

## E-BANKING TRENDS IN INDIA: EVOLUTION, CHALLENGES AND OPPORTUNITIES

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### Abstract

*The traditional mode of delivering products and services by banks to the consumers' is through a single distribution channel and that is physical bank branches. Financial services industry is developing due to the introduction of internet, rapid technological evolutions, deregulation, globalization as well as the impact of changing competitive and regulatory forces. In order to cope with the quick changes in the business scenario, banks started to rely on distribution channels as an alternative strategy for differentiation and gaining further competitive advantage. The abovementioned paved way for the development of the E-banking phenomena. The content provided in this chapter would be useful for existing and potential banks to better understand the Indian E-banking trends and thus aid in the effective formulation of channel management strategies and reap the benefits out of it.*

**Key words:** E- Banking, Banking, ATM.

### Introduction

The trend has been the creation of service delivery channels through which consumers can interact with the banks. Therefore modern banks provide their consumers with increased channel choice, reach out consumers through many routes. As such, ATMs, telephone, internet and wireless channels are now available to the consumers to perform their banking transactions in addition to the traditional branch banking. Banks cannot go back in the future by reducing the number of channels as consumers have become somewhat adapted to and indeed are utilizing a broad range of options (Durkin, 2004)

Therefore the present section attempts to address the objectives such as:

- To understand what E-banking is.
- To look at the evolution of E-banking as a phenomena.
- To analyze the existing E-banking trends in India.
- To identify the opportunities and challenges associated with E-banking.
- To suggest future research directions and recommendations.

### What is E-banking?

Often E-banking is defined as web based banking (Hertzum *et al.*, 2004). Deployment of retail or wholesale banking services over the internet is often referred as E-banking which involves individual and corporate clients, and includes bank transfers, payments and settlements, documentary collections and credits, corporate and household lending, card businesses and some others (UNCTAD, 2002). Other researchers related E-

banking to type of products and services through which bank customers request information and carryout most of their retail banking activities through computer, television or mobile phone (Mols, 1998; Sathye, 1999; Daniel, 1999). E-banking is described as an electronic connection between bank and customers in order to prepare, manage and control financial transactions (Burr, 1996). Since the careful analysis of the secondary data describes that internet banking globally shows a unique uptake.

E-banking means any user with a personal computer and a browser can get connected to his banks website to perform any of the virtual banking functions. In E-banking system the bank has a centralized database that is web-enabled. All the services that the bank has permitted on the internet are displayed in menu. Any service can be selected and further interaction is dictated by the nature of service. The traditional branch model of bank is now giving place to an alternative delivery channels with ATM network. Once the branch offices of bank are interconnected through terrestrial or satellite links, there would be no physical identity for any branch. It would a borderless entity permitting anytime, anywhere and anyhow banking. The network which connects the various locations and gives connectivity to the central office within the organization is called intranet. These networks are limited to organizations for which they are set up. SWIFT is a live example of intranet application.

### **E-banking Evolution**

Modern scenario projects that E-banking is shaping the financial services industry. Henceforth, it is imperative to understand comprehensively the evolution of E-banking. A brief history and trend analysis of the evolution of E-banking industry globally using document analysis reveals the major barriers, impediments and boosters for the rapid transition of the banking sector and uptake of E-banking. Document analysis is the systematic analysis of a particular topic, using documents such as newspapers, annual reports, employment records, published and unpublished articles, industry and consultancy reports, ongoing academic working papers, government white paper reports and white papers (Neuman, 1997). In a broader perspective, electronic banking is defined as the provision of banking services via means other than traditional physical branches (Liao *et al.*, 1999). Electronic banking offers its financial services to its prospective customers through various forms such as:

1. Automated Teller Machines (ATM)
2. Telephone Banking
3. Home Banking
4. Internet Banking
5. Mobile Banking

**E-banking in India:** The Reserve Bank of India constituted a working group on Electronic Banking. The group divided the Electronic Banking products in India into 3 types based on the levels of access granted. They are:

- **Information Only System:** General purpose information like interest rates, branch location, bank products and their features, loan and deposit calculations are provided in the banks website.
- **Electronic Information Transfer System:** The system provides customer- specific information in the form of account balances, transaction details, and statement of accounts.
- **Fully Electronic Transactional System:** This system allows bi-directional capabilities. Transactions can be submitted by the customer for online update. This system requires high degree of security and control.

#### **Automated Teller Machines (ATM)**

ATM is designed to perform the most important function of bank. It is operated by plastic card with its special features. The plastic card is replacing cheque, personal attendance of the customer, banking hours restrictions and paper based verification. There are debit cards. ATMs used as spring board for Electronic Fund Transfer.

