“Information technology and business are becoming inextricably interwoven. I don’t think anybody can talk meaningfully about one without the talking about the other”
- Bill Gates

1.1 INTRODUCTION

As in every other field change is the only thing that is constant in business, commerce and other allied activities. Business continues to transform in order to meet the challenges of different phases of change such as globalization, digitalization and the existing knowledge economy. Information and Communication Technologies, commonly known by its acronym ICT, performs a pivotal role in business enterprises of this knowledge economy and has very real impact in most of industries and in all aspects of economy. ICT help businesses operate in a rapid, more efficient and well organized way. Besides it allows even smaller businesses to compete in the larger market by opening up a whole world of customers for businesses and a whole new way of designing and making the products.

Financial Services Industry which is an integral component of this modern business enterprise is also characterized by these changing conditions and highly unpredictable economic climate. The application of information and communication technology concepts, techniques, policies and implementation strategies to financial service industries has become a subject of fundamental importance and concerns to all concerned institutions and indeed a prerequisite for local and global competitiveness. ICT directly affects how managers decide, how they plan and what products and services are offered in the financial services industry. ICT further enhances the variety, quality and speed of services made available by the financial services industry to its customers.
Human resources of financial services industry which is made up of decision makers, service providers, informational processors, office knowledge workers and even mobile workers spend significant part of their time communicating with peers and clients, producing and reviewing documents, identifying information, locating expertise, and performing parts of larger, collective tasks (Drucker, 1999). Major advances in mobile and wireless communication technologies, such as Second and Third Generation mobile phones, wired and wireless network infrastructures, and wirelessly enabled portable computers and devices provide such employees the means and ways to communicate and to be informed. Thus ICT make up the major resource for the corporate employees especially the workers of the financial services industry to access corporate systems and applications, and to communicate with peers and other stakeholders incessantly.

Information and Communication Technology influences the entire business system by remolding inter-relations and the structure that exist between its components. Advancements in information technology enable an organization to become more flexible in communication as well as work structure, which in turn leads to productivity gains, improved information transparency, and further makes it easier for the business to meet and even exceed the needs of customers.

ICT benefit consumers by reducing search and information costs and giving greater access to information, making price comparisons easier, facilitating competition and creating downward pressure on prices.

As for the individual employees, the opportunity to stay connected brings about flexibility which allows them to choose when and where to work, thus allowing one to mesh personal life and work life in a more harmonious way. Mobile communication devices like portable computers and smart phones allow people to make better use of the time they spend travelling and waiting, keeping in touch with colleagues, friends and family, or performing a range of work-related tasks. In addition to being a
communications tool these devices can enhance collaboration, increase worker efficiency and productivity. ICT also enhances workgroup productivity by facilitating teleworking – work carried out at home or at a remote site away from the conventional workspace.

However, the benefits of information and communication technologies come at a cost. It is widely believed that the ICT devices allow employers to create a new culture that would use technology to make their employees do more, work longer hours leading to higher expectations in availability and responsiveness. Even otherwise the habit of an individual being connected online always to work, can lead to conflict when family members or others outside the users’ work environment feel that work is spilling over into the users’ non-work life.

Moreover many people experience difficulty learning and getting used to the innovations in Information Technology. Some people adapt to the new technologies quickly, while others experience a greater sense of difficulty in learning, developing knowledge and skills, and ultimately adopting their use within their daily lives leading to anxiety or resistance to using modern information and Communication technology devices which is called as technophobia. Such anxiety and resistance or easy adaptability from the part of employees determine their ability to learn new technologies and make avail of the relevant features the devices have in store for the users.

1.2 NEED FOR THE STUDY

As ICT devices have become an important component of work force they have become embedded into everyday lives of individuals and their environment. In most of the cases the organizations encourage and support the use of ICT devices. These devices increasingly affect virtually every aspect of work and it has an impact on personal or family life too. The impact of ICT on the work and personal life of
employees has a cascading effect by influencing the work environment, thereby the organizations and ultimately the society.

The prevalence and importance of information technology to the design and structuring of work in today's competitive environment speaks for understanding how such technology impacts the workers who must use it. Woodman (1989) suggested that the study of information technology is emerging as an important area of interest from a change process perspective. He stated that if information technology is treated solely as a technological innovation, and its impact on the social fabric of the system ignored, then the society will relearn the harsh lessons from socio-technical systems theory. That is, information technology initiatives will fail, or at least fail to perform most effectively, if their human consequences are ignored.

With the intention of taking a step towards understanding the wide-ranging consequences of ICT on the society efforts have been taken in this study to figure out the influence of ICT devices on the work-life integration of human resources employed in the financial services industry.

1.3 REVIEW OF LITERATURE

The task of formulating the specific research problem is of greatest significance in the entire research process. A review of literature related to the topic at hand will enable the researchers to get them acquainted with the specific subject matter and to locate the research gap which could form the basis for further investigation. As there are not many references pointing to the social aspects of Information Communication technology, teleworking and work-life integration in Indian literature most of the citations point to research works done abroad. But the lack or rather the shortage of literature does not discount the usage of ICT devices, mobile work practices and the existence of work-life integration issues in India.
Literature review related to studies on social aspects of Information Communication technology, teleworking and work-life integration along with impact on employees, job and the organization are given in this section

1.3.1 Information Communication Technology

Though Literature on Technical and scientific aspect of Information and Communication Technology is in plenty, there is a dearth of its sociological impact especially in work place at least in the Indian Literature.

Previous literatures have a narrow scope bringing only computers into the purview of Information Communication Technology. And most research works were confined to computer based communication which is corroborated by Bunz (2003) quoting that the advent of the personal computer had initiated a growing number of research studies, particularly in the area of computer-mediated communication.

Laudon and Laudon (2001) defines Communication Technology as something that deals with the Physical devices and software that link various computer hardware components and transfer data from one physical location to another. Watt, David and White (1999) mentioned that Computers which were once adopted by technologists and hobbyists for home use are now a part of daily life at home for most of our society. According to the 2000 General Social Survey of Statistics Canada, nearly six out of ten Canadian workers used a Computer at work, with the majority (78%) using it to perform various tasks on a daily basis (Marshall ,2001)

However, because of the constantly changing sphere of computerization, information technology can no longer be limited to computers alone. Justification for the above can be had from disciplines such as telecommunications, computer science and human-computer interaction refer to people being connected to work always with terms such as ubiquitous computing, anytime/anyplace computing (Davis, 2002) , and everywhere (Greenfield, 2006). These terms refer to the technological condition where information and communication processing capabilities are built into a variety of
devices and objects, and users can access these computing capabilities from nearly anywhere; they are no longer chained to a desktop computer connected with wires to a corporate intranet.

Such devices which can access computing capability from anywhere can be called as mobile devices. For the purpose of defining what is meant by mobile devices Jarvenpaa and Lang’s (2005 p.8) recent description of mobile technology can be quoted, which defines mobile technology as handheld IT artifacts that encompass hardware, software, and communication. The above definition articulate that mobile devices should be able to place phone calls, send and receive email, retrieve scheduling and contact information from databases, connect to and browse the Internet. Moreover as Taylor (2003) had put it nowadays advancements in broadband and wireless technologies have made it easier to virtually connect mobile devices to business systems. The business systems may include ERP, CRM, or other industry specific applications

A rather broad definition of Information Communication Technology is given various other researchers. One among that is the description of technological media as those devices that translate, amplify, or otherwise alter the information in natural media, those that send and translate symbols using only our bodies and minds (Morreale, Spitzberg, & Barge, 2001, p.174)

All the definitions of Information Communication Technology given above invariably include devices such as Personal digital assistants (PDAs), laptop computers, mobile email devices (e.g. BlackBerries), mobile phones and home PCs. Towers et al. (2006) describe these technologies as work extending technologies, and the technologies are becoming more prevalent among managerial and professional workers.
1.3.2 Impact of ICT on Organizations and Workforce

There are conflicting views in literature about the utility and impact of Information Communication Technology devices on organizations.

