STUDY ON PRE AND POST IMPACT OF E-BANKING ON BANKING OPERATION

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ABSTRACT
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. Another benefit is the accuracy and reliability of this information if accurate data are inputted.

This work is designed to find out the following things; the benefit and problems of electronic banking on banks. The method of data collection were secondary data which comprises of electronic banking guidelines, financial summary of the bank over the years, annual report of the bank, journals and magazines of e-banking, computer data base accessed through the internet. The application of e-banking has enhanced the profitability (operating profit, profit before tax and profit after tax) of banks..

KEY WORDS: Pre and post impact of e-banking, banking operation, electronic banking guidelines.

1. INTRODUCTION
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.

2. CONCEPTS OF E-BANKING:
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.

3. LITERATURE REVIEW RELATING TO E-BANKING

Various empirical and theoretical studies have been undertaken at the national and international level to analyze the impact of e-banking on banking sector customers, service quality and payment system. The studies mainly focus upon e-banking impact on productivity and profitability primarily due to core banking system, electronic fund transfer, real time gross settlement system and electronic clearing services. The review of following studies throws light upon different aspects of e-banking.

To know the impact of e-banking on various aspects, the research studies undertaken for the review have been classified into four categories, i.e., studies related to banks, studies related to customers, studies related to service quality and studies related to technology.

3.1 Studied Related to Banks:

Chand Suresh (1986) studies have been conducted in various aspects of transformation and its impact on banks performance in foreign countries but in Indian context the studies conclude that transformation is taking place and IT is playing vital role in bringing this transformation. Present study is devoted to how transformation is taking place in Indian banks, role of e-channels in banks’ efficiency and what the customers and banks employees observe about e-services of the banks. The study also analyses the service quality in partially and fully IT-oriented banks. On the basis of empirical analysis, study travels around the problems of banks in managing transformation through IT and suggests some possible measures to manage the problems in a better way. The study ends with the conclusion that e-banking is a challenging opportunity for the number of public and all the old private sector banks.

Mali A.K. (1995) investigates the impact of change by adopting computerization in the working of banking institution and the impact are related with the nature of technological change on organizational structure, work process, motivation and moral of users as well as their productivity. The study conducts through questionnaires and interview with simple statistical techniques such as mean and chi-square test. The study concludes that technological change has resulted in increased productivity of users and the change is being accepted by the users because of their personal enthusiasm rather than well-planned activity of the management.

Malhotra and Singh (1998) investigated to provide theoretical aspect of internet-banking and observe that internet-banking enables the banks to deliver services at a lower cost than any existing mode of delivery the surveyed conducted in US and convenient for customers. The study reports that internet is not 100% secure as it entails risk of operational security, privacy, reputation, legal etc. The study also analyzes the current state of internet-banking in India and concludes that only 33 banks, representing 37% of total Indian commercial banks are providing transactional banking services in one form or the other where the share of new
private sector banks is higher with all banks providing internet services and 4 banks are fully transactional where FBs represent only 15%.

Kamesam (2001) carried out research on “the impact of electronic banking on bank performance; a study of first bank of Nigeria. The application of e-banking has enhanced the profitability (operating profit, profit before tax and profit after tax) of banks. The study recommends that there is the need for banks to upgrade their information and communication technology infrastructural facilities, cost of installing a sound ICT should be minimized or regulated by the government.

Durkin and Howcroft (2003) evaluated that the banker-customer relationship was improved through mobile, phone and internet banking. The authors found that new technology has made the banks very competitive and profitable and internet has played a key role in it. Perception of bankers and customers regarding the use of internet was examined. They pointed out that as consumer usage of remote bank delivery channels increases, relationship management will become more important. Further, the combination of traditional and new delivery channels, if followed, can help to improve their productivity and profitability.

Kaleem A. and Ahmad S. (2008) investigated to collect bank employees perceptions of the potential benefits and risks associated with electronic banking in Pakistan. The study shows that public bank employees who have professional degrees consider „minimizing transaction costs” and „reduction in HR requirements” as the most and the least important benefits of electronic banking respectively. Private bank employees having masters or bachelor degrees, and less than 10 years” experience, perceive „time saving and minimizing inconvenience” as the major benefits of electronic banking. The empirical analysis suggests that bankers in Pakistan perceive electronic banking as tool for minimizing inconvenience, reducing transaction costs and saving time.

