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Vipin Mittal
Assistant Professor, Vaish
College of Engineering,
Rohtak, Haryana, India

E-banking: Conceptual framework

Vipin Mittal

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Abstract

The banking business model globally is undergoing a paradigm shift. As India increasingly integrates with global financial markets, the winds of change are sweeping the Indian banking industry. From an era dominated by mass banking, The thrust now- a -days is on E-Banking i.e. Banking that is technology driven. Rapid computerization awareness of customer needs & competition are galvanizing Indian banks into making banking more convenient each day. E-banking has moved real banking behaviour closer to neoclassical economic theories of market functioning. Due to the absolute transparency of the market, clients (both business as well as retail) can compare the services of various banks mor easily. For instance, on the internet, competitors are only one click away. If clients are not happy with the products, prices or services offered by a particular bank, they are able to change their banking partner much more easily than in the physical or real bank-client relationship. From the banks' point of view, use of the internet has significantly reduced the physical costs of banking operations. This paper focus on evolution of e-banking, need for e-banking, e-banking channels, e-banking scenario & e-banking key issues and solutions.

Keywords: E-banking, mobile banking, Tele-banking, ATM, Debit Card, Credit Card etc.

Introduction

Evolution of electronic banking

Information its evolutionary history, a start had been made information E- banking as early as 1920s but this form of banking did not get a wide spread acceptance till the 1960s. Further it took a long time before this form of banking found popularity with a sizeable group of customers and bankers who are comfortable with technology as a part of their day-to-day lives. Wiech (1993) explains the reasons for this, he says, "in the early days, the effectiveness of electronic banking systems was inhibited by three main factors:

- Communication technology was in its infancy and inadequate for local or global coverage banks and customers could not communicate internationally within their own organizations or with each other.
- Most companies and banks had incompatible systems- sometimes even different branches of the same bank had different systems.
- Computer manufactures were made to agree on the development of technology standards, which would permit data exchange directly between computer systems."

After 1960s E-Banking and its use recorded a quantum jump. To explains this Kalakota and Whiston (1996) say that, "Recently several innovations helped to simplify consumers payments. These can be broadly classified into:

- **Innovations affecting consumers:** Credit and debit cards and automatic teller machine (ATMs) and stored value cards.
- **Innovations enabling Electronic Commerce:** digital cash, electronic cheques. Smart cards (also called electronic wallets) and encrypted credit cards and EDI and internal technologies.
- **Innovations affecting companies:** such as inter banks transfer through automated clearing houses that allow companies to pay dividends to their shareholders directly or utility companies to debit their Customers accounts electronically through standing instructions.

Corresponding Author:
Vipin Mittal
Assistant Professor, Vaish
College of Engineering,
Rohtak, Haryana, India

Major breakthrough in e-banking

- 1947- First general- purpose credit card issued information USA.
- 1950- Dinners club charge card introduced.
- 1967-First ATM installed information London.
- 1970- CHIPS provide US dollars fund transfers and transaction settlements on line and information real time.
- Late 1970s- Home banking started.
- 1985- Electronic data interchange (EDI) extensively used information bank-to-bank payments systems,
- 1994- Internet banking

Need for E-banking

For a long time customers could do their banking only by coming to a bank branch. It took close to half an hour to fill out a demand draft another half an hour to withdraw cash and sometimes. More than twenty days to get an upcountry cheque credited. Moreover, the new private sector banks and the foreign banks are handicapped by the lack of a strong branch network information comparison with private sector banks. Information, the absence of such networks, the market place has been the emergence of a lot of innovation services by these players to increase their market share and reduce their cost of service delivery through direct distribution strategies of "Non Branch Delivery". Technology is enabling banks to provide the convenience of anytime anywhere banking to increasingly demanding customers. The earlier brick and mortar branch is no longer sufficient. Technology is now taking banks to homes or offices, 24 hours a day, 365 days a year through ATMs, telephones and PCs. Such benefits of the technology provide the compelling reasons why banks should go for Electronic Banking.

