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Review Of E-Banking System And Exploring The Research Gap In Indian Banking Context

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Abstract:

With the rapid set of modernization in commercial products, financial institutions are also not left out from modernizing their business structure. Recent innovation in internet technology and client-side application has curved the path for a brand new method of accessing banking services by the consumer at the comfort of house. One such innovative product in banking is electronic banking (e-banking) that is the prime focus of this paper. The study shows that e-banking has multi-dimensional advantages to individual as well as corporate, however, it is not without certain challenges and issues for the security and interest of customers. Although there are various work done in the past for exploring the success of e-banking on various scale, it is strongly felt that very few studies were focused on Indian Banking Sector systematically and comprehensively. Therefore, the paper will highlight the various aspects of e-banking system from researcher's viewpoint and identify the research gap in Indian context.

Keywords: *e-banking, online banking, internet banking, banking sector of India, issues in internet banking.*

1.Introduction

Within the span of last two decades, functioning of banks has changed considerably. Operations of the banks have become much more high tech today. [1] Nowadays, the electronic technology is playing a major role for the world of business especially in banking activities. Electronic banking (e-banking) is the newest delivery channel for banking services. The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999). In fact, it has effectively "opened" twenty-four hours a day, seven days a week. Customers can do their daily banking activities without having to wait in line or wait on hold for telephone banking services. E-banking offers electronic services that allow consumers to check the balances in their accounts, transfer funds among accounts, pay bills electronically as well as apply for loans, download information about accounts into their own computers, trade stocks or mutual funds, look at images of their cheques and deposit slips (Turban et al., 2004). E-banking has become increasingly prevalent, employed by many financial institutions to reduce costs associated with having personnel serve customers physically, shorten processing periods, increase speed, improve the flexibility of business transactions and provide better service overall (Shih and Fang, 2004). Also, with the rapid progress of other types of electronic, largely Internet based services; there has been increased interest in e- banking services. With the rapid growth of Internet technology, online banking has played an important role in the e-payment area which provides an online transaction platform to support many e-commerce applications such as online shopping, online auction and Internet stock. Banks have been using the Internet as one of their distribution channels because Internet Banking services benefit both the banks and their customers (Karjaluoto, 2002). It has become the most profitable distribution channel of the banks because it can help banks to save costs. It is convenient for the customers to execute their bank transactions or contact their banks faster, anytime and anywhere. Many companies in the financial services sector have been quick to implement Internet capabilities, and electronic service is becoming a viable option for interaction between financial service providers and their customers (Rotchanakitumnuai, S and Speece, M 2004). Clearly, in order to grow consumer internet banking adoption, banks must make key improvements that address consumer concerns. Thus, it would

behoove financial institutions to gain an understanding of the key factors that influence consumer internet banking adoption.

2.Electronic Banking

Electronic banking is a high-order construct, which consists of several distribution channels. It should be noted that electronic banking is a bigger platform than just banking via the Internet. The term electronic banking can be described in many ways. In a very simple form, it can mean the provision of information or services by a bank to its customers, via a computer, television, telephone, or mobile phone (Daniel, 1999). Burr (1996), for example, describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions. Furthermore, electronic banking has three types of delivery channels: telephone, PC, and the Internet. Daniel (1999) introduces four different channels for electronic banking: PC banking, Internet banking, managed network, and TV-based banking. Moreover, PC Home Banking allows customers to do their banking services only on PC that have been installed the assigned software package. Telephone banking, TV-based banking, and managed network do not play such a big role in banking today (Karjaluoto, 2002). However, in the future the delivery platform is expected to shift from wired Internet connections to wireless mobile technologies. Electronic banking does not necessarily have to be on a computer screen. It can, for example, be on the tiny screen of a mobile phone or any other wireless device. With these wireless applications, customers can, for example, consult their bank account balances and transaction histories, view pie charts of their holdings in a portfolio, initiate payments or orders to buy and sell securities, and also send e-mail to their banks. Several benefits of strong electronic service have also been identified as including satisfied and retained customers, attraction of new customers, development of customer relationships, increased sales and market shares, enhanced corporate image, reduced costs and increased profit margins and business performance (Parasuraman et al., 2005; Bauer et al., 2005). These benefits may explain the observed increase in the level of technology adoption in the delivery of banking services (Kalakota and Whinston, 1997; Bauer et al., 2005).

