Introduction
CHAPTER-I
INTRODUCTION

Consumer confidence has been adversely affected as a result of the global economic slowdown and turbulence in the financial markets all across the world. In this current business scenario, the banking industry has become highly competitive. Information technology (IT) is extensively used in this competitive environment to deliver banking services to the consumers. In fact, rise of information technologies and the internet in particular, have changed the consumption process of retail banking as human-human interactions in service delivery is becoming increasingly redundant (Bitner et al., 2000). So traditional banking or branch banking is increasingly being replaced by the technology-based banking (e.g. usage of ATMs, internet and phone banking). Hence human-human interactions or face-to-face interactions between customers and bank employees are being replaced by interaction of customers with technology. In fact a large number of IT tools are utilized to increase the efficiency and effectiveness of service delivery (Marshall, 2006).

With the patterns of consumer behavior changing with the increasing use of technology in the delivery of banking services, there is a need to cultivate customers’ confidence in using the tech-based services. This is so because customers may not be ready to avail the tech-based service delivery and there is proof of growing customer frustration while interacting with the technology based service delivery interfaces (Parasuraman, 2000). Since the products offered to the customers of a bank are more or less standardized in nature, banks are feeling an increasing need to differentiate themselves from the competitors on other criteria that can influence customer loyalty. This is so because customer loyalty has been shown to be of utmost importance for
firm performance in the long run (Hallowell, 1996). In order to increase the customer confidence in the capabilities of a service provider customer loyalty are the key factors considered in the existing literature (Dick and Basu, 1994; Gerpott et al., 2001). In this context the importance of technology based service delivery is increasing. The developments in technology have provided the service companies with a weapon which helps them to design and deliver superior services to customers and thus in turn boost their confidence in the service provider (Surjadjaja et al., 2003). There are several other competitive advantages like entry barrier creation, productivity enhancement and revenue increase which are associated with technology adoption by service companies (Fitzsimmons and Fitzsimmons, 1997).

As a result the perception of customers regarding service quality of technology banking has gained importance because service quality has been shown to be a strong predictor of customer loyalty (Andreassen and Lindestad, 1998; Cronin and Taylor, 1992; Dabholkar et al., 2000; Dean, 2002; Zeithaml et al., 1996). The marketing literature is replete with models on the measurement of customer perceptions of service quality (Cronin and Taylor, 1992; Parasuraman et al., 1988; Parasuraman et al., 2005). Studies have also examined the relationship of customer loyalty with service quality (Andreassen and Lindestad, 1998; Cronin and Taylor, 1992; Dabholkar et al., 2000; Zeithaml et al., 1996). Even in the banking sector research has examined the impact of service quality on customer loyalty (Krepapa et al., 2003; Levesque and McDougall, 1996; McDougall and Levesque, 2000; Ndubisi and Wah, 2005). With the emergence of technology based banking, studies have also looked at the perceptions of customers regarding the service quality of technology banking (Al-Hawari et al., 2005; Curran and Meuter, 2005).
Since the deregulation of the financial services sector in India in the 90s, banking has seen a number of significant changes, including the restructuring and redesigning of the service delivery methods offered. In the early 1990s, the then Narasimha Rao government embarked on a policy of liberalization, licensing a small number of private banks. These came to be known as New Generation tech-savvy banks. This move, along with the rapid growth in the economy of India, revitalized the banking sector in India, which has seen rapid growth with strong contribution from all the three sectors of banks, namely, government banks, private banks and foreign banks.

The service sector is the lifeline for the social economic growth of India. It is today the largest and fastest growing sector in India as well as globally contributing more to the national and global output and employing more people than any other sector. The real reason for the growth of the service sector is due to the advances in technology and increase in Urbanization, Privatization and more demand for IT enabled intermediate and final consumer services. The next stage for the Indian banking has been set up with the proposed relaxation in the norms for Foreign Direct Investment, where all Foreign Investors in banks may be given voting rights which could exceed the present cap of 10%, at present it has gone up to 74% with some restrictions.