#### **Credit Cards/Debit Cards**

The Credit Card holder is empowered to spend wherever and whenever he wants with his Credit Card within the limits fixed by his bank. Credit Card is a post paid card. Debit Card, on the other hand, is a prepaid card with some stored value. Every time a person uses this card, the Internet Banking house gets money transferred to its account from the bank of the buyer. The buyers account is debited with the exact amount of purchases.

#### **Smart Card**

Banks are adding chips to their current magnetic stripe cards to enhance security and offer new service, called Smart Cards. Smart Cards allow thousands of times of information storable on magnetic stripe cards.

#### **Bill Payment Services**

You can facilitate payment of electricity and telephone bills, mobile phone, credit card and insurance premium bills as each bank has tie-ups with various utility companies, service providers and insurance companies, across the country.

**Fund Transfer**

You can transfer any amount from one account to another of the same or any another bank. Customers can send money anywhere in India. Once you login to your account, you need to mention the payees' account number, his bank and the branch.

**Credit Card Customers**

With Internet banking, customers can not only pay their credit card bills online but also get a loan on their cards. If you lose your credit card, you can report lost card online.

**Railway Pass**

This is something that would interest all the aam janta. Indian Railways has tied up with ICICI bank and you can now make your railway pass for local trains online. The pass will be delivered to you at your doorstep. But the facility is limited to Mumbai, Thane, Nashik, Surat and Pune.

**Investing through Internet Banking**

You can now open an FD online through funds transfer. Now investors with interlinked demat account and bank account can easily trade in the stock market and the amount will be automatically debited from their respective bank accounts and the shares will be credited in their demat account.

**Recharging your Prepaid Phone**

Now just top-up your prepaid mobile cards by logging in to Internet banking. By just selecting your operator's name, entering your mobile number and the amount for recharge, your phone is again back in action within few minutes.

**Shopping**

With a range of all kind of products, you can shop online and the payment is also made conveniently through your account. You can also buy railway and air tickets through Internet banking. In order to gain competitive advantage and eliminate the costs associated with the traditional bank branches, one of the key objectives of electronic banking is to offer higher interest rates and lower service charges on their savings accounts (Talmor, 1995).

**Existing E-banking trends in India**

Indian banks have a chequered history. The British legacy left behind a host of large and small privately-held banks. The late 60s saw the nationalization of banks, leading to the emergence of the public sector banks. The 90s saw the banking industry embracing

technology in a massive way, led in particular by the new private banks and MNC banks. Among these series of technology innovations, Internet banking for the retail segment is a recent phenomenon that has generated a lot of interest in the Indian banking industry. Private and foreign banks have been the early adopters while the PSU banks are also beginning to latch on to the bandwagon.

As per IDC (International Data Corporation) estimates, the total number of registered users for Internet banking in India is over two million. But this figure needs to be adjusted for dormant users and multiple accounts (a user having accounts with more than one bank). India has a little less than a million active Internet banking users. And though this is just 0.096 percent of the total population, it represents 15 percent of the India's Internet user population, thus indicating that the concept of Internet/E-banking is surely catching on.

#### **The Indian Context**

In contrast, Indian banks have an insignificant Internet banking record. ICICI Bank kicked off online banking way back in 1996 and a host of other banks soon followed suit. But even for the Internet as a whole, 1996 to 1998 marked the adoption phase, while usage increased only in 1999—due to lower ISP online charges, increased PC penetration and a tech-friendly atmosphere. Reveals Anup Bagchi, head, Internet Banking, ICICI Bank, “We had launched the Internet banking service even before the RBI had formulated its guidelines. Fortunately, as it was a comparatively new concept, the regulating authorities were extremely co-operative with us.”

After ICICI, Citibank, IndusInd Bank and HDFC Bank and Timesbank (now part of HDFC Bank), were the early ones to bite the technology bullet in 1999. Says C N Ram, head, information technology, HDFC Bank, “Our vision was very clear, we were not enamored by the concept of Internet banking but looked at it more as an add-on service which our customers should gradually adopt.” In line with this strategy, initially the Net banking facility was provided in order to meet the information requirements of the customers and gradually it ventured into fund transfers and third party transfers.