Laudon, and Laudon (1991) who studied the entire cash flow of most fortune 500 companies and linked their success to Information System. They concluded that Information Technology directly affects how managers decide, how they plan and what products and services are produced. They further insisted that managers cannot ignore Information Systems because they play a critical role in contemporary organization. Several literatures endorse the above views by stating the various positive effects of ICT devices especially in organizations. Srivastava (2004) in his article has stated that the rise of mobile access provides people and organizations with a powerful tool to enhance and better the way people live and work. Malone and Crowston (1994) have contended that the first business trend is the use of information and communication technology to decrease costs and increase capabilities (Malone & Crowston, 1994). Gignac (2005) asserts that virtual teams can be formed, bringing together the best people regardless of location and time as e-mail, teleconferencing, video conferencing and new emerging technologies are enabling people around the world to communicate and collaborate rapidly and efficiently.

Mobile technologies increase the number of possible locations where work can be done. This provision of technology which allows workers to work at any time is one of the tactics which allow organizations to solve time problems by contributing to a reduction of time wastage by making it possible for employees to be active in more places at more times such as checking their e-mail on the train (Hassard, 1999). This marks a further eroding of work/non-work boundaries, with “third spaces” between home and work also becoming legitimate places of work (Brown, 2002). The invasion of these previously work-free spaces was only possible because of technology which increases spatial mobility (Gant and Kiesler, 2002). Eriksen (2000) provides several
examples of people working in places that were previously not included in the realm of work. He reports on people checking voice-mail at a bus-stop, or while in a public bathroom, ski slope or cinema foyer. He states that the invasion of these previously work free spaces and times is possible only because of mobile devices.

Conversely to the benefits discussed above another group of researchers have come out with the negative aspects of ICT. Many scholars suggest that today’s communication and information-rich environment can lead to overload (Edmunds & Morris, 2000). Manny Avramidis, senior vice-president of global human resources at American Management Association has noticed that “people are increasingly worried that technology is creeping into their personal space” (Silva, C. 2006). McMahan (1993) explored the impact of information technology on jobs in a laboratory setting. His study examined how the presence or absence of information technology and high or low discretion impacted the motivational dimension of the task. He found that using information technology negatively impacted the motivational nature of the job.

Because of the use of ICT devices workers are quickly approaching the point of perpetual contact, where they can be reached at any time in any place (Cascio and Shurygailo, 2003). How does this state of being always on impact communication and relationships with work? In her book, Baron (2008) discusses the costs and benefits of being always on. Agre (2001) details some of the challenges of the “always on world,” which include interruptions, divided attention, addiction, and boundary management. Furthermore, new stressors such as computer breakdowns, computer slowdowns and electronic performance monitoring, have developed as a result of increased human interaction with computers (Smith et al., 1999).

1.3.3 Impact of ICT on Occupational Outcome

The adoption of Information Communication Technology and its far-reaching effects on the outcome of workers have attracted considerable interest. The majority of earlier literature centers around the effects of information communication devices on
productivity. Many such studies have found a positive relationship between productivity and the use of ICTs (Greenan and Mairesse, 2000). In addition to productivity it has been argued that advances in automation and IT will result in increased product quality (London & Bassman, 1989). Empirical evidence on the positive association between wages and the use of ICTs is also abundant (Autor, Latz and Kruger, 1998). While supporting the finding that there is a positive linkage between wages and the use of computers and other advanced technologies, work by others like Dinardo and Pischke (1997) have argued that workers who use computers earn more than other employees not because of their computing skills per se, but rather because they are endowed with more other unobservable or unmeasurable skills.

Researchers have also suggested that work extending technologies (ICT devices) have the potential to increase autonomy, flexibility, control, and convenience (Duxbury et al., 1992). Duxbury and coauthors (2001) found that 70 percent of the workers in their study reported that using work extending technologies had increased their workloads and stress levels, but 65 percent reported found that it made their jobs more interesting. Baron (2005) says that Mobile tools led to greater collaboration and increased productivity. He says that the key benefits include improved responsiveness, real-time information, faster decision-making, and more flexibility in work schedules. Rubery and Grimshaw (2001) relates ICT devices with quality of job which is Sub-divide into three main dimensions which are employment relations and protection, time and work autonomy and skills and careers.

Specific ICT devices have been found to offer the users several other job related benefit. Middleton (2007) found that Blackberries served to reinforce systems of organizational control over employees. Katz & Aakhus (2002, p.8) state that BlackBerry can be a useful instrument for managing practical affairs. Moreover research related to instant messaging (IM) which is a feature of information technology
by Nardi, Whittaker and Bradner (2000) found that IM allowed individuals to complete
tasks more quickly, since others were likely to respond quickly to instant messages.

In 2004, the Economist Intelligence Unit researched mobile working practices
by conducting online surveys and qualitative interviews with over 1,500 executives
worldwide. More than three-quarters of participants claimed that mobile tools such as
e-mail, voice communications, text messaging, and Internet access were clearly
valuable and critical to their professional success. On the whole according to the
Mobile Life Report 2006, 61 per cent of employees who use a mobile device of some
sort say that their quality of life has improved as a result.

1.3.4 Impact of ICT on Financial Services

Even though literature on the impact of ICT on employees in specific like that
of financial service are sparse, and as most of them are knowledge workers relevant
literature related to the impact of ICT on knowledge workers are mentioned below.

Knowledge workers typically work in service or technological roles, spending
a significant part of their time communicating with peers and clients, producing and
reviewing documents, identifying information, locating expertise, and performing parts
of larger, collective tasks (Drucker, 1999). A lot of knowledge workers’ time cannot be
effectively used, unless they are equipped with the ICT resources that allow them to
access corporate systems and applications, and to communicate with peers and other
stakeholders while on the move. Hopes have thus been raised anew by the latest
developments in pervasive or ubiquitous (another term for always on) computing,
triggered by major advances in mobile and wireless communication technologies, such
as Third Generation (3G) mobile phones, wireless network infrastructures, and
wirelessly enabled portable computers and devices (Kleinrock 2001). Ubiquitous
computing technology has been suggested to provide more adequate support for the
working style of today’s ‘business nomads’ like knowledge workers with extensive
mobility requirements (Lytyinen & Yoo, 2002). Apart from the ubiquitous computing
Harold and Jeff (1995) contend that financial service providers should modify their traditional operating practices to remain viable in the 1990s and the decades that follow. They claim that the most significant shortcoming in the banking industry today is a widespread failure on the part of senior management in banks to grasp the importance of technology and incorporate it into their strategic plans accordingly.

Adetayo et al. (1999) and Boyett (1995) also maintain that in order to succeed or even to survive in this dynamic world, companies must take not only traditional actions such as lowering cost, but keep pace with ever changing capabilities of IT. Further Laudon & Laudon (1991) who contend that managers cannot ignore Information System because they play a critical role in contemporary organisation. Woherem (2000) claimed that only banks that overhaul the whole of their payment and delivery systems and apply ICT to their operations are likely to survive and prosper in the new millennium. He advices banks to re-examine their service and delivery systems in order to properly position them within the framework of the dictates of the dynamism of information and communication technology.