Availability of quality services is vital for the efficient performance of the economy. In advanced economies, the growth in the primary, secondary and tertiary sectors is directly dependent on the growth of services like banking, insurance, trade, commerce, etc. This growth rate of the service sector may strengthen economic activity supported by higher rates of savings and investment. The new policy shook the Banking sector in India completely. Bankers, till this time, were used to the 4-6-4
method (Borrow at 4%; Lend at 6%; Go home at 4) of functioning. The new wave ushered in a modern outlook and tech-savvy methods of working for traditional banks. All this led to the retail boom in India. People not just demanded more from their banks but also received more.

E-banking has enabled banks to overcome borders, adopt strategic outlook, and bring in new possibilities. According to Nitsure (2003), information communication technology has reduced the cost of processing and facilitating the transmission of information leading to drastic changes in the banking business. It is worth noting that e-banking has not been limited to advanced countries, but is found even in countries with underdeveloped e-banking systems, as a result of the many new business opportunities offered by e-banking.

Although no official definition of e-banking has been established, it generally implies a service that allows customers to use some form of computer to access account-specific information and possibly conduct transactions from a remote location like homes or workplace. Additionally, e-banking has obvious advantages to the customer in terms of convenience where customers conduct routine banking transactions from the comfort and security of any location from which they wish to transact (Liao & Wong, 2008).

Financial institutions and markets in India are moving towards world standards with increasingly sophisticated processes including risk management tools and extensive use of Information Technology (I.T). The Indian Banking system is not an exception to this it’s also changing rapidly. Currently, banking in India is generally fairly mature in terms of supply, product range and reach—even though reach in rural India still remains a challenge for the private sector and foreign banks. With the growth in the Indian economy expected to be strong for quite some time-
especially in its services sector—the demand for banking services, especially retail banking, mortgages and investment services are expected to be strong.

In an era of globalisation and consequent demolition of protectionist barriers, banks with the help of technology must adopt appropriate business and delivery models enabling acquisition of new customers and expansion into hitherto unchartered territory. Increasing competition and growing customer aspirations - Gunnar Myrdal’s "revolution of rising expectations” - has led to heightened awareness amongst banks of the potential and importance of banking technology. There should not be a disjuncture between information and technology; both together will enable banks to meet the expectations of demanding and tech-savvy customers. Gen-next customers, in an age of instant gratification, demand instant, anytime and anywhere banking facilities. The arrival of foreign and private banks with superior state-of-the-art technology based services created competition and pulled the Indian Banking Industry to rise to meet the challenge of adoption of new technology, new paradigms, and new ways of doing business and the banks have done it admirably. A combination of regulatory and market forces supported the implementation of technology and automation in the Indian Banking Industry. As a central bank in a developing country, the Reserve Bank of India (RBI) has adopted development of the banking and financial market as one of its prime objectives. "Institutional development" was the hallmark of this approach from 1950s to 1970s. In the 1980s, the Reserve Bank focused on "improvements in the productivity" of the banking sector. Being convinced that technology is the key for improving productivity and efficiency, the Reserve Bank took several initiatives to popularize usage of technology by banks in India.
Banks and financial institutions do recognise the potential of Information Technology as an enabler of sophisticated product development, better market infrastructure and implementation of reliable techniques for control of risks. With adaption to a continuous and rapid advance in technology, banking will experience transformational growth. Technology will further open up existing markets and create new markets, new products and services and efficient delivery channels for the banking industry. Information Technology will provide banking industry with the wherewithal to deal with the challenges of the new economy.