3.Benefits Of E-Banking

An effective Virtual banking reduces operational costs and facilitates the information that affects efficiency and effectiveness of the transaction. It has many benefits like

accessibility, saving time, user friendly, anytime and anywhere banking facility, Secure, Convenience, useful, protect environment in comparison to Real Banking. The Concept of any time anywhere banking has thus been ushered in by Internet; the electronic bill payment service provided by banks overcomes the individual's onerous task of visiting several places to pay his service bill like telephone, water and electricity. Right from his desktop he can pay his regular monthly bills such as telephone, electricity, mobile phone, insurance etc. No more missed deadlines. No more loss of interest- he can schedule his bills advance and thus avoid missing the bills deadlines as well as earn extra interest on his money. The effectiveness of virtual banks allowed the customer to invest in shares mutual funds and other financial products.. Check book replenishment, Demand Draft/ Pay-order ,Fixed deposit account opening, opening of letter of credit, The same convenience while investing in mutual funds – hassle free and paperless investing is brought to the customer be virtual banking. With the advent of online transactions, speedy and secure settlements of payment has lead to the globalization of financial services, Better customer services provide using various IT aided developments such as introduction of ATM, Magnetic Ink Character Recognition (MICR) checks , digital signature, credit cards , debit cards , smart cards digital e-cash and electronics funds transfer , online E-ticket booking. These development have helped in reducing the time processing transaction and also the services are made available to customer at a convenient place, The day to day transactions in banks are insurance companies are automated which provide better. Services in processing transaction, throughout the world financial services providers are looking a new concept of "any time any where any how" banking.

3.Issues In E-Banking

By considering the findings of the research in other countries, the researchers found 5 kinds of risks: (1) Security, (2) financial, (3) social, (4) time and (5) performance risks in e-commerce area. Moreover, through the research carried out in Iran, 2 more kinds of risks were discovered which are: (6) legal and (7) hardware risks based on the fact that e-commerce is a kind of newly established business in Iran from the customers' point of view (Table 1). In the following lines, using the previous definitions for all kinds of risks, a brief introduction to each kind of risk will be given from the customers' viewpoint: (1) Performance risks: This risk is related to the potential or imposed damage, which is caused by technical deficiencies or improper functioning of e-banking systems.

(2) Social risk: The potential or imposed damage that cause the loss of social status of people because electronic banking services are used among other authority groups. (3) Time-loss risk: This risk refers to the potential or imposed damage caused by wasting time and it brings about problems because of the delay in leading ebanking operations and also spending time on learning how to use e-banking tools and devices. (4) Financial risk: This risk is known as the potential or imposed financial risk which is caused by errors in ebanking operations or misuse of bank account in ebanking systems. (5) Security risk: This is defined as a potential loss due to fraud or the hacker compromising the security of an online transaction or on-line user. (6) The legal risk: It refers to the potential or imposed damage which is the result of lack of any compiled law for electronic crime or lack of knowledge in this area. (7) Hardware risk: It refers to the potential or imposed risk which is caused because of the lack of new tools when compared to the number of the customers, inaccessibility of such tools (cell-phones or the internet) and the time consuming process of repairing and maintaining such tools.

Authors	**Financial Risk**	**Security Risk**	**Legal Risk**	**Social Risk**
Lim(2003)	■	■		■
Bauer (2002)		■		
Cunningham et al.(2005)	■			
Fiderman et al. (2003)	■			■
Sokolov (2007)	■	■	■	
Georgescu (2005)	■		■	
Lee (2009)	■	■		■
Kim et al. (2008)			■	

Table 1: The total findings of research on perceived risks in e-banking

4.Exploring Research Gap

A few empirical studies exist in the literature, which have examined the relative performance of banks offering Internet banking services. Table 2 summarizes the previous research done on the performance of Internet banks. The table also includes the studies which have examined the financial performance of Internet only banks that do

not operate any physical branches. The present study is an attempt to present the present status of Internet banking in India and its implications for Indian banking industry.

