as home environment, parenting styles (Kasesniemi and Rautiainen, 2002) and attachment relationships (Ling, 2000) among members of the households influence the emotional maturity of the adolescents of households. The self-esteem of the adolescents in a family is positively associated with parental support (Kaltiala-Heino et al. 2000). In joint family system, there are more members in the family adults advising young ones during their stressful period whereas such intimacy is not found in nuclear family. There are studies which argue the ability of fixed telephone to be a powerful means of communication between fathers and their children in the context of 'broken' homes (Beck and Beck-Gernsheim, 1995; Castelain-Meunier, 1997; Ling and Helmersen, 2000). The mobile phone can strengthen the parent-child relationships (Beck and Beck-Gernsheim, 1995).

There is no legally binding age in India to respond to the controversy regarding the age when should children in a household be allowed to use a mobile phone. About twelve is

the age when young people made more social connections with their peers outside family boundaries (Wang, 2005). Ling and Helmersen (2000) relate the need of mobile phones for a child of 12-13 years old who enters adolescence with increasing mobile literacy. The argument for owning a mobile phone for many pre-teens as provided by Ling is rooted in western logic of liberalism. Use of mobile phone by a child of 12-13 years old not only reinforces the status of impending adolescence, but also provides a means to love desired life, independent of family (Ling, 2000). In a study in Australia, Matthews (2004) found that 57% of children and adolescents at the age of 13 -14 years own a mobile phone.

2.05 Feminism and Patriarchy

The term feminism has been frequently vacillated between uncertainty, contradiction and avoidance (Peet, 1998). The feminist movement is a socio-political reality that has grown and developed over a period of time in a variety of different ways e.g. protest against oppression, legal reform, nationalistic concerns, education and social change etc. are only a few of those.

Feminism in Indian context cannot be treated in singular way. There are one but several feminism, having their origin in social condition, religious tradition and caste background. The varied history of Indian women makes it clear that feminism is not necessarily an ideology of resistance to patriarchy but a movement that seeks to integrate the public and private space and to end of the divisions between the two different kinds of sexuality and the associated moral values in it (Jain,2011). It represents the needs of the women to be heard, to have them a choice as well as the freedom to act in accordance with that choice. Jasbir Jain (2011) argues that reconstruction of feminine space has to interact with the notion of masculinity, as it cannot come into being in a one sided manner.

Feminist struggle in India underwent a change in the 19th century during the period of colonialism, cultural encounters and the Bengal renaissance (Chatterjee,1997; Jain,2011). Women movement has ordinarily been collectively identified on the grounds of collectivity and continuity, or when an issue has transgressed from personal space to

become a public concern. The period from 1850s to 1940s, is divided into two phases (Chandra,1998). First phase was characterized by male initiatives that dominated the reform movement. During the second phase, women themselves acquired an agency and actively participated in social political matters. The third phase is situated during 1970s when Indian government as per mandate of United Nation Organization, appointed a committee on the status of women in India and the committee produced a report entitled 'Towards Equality' in 1974 (Chandra,1998).

Women in Indian context are opposing different kinds of power structures all of which are not male dominated, although construction of these structures is patriarchal by nature. These patriarchal structures carry on a constant struggle against women's self-image and the cultural construction of femininity. Women's struggle is often laced with psychological conflicts and has not been linear.

Women in India are defined by a variety of roles and classification-caste, class, rural, urban, tribal educated-illiterate, married, abandoned, widowed or divorced, single, dependent or economically independent, barren or productive, lesbian or hetero sexual. Among these, religion is the dominating factor in India that controls the socialization process, divides women, creates decisive social practices, and defines the personal law. Women from different religion represent different shades of social structure. Another aspect of Indian feminism is constantly engaged in deconstructing the images of 'devi', of the supreme mother, the virgin goddess and the like.

A conceptual undertaking around unified feminism or socialist feminism has gained currency in the effort to trace Indian feminist struggle in its assorted national, socio-ethnic and ancient historical tradition and settings of India (Mohanty,1991; Butler, 1999). The critique against radical feminism was based on the assumption that it is too western and that against bourgeois feminism took note of an agreeable attitude of fundamental injustice against women. It should be noted that efficacy of negative typification depends on the shared belief or values about good or bad. The battle over labeling of a movement was not on the basis of the undertakings of individual groups related to their activities and advocacy programs they do or advocate.

Though opinion varies, general consensus on patriarchy is that it is a system *male dominated, male identified and male centred* (Gregson and Lowe ,1993; Bhasin, 1993; Walby, 1990) where the systems, ideologies, and institutions of female subjugation have a long history. The term ‘patriarchy’ originates in 1970s when discourse on women was developed by feminists to understand the systematic nature of men’s power (McDowell, 2006). Radical feminists like Shulamith Firestone (1974), Kate Millett (2000; 2016) and Robin Morgan (2014) argued that an extensive system of patriarchal domination penetrates sexual politics of both the private and public spheres. Unlike radical feminists, social feminist maintains that system of patriarchy operates independently of capitalism as an independent structure of women’s subjugation and oppression (Smith, 2007). By contrast, socialist feminist maintains that women’s oppression and subjugation is the result of dual system that represents the capitalism and patriarchy (Ollenburger and Moore, 1998; Kandiyoti, 1988).