#### **The PSU Framework**

As in all forms of technology innovations, PSU banks have remained laggards in the race for adopting Internet banking practices. There are very few nationalised banks like State Bank of India, Bank of Baroda, Allahabad Bank, Syndicate Bank and Bank of India that offer Internet banking services. Some others like Union Bank of India, Canara Bank and Punjab National Bank are on the verge of doing so. SBI's Internet banking initiative, launched in July 2001, is in fact doing quite well and has over 18,000 registered customers across 150 branches. The enthusiastic response has encouraged the SBI management to

extend the service to an additional 500 branches. But despite positive news like this, PSU banks still have a lot of catching up to do on the Internet banking services front.

#### India's Net banking directory

Bank Name	Technology Vendor	Service offering
ABN AMRO Bank	Infosys (BankAway)	NetBanking
Abu Dhabi Commercial Bank	Infosys (BankAway)	ADCB NetLink
Bank of India	I-flex	BOLonline
Centurion Bank	Logica	MyCBOL
Citibank	Orbitech (now Polaris)	Citibank Online
Corporation Bank	I-flex	CorpNet
Federal Bank	Sanchez	FedNet
Global Trust Bank	Infosys (BankAway)	ibank@gtb
HDFC Bank	i-flex/ Satyam	NetBanking
ICICI Bank	Infosys, ICICI Infotech	Infinity
IDBI Bank	Infosys (BankAway)	i-net banking
IndusInd Bank	CR2	IndusNet
Punjab National Bank	Infosys (BankAway)	
Standard Chartered Bank	In-House	Me Standard Chartered Online
State Bank of India	Satyam/Broadvision	onlinesbi.com
UTI Bank	Infosys (BankAway)	iConnect

#### Opportunities and Challenges associated with E-banking Issues, Controversies, Problems

There are several benefits associated with the introduction of E-banking. Costs of banking service through the Internet amount to a fraction of the costs through conventional methods. Industry estimates assume teller cost at Re 1 per transaction, ATM transaction costs at Re 0.45, phone banking at Re 0.35, debit cards at Re 0.20 and Internet banking at Re 0.10 per transaction. Says V K Ramani, president, information technology, UTI Bank, another of the early adopters, "No wonder, the cost-conscious banks in the country are now actively considering using the Internet as a channel for providing services.

From the banks perspective, provision of E-banking service delivery channel to consumers would enhance their opportunity to maximize their profits. The chief goal of many businesses in monetary terms is associated with profit maximization (Nathan, 1999). Moreover, from the banks' point of view, proliferation of the E-banking service delivery channels is an essential requisite not only in terms of cost saving by reducing the human interaction, improving competitiveness by way of differentiation and retaining existing

customer base as well as attracting potential consumers. Banks throughout the world face an increasingly tough challenge of boosting their revenues while controlling their costs (Durkin, 2004). Therefore the common trend followed by many banks globally is streamlining their branch networks and redirecting their consumers to alternative service delivery channels and encouraging consumers to adopt self service technologies. Thus, banks are reducing the costs incurred in maintaining the branch staff (Pyun *et al.*, 2002). Also, banks often build better brand image by way of responding to the rapid market changes and would therefore be perceived as leaders in adoption of innovative technologies.

From the consumers' point of view, automation of banking services by introducing E-banking service delivery channels provides 24 hours accessibility, reduced costs in accessing and using of banking products and services, proper cash management, reduced time demands, increased comfort as well as quick and continuous access to the information (Aladwani, 2001). Existing studies report that consumers by way of utilizing E-banking channels can manage funds in a better manner. Majority of the consumers are happy with the speed and convenience associated with the E-banking. E-banking eliminates uncertainties by standardizing services and reduces the prevalent heterogeneity that might commonly exist between bank staff and consumers.

From the economic perspective, some studies indicate that using E-banking facilities increases the overall savings in the economy by 0.93% of the gross domestic product. Thus extant studies indicate a significant contribution to the economy with regard to the introduction of E-banking.

In India there is a major risk of the emergence of a digital divide as the poor are excluded from the internet and so from the financial system. Even today, the operational environment for public, private and foreign banks in the Indian financial system is quite different. Though there has been higher acceptance of technology by public sector banks, they are at a different level in the computerisation spectrum as compared to private and foreign banks. E-banking in India has also created many new challenges for bank management and regulatory authorities, which originate from increased potential for cross border transactions and lack of adequate cross border supervision. Given the importance of the SMEs in India, there is a strongly felt need to mainstream this segment towards E-banking.

DD Krishnamoorthy, deputy general manager, information technology, Bank of India says that the primary reason preventing PSU banks from introducing online banking services, has been the absence of a legal framework to back up, and regulate Internet banking operations in the country. Though the Information Technology Act 2000 attempted to address a number of e-commerce regulatory issues, he feels that there still are several

grey areas which have neither been spelt out properly, nor have the courts suggested workable modes of implementation. Though Internet banking is only an extension of traditional banking services, there are several instances which contradict the legal framework for this banking in India provided by a set of enactments like the Banking Regulations Act, 1949, the Reserve Bank of India Act, 1934 and the Foreign Exchange Management Act, 1999.

