



IMPACT OF MIS ON E-BANKING FOR CUSTOMER SATISFACTION

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ABSTRACT

Advent and adoption of internet by the industries has removed the constraint of time, distance and communication making globe truly a small village. Financial sector being no exception, numerous factors such as competitive cost, customer service, increase in education and income level of customers etc. influence banks to evaluate their technology and assess their electronic commerce and internet banking strategies. Prior to the advent of electronic banking, the manual system of banking data, recording and retrieval was in use. As the wind of change started blowing most banks if not all adopted the use of electronic banking (e-banking) for transaction just like any other part of the world, in India today, e-banking is fast becoming the rule rather than exception. A number of good reasons are adduced for this dynamic change in banking systems. One of these reasons is the inherent benefit of e-banking to save time and magnificent efficiency in the speed in the transaction of banking activities and consequently enhancing the performance of banks.

KEYWORDS: E-Banking, Customer Satisfaction, communication, internet, banking strategies, banking activities

INTRODUCTION

Growth of Electronic banking in a country depends on many factors, such as success of internet access, new online banking features, household growth of internet usage, legal and regulatory framework. E-banking offers speedier, quicker and dependable services to the customers through which they are more satisfied than that of manual system of banking. E-banking system not only generates viable return, but also ensures better dealings with customers. The rationale of this research is to recognize the impact of variables of e-banking on customer pleasure.

Banking sector is modernizing tremendously and expanding in different financial spheres. Simultaneously banking is becoming faster and easier. In order to survive in the global competitive era, commercial banks are seeking for better service opportunities to enhance

customers' satisfaction. Businesses seeking to improve profitability are thus advised to monitor and to upgrade their service quality on an ongoing basis (Gerrard and Cunningham, 2005).

Technology plays a vital role in improving the quality of services provided by the business units. One of the technologies which really brought information revolution in the society is internet technology and is rightly regarded as the third wave of revolution after agricultural and industrial revolution. Internet banking allows banking from anywhere, anytime and is used for transactions, payments etc. over the internet through a bank's website. In contrast to traditional banking, internet banking involves non-human interactions between customers and online bank information system. Customer satisfaction,



customer retention and new customer acquisition are the key factors in internet banking.

The Traditional Functions of Banking were limited to accept deposits and to give loans and advances. Today banking is known as Innovative Banking. Information technology has given rise to new innovations in the product designing and their delivery in the banking and finance industries, customer services and customer satisfaction are their prime work. Online banking has been around for quite a few years. In fact, it was introduced in the 1980s and has come a long way since then. The last decade has seen a profuse growth in internet banking transactions. Several pieces of legislation have also been introduced in this area. Though it began in the 1980s, it was only in the mid-nineties that e-banking really caught on. What attracts customers to e-banking is the round the clock availability and ease of transactions.

Tremendous progress in the field of information technology has reduced the World to a global village and it has caused unprecedented change in the banking industry. Huge developments in the technology of tele-Communications and electronic data processing have further stimulated these changes. Automation has revolutionized financial and banking sectors globally. Apart from branch banking in the brick and mortar mode, click and order channels like internet banking, ATMs, tele-banking and mobile banking are now in vogue. Initially, the Indian banking system was domestically oriented at the time of nationalization in 1969. National policy objectives where the guiding force and banks were primarily involved in mobilizing domestic savings, lending funds to specific sectors of the economy and raising resources for financing public deficits. Technology in Indian banking has evolved substantially from

the days of back office automation to today's online, centralized and integrated solutions. One cannot think of ATM, Internet, mobile and phone banking or call centre services without the help of technology. However, the irony is that most of those products have more of technology and less of banking. The rigorous use of IT in the banking sector started immediately after the recommendations of the Committee on Financial System (Narasimha Committee, 1991) were implemented in 1991. The recommendations of the committee include, among others, free entry of private sector/ foreign banks. The private and foreign banks brought new technologies and rendered technology based world class quality services to customers through ATMs, credit cards and internet banking, which PSU banks, hitherto, were not even dreamed about. The trend towards electronic delivery of banking products and services is occurring partly as a result of consumer demand and partly because of the increasing competitive environment in the global banking industry. The Internet has changed the customers' behaviors who are demanding more customized products/services at a lower price. Moreover, new competition from pure online banks has put the profitability of even established brick and mortar banks under pressure. However, very few banks have been successful in developing effective strategies for fully exploiting the opportunities offered by the Internet. For traditional banks to define what niche markets to serve and decide what products/services to offer there is a need for a clear and concise Internet commerce strategy.