Walby (1986, 1990) identifies six sets of analytically separable frameworks in patriarchal systems that are used to subjugate women. These multi-causal structures of patriarchy which helps to produce and sustain male domination-female subjugation are household chores, paid employment, state, violence, sexuality and culture. Interestingly, Walby’s study mainly focuses the patriarchal pattern in so called advanced industrial countries; his work is concentrated in UK and Europe. Kandiyoti (1988) also distinguished the structures of patriarchy on the principle of geographical boundary such as classic patriarchy as being distinguished from African patriarchy. In addition, she suggests the reasons why a majority of women accept the patriarchal structures rather than rebelling against them. Classic patriarchy is visible in a geographical area that includes North Africa, the Muslim Middle East (including Turkey, Pakistan and Iran), South and East Asia (specifically, India and China). The key roots to the production and (re)production of this type of patriarchy lies within the patri-locally extended household that is associated commonly with peasantry and agrarian societies (Kandiyoti, 1988). While Sub-Saharan African patriarchy are basically related to the system of polygyny where the insecurities of this system are generally tallied with the relative areas of women’s autonomy. Most of the existing literatures conceptualizing structures of patriarchy focus mainly on the experiences and the struggles of women in industrialized societies (Mohanty, 1991; Mohan, 1985). As a result, it can be argued that analysis of patriarchy is largely both Eurocentric and ethnocentric.

Ollenburge and Moore (1998) explain that the traditional meaning of patriarchy, which refers to the rule of the father (or the male head of the household) through legal and economic power over dependents (including wife and children). Hakim views patriarchy as the male domination of social organization within society in general, and the family in particular, which indicates that the power relations between men as a group and women as a group are unequal (Hakim, 2000). Lerner argues that both men and women participate in the legacy of an oppressive system of patriarchy. It is a kind of society that is a collection of people where both men and women participate in perpetuating patriarchal practices (Lerner, 1986).

In the Indian context, Bhasin (1993) argues that the feminist concept of patriarchy is used to describe a family relationship dominated by a male 'patriarch' in a system of social structures used to oppress and exploit women. Patriarchy is thus defined as an invisible hegemony of Indian values, ethics, indigenous undercurrents and assimilated beliefs through which the ruling groups (patriarchs) maintain their dominance, not by force, but rather as a process of socialization (of leadership and negotiation) that fosters consent through shared ideology, religion, castes and culture. This co-operation renders women's moral experience invisible and unrealized. Hence, in India, male domination (Bhasin, 1993) begins with the extended family structure in the form of a 'classic patriarchy' (Kandiyoti, 1988). Here, the father (or the oldest man in the household) is the head of the family and he controls the production of resources, forces of labour, and reproductive capacities through the idea that he is superior, and is legitimized by differences in generations and gender. 'Classic Patriarchy' has been undermined by the erosion of a joint (or extended) family system in cities and urban areas and the shift toward a nuclear family system. Gradual breakdown of the joint (or extended) family system has resulted increased tendency to migrate as nuclear forms towards the urban areas.

According to Lennie (1999) and Jenson et al (1988), the system of patriarchy can only operate with the effective cooperation of women. Lennie (1999) explains that "this cooperation is secured by a variety of means: "Gender indoctrination; educational deprivation; the denial to women of knowledge of their history; the dividing of women, one from the other, by defining "respectability" and "deviance" according to woman's sexual activities; by restraints and outright coercion; by discrimination in access to

economic resources and political power; and by awarding class privileges to conforming women.....a form of patriarchy best described as *paternalistic dominance*.”

Foord and Gregson began a debate in 1986 concerning the gender roles and spatial patterns of women's subordination. They suggested that the concept of gender relation is an outcome of roles and inequalities emanate from power relations between men and women that take into account range of practices, ideas and representations, including the gender divisions of labour, roles and resources between men and women, and the ascribing to them of different abilities, attitudes, desires, personality traits, behavioral patterns and so on. In the Indian context, social hierarchies such as class, caste, race and also religion and creed influence and intersect gender relations to a great extent (Williams,1995; Davis, 1989). Foord and Gregson (1986) argue that too much concentration of feminist geography, narrow focus on gender roles and subordination of women tend to find it difficult to incorporate how women's subordination is maintained and reproduced. Foord and Gregson (1986) conceptualized patriarchy as a particular form of gender relations that perpetuates the subordination of women. Hence, many scholars argue for the need to deconstruct the monolithic notion of patriarchy, working with other, the limitations of gender role theory, arguing that terms such as difference, resistance and space as alternative, more nuanced ways of investigating the locally, culturally specific production and (re)production of unequal gender relations (Foord and Gregson 1986; McDowell 1986; Hakim, 1992). Peet (1998) argues that gender relations are misplaced and marginalized in theoretical analysis.