1.3.5 ICT Adaptability

When people do not know how to use technology they experience some kind of fear or resistance to use new technology. Such a fear can play an adverse role in a person’s adoption or rejection of a particular innovation, or can cause anxiety or apprehension, which as Goldsborough (2003) states many people struggle with technology, avoid learning how to use it, or fail to take full advantage of it. Some other past research on experience and anxiety are done by Sharit and coauthors (1998). When factors of anxiety and attitude are combined, the concept of technophobia begins to emerge (Brosnan, 1998, p. 10). A number of communication scholars discuss this concept the resistance to new technology which is known as “technophobia” or the “fear of technology” (Morreale et al., 2001; Scull, 1999) .Studies has shown a rise in technophobia as a result of societal industrialization. In 2003, Korukunda and Finn
found that technophobia has been “an enduring problem in industrial economies over the last 20 years with some estimates putting the number of technophobes at close to one-third of the industrialized population of the world”.

Marquie, Thon, & Baracat (1994) have found differences between older and younger individuals. Findings included older individuals as having higher levels of discomfort, feelings of dehumanization, less control when using computers and lower efficacy. Due to these stereotypes, employers may inadvertently classify older workers as being less healthy, having decreased cognitive abilities, and not as interested or willing to learn new technology (Thimm et al., 1998)

Few other literatures say that some individuals are more comfortable with technology than others. Such individuals like using technology more than others. (Gant & Kiesler, 2001)

The extent to which a user will find a given IT system easy to use and useful to perform the job, however, is influenced by the systems’ design features (Davis 1993), although user training has been found equally important to obtaining the full benefits, particularly of modern and complex IT (Lucas & Spitler 1999)

**1.3.6 Workforce Mobility by Means of Communication Technology**

Dating back to the 1990’s, organizations like GE and CompuCom have successfully made their workforce mobile by providing key executives and sales force representatives with laptops and mobile phones (Pepe, 1999). Such mobility provided the workforce to take advantage of the idle time they had on travel and stay to finish their official tasks. Sarker and Wells (2003) referred to this as the communication/task characteristics of mobile devices. They further state that these characteristics allowed for mobile work practices to develop. Mobile devices were suitable and convenient for the workforce to access information especially when “seeking to fill a time slot that would otherwise be lost.” (2003.p.37)
Advances in information and computing technologies have made it possible for work to be done outside of traditional working hours and away from traditional work locations (Towers et al., 2006). Mamaghani and Farookh (2006) states that workers are no longer tied to their desk in order to stay in the information loop. They can take their office with them wherever they go. Cellular phones allow people to be reached almost anywhere. Blackberries and Ultra-mobile PCs permit to access e-mail and other data products at wide range of locations. A wide range of new technologies have given business access to faster communication, increased efficiencies, and the ability to work away from the office. Mobile technologies increase the number of possible locations where work can be done. And Brown (2002) observes that “cafés, bars, restaurants all become transformed into sites for work”.

IS researchers have begun to outline the “nomadic information environments” that knowledge workers with considerable mobility requirements will soon have at their disposal (Kleinrock, 2001). In the emerging world of 3G and WLAN proliferation, digitisation, miniaturisation, and service integration are expected to offer unprecedented possibilities for communicating, accessing, and sharing information and resources while on the move (Lyytinen & Yoo 2002)

The use of IT and workforce mobility finds its presence in various other literatures. Sawyer and co-authors (2003) mentions that the coupling of wireless connectivity via the Internet with an increasing sophistication of portable devices is addressing the requirements of mobile working styles, yet, at the same time, it is also changing the ways in which people communicate, collaborate, perform work, and access information. Venkatesh & Vitalari (1992) affirm that the portability of work, and of technologies, allows employees not only to carry out ‘supplemental work at home’ but also extends the potential workplace to anywhere within the reach of mobile technology. In the past decade, supplemental work at home has given way to
supplemental work anywhere. The practice of working anywhere mentioned in the literatures given above could be described as mobile work.

1.3.7 Workforce Mobility -Teleworking versus Telecommuting

There is not a definite line of demarcation between mobile work and teleworking and it is still more difficult to demarcate teleworking from telecommuting. A trial has been taken here to draw a line between these attributes availing the use of previous studies.

Teleworking – defined by Duxbury et al. (1992) as “a work arrangement in which organisational employees regularly work at home, or at a remote site, one or more complete workdays a week”. The definition of traditional telework does not capture the ‘take home’ work done during evenings, at weekends and during vacations by workers who spend a ‘normal’ working day in the office. This is supplemental work, and is defined as “job-related work (i.e., work tasks performed on behalf of the primary employer) by individuals employed full time outside, after normal work hours or on weekends” . Venkatesh and Vitalari (1992) called this type of work "Computer-aided supplemental work at home". ‘Telework’ is used to describe “remote work that involves the use of information and communication technologies (Sullivan, 2003, p. 159).

Illegems and Verbeke (2003) contend that there are five major variables within descriptions of telework, including: the amount and proportion of time spent off the employer’s premises; the location of the work; the contractual relationship with the employer; the nature of the technology used and nature of the relationship with the employer e.g. full-time, part-time.

‘Telecommuting’ refers to a specific arrangement to work at home, reducing or eliminating the need to travel to work. Kraut (1989) contents that these arrangements represent a substitution in the work environment, where employees give up some time in their offices and replace it with time spent working at home.
Duxbury et al. (1992) defines telecommuting as an arrangement in which an employee works from home most of the time and uses telecommunications and computers to work during normal business hours.

They further add that telecommuting typically involves an explicit understanding between the company and the employee regarding what work will be done. But many researchers consider the terms telework and telecommuting synonymously (Ellison, 1999). What is important in this context is that an explicit arrangement, voluntary or involuntary, is made between an employee and an employer that relocates some or all of his or her tasks to the home, from an office location (Fleetwood, 2007). These arrangements represent a substitution in the work environment, where employees give up some time in their offices and replace it with time spent working at home (Kraut, 1989).

But the mobile work behaviors described in this study are not generally part of a formal, intentional relocation of work from one environment to another. Employees are not giving up their office space; instead they are extending their work environments to include spaces beyond the office, which is an important distinction (Kossek, Lautsch, & Eaton, 2006).

1.3.8 Pains and Gains of Mobile Workforce

There are contradictory results on studies which examined the features of mobile workers. Hislop and Axtell (2007) argue that mobile telework is becoming “an increasingly important form of work” (p. 35). Mobile teleworkers move between home, office and “locations beyond home and office” (p. 46), which include client premises and places visited for business travel. Standley and Alan (2006) wrote, “91 percent organizations allow employees to work at home occasionally.” As telecommuting becomes more popular, employees have realized the benefits, including “productivity gains, reduced absenteeism, reduced employee turnover costs, reduced real estate costs and reduced relocation costs to name a few” (Mamaghani, 2006). For Employees,
“telecommuting can offer more flexibility and a relief from workplace policies such as dress code and formal office hours” (Sussan, 2006).

Allowing people to work at home which is a feature of teleworking, is one of the mechanisms which have been seen as providing flexibility (Daniels et al., 2001). Home spaces are being appropriated by work activities and objects used for work. This marks a further eroding of work/non-work boundaries, with “third spaces” between home and work also becoming legitimate places of work. The invasion of these previously work-free spaces was only possible because of technology which increases spatial mobility (Gant and Kiesler, 2002).