CONCEPTS OF E-BANKING:

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Banking sector is modernizing tremendously and expanding in different financial spheres. Simultaneously banking is becoming faster and easier. In order to survive in the global competitive era, commercial banks are seeking for better service opportunities to enhance customers' satisfaction. Businesses seeking to improve profitability are thus advised to monitor and to upgrade their service quality on an ongoing basis (Gerrard and Cunningham, 2005). Technology plays a vital role in improving the quality of services provided by the business units.

One of the technologies which really brought information revolution in the society is internet technology and is rightly regarded as the third wave of revolution after agricultural and industrial revolution. Internet banking allows banking from anywhere, anytime and is used for transactions, payments etc. over the internet through a bank's website. In contrast to traditional banking, internet banking involves non-human interactions between customers and online bank information system. Customer satisfaction, customer retention and new customer acquisition are the key factors in internet banking. Internet banking is a new delivery channel for banks in India. The internet banking is both an informative and a transactional medium. However, internet banking has not been popularly adopted in India as expected (Ravi, 2007).

CUSTOMERS' SATISFACTION IN THE BANKING INDUSTRY

Banking operations are becoming increasingly customer dictated. The demand for 'banking super malls' offering one-stop integrated financial services is well on the rise. The ability of banks to offer clients access to several markets for different classes of financial instruments has become a valuable competitive edge. With the explosion of the country's population and the increased demand for banking services – speed and quality of service are the key differentiators for bank's future success. Thus it is imperative for banks to get feedback regarding quality aspects of retail banking, which in turn will help them to take remedial measures to maintain a competitive edge. Customer's mind is a mystery which is difficult to predict and understand the perception to attain satisfaction is a challenging task. This exercise in the context of the banking industry will give us an insight into the parameters of customers' satisfaction and their measurement. The customers' requirements must be translated and quantified into measurable targets. This provides an easy way to monitor improvements, and to decide the attributes that need to be concentrated in order to improve customers' satisfaction.

NEED TO MEASURE CUSTOMERS' SATISFACTION

Satisfied customers are central to optimal performance and financial returns. Customers are viewed as a group whose satisfaction with the enterprise must be incorporated in strategic planning efforts. With better understanding of customers' perceptions, companies can determine the actions required to meet the customers' needs. They can identify their own strengths and weaknesses, where they stand in comparison to their competitors, chart out path



for future progress and improvement. As buyers become empowered, sellers have no choice but to adapt. The service industries are mostly customer driven and their survival in competitive environment largely depends on quality of the service provided by them. No other medium other than the Internet – the fastest growing form of communication media in history (Berners –Lee, T. and Fischetti, M.1999) – has ever confronted its (new) users with such a vast and diverse difficulties of use. Users – especially beginners – can fail at several hurdles like issues related to technical infrastructure and the appropriate use of a computer. Not only users but also organizations are affected adversely due to these difficulties. Sales and saving potential is endangered when users are not able to easily and quickly complete the essential search and order processes. Deficient usability exposes successful online business transactions at risk. Customers' satisfaction is quite a complex issue and there is a lot of debate and confusion about what exactly is required and how to go about it. This article is an attempt to review the necessary requirements, and discuss the steps to be taken to measure and track customers' satisfaction.