As a legacy of colonialism, the same accusations can be made of the reductive and ahistorical literature on Indian women which generally addresses class, caste, creed, religion, gender segregation, high fertility, poverty, illiteracy, arranged marriages, and the extended family network. Young girls are taught to be typically 'feminine' and made to learn that society expects them to behave differently from their male counterparts (Ghosh and Roy, 1997). Girls' grow up playing with dolls and learning to perform the stereotypical roles of brides and homemakers. Girls are made to acquire passive submissive qualities. They learn to be soft and silent, servile, modest about their abilities, humble about their achievements since childhood in contrast to boys who learn to play out rough, noisy, and unrestrained (Sarma, 1996). The study of French feminists

reinforces the inherent differences between men and women (Julia Kristeva, 1980; Luce Irigaray, 1985; Gillian Rose, 2013).

Third Wave Feminism and Indian Women

The Third Wave feminism is endorsed by a group of younger feminists emerged from diverse backgrounds of class, cultures, gender and sexuality developed youth culture whose configuration of power mostly rest in sexual abuses and culture of beauty and pleasure (Heywood and Drake, 2002; Kinser, 2004). Heywood and Drake (2002) assert that commonality and the solidarities of these young women were nurtured by the economics of globalization and market ideology of neoliberalism. Heywood and Drake (2002) described the experiences of those Third Wavers American women, majority of those are born after the 1970s, baby boom and beyond. The discourse of Third Wave feminism is often interchanged with post-feminism which reinforces multiplicity of femininities under the heading of 'new femininities'. The highlights of Third Wave feminism center on transformational capacity and growing confidence among young women who are happy with their sexuality (Mack-Canty, 2004; Garrison, 2004). Media often represents this phenomenon as of 'Laddettes', the Spice Girls, the Powerpuff Girls, all subsumed under the concept 'girl power'(Garrison, 2004).

Marxist interpretation of feminism which occupied the discourse of gender and technology studies since 1970 emphasize mainly of women's involvement in labour process and production. Capitalism continues to shape the technology in the workplace intended to de-skill labour, thus producing cheaper labour which can be subject to greater control. Marxist framework of gender studies (Funk and Mueller, 1993) denounces technological revolution as only a trait of capital accumulation processes. Arguably both third wave feminism and Post-structural feminism are shaped by spatiotemporal circumstances (Heywood and Drake, 2002).

Postmodern/post-structural feminist theories were emerged during 1980s and 1990s, deliberates on the differences between men and women. Unlike Third Wave feminism, post-modern feminism refuses to consider women as a homogenous group and reproduces its focus on differences and plurality rather than unity (Featherstone, 1991). The post-modern feminism encompasses differences *in* female subjectivities, differences

between women themselves and the internal contradictions ‘within women’ (Runté and Mills, 2004; Ganguli-Scrase, 2001; Beasley, 1999). Postmodern/post-structural feminists’ reject the concept of a fixed female identity (Hirschman, 1995) focus on multiple identities of women in respect to gender, ethnicity, race, religion, caste and creed and their significances. The paradigm offers a set of alternative ways of approaching the question of ‘difference’ and of addressing the problems related to women’s identities.

The concept third wave feminism is largely western and in India, this is partially developed. In India, Third Wave feminism has its roots in postcolonial feminism. Third Wave feminism in Indian context gets to reflect in various grassroots movement and feminist organizations that mobilized poor working class women through NGOs and work to transform their life, for example, SEWA (Self-Employed Women’s Association, Samudayik Shakti (Jagori 38) and ecofeminism-the Chipko Movement of the Himalayas (McClean, 2000; McILwaine and Datta, 2003) etc. In 1974, the women of Himalayan Valley (Now Uttarakhand) launched their ecofeminism movement, called ‘Chipko’, against the capricious felling of trees by timber contractors that led to destruction of the environment leading to paucity of fodder, fuel, fruits and vegetables; reduction of rainfall; and deforestation. This revolution is not directly related to the women’s question, but it was a women’s ferment in the sense that, had the forest disappeared, women as the keepers of the family would have to travel for time consuming miles to collect water, fuel, wood and fodder (Patel, 2001; Sen, 2005). However, UNICEF has recently launched projects in India on ‘girl power’ in order to develop the positive self-esteem of girls (Transformation through..., 2008).