Successful telework that re-defines the spatial boundary of traditional organizations into a flexible structure was said to serve the knowledge society better (Konno, 1999). Its importance is further highlighted by the fact that knowledge-oriented jobs are increasingly performed in virtual settings (Ahn, Lee & Cho, 2005). Other alleged benefits include improved worker productivity, higher job satisfaction and worker retention, responsive customer support, reduced operational cost, and learning opportunities for new technologies (Martino, 1990).

As a positive note Srivastava (2004) puts it that the rise of mobile access provides people and organizations with a powerful tool to enhance and better the way people live and work. Aundhkar et al. (2000) studying teleworking in various sectors of India reported that employers felt that the main advantage of teleworking is the flexibility it allows and the greater ease of meeting deadlines. Production time has been cut down enormously. The main disadvantage was that employee interactions are minimal. In many sectors the superiors intervene in the process of work and provide suggestions, which is minimal if not impossible in this form of work. Ward and Shabha (2001) are amongst the minority, looking at questions of motivation, social interaction, isolation and loneliness amongst teleworkers.
1.3.9 Work-life Balance/Conflict

With the demise of ‘standard working hours’ and the rise of dual earner families, the difficulties of reconciling the time demands of paid work and family life has become a burning issue (Brannen, 2005). Reconciliation of work and family life has been attracting a growing research attention in the advanced industrial societies in recent years (Lewis and Cooper 2006; Crompton and Lyonette, 2006). But the description given above, of ‘family’ as being the core of life outside work is too narrow (Ransome, 2007). While focusing on family alone as the key component to life outside work excludes leisure and other non-family, non-work responsibilities such as contribution to local communities (Guest, 2002)

Despite the contradictory ideas on the non-work commitments a Good Work-life Balance is defined as a situation in which workers feel that they are capable of balancing their work and non-work commitments (Moore, 2007). According to Crooker, Smith, and Tabak (2002) “Work-life balance is the stability characterized by the balancing of an individual’s life complexity and dynamism with environmental and personal resources such as family, community, employer, profession, geography, information, economics, personality, or values.” Frame and Hartog (2003) state that WLB means the employee feels that he/she can freely use flexible working hours to balance his/her work and other commitments like, family, hobbies, art, travelling, studies etc., instead of only focusing on work

Some authors argue that the term ‘balance’ is outdated and a new approach should be used – work personal life integration (Rapoport et al., 2001). Various researchers have used a variety of phrases to describe the relationship of work and non-work activities. Valcour and Hunter (2005) use “work-life integration” to discuss the multiple demands of work and non-work domains. All these terms are uses in their appropriate context wherever needed in this study.
Conversely, Work-life conflict is a form of inter-role conflict whereby the role demands of one domain interfere with meeting the demands of a role in another domain (Greenhaus & Beutell, 1985). Work-life conflict occurs when the demands imposed by our many roles become incompatible with one another; participation in one role is made increasingly difficult by participation in another (Duxbury & Higgins, 2003). Senge (1990) specifically identified the tension within a family when individuals feel pressured to be successful at both work and home. Carlson et al. (2000) have distinguished between three forms of work-family conflict: time-based, strain-based and behavior-based and two directions: due to work interfering with family and due to family interfering with work.

Friedman and Greenhaus (2000) bring forth evidence to help us understand choices we make as employers and individuals regarding work and family. This study of more than 800 business professionals considered values, work, and family lives and found that “work and family, the dominant life roles for most employed women and men in contemporary society, can either help or hurt each other. Pillinger (2001) in his paper presented at the Industrial Law Society mentioned that in practice, work-life balance involves adjusting work patterns so that everyone, regardless of age, race or gender can find a rhythm that enables them more easily to combine work and their other responsibilities and aspirations.

Research by Parasuraman and Greenhaus (2002) documented that segments of the workforce may be subject to unique work/family pressures, yet often have few sources of support. The under-representation of these groups of individuals with potentially difficult types of work/family pressures represents a major gap in work/family research and employers’ understanding of their needs. Various factors have been found as influencing the patterns of and satisfaction with work-life balance at national, organisational and individual level (Crompton and Lyonette, 2006). Kropf (1997) stated a need for "research that focuses on identifying and evaluating successful
strategies" for work-family balance (p. 74). He further states that identifying these successful strategies is an important next step in the work and family literature.

1.3.10 Extent of Influence of ICT and Mobile Workforce on Work-life Balance

Information Communication Technology otherwise called as Work extending technologies are thought to help workers to achieve greater balance between work and non-work environments (Schlosser, 2002). But others suggest that this technology enabled extension of work is invasive and counterproductive (Hallowell, 2005; Jackson, 2007). A study of the Canadian office work force (Duxbury and Higgins, 2001) also indicated that employees have conflicting views about the impact technology has had on them; one group of employees (38% of the sample) said technology had made it easier for them to balance work and family, a similar sized group indicated that technology had, in fact, made balance more difficult.

On the positive side, Katz and Aakhus (2002, p. 7) suggest that mobile phones can “liberate individuals from the constraints of their settings”, which allows individuals to remain available no matter where they are. For example, if a father has to stay at home with a sick child, he can still be reached for important work matters. The mobile phones, laptops, and BlackBerry devices which are provided to staff make it simple to work anywhere at any time, thereby affecting the location of boundaries between two culturally different spheres (Tietze and Musson, 2002) or experiential categories (Nippert-Eng, 1996) – ‘home’ and ‘work’. Many authors including Taylor (2003) assume that the flexibility provided by the work extending devices, to work anywhere at any time, will give workers the opportunity to achieve a better work-life balance.

A number of participants in Nardi, Whittaker and Bradner’s (2000) study used Instant Messaging (which is a feature of ICT devices) regularly to stay in touch with family members throughout the work day. Golden and Geisler (2007) found four ways
individuals manage work-life boundaries with their PDAs viz. containing work, integrating the self, transitioning work and protecting the private.

On the negative side, Extending technologies can be used to bring work home, but can also be used to bring home to work, phenomena identified as spillover (Noelle, 2005). Research by Jarvenpaa and Lang (2005, p. 11) showed that from the individual user’s perspective, mobile technologies resulted in “less personal time” and “the inability to separate and keep distance from work”. This contributed to a collapse in the desirable boundaries between work and leisure.

Talking about blackberry users, a study on the impact of blackberry says that, although they physically present in the non-work domain, whenever engaged with their Blackberries, they are removing themselves from their present environment and focusing their attention elsewhere. Described by Gergen (2002) as ‘absent presence’ and by Fortunati (2002) as ‘present absence’ this behaviour taunts those around the user by providing the appearance of attention to, or participation in the non-work domain, while actually remaining grounded in the work domain.

Golden, Kirby and Jorgenson (2006) discuss some of the possible effects telework and ICT use may have on work-life boundaries, namely that boundaries become blurred. Katz & Aakhus (2002, p. 8) call this an “erosion of the public-private distinction”.

Another negative impact of ICT on users is the increased expectations with availability; individuals may also feel increased expectations with responsiveness. They may feel forced to respond immediately to calls or emails (Davis 2002).