DEVELOPMENT OF INTERNET BANKING IN INDIA

The financial reforms that were initiated in the early 1990s and the globalization and liberalization measures brought in a completely new operating environment to the banks. The bankers are now offering innovative and attractive technology – based services and products such as “Anywhere Anytime Banking”, “Tele Banking”, “Internet Banking” etc. to their customers to cope with the competition. The process started in the early 1980s when Reserve Bank of India (RBI) set up two committees in quick succession to accelerate the pace of automation of

operations in the banking sector. A high – level committee was formed under the chairmanship of Dr. C. Rangarajan, then Governor of RBI, to draw up a phased plan for computerization and mechanization in the banking industry over a five – year time frame of 1985-1989. The focus by that time was on customer service and two models of branch automation were developed and implemented. Having gained experience in the earlier mode of computerization, the second Rangarajan committee constituted in 1988 drew up a detailed perspective plan for computerization of banks for extension of automation to other areas such as funds transfer, e-mail, ATMs, internet banking etc. The Government of India enacted the Information Technology Act, 2000, with effect from 17 October 2000 to provide legal recognition to electronic transactions and other means of electronic commerce. Internet banking in India is currently at a nascent stage. ICICI bank is the pioneer to have introduced internet banking for a limited range of services such as access to account information, correspondence and funds transfer among its branches.

Various developments have taken place in Indian Banking. Among the various developments, technology has influenced the way customer interacts with banks. Electronic channels and products such as ATMs, cards, internet banking and mobile banking are offered along with traditional branch channel. Differences in the usage of channels exist between developed countries and developing countries. Evidence suggests that there is a shift from traditional channel to electronic channels. For example, usage of digital banking in developed countries is more than 90 percent and diffusion of digital channels in developing countries range from 11 percent to 25 percent. The study by Capgemini [1] in his report “World Payments Report 2014” indicate that non-cash transactions have reached 334



billion transactions. There is greater propensity of customers to move towards digital channels. Banks which develop digital capabilities are going to benefit. Customers recognize greater convenience through digital channels. However, banks will need to cope up with issues of customer service and frauds which are associated with digital channels.

ELECTRONIC BANKING AND ITS EVOLUTION

Online banking was first started in 80's. The term online became famous in the late '80s. Online banking during the formative years included usage at terminal, keyboard and TV (or monitor) with an intention to approach the banking system using a phone line. Online services started in New York in 1981 when four of the city's major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotext system. Later on, the concept of videotext became popular in France. In UK, first home online banking services were set up by the Nottingham Building Society (NBS) in the year 1983. It was based on the UK's Prestel system and used a computer, such as the BBC Micro, or keyboard (Tandata) connected to the telephone system and television set. It provided customer an option to make bill payment for gas, electricity and telephone companies and accounts with other banks. It was Stanford Federal Credit Union which offered online internet banking services to all of its customers [2].

Internet banking refers to the use of Internet as a remote delivery channel for banking services such as opening a deposit account or transferring funds at different accounts etc. Further, it is a desirable opportunity for banks where the key to success is customer adoption [3]. There is evolution in development of internet banking. At the basic level, Internet

banking includes the setting up of a web page by a bank to give information about its product and services [4]. At an advance level, it involves provision of facilities such as accessing accounts, funds transfer, enabling integrated sales of additional process and access to other financial services such as investment and insurance [5]. There is advantage for customers as it provides opportunity to handle their banking transactions without visiting bank tellers [6]. The services through Internet banking are e-tax payment; access the account to check balance, online trading of shares, online remittance of money, electronic bill payment system, railway reservation, transfer of funds from one customer's account to other, application of loan, etc. Internet banking channel is convenient compared to bank branch system because stakeholders can access their account at any time [7]. Banks leveraged the advantage of the Internet by offering online services in recent years [8,9].

PROGRESS OF ELECTRONIC BANKING IN INDIA

In India, Reserve Bank of India outlined the mission to ensure that payment and settlement systems are safe, efficient, interoperable, authorized, accessible, inclusive and compliant with international standards. The Vision is to proactively encourage electronic payment system for ushering in a less cash society in India [29]. Regulation is keen to promote innovation and competition with an intention to help payment system achieve international standards. Various initiatives by Reserve Bank of India, in mid-eighties and early-nineties, resulted in offering technology based solutions. The need evolved to provide cost-effective alternative system.