A Debate over NGO-ization and Autonomous Space for Women

Rajni Kothari calls for a clear distinction to be made between voluntary organizations (VOs) and development Non-Governmental Organizations (NGOs) (1986). Voluntary Organizations are non-party activist groups although not nonpolitical, participate in democratic political process (Kothari, 1986). Kothari makes a further distinction between the merely development oriented, bureaucratic voluntary agencies and those that are relatively small and working at the grassroots led by dedicated young men and women who have given up their professional careers to work for the people. There are struggle oriented groups and alternative development oriented groups working for the poor. In a

situation, when state has failed as a liberating force of poor and deprived, struggle oriented VO shows hope.

The expression, NGO-ization of social movement is recent, however, represented negatively by the exponents of social movements (Gothoskar and Patel, 1982; Ryan, 1992). Extensive NGO-ization is seen to replace the broad assertive and active struggle of federation of women's groups by specific functional or niche concentration as guided by State and International agencies. Support from international agencies has turned many NGOs to be simply conduits for delivery of government programs without independent space and autonomous mobilization of women as before.

However, NGO-ization has been criticized for spreading new modes of consumption that approve and favor dependency of women. According to Edwards and Hulme (1992), NGO-ization results concentration of power in the hands of administrators or technocrats of sponsored concern welfare projects. This has impeded the spread of a social movement and the spread of a cause in a continuous need for networking, deliberation, mobilization based on daily contact and personal connections. "NGO ization is posing great challenges for self-identified movement organizations." Patrick Kilby,(2010) argues further, "the expansion of the NGO sector is taking place not only through the NGO ization of social movements but also as the result of the state's retreat from responsibility in the domain of economic and social welfare. Secondly, NGOs that eventually replace some state functions also replace them in becoming the quasi targets of other movements despite their innate inability to replace the state's multidimensional function. This might lead to further division in the social movement sectors."

In India, numbers of NGOs were formed after 1975 emergency had a political orientation with programs and standpoints, however, exist as a non-party entity. NGOs in development sectors, due to the financial support of state and donors are made to result absence of critical standpoints and expression against the state. This has become a source of concern and critique by other Social Movement Organizations (SMOs). These new development oriented organizations when labeled as NGOs have simply embodied a negative identity (Bendell, 2006).

Basically period after liberalization, since 1990s, stipulated partnership between state and Voluntary Organization /NGOs. In fact fifth five year plan has insisted on active role

of state with increasing state funding to organizations (Kothari, 1986). Rajni Kothari in his work (1986) further demarcated the distinction between Social Movement Organizations and NGOs. The differentiation takes place primarily through the form of negative typification by SMOs. SMOs identify distinguishable factors against NGOs that NGOs don't have any political and economic understanding of challenges that faced by the women and uncritically accept state or foreign patronage unlike SMOs.

Seventh five year plan (1985-1990) contended on the participation of Voluntary Organization and NGOs in development sectors in rural India specifically stipulated on poverty alleviation programs (Rajasekhar , 2004). Number of Voluntary Organizations and NGOs started complying with the condition of state funding that they will circumvent political intention and will be depoliticized, have been growing. However, the exponents of social movement conceive of the danger of cooption by state which may result injury to the values of voluntarism (Ryan,1992).

Association of the term feminism with NGO allows negative subtext represents the inadequacy of the Indian women movement (Pandey, 2016). The way feminism is treated by SMO pictures a highly ambivalent position within Indian women movement. Similarly the image of NGOs as compliant servants to foreign influence through money and ideas has been used and amplified by SMOs to differentiate SMOs as the legitimate heirs of national movement. Substantive western influence on the advancement of women's causes has been accepted by the movement, however, studies (Mohanti,1991; Vijayalaxmi, 2012) argue that the outright acceptance of western ideas would make them look submissive to western dominations.

Paid Work and Women

In India, increased visibility of women outside home represents the second wave feminism (Patel, 1991; Chowdhry, 1995). In response to the gender equality report of the United Nations and new economic policies of India (1991), a number of studies were carried out in India to explore female labour force participation in the labour market in line with the framework 'Women in Development' (Sridevi, 2002; Dasgupta, 1999). 'Women in Development' approach has widely recognized that women empowerment vis-à-vis their socio-economic status is determined by the paid employment status. In the

West, the variation in female labour force participation is determined by the presence of young children, hours of work and the type of occupation (Ribbens, 1994).

Discourse on women in paid employment calls into attention the forms of community enterprises. These forms of community enterprises comprises of childcare centers, nurseries, after-school clubs which highlight and intersect the reproductive role of women. Many literatures on gender issues, women's rights ignore the gender hierarchy among the elite class, middle class and marginalized class of women in paid employment while the elite and middle class women in paid employment depends greatly on the labour of working class women in reproducing daily interaction between mother and children (McDowell, 2006). Many existing literature documents the significance of paid domestic work and the emergence of 'new servant class' that includes women (McDowell, 2006; Davis, 1989). Women as a member or participants of 'new servant class' carried out activities such as care work i.e. childcare, care to oldies, cleaning and cooking (Gregson and Lowe, 1993; 1995).