Increasingly a work/life balance discourse is being put forward in relation to telework too (Baines, 2002; Demetriou, Geurts and Kompier, 2004). Baines and Gelder (2003) have also focused on the family issues when examining telework. Lewis, Gambles, & Rapoport (2007) puts it that as more people adopt extended work patterns, work is imposed on spaces and at times that were previously ‘work free,’ thus
increasing the potential for role conflict and they further state that conflict between work and non-work environments is not new.

On the whole it can be said that, Work extending technologies make the boundaries between work and home more permeable, overlapping these activities in space, time, and across psychological borders (Valcour & Hunter, 2005). It is not clear whether these impacts are more positive or negative. Very little empirical research has looked at the relationship between the use of work extending technologies and work-life balance (Chesley, Noelle 2005). DeBruin and Dupuis (2004) suggest that further research is needed to conceptualize the notion of work-life balance, and to see how different types of workers react to work extending technologies.

1.3.11 Organisation as a Catalyst for ICT Usage and Work Life Integration.

The concept of work-life balance is based on the notion that paid work and personal life should be seen less as competing priorities than as complementary elements of a full life. The way to achieve this is to adopt an approach that is “conceptualized as a two way process involving a consideration of the needs of employees as well as those of employers” (Lewis, 2000). In order to engage employers in this process it is important to demonstrate the benefits that can be derived from employment policies and practices that support work-life balance, and the scope that exists for mitigating their negative effects on the management of the business. The same thought is being reflected by Lewis and Cooper (2005) who state that work-life balance goes beyond the dichotomy between home and work life and underlines the role of organizations and supervisors in providing a family-friendly environment. Thomas and Ganster (1995) also support the view that supportive supervisors had direct positive effects on employee perceptions of control over both work and family.

The other major areas of family friendliness in the workplace involve a Work Culture that supports work-family balance (Bowen, 1998). Organizational culture has
been found to play a mediating role between policies and their use for achieving a desired work-life balance and satisfaction (Thompson *et al.*, 1999).

The influence on the take-up of telework also appears to be at the socio-cultural level, especially the impact of ‘supportive’ and ‘resistant’ organizations (Moon, 1998). This is consistent with Felstead *et al.* (2002) findings that the discretion to telework was mainly exercised by managers. Kodz, Harper and Dench (2002) identify organizational cultures that are incompatible for telework, and whose lack of flexibility is signified within the organization by unsupportive attitudes, behaviors of managers and colleagues, and a tendency for working long office hours.

Sornes and Stephens (2004, p.109) found that “subcultures will have their own norms with respect to ICTs”. Smaller groups within organizations, such as work teams and friendship groups, as well as the organization itself will play a role in an individual’s ICT use (Markus, 1994). Yates and Orlikowski (1992) suggest that organizational norms are important to ICT use. Stephens and Davis (2009) found that organizational norms influence individual ICT use, particularly when employees observe their coworkers using devices in particular ways, such as for multitasking during meetings. In addition, ICT usage norms are often influenced by supervisors and managers (Stevens, Williams, & Smith, 2000; Turner et al., 2006).

**1.3.12 Positive Outcome of Work-Life Integration**

Work-life Balance has important consequences for employee attitudes towards their organizations as well as for the lives of employees (Scholarios and Marks, 2004). The work-life boundary may be important in the management of the highly-skilled workers for instance technical professionals, whose commitment may be a challenge to the employer (Scandura and Lankau, 1997). Hall (1990) clearly links corporate success with employers demonstrably valuing their employees. This includes a re-frame from seeing family-responsive benefits as merely corporate welfare to being seen as a tool for competitive advantage (Gonyea & Googins, 1996). Good WLB is the need of the
current era as WLB looks into the employee attitude to work and life. Therefore the
determined organizations provide WLB opportunities to their employees to manage
work and life activities comfortably

There is extensive evidence in the literature demonstrating the benefits to
employers offering family-supportive policies: higher retention of employees, employees advancing in career within the same company; reduced turnover, reduced absenteeism, higher Morale and increased productivity, and reduction in training costs of newly hired employees (Deitch & Huffman, 2001; Friedman & Greenhaus, 2000). The above statement can be corroborated by the views expressed by various scholars. According to Osterman (1995) organizations introduce family friendly policies to respond to the practical problems associated with the recruitment and retention of the employees. He adds that healthy practices of work-life balance leads to downward trends in job dissatisfaction and turnover. Burke (2000) states that the opportunity to balance work and family life of employees lead to increased job satisfaction of the employees and helps in reducing the turnover rate. Work-life balance plays a positive role in minimizing the dissatisfaction among employees with respect to their jobs. Butt and Lance (2005) reveal that improving company’s employee work-life balance, leads not only to greater productivity but greater company loyalty and job satisfaction. Forsyth and Polzer-Debruyne (2007) found out that employees’ perception that their employers were supporting them in balancing work and life role increased job satisfaction and reduced work pressures. Research article by Thomas and Ganster (1995) mentions that work/family programs decrease family conflict, job dissatisfaction and stress-related problems. Employer strategies of ‘respect’, embodied for example in family-friendly policies, have already been shown to have positive outcomes for the job satisfaction of technical workers says Finegold et al. (2002). Scandura and Lankau, (1997) states that it shows a positive outcome as well as for organizational commitment, turnover and absenteeism
A major study funded by the Joseph Rowntree Foundation and carried out on a nation-wide level by researchers in Britain at the university of Cambridge (Dex and Smith, 2002) concluded that there are positive effects on employee commitment from having family-friendly policies, approximately nine out of every ten establishments with some experience of these policies found them cost effective and increase in performance was associated with having one or other family-friendly policy in the case of five out of six performance indicators.

Cowan and Hoffman (2007) explored employees’ definitions of flexibility in depth, finding that employees conceptualized balance in terms of flexibility in time and space. And Sullivan & Lewis (2001) argue that many organizations implement alternate work arrangements like telework and flex-time to give employees flexibility in where and when they work. In general, employees feel positively about organizations that encourage flexibility with these types of programs (Scholarios & Marks, 2004).

1.3.13 Consequences of Work-Life Conflict on Employees and Organization

Lack of Work Life Balance practices in organizations may be a reason for overwork and increased stress. This lacking may affect all occupations from blue collar workers to upper management (Eikhof et al., 2007). Netemeyer et al. (2004) identified that work-life imbalance and emotional exhaustion are the two critical variables that have adverse effects on job outcomes of front-line employees. Adams et al. (1996) expressed the same view saying that when work interferes with family life it reduces the satisfaction from job and from life as a whole.

Anderson, Coffey and Byerly (2002) in their research article titled “Formal Organizational Initiatives and Informal Work place Practices: Links to Work-family Conflict and Job related outcomes” have mentioned that work-life conflict goes both ways with dysfunctional outcomes. They further say that for both men and women, work-to-family conflict was found to be linked to job dissatisfaction, turnover intentions and stress, while family-to-work conflict resulted in stress and absenteeism.
Major, Klein and Ehrhart (2000) have mentioned in their article “Work Time, Work Interference with Family and Psychological Distress” that marital difficulties, the breaking off of a relationship and discipline troubles with children are examples of relationship problems that create stress for employees that aren’t left in the front door when they arrive at work. Quick, Henley and Quick (2004) in their article on work life balance entitled “The Balancing Act: At Work and at Home” have mentioned that stress can be due to spillover where a person is worrying about life issues while at work and worrying about work issues while at home and from feelings of guilt about the choices being made.