Electronic Clearing Service (ECS) was launched in 1990s to cater to bulk and



repetitive payments. By September 2008, a new avatar in the form of National Electronic Clearing cell was launched to handle multiple credits to beneficiary accounts. National Electronic Clearing Service (NECS) rides on core banking solution of member banks. The retail funds transfer system was introduced in 1990s to allow electronic transfer of fund for people to people payment. In November 2005, a robust system was launched to allow one to one funds transfer requirement of individuals and corporates. Prepaid instruments allow transaction for goods and services against the value stored on payment instrument. It may be in the form of smart cards, magnetic stripe cards, internet wallets, mobile accounts, mobile wallets and study vouchers. Consequent to the guidelines in mobile banking, selected banks were permitted to offer the service after receipt of necessary permission from Reserve Bank of India. Indian Retail payments pose significant challenges and opportunities. Based on Payment system vision document released by Reserve Bank of India, the number of non-cash transactions, at 6 per person, is low in India. It is estimated that Government subsidies alone constitute more than Rs.2.93 trillion and electrification has a potential to translate 4.13 billion electronic transactions in a year. Based on the report of Internet and Mobile Association of India (IAMAI), internet commerce is expected to reach Rs.465 billion by the year 2012.

To facilitate electrification, Reserve Bank of India established the umbrella organization, National Payment Corporation of India [30]. Many researches in the past have laid importance on the significant developments that are taking place in the banking industry due to the surge in information technology. Sahai and Machiraju [31] discussed how new technologies addressed different requirements and how these technologies fit together to provide a ubiquitous e-market place and e-

service vision. While many new products are offered in the area of electronic payment products, banks need to track the usage of these products [32]. Concerns have been raised over the great 'digital divide' between the rich and the poor on the demand side and different operational environments in the private and public sector banks at the supply side. Dutta and Roy [33] studied internet growth from a developing country's perspective and developed a causal model using System Dynamics (SD) method that will help a developing country like India to identify the pattern of Internet diffusion as a result of various policy alternatives taken up to nurture internet diffusion in the country.

STATUS OF INTERNET BANKING IN INDIA

In Indian context, many publications throw light over the importance of internet banking and also its prospects for the Indian banking industry. Unnithan and Swatman (2001) studied the drivers for change in the evolution of the banking sector, and the move towards electronic banking by focusing on two economies, Australia and India. The study found that Australia is a country with internetready infrastructure as far as telecommunications; secure protocols, PC penetration and consumers' literacy are concerned. India, by comparison, is overwhelmed by weak infrastructure, low PC penetration, developing security protocols and consumer reluctance in rural sector. Although many major banks have started offering internet banking services, the slow pace will continue until the critical mass is achieved for PC, internet connections and telephones. Rao and Prathima (2003) provided a theoretical analysis of internet banking in India, and found that as compared to the banksabroad , Indian banks offering online services still have a long way to go. For online banking to reach



a critical mass, there has to be sufficient number of users and the sufficient infrastructure in place. However, it is still in its evolutionary stage. A survey carried by Malhotra and Singh shows that only 48 % of the commercial banks operating in India as on March – end 2005 offers internet banking. In India, comparatively less number of studies has been conducted on the current status of internet banking and customer satisfaction compared to other countries. Thus, there is a lot of scope for the research to present new ideas concerning internet banking in India which may be useful to the Indian banking industry. To succeed in today's electronic markets, a strategic and focused approach is required.

SERVICE QUALITY IN THE CONTEXT OF INTERNET BANKING

The definition of quality is contextual and is different from individual perspective. In general, the quality is basically classified into five categories, viz. transcendent, product led, process or supply led, customer led or value led. Basically service quality in internet banking can be viewed from two perspectives:

- Customers' perspective
- Providers' perspective

CUSTOMERS' PERSPECTIVE

From the perspective of the customers, the service quality differentiates sought quality and perceived quality. Sought quality is the level of quality, the customers explicitly or implicitly demand and expect from service providers. The sought quality (customer expectations) is created due to several factors-primarily, the expectations formed during a previous personal experience of a customer with a service and by the image of an organization. Perceived quality means the

overall impression a customer has and experiences about the level of quality after service realization. The potential difference between the sought quality and the perceived quality gives the service provider an opportunity to measure customers' satisfaction based on formulating the precise and actual criteria according to which the customers are assessing the services.