Information Technology (IT) is increasingly becoming an invaluable and powerful tool driving development, supporting growth, promoting innovation, and enhancing competitiveness. Emerging information technology offers opportunities for developing nations to leapfrog earlier stages of development. It is also important to note that with an increasingly global environment less limited by time or distance, nations around the world need to get connected and join the global networked community. Otherwise, they may fall further behind and the gap they have with the developed world could get wider. Additionally, there is growing evidence that information technology is becoming an increasingly powerful tool when used as part of an overall development strategy coupled with partnerships between governments, business, and civil society (World Bank, 2003).

The quest for efficiency amidst global competition has changed the entire platform of financial services and face to face financial services are fast declining, as more financial institutions open their doors to technological transformation aimed at implementing e-banking services. It is therefore of supreme importance for these institutions to identify factors that would influence customers’ perception and attitude towards e-banking adoption and usage (Fonchamanyo, 2013).
The technology has opened up new markets, new products, new services and efficient delivery channels for the banking industry. Information Technology has been the cornerstone of recent financial sector reforms aimed at increasing the speed and reliability of financial operations and of initiatives to strengthen the banking sector. The IT revolution has set the stage for unprecedented increase in financial activity across the globe. The progress of technology and the development of worldwide networks have significantly reduced the cost of global funds transfer. It is information technology which enables banks in meeting such high expectations of the customers who are more demanding and are also more techno-savvy compared to their counterparts of the yesteryears.

Banks offer many different channels to access their banking and other services:

(1). Net Banking
(2). Credit Card Online
(3). ATM
(4). One View
(5). InstaAlerts
(6). Mobile Banking
(7). NetSafe
(8). e-Monies Electronic Fund Transfer
(9). Online Payment of Excise & Service Tax
(10). Phone Banking
(11). Bill Payment
(12). Shopping
(13). Ticket Booking
(14). Railway Ticket Booking through SMS
Customer-centric growth is the key to combating competitive market forces and staying ahead of the curve. There is focus on growth in customer base through acquisition, as well as retaining existing customers and increasing their relationship value through an increased share of the wallet. While operational CRM would help banks streamline their delivery channels, CRM packed with the power of Business Intelligence would provide the banks with more actionable information for enhanced decision making. Banks need to leverage on IT to develop comprehensive Customer Relationship Management (CRM) techniques to increase the volume, quality and profitability of business.

An associated area which needs improvement is the integrity and reliability of the data; an effective MIS is the sine qua non of efficiency and informed decision making. A seamless data extraction process from the transaction server to the MIS server enabling generation of returns required internally within a bank and submission to external agency almost instantaneously is needed. With the high rate of technological obsolescence and for CRM to succeed, the need for proper IT governance, particularly in the case of banks, is gaining prominence. As in the case of corporate governance, IT governance is the responsibility of the board of directors and executive management. In fact, it could be said that in the banking sector, IT
governance is an important sub-set of overall corporate governance. Given the enormity of investment in IT infrastructure and the ever-increasing dependence on IT for operating and managing the day-to-day business activities, there are concerns among various stakeholders and the upsurge in the call for better IT governance has stemmed from this concern. IT governance in banks focuses on information technology systems, their performance and risk management. Adoption of IT governance in banks would result in effective control and deriving better value on the huge IT infrastructure created by banks. This would ultimately result in enabling better alignment between IT and business, create efficiencies, enhance conformity to internationally accepted best practices and improve overall IT performance of banks. So, an integrated IT and business plan and an IT and business strategy for doing business is needed.

It is not a revolution in technology, machinery, techniques, software, or speed. It is a revolution in CONCEPTS-internet, web etc. It is age of the ‘Prosumer’: producer and consumer of information. This Prosumer is you- a web user who creates and uses content and information on the web. So far, for 50 years, the information revolution has centered on data—their collection, storage, transmission, analysis, and presentation. It has centered on the "T" in IT.