1.4 Research Gap

The review of literature relevant to the stated problem encompassed the role of ICT devices, their influence on the workers and organizations in general and on the financial services industries in specific. The previous studies have also covered the impact of specific ICT devices on the work-life integration of employees in detail with its causes and also consequences on the workers and ultimately the organization, but none pertaining to the general circumstances predominant in our locality.

Since the consequence of work-life integration is consistent on employees irrespective of the industries or the localities and as the reviews have elaborated it in detail the problem of determining the influence of work-life integration on the workers of the organization remain resolved. But relevant literatures have failed to address the issues viz. ‘Does the different type of communication devices have an invariable influence on the work-life integration of the users?’, ‘Does any of the personal and work characteristics of employees intrude on the ICT enabled work in the financial services industry? If yes, ‘What are they and to What extent?’, ‘Does the ICT enabled work influences the work-life integration of employees in the financial services industry? And finally, What eventually is the impact of ICT enabled work on the employees serving the financial services industry?’
This research work on the influence of ICT devices on the work-life integration of financial services industry workers is intended to disclose the answers to aforementioned questioned.

1.5 STATEMENT OF THE PROBLEM

Even though information and communication technology devices have become an integral tool for workers in all kinds of organizations including the financial services industry in India, its overall impact in influencing the integration between their work and family life is not absolutely examined so far. ICT devices are expected to improve the scope of work and family life integration of workers in organizations, and it is likely that they boost the productivity, enhance collaboration, and increases flexibility in organizations. However, ICT devices may possibly lead to higher expectations in availability and responsiveness. The question as to whether ICT devices improve the work-life balance of workers or make it harder for the employees, to manage the narrowing boundary between personal and work time inflicted, by being connected always to work needs to be answered yet. The adaptability of workers to advanced communication devices which otherwise may become counterproductive on the performance of workers is another subject of grave concern.

Consequently it becomes imperative to explore the extent to which Information and communication technologies support the nature of task undertaken by the employees of financial services industry and in addition to comprehend the relationship between communication devices and work-life integration.

1.6 OBJECTIVES OF THE STUDY

This research has taken into its fold the financial services industry and considers, as its foremost objective, the assessment of influences caused by information and communication technology on the work and personal life integration of employees who make use of information and communication technology devices at work.
The aforesaid objective to determine the impact of information and communication technology devices on work-life integration can only be ascertained through the accomplishment of the following allied objectives which constitute the key components of this broader research premise.

✓ To identify the major work-life integration attributes having an effect on the financial service industry workers as a consequence of their information and communication technology device usage.

✓ To determine the variations existing among the individual employees, task aspects and the organizational characteristics with respect to ICT usage and to further establish the strength of associations between aforementioned ICT relevant occupational characteristics and work-life integration attributes in the financial services industry.

✓ To investigate the probable variations in the work-life integration encountered by employees owing to the differences in their personal, industrial and environmental characteristics further supplemented or otherwise by the devices being used.

✓ To explore and to establish the role of ICT in the significant relationships evident among the personal, industrial and environmental characteristics of financial services industry workers, substantiated by ICT relevant work attributes, and their work-life integration.

1.7 THEORETICAL FRAMEWORK

The term variable in research is used as a synonym for construct or the property being studied and therefore dependent variable or criterion variable is one the property of which is expected to be affected by manipulation of an independent variable (Cooper&Schindler, 2006, p.40). In this inquiry on the influence of information and communication technology on work-life integration the ‘ICT resultant work-life integration’ is the alleged dependent variables. The predictor or the independent
variables are the factors which causes an influence on the dependent variable which in this research is alleged to be the application of information and communication technology devices.

Moderating variables are also independent variables that are believed to have a significant contributory or contingent effect on the IV-DV relationship. Since this study is done on the employees of financial services industry the personal characteristics of the employees, the industrial features and environmental factors which influences their work-life are taken as the moderating variables alleged to influence the relation between the use of ICT devices and work-life integration. The personal characteristics which are alleged to have influence on the work-life integration of the employees namely gender, age, marital status, employment status of spouses and the childcare responsibility have been considered for detailed analysis.

Since the institution where the worker is employed and the job responsibility of the workers are industry related features which are expected to cause influence on the family life of employees they are brought under the industrial features. The location of workplace is the environmental factor which is alleged to cause influence on both the work-life and family life of employees.

Another important factor that affects the work-life integration of employees is the amount of family or household responsibilities they hold, which has a confounding relationship on the hypothesized relationship between personal characteristics and work-life integration. Therefore it has been used as a control variable to help confirm the relationship between the pertinent major variables.

An intervening variable is a conceptual mechanism through which the independent and moderating variables might affect the dependent variable. Therefore the major ICT related variables through which the independent and moderating variables affect dependent variable were identified and mobilized as intervening variables in this study. The intervening variables designated as the ‘ICT relevant work
characteristics’ is a consolidation of the individual employee characteristics, task aspects, and the organizational characteristics which are alleged to have repercussions on the usage of ICT devices. Some of the characteristics related to ICT usage which differ from one employee to another are brought under the head ‘Individual Characteristics’. They include the influence of ICT usage on job performance, adaptability to technology, influence of ICT enabled off-site work on job performance, extent of ICT usage for personal purposes during working hours and finally family support for work extensions at home. The ‘Task Aspects’ are the characteristics which vary with the specific job responsibility or task and the most important among them are suitability of task for ICT enabled work and the quantity of off-site work done with ICT devices. ‘Organizational Characteristics’ include the policies, practices, and procedures which vary from one organization to another.

Based on the alleged relationship between the aforementioned variables a theoretical framework model for the study has been created and exhibited along with the statistical tools to be administered for analyzing the intrinsic relationship, which is displayed as chart 1.1 at the end of this chapter.

1.8 RESEARCH METHODOLOGY

The search for knowledge through objective and systematic method of finding solution to a problem is research (Kothari, 1990, p.2) and research methodology involves the various steps that are generally adopted by a researcher in studying the research problem along with the logic behind them (p.10).

1.8.1. Research Purpose

This study on the influence of information and communication technology on the work-life integration among the employees of financial services industry has the characteristics of a descriptive research but is more of a diagnostic study. Descriptive study is a fact-finding investigation with adequate interpretation and it has focus on particular aspects or dimensions of the problem studied (Krishmaswamy &
This study can be said to fall under the descriptive research as it focuses on the problems related to work-life integration of financial service industry employees due to the information and communication technology devices usage and this study is intended to give more information on this phenomena. Contrary to the descriptive study which is oriented only towards finding out what is occurring the diagnostic study is directed towards why it is occurring and what can be done about it and is directly concerned with cause and effect relationship. Furthermore a diagnostic study is more actively guided by hypothesis (Krishnaswamy & Ranganathan, 2005, p.38). This research on the ICT enabled work related issues of financial services industry workers intends to probe the effects caused by ICT devices on the work-life integration of employees concerned. And it is implemented by framing theory based on literatures relevant to the topic under study. Therefore it can very well be understood that the purpose of this research endeavor is diagnostic in nature.

Once the research problem for this study was formulated and the objectives were set a suitable research design appropriate for a diagnostic research was devised. As Kothari (1999) puts it, a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

1.8.2 Data Collection Design

The search for answers to research questions is called collection of data. The data serve as the bases or raw material for analysis. (Krishnaswami & Ranganatham, 2005, pp.163-164).

There are two alternative approaches used to collect the primary data –the communication approach and the observation approach. The researchers determine the appropriate data collection approach largely by identifying the types of information needed (Cooper and Schindler, 2006, p.244). As the information needed by this
research were more of the opinions and attitudes of the respondents the communication approach was used to collect the primary data.