PROVIDERS' PERSPECTIVE

From the providers' perspective, there are target quality and delivered quality. The focus of process - or supply - led quality definition is rather internal than external, and it is defined as conformance to requirements. It lays emphasis on the importance of the management and the supply-side quality, and there is an important role of the process in determining the quality of outcome (Ghobadian, 1994). Achieving the quality of conformance between the planned (target) quality level and the real quality delivered to customers depends on the service quality management system in an organization.

E-SERVICE QUALITY DIMENSIONS IN INTERNET BANKING

A website plays a very significant and key role in Internet banking. Website should be able to convey all the information for both customers and potential new customers via the Internet (Jayawardhena & Foley, 2000). If the content of the site fails to pass sufficient information on account capabilities, then the site may not fulfill its objectives. A sense of loyalty that comes from an online company offering better service than its competitors is the determining factor in customer loyalty (Reichheld & Scheffer, 2000). Perhaps the most critical factor for any web site is accessibility. This refers to the ability for the customers to access the web site of a particular e-business



and navigate its site. Holt (2000) also stresses the importance of a fast downloading home page. Gann (2000) also emphasizes the fact that web sites must be accessible 24 hours a day, seven days a week and 365 days of the year. Reliability, accessibility, efficiency, user-friendliness and responsiveness are the key dimensions of E-service quality of internet banking.

Current research effort in the field of usability studies covers the work of e.g. (Pearson, and Pearson, A. 2008), which proved that ease of use and navigation are two critical components in determining website usability. Another example is the work of (Cappel, J. and Huang, Z. 2007), which showed that most of the improvement potentials of company websites' usability is related to link appearance, navigation and the inclusion of more positive features such as breadcrumb trails and search boxes to improve usability. (Tarafdar, M. And Zhang, J. 2007) identified usability as a significant predictor of reach, one of the two website performance indicators. In this study, (Liao, Z. and Cheung, M. 2008) define six service quality attributes and examine their effects on CSIBS (customer satisfaction in internet banking services). Regarding the derivation of these six attributes, they refer to the Technology Acceptance Model (Davis, F. 1989) and to the SERQUAL model (Parasuraman, A. Zeithaml, V. and Berry, L. 1988). Results show that each service quality attribute has a positive effect on CSIBS, but this impact has not yet been quantified. This study differs from (Liao, Z. and Cheung, M. 2008) in so far as they developed a model explaining the relationship between usability dimensions and success variables and consecutively validate it in the context of internet banking applications. Based on the literature review, certain fundamental research gaps have been identified like the methods for assessing usability of a system are much more

discussed than their content – the usability issues – themselves. Quality, effectiveness and efficiency of usability methods are being discussed based on the issues found while the nature of an issue and its importance are not being analyzed. There is no content framework that systemizes usability issues in order to make them comparable. There is a shortcoming concerning clearly defined usability standards (Sears, A. and Jacko, J. 2007, p. 1107). Contentual statements about usability of websites are usually subjective and are often based on either practical knowledge of experts or detailed formation guidelines (Burmester, M. and Machate, J. 2003). The latter have been developed in practice without systematic scientific verification. Also in many cases the cost – benefit relation of website usability is not clear, neither to companies nor within publications (Bias, R. and Mayhew, D. 1994, p. 16). This could be attributed to the fact that the term success or benefit of website usability is not differentiated and is only vaguely used. Sometimes these terms are even used in a contradictory way (Kuniavsky, M. 2003, p. 353). Success criteria are often composed of the constructs “perceived usefulness” and “perceived ease of use” (Ratner, J. 2003 p. 19), deriving from Davis “Technology Acceptance Model” (Davis, F. 1989, p. 320).

Delivery of banking services to customers at their office or home with the help of electronic technology is termed as e-banking. Daniel (1999) defines electronic banking as the delivery of bank's information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television. E-banking is a brew of services that embody Internet banking, Mobile banking, ATM, Fund Transfer System, Real Time Gross Settlement



(payment & allotment system), Credit/Debit/Smart/Kisan Cards, Cash government services, as well as Data warehousing, Operational interpretation for MIS as well as Customer Relationship Management. The popular services covered under E-banking include:-

Automated Teller Machines,

- ♣ Credit Cards,
- ♣ Debit Cards,
- ♣ Smart Cards,
- ♣ Electronic Funds Transfer (EFT) System,
- ♣ Mobile Banking

The main advantages of E-banking are:-

The operating cost per unit services is lower for the banks.