Janson N. (2009) analyzes the consequences of the major instability introduced by internet banking on the bank’s ability to manage a liquidity crisis in Northern Rock Bank. The study shows that inconsistency of the Bank of England policy lead to the initial bank run and that because it persists in that direction it further lead to the bank’s bankruptcy. The study concludes that despite the existence of lender of last resort and deposit insurance scheme, markets participants and individual depositors in particular do not like confusing messages during uncertain times.

Thulani D., Tofara C. and Langton R. (2009) explored the extent of adoption and usage of internet banking by commercial banks in Zimbabwe. The study concludes that while the majority of the banks in Zimbabwe have adopted internet banking, usage levels have remained relatively low, as not many customers are using this innovation in Zimbabwe. Compatibility with existing legacy systems, cost of implementation and security concerns are the challenges faced by banks in the adoption of IB.

3.2 Studied Related to Customers:
Taylor and Todd, (1975) carried out research on an understanding of how and why Individuals choose to adopt or to resist internet banking. This research stream has been studied through holistic and quantitative causal models and theories from adoption and diffusion literature which explain dependent variables of interest, that is, behavioral intention to use and use Behavioral intention is defined as —a person’s subjective probability that he will perform some behaviorally use is generally measured by the frequency, duration, and intensity of usage.
Erol and El-Bdouron (1989) carried out research on attitude of Jordanian people towards interest banking and at the end found that Ultimately they got that religion is not the main factor for the selection of financial institution, but in fact there are some other factors too which are influencing the decision criteria of the customers and in this regard the main factor is the level of profitability, that is, returns on their investment.

Ongkasuwan and Tantichattanong (1991) carried out research on “factors which affect customer’s ability to subscribe to the Internet-based banking services and found that internet banking helps banks in cost saving, increase customer base, enable mass customization for Business services, extend marketing and communication channel, search for new innovation services, and explore and development of non-core business. However, depend on several factors such as user friendly interface, level of Internet experience, types of services provided, (for example e-mail, file transfer, news, online financial services, shopping and multimedia services), attitude and perception, access and delivery.

Metawa and Almossawi (1998) carried out research on Bahrain customer's perception and satisfaction towards e-banking. They found that most of the Islamic bank customers are satisfied with Islamic banks' services. The factor with which the customers have shown dissatisfaction is the high cost of the services that has been charged by the Islamic banks. The religion was the most influential factor in the selection of Islamic banking system not the return on their investment. Most of the customers were aware from the e-banking services of Islamic banks but have no knowledge about the complex Islamic financial system.

Poon, W.C. (2005) examined the User’s adoption of e-banking services: the Malaysian perspective and impact of Internet banking on it monetary and credit policies As long as Internet is used only as a medium for delivery of banking services and facilitator of normal payment transactions, perhaps, it may not impact monetary policy. However, when it assumes a stage where private sector initiative produces electronic substitution of money like e-cheque, account based cards and digital coins, its likely impact on monetary system cannot be overlooked. Even countries where i-banking has been quite developed, its impact on monetary policy has not been significant. In India, such concern, for the present is not addressed as the Internet banking is still in its formative stage.

Ahuja G. and Singh (2006) carried out study on The perceptions of 160 customers of Indore in respect of credit cards especially their growth in India The study concludes that ICICI in India is the largest cards issuer with customer base of above 3 million. But only 14% of Indians are using these cards that too, are of 40-50 years of age. There are about 2/3 of males as compared to 1/3 females Overall, study concludes that banks should give equal attention to female customers also with special rebates and other benefits, secondly ensures their safety from malpractices involved in its usage.

Bank net India (2006) conducted “An online survey on 316 ATM users” survey is limited to India to get insight into users’ perceptions. It is concluded from the survey that the most use (56%) of ATM services is for bill payments and pre-paid mobile recharge where 64% respondents feel comfortable with depositing cash/cheque through ATM but they have to wait in long queues and find no money left in the machine

Sakkthivel A.M. (2006) Providing a specific focus to identify the impact of demographics in influencing Indian Internet users in consuming different services online. The survey is conducted of 570 internet users of Bangalore. The study reveals that age and occupation have significant impact on consuming different categories of services online. The study also shows the significance of demographics influence on online consumption of services in the growing
Indian market. There are enormous opportunities present for online marketers to tap the potential of rapidly increasingly online market space in India.