Since the respondents for this study on the influence of ICT devices on work-life integration is spread over an extensive geographical area and taking into consideration the educational level of respondents the collection of relevant data were done through questionnaires. There were three ways by which the questionnaires were administered. Few questionnaires along with covering letter were directly mailed to the respondents. A major part of the questionnaires were delivered in person to the respondents, got it filled and sent it back to the researcher by the students and friends of the researcher who served as assistants in the survey. Another major part of the questionnaires were administered through Google Docs*. As the second and the third methods did not require the respondents to mail back the questionnaire the response rate was rather better than the first method.

Secondary sources of data were statistical statements, reports, journals, books, and unpublished sources like research reports of previous scholars. Websites of regulating authorities like the RBI, IRDA, and SEBI and some other government websites served as a rich source of secondary data.

1.8.3 Description of Tool Used for Data Collection

The tools of data collection translate the research objectives into specific questions/items. Information gathered through the tools is useful for measuring the various variables pertaining to the study. The variables and their interrelationships are analyzed for testing the hypothesis or for exploring the content areas set by the research objective (Krishnaswami&Ranganatham, 2005, pp.217-18). A questionnaire is the most widely used tool for data collection. Since the questionnaire was found suitable for determining the objectives of this research, as mentioned earlier a questionnaire with 4 optional and 20 obligatory questions were administered to the employees of financial

*https://docs.google.com
service employees to gather pertinent data from the respondents. The above questionnaire was finalized after pretesting it twice and making appropriate changes in order to improve the overall quality of the survey data.

1.8.4 Type of Questions

The first part of the questionnaire consisted of the optional questions and obligatory questions to assess the individual characteristics, family context and the workplace context of the respondents. Some of the questions in this section were open-ended questions with participants’ latitude restricted by space. Open-ended questions are unstructured ones, providing free scope to the respondents to reply with their own choice of words and ideas (Krishnaswami&Ranganatham, 2005, p.227). The rest of the questions in this section were either dichotomous or multiple-choice questions. A dichotomous question can be answered in any one of the given two responses and a multiple-choice question contains more than two alternatives.

A checklist was introduced to access the types of information and communication technology devices used by the respondents. The rest of the questionnaire designed to access the various factors related to ICT usage, off-site work and the work-life integration were of multiple-choice type.

1.8.5 Measurement Scale

Scaling refers to the procedure by which numbers or scores assigned to the various degrees of opinions, attitude and other concepts and measurement scales are devised for measuring variables in social science research (Krishnaswami&Ranganatham, 2005, p.237). Since this study on the influence of ICT devices on the work-life integration is based on the responses predisposed to the attitudes and opinions of the respondents the question of choosing the appropriate measurement scale occupied much importance in the early stages of research. Cooper and Schindler (2006, p.333) say that rating scale is used when participants score an object or indicant without making a direct comparison to another object or attitude.
Since this research required eliciting the opinion and attitude of participants’ towards the influence of ICT devices on work-life integration without comparing it with other factors responsible for the work-life integration the rating scale is predominantly used in this research.

Since the ultimate objective of this research is the establishment of favourable and unfavourable influence of ICT devices on personal, family and work life of respondents and ascertaining whether ICT devices have positive or negative influence over the work-life integration of the respondents Likert’s summated rating scale was used for this purpose. Cooper and Schindler (2006, p.339) state that “the summated rating scales consist of statements that express either a favourable or an unfavourable attitude towards the object of interest. The participant is asked to agree or disagree with each statement. Each response is given a numerical score to reflect its degree of attitudinal favourableness, and the score may be summed to measure the participant’s overall attitude”. And Likert’s scale is the most frequently used variation of the summated rating scale.

A number of statements expressing definite favourableness or unfavourableness to the point of view or the attitudes to be measured were evolved on the basis of previous studies and the judgment of researcher. Since the number of statements did not cross exceed 20 in any of the questions an item analysis was done away with. Some of the statements were expressed in the positive sense and the rest in the negative sense in order to reduce the halo effect. The respondents were asked to rate each statement in terms of 5 degrees of agreement. A score of 5 was assigned for the highest degree of agreement and 1 for the lowest degree of agreement in case of the positive statements and the scores were reversed in case of negatively expressed statements. The sum of scores of each set of statements elucidated the respondents’ attitude towards the subject in question.
1.8.6 Sampling Design

The process of drawing a sample from a larger population is known as sampling (Krishnaswami & Ranganatham, 2005, p.118). A sampling design is the definite plan for obtaining a sample from a given population (Kothari, 1990, p.68). The population is the total collection of elements about which the researcher wishes to make an inference and the population elements in this study on the impact of ICT on work-life integration is the employees working in the five major financial service firms – Banking, NBFC’s, Insurance, Mutual Funds and Stock Broking. Though the above mentioned population is finite the non availability of an appropriate sampling frame from which the samples could be drawn excluded the use of a probability sampling based on the concept of random selection.

Therefore quota sampling a type of purposive sampling was used in the selection of samples. A non probability sample that confirms to certain criteria is called purposive sampling. The benefit of quota sampling is that it improves the representativeness of the population (Cooper and Schindler, 2006, p.424) which is the most important characteristic of a good sample. The logic behind quota sampling as put forth by Cooper and Schindler (p.424) is that “certain relevant characteristics describe the dimensions of the population. If the sample has the same distribution on these characteristics, then it is likely to be representative of the population regarding other variables on which we have no control”.

In this study on the influence of ICT devices among human resources of the financial services industry three major control dimensions viz. the industry, job responsibility and the location of workplace were found to be most pertinent control dimensions which would not only improve the representativeness but the validity of the sample as well.
1.8.7 Detailed Description of Selection of Sample Units

The selection of three control dimensions made it possible to go for a precision control in the selection of sample units for this study. The initial categorization was based on the industries and the estimated size of the industry determined the total number of questionnaires distributed in each category. The activity or the job responsibility of the employees was found to be another major factor which determines the influence of ICT devices and was taken as the second control dimension. As the facilities and the quality of information and communication technology services received vary significantly between urban and rural localities it was perceived as another control dimension. Therefore the place of work was taken as another dimension classified as urban and rural. A matrix application of the aforementioned quota sampling resulted in formation of 40 cells. Proportionate number of sample units was selected in various categories based on the estimated population distribution.

Besides the structure framed by the control dimensions care was taken to choose the final sample units depending on the frequency control technique. With frequency control the overall percentage of those with each characteristic in the sample should match the percentage holding the same characteristic in the population (Cooper and Schindler, 2006, p.425). Frequency control at the stage of selecting the final sample units obligates the inclusion of proportionate number of samples belonging to various categories based on characteristics such as gender, marital status and age from the accessible sample subjects. Over and above all steps were taken to pick the sample units evenly from around the entire geographical spread of the study area-Tamilnadu.

‘Appendix A’ presents a well-structured display of number of questionnaires administered to the different categories of sample elements and the number of responses received in the corresponding categories. The summary of the total number of responses received is given in the last column under the head ‘Selection of Sample
Units’. All the figures displayed in the table represent the number of responses taken for further analysis after the process of editing.