And this is leading rapidly to redefining the tasks to be done with the help of information, and with it, to redefining the institutions that do these tasks. This holds good for banks also. My address today would be centered on the ways of bringing in the focus of banking to a new level which would be based on a ‘whole new customer service’ and the significance of a customer-centric strategy. We must understand here that customers want a great banking service, tailored to their needs and in a timeframe that works. I would also touch upon what are the technologies beyond core banking
and the business and technological requirements of Financial Inclusion. I would be briefly be touching upon the alignment between business and IT and concluding with the recent initiatives taken by the RBI in the area of technology.

All of us would agree that technology has no longer remained just a means for automating processes. It has revolutionized every industry in the world by rendering faster and cost effective delivery of products and services to customers, who in the normal course could not have afforded the same, and at the same time producers of goods and services would remain viable and profitable. Technology is the surest and most appropriate way of bringing inclusion in respect of any product and/or service. Banking services is no different. The major technological innovation in banking was the ATM over 25 years ago, and up until the early 1990s this was the only customer-facing technology that existed. Following this came the phone banking, IVR systems, advent of the internet, increasing complex database mining, and remote distribution channels. While banking and retail financial services are generally considered a traditional business area, the fact is that there have been more changes in this sphere in the last 10 to 15 years than in the preceding 100 years.

Technological advancement enables a broader and inclusive banking sector and in the process, is a key driver for the sustained and inclusive growth of the economy. Technology by itself is not a panacea. But technology has evolved to such an extent that it can hold the key to achieving your goals – if banks are willing to accept the changes that they will need to make to get there. Banks have implemented Core Banking Solutions (CBS) which marked a paradigm shift in more senses than one and branch customers are now bank customers as they can access their accounts from any branch for defined purposes. It was envisaged that the CBS would offer new opportunities for information management, better customer service and improved risk
management. However banks have not been able to reap the benefits of this technology in terms of reduction in costs of small value transactions, speed with which the transactions are done if both successful and unsuccessful transactions are considered, improved customer services and effective flow of information within the banks as also to the regulator. Banks have not gained in terms of efficiency partly because the much needed business process re-engineering was not done. Further, banks have deployed technology for transaction processing and the same has not been explored extensively for analytical processing like customer relationship management and decision making. Thus, there is a need to take care of what we could not achieve in the first round of technology implementation and think beyond CBS. Supported by the latest technology, banks would need to identify new business niches, to develop customized services, to implement innovative strategies and to capture new market opportunities. With further globalization, consolidation, deregulation and diversification of the financial industry, the banking sector is set to become even more complex. But successful banks make it simple and those who are able to achieve that will be more successful. It is here that the concepts of Next generation Banking is taking centre stage. There is a need to fast forward to Banking.

Indian banks have been on the forefront of back office technology adoption—successfully harnessing the power of information technology to gain operational and strategic advantage. This has been possible largely through the adoption and upgradation of technology in the back office operations. Computerisation of back office operations was envisaged to release manpower for various front office jobs to the satisfaction of the customer. Customers were to get better services at lower direct and indirect costs. But this has not happened the way it was planned. Banks are still involving a sizeable number of their back office staff in the preparation and
submission of various returns. There is an urgent need for building an MIS server to generate returns automatically. In this connection, I would like to inform you that the RBI has prepared an approach paper on automated data flow (a straight through process) of information from the core banking solution (CBS) or other IT systems of commercial banks to the Reserve Bank. The approach paper, *inter alia*, discusses the methodology to be adopted by banks to classify themselves into a cluster based on its technology and process dimensions. Accordingly, banks have been advised to conduct a self-assessment and furnish the estimated timelines for the project.