Poon, W.C.(2008) Providing a specific focus to User’s adoption of e-banking services: the Malaysian perspective The result of this study shows that perceived usefulness, perceived ease of use, consumer awareness and perceived risk are the important determinants of online banking adoption. Study concluded that usefulness, ease of use of the system awareness about online banking and risks related to it are the main perusing factors to accept online banking system.

Murali R., Richard S., Nafis A. and Mudiarasan K. (2008) “Evaluate consumer perceptions on quality of e-services and Internet banking adoption in Malaysia. The data is collected from 150 retail banking customers of the Klang Valley area. Results show that Internet banking users and non-users have different expectations towards e-service quality preferences. Not all of the dimensions are preferable by the respondents. The study also discusses implications and recommendations to improve Internet banking service quality in Malaysia.

Qureshi T.M., Zafar M.K. and Khan M.B. (2008) Evaluate the customer acceptance of online banking Study concludes that majority of customers are accepting online banking culture because of many favorable factors, usefulness, security and privacy are the main perusing factors to accept online banking system in Pakistan. The other factor is amount of information which is provided to the customers by different means like advertisement through print and electronic media about online banking is useful in customer acceptance of online banking in Pakistan. These factors have a strong and positive effect on customers to accept online banking system. Online banking system is getting appreciation in different parts of the country due to which almost 50% of the customers have shifted from traditional banking system to online banking System.

3.3 Studied Related to Service Quality:

Unninthan (2001) described “the impact of e-banking adaptation on Australian and Indian banking sectors with the help of qualitative and quantitative analysis the researcher found that Australia had a strong platform for e-banking growth with 37.7 percent of population willing to engage in e-banking mostly in urban areas due to literate young working population with discretionary income. However, India by comparison was played by weak infrastructure, low PC penetration and consumer reluctance in rural sector. However, in both the countries, e-banking was a successful strategic weapon for banks to remain profitable in a volatile and competitive market place.

Yakhlef (2001) evaluated the services provided through internet and website. The researcher explored the major services of Swedish banks provided via internet. The results of the study indicated that although internet banking provided more safe, convenient and efficient services to the customers, yet as far as personal contact and direct information was concerned, brick and mortar was more preferable than internet. Internet has reduced number of branches of banks, added value to the customers, attracted new customers and developed more customized services but at the same time it also requires huge investment, infrastructure and trained employees of bank.

Ramalingam P. (2008) studied the usage pattern of credit card holders of SBI, ICICI and ABN banks of Kanchipuram town in Tamil Nadu. The study concludes that higher income group and married persons utilizes the cards to the maximum mainly for impulse purchases due to convenience and Citibank cards are more popular because of dominance in advertising. The study also reveals that Master and Visa cards are the leading card brands in
India and suggests the banks to improve overall functioning to provide satisfied credit card services.

Uppal R.K. (2008) analyzed the quality of e-banking services in the changing environment. The sample size of bank customers is 25. The data is collected through pre-tested and well-structured questionnaire in Ludhiana; Punjab in May 2006. The study concludes that the customers of e-banks are satisfied with the different e-channels and their services in the spread of e-banking services.

Jham Vimi and Garg P. (2009) examined the factors which enhance satisfaction with e-banking services with the help of factor analysis. The study concludes that customers do not prefer to use internet for many transactions. Therefore least satisfied for foreign exchange requirements, credit card payments but privacy and trust play an important role in usage of internet but satisfaction is very low. Customers are highly satisfied with buying and selling of stocks and the internet is used maximum for applying loans and Indian customers” satisfaction depends on reliability, efficiency.

Khan, M. S. & Mahapatra, S.S. (2009) carried out research on Service quality evaluation in internet banking: an empirical study in India. The aims at evaluating the service quality of internet banking (e-banking) services in India from customer’s perspective. A structured questionnaire containing 44 quality items is administered to various target groups. Seven quality dimensions, viz. reliability, accessibility, user friendliness, privacy/security, efficiency, responsiveness and fulfillment, are identified based on principal component factor analysis. Demographic analysis of data reveals that gender is hardly a bias for use and evaluation of service quality of i-banking in most of the cases across various categories of customers.