In Indian context, paid domestic work is documented in connection with other sub identities such as caste and religion that influence the existing gender hierarchies (Raghuram, 2001). In India, paid domestic work is categorized under the unorganized sector employing 90 percent of the total workforce and female constituting 93 percent of the total workforce in this sector (Raghuram, 2001). In fact Raghuram's study demonstrated household to be an industry that employs majority of marginal women workers as servants. Over the last decade, scholarly attention of West is concentrated on trends of gender segregation in employment while witnessing the influence of post-structural and postmodern feminist thinking on female participation in wage labour (Hirschman, 1995; Runté and Mills, 2004). However, there are not adequate researches and studies on Indian women's participation in wage labour from post-structural perspective.

2.06 Neo-liberalism in India

According to David Harvey (2005), neoliberalism is a theory that reinforces political and economic practices of an institutional framework which suggests that the welfare of

human beings can be progressed through the process of developing individual entrepreneurial skills and by liberation designated primarily by private property rights, free markets and free trade. Neoliberal paradigm, reinforced by the “packages of reform” for “best practices” chosen by the World Bank, the International Monetary Fund and the World Trade Organization, diffused swiftly to most parts of the globe in the form of political and economic policies (Martin, 2004). Harvey (2005) argues that since the 1970s in political economic practices and thinking, visions of neoliberalism have been gaining ground. The term Neo-liberalism is coined in 1916 to refer to the success story of Henry Ford’s (1863-1947) automobile industry. Fordism refers to the labour process involved in the manufacturing process of a moving assembly line and mass production processes to achieve a lower price and can aptly be attributed to a mode of capitalist regulation. According to David Harvey (2005) Fordism signifies “the long post-war boom, from 1945 to 1973, that was built upon a certain set of labour control practices, technological mixes, consumption habits, and configurations of political-economic power” (Harvey, 2005).

The backgrounds of the neoliberal theories was camouflaged in free market economic theory as it is originated in 1973 when a group of economists working with Milton Friedman at the University of Chicago were invited by Augusto José Ramón Pinochet to restructure the Chilean economy in order to transform socialism into a free-market economy (Harvey, 2005). However, neoliberalism paradigm did not produce any accomplishment in Chile following the debt crisis of 1982 in Latin America. Harvey (2005) examines the implementation of the neoliberal policies by the UK, USA, China and Australia and reviews the stepwise implementation of neoliberalism in South East Asia, Europe, South America and Mexico.

Neoliberalism in India has embraced the policies of economic liberalism from the late 1980s. Nevertheless, neoliberalism gained global prominence in the 1980s with the ground-breaking elections of Ronald Reagan in the United States of America and Margaret Thatcher in the United Kingdom. Margaret Thatcher started believing that ‘there is no alternative’ to overtly accept the neoliberal standard (Power, 2005; Harvey, 2005; Peck and Tickell, 2002). Economic liberalism describes an economy where markets and competitive forces dominate (Ghosh, 1996; 2005) Alongside the failure of the Nehruvian model, neoliberalism in India was also fuelled by the macroeconomic debt

crisis of the 1990s following the collapse of the Soviet Union, the then major trading partner of India together with the imbalance caused by the Gulf War that began in August, 1990 and lasted until February, 1991 (Gill, 2002). The transition of economies in India is characterized by feudal and capitalist relationship of production. The economy of India, one of those developing countries, has not gone through a Fordist stage unlike developed countries (Power, 2005; Nightingale, 2005). Development in Post Fordism represents large-scale transformation of the economy that is characterized by dismantling of mass market and segmented patterns of consumption (Shukla, 2005). The realization of Millennium Development Goal was made possible with success of various economic reforms in tackling extreme poverty a significant increase in the growth rate of Gross Domestic Product (GDP). Post-fordism introduced socio-economic changes that are compelled by information technology and a more customer friendly, flexible forms of work and production (Lal, 1998). Another development during the same period reflects in gradual decline of number of persons living below a dollar a day from 42% to 24% (Patel, 2003).

In India a number of studies demonstrate how India has witnessed macro-economic political transformations in sectors like trade, construction, transport highlighting stories on incredible growth in financial services and information and communication technologies (Ghosh, 2005; Gupta, 2005). The merits of new economic policies evident in increasing purchasing power parity (PPP), India became the fifth largest economy in the world (Sen, 1998). In India, neoliberalism encompasses tale of success, contrasts and divides (Ghosh, 2005).