Author	Country	Period	Status
Furst et al. (2000a, 2000b, 2002a and 2002b)	U.S., 2,517 National Banks	1999	Internet banks outperformed non-Internet banks in terms of profitability. Offering Internet banking didn't have a statistically significant impact on profitability.
Egland et al. (1998)	U.S., 8983 banks	1998	No evidence of differences in the performance of the Internet and non-Internet banks
Carlson et al. (2001)	U.S., 2517 National Banks	1998 - 2000	Internet banking is not having an independent impact on bank profitability
Sullivan (2000)	10th Federal Reserve District, 1618 banks	2000	Measures of profitability for Internet banks are similar to those of the non-Internet banks.
DeYoung (2001a)	U.S., 10 Internet only and 569 benchmark banks	1997 2000	Poor financial performance but higher assets growth of pure-play Internet banks.
DeYoung (2001b)	U.S., 6 pure play Internet banks and 522 benchmark banks.	1997 2000	Poor financial performance of pure play Internet banks.
Hasan et al. (2002)	Italy, 105 banks	1993 2000	In respect of almost all performance variables, the Internet group outperformed the non-Internet group. Highly significant relationship between offering of Internet banking and bank profitability.

Author	Country	Period	Status
Hernando and Nieto (2005)	Spain, 72 commercial banks	1994 2002	Performance of Multichannel banks is better in terms of ROE, higher commission income and lower general expenses. The adoption of the Internet as a delivery channel has a positive impact on banks' profitability measured both in terms of ROA and ROE and no statistically significant impact on risk.
Delgado et al. (2004)	European Union, 13 Primarily Internet banks and 335 established traditional banks	1994 2004	Lower profitability of primarily-Internet banks as compared to newly chartered non-Internet banks. Evidence of technology based scale efficiencies to Internet banks but not of technology based learning effects.
Delgado et al. (2006)	15 E.U. Countries, 15 Primarily-Internet banks and 335 Traditional banks	1994 2002	Lower profitability of Primarily-Internet banks as compared to newly chartered non-Internet banks. The adoption of Internet banking affects profitability negatively
Sathye, M (2005)	Australia, 61 Credit Unions	1997 2001	Internet banking doesn't have a significant impact on performance and risk profile of banks
DeYoung et al. (2006)	U.S., 424 Internet banks and 5175 non-Internet banks	1999 2001	Click and mortar banks became more profitable (ROA and ROE) relative to their brick and mortar rivals between 1999 and 2001. Internet adoption improved bank profitability, particularly through increased revenues from deposit service charges

Table 2: Illustration of the prior Study conducted

In Indian context, many publications throw light over the importance of Internet banking and also its prospects for the Indian banking industry. However these studies don't depict any empirical relationship between banks' profitability and Internet banking.

The review of literature suggest that most of the studies have been done on issues related to Internet banking in countries like Australia (Sathye, 1999), Malaysia (Mukti, 2000; Chung and Paynter, 2002; Sohail and Shanmugham 2004), Singapore (Gerrard and Cunningham, 2003a, 2006b), Turkey vs. UK (Sayar and Wolfe, 2007) and Saudi Arabia (Sohail and Shaikh, 2007). Much work has not been done in India with regard to Internet banking issues. The present study intends to know the factors affecting the acceptance of adult customers and also indicates level of concern regarding security and privacy issues in Indian context.

5.Conclusion

The proposed paper presents a brief of e-banking, understanding its advantages and challenges along with identification of research gap in study on Indian banking sector. Last, but not the least, the paper also attempt to see if there is any association between adoption of Internet banking and the banks' performance and risk. The evidence reveals no significant association between adoption of Internet banking by banks and their performance. However, Internet banking has a positive or negative and significant impact on profitability of different types of bank (public, private, new generation, and foreign bank). The collections of prior research work evidently shows that all the major work is done in European countries and comparatively less quality focus in done on Indian Banking Sector.

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