- ♣ It offers convenience to customers as they are not required to go to the bank's premises.

There is very low incidence of errors.

The customer can obtain funds at any time from ATM machines.

The credit cards and debit cards enable the Customers to obtain discounts from retail outlets. The customer can easily transfer the funds from one place to another place electronically.

Internet banking is a new delivery channel for banks in India. The internet banking is both an informative and a transactional medium. However, internet banking has not been popularly adopted in India as expected (Ravi, 2007). Malhotra and Singh (2007) carried out a study to find the internet banking adoption by banks in India. The study suggests that larger banks or banks with younger age,

private ownership and lower branch intensity possess high probability of adoption of this new technology. Banks with lower market share also perceive internet banking technology as a means to increase the market share by attracting more and more customers through this new delivery channel. However, the service quality in internet banking from customers needs thorough analysis to find out the determinants for success and growth of new delivery channel in India. To this end, this study aims at determining the service quality of banks operative in India with regards to internet banking and identifying the important parameters for service quality from customers' perspective. The purpose of this study is to explain the relationship between usability dimensions and success variables. The banking industry is chosen because of the fact that Internet banking applications are considered one of the most successful and most established internet applications ever (Pikkarainen, 2004, p. 224) and the fact that internet banking contains many interesting characteristics from the usability point of view (multi-stage processes, diverse and complex basis, independent transactions etc.).

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The IT revolution has set the stage for unprecedented increase in financial activities across the globe. The progress of technology and the development of worldwide networks have significantly reduced the cost of global funds transfer. Advancements in technology have also led to improvements in the ways in which banks process information. Technology has opened up new markets, new products, new services and efficient delivery channels for the banking industry. 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 yester years. Customers demand instant, anytime and anywhere banking facilities. Banks are increasingly interconnecting their computer systems not only across the branches in a city but also to other geographic locations with high-speed network infrastructure, and setting up local area and wide area networks and connecting them to the Internet. Technology has brought various products like net banking, credit card online, mobile banking, online payment of excise & service tax, phone banking, bill payment, shopping, ticket booking, railway ticket booking through SMS, smart money order, card to card funds transfer, funds transfer (e-cheques), anywhere banking, internet banking, mobile banking etc. Core Banking Solutions is new jargon frequently used in banking circles. The advancement in technology especially internet and information technology has led to new



ways of doing business in banking. These technologies have cut down the time and facilitate working simultaneously on different issues and increasing efficiency. It allows the user (customers) to operate accounts from any branch if it has installed core banking solutions. This new platform has changed the way of working in the banks.

CONCLUSION

The main findings of the chapter reveal that majority of the responding banks find their customers satisfied with internet banking services. They trust their banks for providing all the relevant information about all products and services online. The banks have adopted internet banking facilities a decade and few years back and ICICI Bank is the first bank to adopt internet banking in its operations. But now a day, almost all the banks have realised the need to maintain their customer's data base and their resources better in order to provide wide array of products and services to their customers. In general, there is a positive attitude of almost all the bank managers. Moreover, the overall mean values awarded by J&K Bank, SBI, PNB, ICICI Bank, HDFC Bank, UBI and Canara Bank reveal that in the case of public sector banks, SBI leads in terms of amount of profitability, customer satisfaction and commitment, as it is the largest and oldest bank in the country. Whereas PNB leads in terms of online effectiveness and has higher proportionate average increase in profits as compared to SBI. Similarly, in case of private sector bank, HDFC Bank, followed by ICICI Bank, has a better impact on customer satisfaction and business performance as reflected by more than above average mean scores obtained by various dimensions viz. Perceived Usefulness, Trust, Customer Satisfaction, Commitment, Service Quality and Perceived Ease of Use as

well as by percentage of growth in their profits.

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