2.07 Global Divide in Telecommunication Distribution

There is a huge disparity in access to internet and telecommunication between developed and developing world. Existing literatures have demonstrated the widening ICT gap between developed and developing countries which hinders the realization of Universal access and integration of all countries into a global information society. As per the study of Thompson and Garbacz, (2007), 23 rich countries of world that inhabits less than 15 percent of the world population received a share of 62 percent of total telephone lines installed during 1997. For some 5.7 billion people there are one billion telephone lines

are distributed among 5.7 billion people. There is one telephone for some 500 million households that constitute 34 percent of the total in the world. However, existing gap installing telephone lines per capita population in rich and poor countries has shown to be reduced. Even the disparities in terms of revenue from telecommunication services across developed and developing countries have been minimized over the years. In 1996, Europe, USA and Japan constitute 77 percent of total revenues from telecommunication services whereas India and the African countries draw from telecommunication service is 1.5 percent. Similarly a large disparity in investments in the telecommunication sector and world-wide trading of ICT has been reduced after free trade agreement.(ITU, 1998a). “The expenditure on telecommunication or on electronic data processing per capita of the population of USA was 315 US dollar, Japan constitute 400 US dollar, Singapore made 1500 US dollar, whereas Brazil investment counts only 39 US dollar and in India, the investment constitute to be 0.87 US dollar.” (Mansell and When, 1998).

2.08 Liberalism, Telecom Policies and Growth Stats of Telecommunication

Prior to liberalization, the telecom scene in India was characterized by the highly bureaucratized structure of affairs under government monopoly in service provision which led to restrictive portfolio of services, abysmally low tele-density and poor state of tele-infrastructure across the country. The Government of India’s enunciation of a policy of economic liberalization in 1991 provided the real impetus for reform and structural shift in Indian economy. This is reflected in the government’s acknowledgement of telecommunications as an imperative for socio-economic change, a common man’s tool for capacity building and as a factor in building international competitiveness of the country. The paradigm shift in the telecommunication (telecom) sector in India from a monopoly regime to one of open competition led to the establishment of an independent regulatory mechanism. The genesis of duopoly regime for two operators- government and private sectors was enunciated first in the National Telecom Policy 1994. This policy provided a roadmap for telecom development in India calling for private sector to participate in the provision of basic telephone services subject to stipulated conditions in the four metros and eighteen telecom circles.

In the initial phase of rolling out of telecom services, the entire country is divided into 21 telecom circles, excluding Delhi and Mumbai. Mahanagar Telephone Nigam Limited (MTNL) provided the basic services to Delhi and Mumbai, while 21 telecom circles are served by Department of Telecom. Only six private licenses were issued to roll out the basic cellular services in India in the early years of telecommunication distribution. Liberalization unfolded the basic and value added telecom service sector to competition. For rolling out basic and cellular telecom services, separate licenses were issued to distinct industry structure such as satellite and cable TV operators, Internet Service Providers alongside distinct terms and condition regarding varying requirement to create infrastructure. New Telecom Policy, 1994 aims at telephone on demand services as well as long distance telephony services. The New Telecom Policy, 1994 set the target to achieve telephone coverage of all villages in India and PCO facility for every 500 persons in urban areas by the year 1997. Along the line, introduction of value added services to be made available internationally and making the telephone services available on demand are other certain goals to be achieved by 1997. However, the implementation of the policy did not match the euphoria it created and delivered mixed results. Physical targets in relation to rural telephony were unrealized. By March 1999, only half of total targeted 600,000 villages were covered by telephones, many of which are appeared malfunctioning due to technical problems. For realization of these targets, estimated Rs. 230 billion of resource gap is found which necessitated calling for the private investment to bridge the resource gap.

The participation of private sectors in the mobile telephony market has been successful. Almost every metro across the country are awarded cellular licenses. VSAT (Very Small Aperture Terminal) services were liberalized for providing data services to closed user groups. Government licenses issued to prospective operators for opening up global personal communication by satellite (GMPCS). Licenses for 'Value Added Services', have been issued to 14 operators for providing V-SAT based data services to closed user groups. 'On line services ' such as web page hosting e- mail, electronic data interchange, fax on demand have been operational in the country for past four years.

The liberalization process has been moved forward by New Telecom Policy (NTP 99), in March 1999. New Telecom Policy 1999 introduces innovation in telecom services and market by introducing radio paging service providers, public mobile radio trunk service

providers and national long distance operators. NTP 99 provides flexibility for different service providers with respect to interconnection among service providers within a service area. The Government of India has recently announced a change in its licensing policy, for example, for cellular mobile, which now allows technology neutrality with the condition that technology must be digital.

The private sector in telephony has witnessed an accentuated fast growth of 66 percent in 2007 as against the 17 percent of growth of telecom services in public sector. The share of private operators in total telephone connections has increased to 72.4 percent in December 2007 from 20.9 percent in 2003. The liberalization of telecom sector ensued higher growth path with the rising ownership of telephones since 2004 at an annual rate above 40 percent except for the year 2005. The target of distributing 250 million phones by the end of 2007 in order to remove the barriers in physical access to telecommunication by the policy initiative of the Government was achieved in October 2007. The total number of telephone connections, have reached to 290.1 million in February 2008 from 272.9 million in December 2007, while a total wireless subscriber base has increased to 250.9 million by 2008.