3.4 Studied Related to Technology:
Benjamin et al. (1987) provide a general framework for assessing how technology is likely to affect market structures and corporate strategies. The authors first note that the flow of materials and services through the value-added chain can be done via markets or hierarchies. Markets coordinate the flow through the market mechanism (i.e. supply and demand forces): market forces determine the design, price, quantity and delivery schedules for a given good or service. In contrast, hierarchies coordinate the flow of goods and services through the value-added chain through the managerial hierarchy.

Sharma (1993) studies the need of computerization in Indian banking system. At the end, it concludes that computerization has accelerated the productivity and efficiency of banks. Even when there are some problems, we can convert the defects of such systems by expanding banking and computer education, and then modern 57 computerized banking can be introduced to bring better quality of life with minimum possible expenditure. Computerization has made the banking activities easy, saving time, cheap and convenient with use of credit cards and ATMs.

Agboola A. A. (2006) examines Electronic payment systems and tele-banking services in 36 banks of Nigeria. Data is collected through questionnaires from bank workers during 2005. Findings reveal that connectivity via use of Local Area Network (LAN) and wide area network has facilitated electronic transfer of funds. 35 banks have fully networked their system to ease communication of account information. The study concludes that tele-banking is capable of broadening the customer relationship, retain customer loyalty and enable banks to gain commanding height of market share if their attendant problems are taken care of.
Kasman and Kasman (2006) investigated the impact of technical change on the costs as well as environmental factors of banking firms operating in 11 Central European Countries by using Fourier-flexible cost function specification for the period 1995-2002. It is concluded that technical progress, on an average, reduced banks’ total cost in five countries that ranges between 0.48% and -0.25%. The decline in technical change during 2000-02, indicates that the introduction of new technology has been fully utilized starting from 2000. The study again concludes that larger banks are benefited significantly more from cost savings than smaller banks, suggests consolidation of smaller banks to get more benefits of cost reduction due to technical change.

Tiwari B. and Herstatt (2006) examined the installation of mobile banking and mobile financial services provided in Germany and other countries. Out of total 50 banks worldwide have been selected, half of them from Germany during May/June, 2005. From Indian banks, Bank of Punjab, HDFC, ICICI are dominating, providing mobile-financial services to their customers. The study concludes that mobile banking applications are gaining popularity amongst banks and suggests mobile banking to take the route of online banking.

Hua G. (2009) investigated the online banking acceptance in China by conducting an experiment to investigate how users’ perception about online banking. The 110 undergraduate students in Chinese University is involved in the investigation. The study finds that both perceived ease of use and privacy policy have a significant impact on user’s adoption of online banking. The study also investigates relative importance of perceived ease of use, privacy, and security. Perceived ease of use is of less importance than privacy and security. Security is the most important factor influencing user’s adoption.

Uppal R.K. (2010) studied the extent of mobile banking in Indian banking industry during 2000-2007. The study concludes that among all e-channels, ATM is the most effective while mobile banking does not hold a strong position in public and old private sector but in new private sector banks and foreign banks m-banking is good enough with nearly 50 pc average branches providing m-banking services. M-banking customers are also the highest in e-banks which have positive impact on net profits and business per employee of these banks. Among all, foreign banks are on the top position followed by new private sector banks in providing m-banking services and their efficiency is also much higher as compared to other groups.

Shu, W. and Stresemann, P. A. (2005) in article on “Does information technology provide banks with profit?,” he studied 12 banks operating in the US for the period of 1989-1997 and found that although IT has been one of the most marginal productive factors among all inputs, it cannot increase banks’ profits. On the other hand, there are some studies agreeing with the positive influence of IT spending to business value.

4. FINDING AND CONCLUSION

From the conducted literature review, it was found that To-day, we cannot think about the success of a banking system without information technology and communication. It has enlarged the role of banking sector in the economy. The financial transactions and payment can now be processed quickly and easily. The banks with the latest technology and techniques are more successful in the competitive financial market. They have been able to generate more and more business resulting in their greater profitability.
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