Early research examining the relationship between investment in IT and firm performance provided conflicting evidence regarding the claim that IT investments systematically add value to firms (Kauffman and Weill, 1989; Harris and Katz, 1991; Brynjolfsson, 1993). More recent research, has also found similar results. For example,

Pemberton and Robson (2000) examined the use of spreadsheets in businesses and concluded that although these tools can provide significant advantages, limited and inappropriate training is primarily responsible for businesses not capitalizing on the use of spreadsheets. A case study by Anandrajan et al. (1998) found that a retail company can cut its operating costs by utilizing the extranet and thus, improve firm performance. In another study, Ju et al. (2005) developed a strategic contingency model for technology alliance and found that firms with higher absorption orientation, higher risk reduction orientation, higher R&D scale economy orientation and higher top management team experiences tend to perform better in acquiring competitive advantages. On the other hand, Zhu et al. (2004) studied the banking and thrift industries to determine whether advanced computer operating systems such as wide and local area networks and the internet have an impact on firm performance. The
survey data they analyzed indicated that return on assets and network system variables are independent. Hence, they concluded that network systems do not impact the bottom line. Finally, Baccarini et al. (2004) examined the risks in IT projects and suggested that IT projects are renowned for their high failure rate and hence, risk management is essential for the successful completion of IT projects. After interviewing IT professionals from leading firms in Western Australia, they found that the top five risks were: personnel shortfalls; unreasonable project schedule and budget; unrealistic expectations; incomplete requirements; and diminished window of opportunity due to late delivery of software.

In recent times, Indian retail banking industry has swiftly introduced innovative banking technologies and electronic-banking services. Almost all banks have invested in expanding and improving the information technology systems and a number of new electronic-banking services have been developed. All major players in the Indian retail banking sector have declared electronic-business as one of the core strategies for the future developments. Moreover, electronic-banking acceptance depends possibly on quality of services offered, preferences and satisfaction of customers. The results of the study revealed that electronic-banking has increased the profitability of banks, enabled the banks to meet their costs and earn profits even in the short run. Customers’ illiteracy has not been found as a major hindrance in provision of their goods and services. The main motive of the banks to espouse electronic-banking is to increase their clientele and to retain them. The profitability of banks has improved in transformation from traditional way of banking to electronic-banking medium.
1.1 NEED FOR THE STUDY

This study is related to service quality of technology based service delivery of online (or internet based) service quality (Collier and Bienstock, 2006; Parasuraman et al., 2005; Santos, 2003; Van Riel et al., 2001; Wolfinbarger and Gilly, 2003). This study also examines the service quality related to the specific technologies like internet banking, ATM banking and phone banking. This study is needed to identify the service quality dimensions (as perceived by customers) in case of technology based banking irrespective of technology being used (i.e. in generic terms) and how these dimensions affect customer loyalty. Thus we incorporate a comprehensive list of measurement items (from the literature) related to technology-enabled services and use them to provide empirical evidence of the service quality dimensions in case of technology banking. This also considers customer service as a probable dimension of service quality in our study because in modern business scenario customer service is mostly delivered through technology-based channels like calls centers (Dean, 2004; Rafaeli et al., 2008). So, items measuring customer service have also been included in the study (Bittner, 1990; Burgers et al., 2000; Dean, 2004; Johnson and Sirikit, 2002; Rafaeli et al., 2008). Hence, this research provides a significant contribution to the banking services literature by identifying the service quality dimensions for technology banking (in generic terms – which makes it applicable for any type of technology) and observing their impact on customer loyalty. Our research findings can offer useful and practical guidelines to the managers of banking services as effective management of technology based service delivery in banking requires an in-depth understanding of customers’ mental representations of consumption experiences.
(Oliver, 1993), especially with consumer behavior patterns going through a change due to infusion of technology in service delivery.

Literature on service quality clearly highlights that a large body of research exist on the service quality dimensions of technology enabled services and also on technology based banking, as well as on the topic of impact of service quality on customer loyalty. However, not much attention is paid on identifying the service quality dimensions of technology banking in generic terms and studying the impact of those dimensions on customer loyalty. Hence, the objectives of this study are as follows:

1.2 OBJECTIVES

1. To identify the level of service quality of technology based banking and customer loyalty.

2. To examine the differences in the service quality dimensions and customer loyalty across differences banks.

3. To examine the effect of the service quality dimensions on customer loyalty.