Measures on Consumer Protection

International telecommunication Union holds the view that regulatory regimes of the countries in future should shift the focus on public interest concerns which is best reflected in the availability of reasonably priced basic voice services over traditional public networks. Ensuring reliable and universal virtual public network for voice telephony over a crazy quilt of interconnected technologies and applications of multiple outlets that accommodates the multimedia characteristics is a real concern in view of the shift in IT paradigm across the globe.

In this context, the major concern for the country's telecommunication regulator is to adopt standards of reliability and interoperability to unrelenting technology changes. More than licensing and pricing, frequency allocation, consumer protection and dispute resolution have claimed to be prioritized in their agendas.

Providing better services, more choices to services and lower tariffs to the services have been some of the key objectives on which Indian telecommunication policies have put

more emphasizes after liberalization. Entry of private sector into telecommunication has improved the Quality of services to have a reach to international standards. Consumer welfare has been a prioritized agenda of New Telecom Policy 1999 which has eased the competition among the various telecom players for a range of services.

The Regulatory framework is an important means to ensuring consumer welfare. Customer satisfaction and monitoring of performance of operators, achieving a nearly seamless architecture, unrestricted consumer's access, adoption of tariff structure that is suitable to social requirements, ensuring affordable tariff for all users are some possible policy agenda to improve consumer welfare.

TRAI issued regulations on the QOS (Quality of Service) in July 2000 which was followed by another set of regulations on QOS in July, 2005. The parameters for basic and cellular quality of services are categorized into 1) speedy and congestion free network; 2) easy accessible customer help lines; 3) quick complaints billing; and 4) improved customer knowledge regarding services. The mobile service providers have been provided with the benchmarks for quality of services in terms of delayed access to services, call success rate, call drop rate, number of calls answered in 20 seconds, refunds to customers.

In order to protect the interests of consumers, TRAI, during 2006-2007 ensured the customers to get the detail of tariff plan used, information on the credit limit of the monthly bill for post-paid and pre-paid services, issuance of docket number for complaining regarding the services used (TRAI,2012). An independent agency has been appointed by TRAI in order to carry out survey that evaluates effective implementation of consumer services and conducts quality assessment of the services provided by broadband, and cellular mobile service providers. The 'Telecom Consumers Protection and Redressal of Grievances Regulation 2007' was brought in order to improve consumers' perceptions of the efficacy of telecom services and protection of the customer's interest. In January 2007, the TRAI established a Telecommunication Consumers Education and Protection Fund in order to finance programs to impart education to telecom consumers and promote research studies on matters relating to consumer interests on telecommunication services. During the same time, TRAI introduced another regulation envisaging a mechanism for curbing unwanted telemarketing calls.

Incorporation of new licensing of services for TRAI regulators have contributed to lowering the license fee, higher data speed and creating more choice of technology. New licensing regime of 2007 facilitated sharing of infrastructure between the service providers and has accelerated the growth of internet and broadband. The broadband policy of the Government took shape on the basis of TRAI's recommendations issued in October 2004. On December 31, 2007, there were 3.02 million broadband subscribers, compared with only 0.18 million in March 2005. The policy initiatives of the Government at different period of time and the recommendations of TRAI have brought forth distinguishable growth of the Indian telecom sector. The increasing numbers of operators, both in basic and mobile service segments have witnessed progress in higher quality of service, improved consumer awareness, significant lowering of tariffs, and substantial increase in inflow of foreign direct investment (FDI) and sizable expansion of tele-density both in urban and rural areas.

Government's Measures towards Improving Rural Tele density

Lack of political will, vested interests of bureaucracy, procedural delays in policy implementation in telecommunication sector have eroded many expected rural beneficiaries (Souter et al, 2007). However, the telecommunication service expansion is largely limited to urban areas. According to TRAI, 2009 tele density of urban areas stands 81.38 percent as of December 31, 2008 whereas; rural tele density follows only 12.62 percent. Out of the total mobile phone subscribers in India, the share of rural subscribers was 33.6 percent and the rural mobile tele density was 31.1 percent (TRAI, 2014). The growth and spread of telecom services in the past few years in India has been driven by mobile services. As on 31st January 2011, the number of mobile phone subscribers in India stood at over 771 million and the mobile tele density was 64.7 percent (DoT report, 2011). Limited reach of internet access by rural people and more than 771 million mobile phone subscribers made government think of this unique proposition to develop a mobile digital society and to reach the residents and deliver public services.

Improved village connectivity has been one parameter to attain inclusive economic growth in India. Accordingly, easy and affordable access to telecommunication services in rural India has been the priority for telecom operators. Government of India and

service providers have been attempting to realize the priority agenda through partnership and sharing of responsibilities. Since 1970, Government of India has been adopting various policy initiatives with an objective to improve rural tele-density. These policy initiatives includes Creation of Universal Service Obligation Fund (USOF) and Universal Service Levy (USL), programs for Provision of Village Level Connectivity, private sector operators, contribution to rural roll out of services, access deficit charges and so on (DoT report, 2011).