Associated with the opportunities mentioned earlier there are concerns and challenges exerted by the banks as well as the consumers' with regard to the uptake and use of E-banking. Banks initially promoted their core capabilities through the internet such as products and services with some advice. Due to the relative newness of the technology associated with E-banking, banks as well as consumers are often concerned about the security of internet access to clients accounts (Stamoulis, 2000). Several studies indicate that the acceptance of E-banking by consumers' is affected by perceived security (Dourish & Redmiles, 2002). Moreover, the threat of substitutes to banking in terms of competition from non-banking, financial and micro credit sector is increasing rapidly (Mia *et al.*, 2007). The competition is fierce in the banking and financial sector environment as every entrant is participating to some extent of E-banking which raises the issues of security, privacy and risk (Constantine, 2000).

#### **Solutions and Recommendations**

E-banking success depends on the rate of internet penetration in a country. Since the developed nations have good infrastructure and more percapita income, possession of a computer as well as internet is not a problem for many consumers. However, with regard to the developing nations like India poor infrastructure in conjunction with low levels of internet penetration is a serious problem. Internet service providers and banks should provide certain incentives and subsidize the surfing cost. It would be beneficial for the consumers' if free training sessions and mock demonstrations about the use of internet and E-banking are provided by the banks and service providers. Multiple access facilities combining telephone, internet, mobile and ATM would likely motivate more number of consumers' to adopt and use E-banking. Provision of proper authentication facilities and assurance by the banks to maintain consumers' identity and confidentiality would essentially initiate the uptake of E-banking by many.

Government intervention is essential and appropriate particularly in India. Government should work in conjunction with the banks to improve the infrastructure facilities as well as regulate and supervise the economic policies periodically. Often intervention of the government would create positive attitudes among the consumers' who might be motivated to use E-banking. Aggressive marketing programs play a critical role in

taking the E-banking to large number of consumers. Marketing communications is an effective tool and banks should properly utilize the appropriate marketing techniques to reach the large mass of consumers. Marketing communications should also devise a specific plan that strategically incorporates E-banking service delivery channel promotion. Personal online help should be provided continuously which would substantially eliminate the consumers' fear associated with the E-banking and often encourages them to use complex products and services provided by the banks.

#### **Future Research Directions**

Despite the phenomenal uptake of E-banking in India, existing literature stresses that not all the consumers' are willing to perform their banking transactions electronically. Even todate in the developed nations also, E-banking usage by consumers' is related to basic banking facilities such as balance inquiries, monitoring savings and current account facilities and viewing summaries of their report transactions. High end banking products and services involving personal loans, foreign exchange, mortgage, car loans etc., are not utilized by the consumers through E-banking service delivery channel. When dealing with comprehensive decisions involving large monetary transactions consumers are comfortable with the reassurance of face to face interactions provided by the bank staff. Incorporating personal help through E-banking service delivery channels could minimize the apprehensions of the consumers associated with the security aspects and thus enhance their adoption of E-banking as well as utilizing complex banking services and product facilities. Thus consumers often tend to manage their potential uncertainty through personal interaction. Furthermore, there exist minimal studies focusing on the adoption of E-banking by consumers in India. Therefore future research should incorporate exploring the key antecedents and inhibitors of E-banking adoption in India.

#### **Conclusion**

From the abovementioned discussion it is evident that the new generation of the electronic banking transactions created a bundle of opportunities as well as challenges to the existing banks, financial institutions and consumers in India as well globally. It is visible from the extant documentary analysis that almost all the major banks irrespective of the level of country's advancement have rapidly introduced innovative E-banking technologies. Thus, it is clear that in newly industrialized nations, electronic banking is gaining its momentum as the banks operating globally have declared E-banking as one of the core strategies for future development. There exists a potential scope to gear on the opportunities related to the electronic banking channels with a particular emphasis on the developing nations. Banks should work in conjunction with the government to improve the security, safety and privacy issues and maintaining the confidentiality of their prospective

consumers would enhance the uptake of E-banking in India. Moreover, the success or failure of E-banking in India largely depends on several dimensions such as consumers' trust in a particular bank, service quality offered by the bank, consumer preferences and their ultimate satisfaction. Therefore, banks should continuously strive to meet the consumers' expectations, demands and requirements in order to maintain their own identity.

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