**1.8.8 Data Processing**

Since the research problem concerned with the influence of ICT devices on the work-life integration and the accompanying research questions necessitated the use of quantitative facts for further analysis a quantitative approach had been used. Unlike the qualitative approach which uses a method of deep description of a fact or event using words the quantitative approach relies on numbers and statistical data that are presented and crunched into figures (Yin 1994). And therefore the further data processing of data in this research was done taking into consideration the necessity of data for further statistical analysis. Data processing also called as data preparation includes editing, coding and data entry and is the activity that ensures the accuracy of data and their conversion from raw form to reduced and classified forms that are more appropriate for analysis (Cooper & Schindler, 2006, P.440).

**Editing:** Editing is the process of examining the data collected through questionnaires to detect errors and omissions and to see if they are ready for tabulation (Vijayalakshmi & Sivapragasa, 2008, p.108). In the process of editing, so as to guarantee accuracy and completeness of the data collected, the responses were scrutinized and the questionnaires with incomplete, inaccurate and inconsistent responses were discarded without further processing.

**Coding:** Coding is the method used to convert the data gathered into symbols appropriate for analysis (p.109). Further coding facilitates in grouping the responses into a limited number of categories, which is necessary for efficient analysis (Cooper & Schindler, 2006, p.443). Since this research followed a quantitative approach and further processing had to be done using statistical software package numeric coding was done.

**Data Entry:** Data entry converts information gathered by secondary or primary methods to a medium for viewing and manipulation (Cooper & Schindler, 2006, p.455). The data
gathered after the process of editing was entered in a Excel spreadsheet using proper numerical codes. Excel allows organizing, tabulation and simple statistical applications of collected data and offers graphics and presentation capabilities. Further statistical analysis of the data was done using SPSS#

1.8.9 Framework of Statistical Analysis

The collected data after processing were put to test using statistical tools systematically on the basis of theoretical framework. The appropriate statistical tools used and the purpose for which they were administered is discussed below.

**Factor Analysis:** For the purpose of dimension reduction factor analysis was carried out on the dependent ICT consequent work-life integration variables and once again on the intervening organizational variables. Further to evaluate the construct validity of all the intervening variables factor analysis was administered.

**Cronbach’s Alpha:** This is a commonly used measure of the internal consistency or reliability and is used to test all the dependent and intervening variables. Theoretically this alpha value varies from zero to 1 and higher values of alpha are more desirable.

**Regression Analysis:** Regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. In this study simple linear regression was done to measure the association between the dependent variables and the intervening variables except the organizational policies, practices and procedures which were relate to the dependent variables using multiple regression technique.

**t-test:** This is a statistical hypothesis test which enables one to test the significance of difference between two sample means or significance of a single mean. The first procedure called the two-sample test was used to decide the significance of relationship between the personnel characteristics having two independent samples with the dependent variable.

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# Statistical Package for Social Studies, Version 20 by IBM
A one-sample t-test procedure tests whether the mean of a single variable differs from a specified constant and this was used to measure the work-life integration of the entire population of financial service industry workers.

**One-way ANOVA:** In its simplest form, analysis of variance simply called as ANOVA provides a statistical test of whether or not the means of several groups are all equal, and therefore generalizes t-test to more than two groups. For the multiple comparisons of personnel characteristics with the dependent variable other than those tested by t-test a one-way ANOVA was administered to determine the significance of relationship. One-way ANOVA tests the null hypothesis that samples in two or more groups are drawn from the same population.

But the rejection of null hypothesis in ANOVA does not mean that all population means are different from one another. A Post hoc Multiple Comparison tackles this problem to understand in detail how many means are different from one another and where the differences are located among the given number of population means. Since the multiple comparisons had to deal with unequal sample size and the need for pair wise comparisons were felt, ‘Tukey-Kramer’ test was made use of.

**Chi-Square test:** One of the applications of this non-parametric test is to find the association between attributes or independence of attributes. In this research a chi-square test was used as a measure of association between the relevant personal characteristics of the respondents and the control variable family responsibility to analyze whether the family responsibility has a role to play in the work-life integration of the particular type of respondents.

### 1.9 SCOPE OF THE STUDY

This study on the ICT devices among the financial service industry workers is an attempt to understand the influence of the mobile devices most commonly used by the present workforce – PDA/ Palmtop/Smartphone, Blackberry, Laptop, Personal
computer and Mobile phones on the work-life integration of workforce making use of such devices..

The above mentioned devices used exclusively by the individuals for communication and sharing of information have been taken into account for this study and the other innumerable applications of ICT applied in the general functioning of organizations such as networked branches, internet banking, ATM’s and the like are beyond the scope of this study.

This study has been carried out among the decision makers, service providers, informational processors, office knowledge workers and mobile workers of the financial services industry. The scope of this study is limited to commercial banks, NBFC’s, Insurance, Mutual Funds and Stock Broking firms.

Responses from employees of financial service organizations located at rural, urban and suburban region all over Tamil Nadu were included in the survey. The study was conducted over a period of three years but the survey was confined to a period of one year starting from December 2010 and went on till November 2011.

1.10 LIMITATIONS OF THE STUDY

Every research has its own share of limitations and tribulations. Given below are some of the major restrictions faced while conducting this research on the influence of ICT on work-life integration of employees in the financial services industry:-

✓ The wider coverage area and the need for a better representative distribution of samples limited the tools for primary data collection to questionnaires alone – both soft and hard copy. The use of schedules with enumerators would have achieved a more precise response.

✓ The lengthy nature of questionnaire made the respondents lethargic which in turn made the process of getting the responses filled a laborious task. The reason for the poor turnover of respondents had been the same.
The long-drawn-out process of filling up the questionnaire was also responsible for impatience on the part of the respondents to read and comprehend the questions accurately, which is crucial for receiving appropriate answers for the questions raised in the schedule.

From the part of the respondents other common problems like reluctance to give information, false and irrelevant information had been encountered.

A very poor response especially procrastination from the part of the respondents limited the number of filled in schedules to 256 which is a comparatively small proportion to the total population under study.

The outcome of this research is established on the basis of comparatively few variables generated from similar research works of the past and the judgment of researcher as against the numerous other variables too which are expected to have some bearing on its result.

Given the relative infancy of mobile and wireless ICT, it is not surprising that very little empirical research is currently available on their organisational use and impact. Most research to date has focused on the technical aspects of ICT.

Lack of Indian literature on technology related work-life integration was another major problem encountered in the study.

The constant and swift transformation in technology leading to innovations on a day to day basis results in shorter life span to ICT devices and therefore the results of this study may have short term implications.

### 1.11 SCHEME OF THE REPORT

This research report on the study of the influence of ICT devices on work-life integration of employees of financial service industries is organized in seven chapters.

The present chapter which is the first one gives an introduction to the study and presents the need for the study followed with the statement of problem based on the review of literature. This chapter has also contains the objectives of this research, the
theoretical framework and the scope and limitations of the study. A descriptive detail of the methodology followed in this research is also presented in this chapter.

The second chapter gives a detailed description of Information and communication technology devices. The third and fourth chapters give a detailed account of work-life integration and financial service industries respectively.

The fifth chapter concerned with extracting the principal components of the dependent variable – work life integration and goes on to measure the association between these factors and the ICT relevant work characteristics influencing the workers.

The sixth chapter analyses the significance of relationship among the general work characteristics of employees, ICT relevant work characteristic and the work-life integration factors to confirm the influence of ICT usage on the work-life integration of the workers in the financial services industry.

The final chapter sums up the key findings of the study with the aid of a structural equation model which is followed by suggestions to the industry based on the findings. The final chapter also suggests the topics which have scope for further research based on this research.