Government of India made it obligatory for private operators to provide 10 % of their service dispositions in rural areas in view of the fact that private operators are not interested for rural roll out of telecom services. Under the aegis of the Universal Service Obligation (USO) program, Reliance Communications has commenced the rollout of the “World's Largest and Fastest Rural Infrastructure”. Accordingly, the Reliance Communications has commissioned 8,982 Base Terminal Stations (BTSs), which would provide telecom services in 2,34,000 villages in India that do not have any telecom connectivity at present. USOF subsidy support scheme is also being utilized for sharing wireless infrastructure in rural areas with about 19,000 towers by 2010 (“Mission Rural”, 2007).

National Telecom Policy (NTP) 2012 recommendation stresses on increasing rural tele-density and improved broadband connectivity in villages in India. The NTP recommendation aims to increase rural teledensity to 70 percent by 2017 and 100 percent by 2020, from the current 40 percent in India. The Government of India through Universal Service Obligation Fund has prioritized North Eastern region of India to provide financial support to 56,000 villages, thus, reduce the gap in connectivity in remote locations of the country. Foreign direct investment has been increased to 100 percent during United Progressive Alliance (UPA) Government. Alongside, UPA government issued unified licenses, during 2010-2011, to operators who won spectrum in the third round of airwaves auction in order to reduce competition among public and private sectors in rolling out services and to achieve parity in pricing. The Telecom Commission earmarked an expenditure of Rs.3,000 crore for rendering connectivity to 56,000 villages, areas those of which are distinguished as telecom shadow areas under the Universal Service Obligation Fund (USOF).

Ensuing Growth Stats of Telecommunication in Rural India

The government initiatives at different periods of time are set in motion, aimed at developing sound telecom infrastructures in the rural areas. The initial objective of Department of Telecommunication (DoT) was to provide a village public telephone (VPT) in each of 607,491 villages (DoT, 2006). The village public telephones (VPT) was introduced in March 31st, 1995 has been increased in numbers from 0.68 percent during 1999-2000 to 8.35 percent in December 2007. The Annual Report 2007-08 of Department of Telecommunications specified that the operation and maintenance of 527,000 VPTs in the country would be borne by USO Fund.

As per Government record, as on March 2009, around 123.51million fixed and Wireless Local Loop (WLL) connections and 57167 VPTs have been provided in rural areas as on March 2009. Roughly 85 percent of the villages in India have been covered by the VPTs. More than 3 lakh PCOs are provided base in the rural areas to render community access to telecommunication. Moreover, mobile public call office (PCO) service under Mobile Gramin Sanchar Sewak Scheme (GSS) has been brought out to make telecom service at the doorstep of villagers. There was significant growth in the number of STD/ISD PCOs, increased from 57,119 in March, 1994 to 272,989 in March, 1999. Many ex-servicemen, unemployed youth and people belonging to economically disadvantaged group of the society receive an employment opportunity to eke out living after getting license to run a PCO, STD or ISD.

Sanchar Dhabas (Internet Kiosks) were also set up in 3500 block headquarters out of the total 6337 blocks across the country to provide internet services. The structure and composition of telecom growth has also undergone a qualitative change with the share of wireless phones going up to 85.6 percent in December 2007 as compared to its share of 14.9 percent in March 2002. The USOF subsidy support scheme is also being employed for sharing wireless infrastructure in rural areas with around 19,000 towers by 2010 (DoT, 2012).

In April 2013, India ended with 867.02 million mobile connections, which included 345.85 million rural connections that comprise 40.59 percent rural tele density as per TRAI monthly estimate report. GSM mobile operators added 16.6 lakh new rural subscribers to take the overall base in such areas to 27.43 crore. Vodafone increased its

rural subscriber base to 8.39 crore at the end of October, 2013 after adding maximum of 7.7 lakh new users. Bharti Airtel, which has maximum rural subscribers, added 6 lakh new users during the month and its base stood at 8.74 crore. Idea Cellular added 3.7 lakh to its registered base of 6.95 crore and Aircel added 60,000 new users to its subscriber base of 2.33 crore by the year 2013. Uninor, however, lost 1.4 lakh rural subscribers during the month, which led its base shrinking to 1.01 crore at the end of October, 2013. The total rural subscribers as on September 2013 is recorded to be 35.66 crore that includes 35.03 crore of wireless and 63.1 lakh of wireline users. The total rural tele-density stood at 41.70 percent as on September 2013. The total rural subscribers as on September 2013 stood at 35.66 crore of which 35.03 crore are wireless and 63.1 lakh are wireline users (COAI Report , 2013).