As the 20th century drew a close, Information Technology become the single most decisive factor, which change the way people interact and carry out their business. With the internet, telecommunication and media convergence, the world is moving to an open market place with a global reach and with E- commerce expected to boom information the next few years, banks will pay an increasingly important role. Electronic Banking is becoming a strategic necessity for banks. Even as the brick and mortar model collapse, the technology has destroyed the geographical advantages enjoyed by the private sector banks. Information words of R. Ramakrishna, General manager, Bank of India, "they have realized that it is important to empower the customer using information technology. These banks have traditionally provided mass banking and keeping information view are gradually unveiling amenities like ATM, Phone Banking & Intra-city Banking".

Changing paradigms in banking

Banking in India has under gone a sea change. From being a mere tool mobilizing saving and providing short term and long term finance. It is now an instrument of socio-economic transformation. Immediately after independence when India embarked upon planned economic development, the country had an inadequately developed financial structure, which was incapable of responding to the needs of a growing and diversifying economy. The branch network was concentrated in cities and towns. Rural areas were 80% of the population resided was barely system was able to neither effectively mobilize savings of the community nor provide credit to the vast majority of population.

The govt. initiated a series of measures commencing with in the passage of banking Companies. Act, nationalization of the Imperial Bank of India, social control of Banking and subsequent nationalization of major banks. The concerted efforts to the govt. and the reserve Bank of India bore fruit over the years, during the same period the CRR and the SLR requirements were used as effective instruments of not only monetary policy but also as mechanism for mobilizing cheaper resources for financing the govt. budget deficit. On the other side, the socio economic obligations thrust on the banks coupled with socio- political pressure in credit dispensation affected adversely the profitability of banks and contaminated the assets portfolio of banks and resulted in the accumulation of non-performing assets. These negative factors, however, dial not minimizes the credible achievements of the banking systems of over country.

Traditionally, the banking has been paper c4ntric. It could be done through either physically or through computerized system. Anyone who wished to deposit or withdraw money or make any other banking transaction had to be personally visit the bank whether it was a individual customer or a corporate customer. A lot of time could be wasted of one had to stand in a long queues waiting for their turn to come. Moreover one could visit the bank after 2 p.m. in public sector banks and 4 p.m. in private banks these banks also closed on holidays as well as on Sunday. The brick and mortar building of the bank branch defined the periphery of service delivery of banking products. Funds could be transferred only by mail transfer by issuing demand drafts that should be physically transported from the place of issuance to its place of payment. Realization of such payments used to take times, often a couple of months. Banks also have to invest a lot in infrastructure, staff etc., speed of service remained slow. Even banks having computerized system involved a lot of time to clear and to some extent common man, traditional banking remained inefficient.

There was a time when man was wanderer or nomad and he used to wanderer from palace to place in search of various necessities of life. But now things have changed completely. With information technology becoming supreme, it has brought everything right at our doorstep just at all the click of a mouse. Gone are the days when we used to go to the banks standing in long queues depositing or crediting money. Now we can perform every bank transaction in a clam and coordinated way through Electronic Banking. E-Banking can be called one in which contact can be made in variety of ways acc. To convenience but maintaining the same interface and assessing the same services. It can take various forms viz, - Internet Banking, phone Banking, Mobile Banking, provision of ATM facilities etc.

Today technology has touched almost all aspects of lives. The emergence of E-commerce has revolutionized the way we live; we shop, entertain and interact. Therefore, it should not come as a surprise if it tries to influence the way we save and invest. Morgan Stanley Dean Writer Internet Research emphasized that web is more important for retail financial services than for many other industries. Today when the customer is king and the service providers are rushing to pay obeisance to the king, financial service providers cannot be left behind. In this quest to differentiate their services and gain competitive advantages to the customers at the homes. E Banking emerged as a convenient channel for these providers involving use of Internet, Phone

or ATMs for delivery of product and services.

E- Banking is changing the banking industry and is having the major effect on banking relationships. Banking is now no longer confined to the branches where one has to approach the branch in person to withdraw cash or debit a cheque or request a statement of accounts. In E-banking, any inquiry or transaction is processed online or on phone without any reference to branch (Anywhere Banking) at any time. Providing E-banking services is increasingly becoming a need to have than a nice to have service. It is now more of a norm rather than an exception in many developed countries due to the fact that it is the cheapest way of providing Banking services.

E-banking channels

- ATM
- Mobile banking
- Phone banking
- Call center
- Internet banking
- pc banking
- Credit/debit card
- Tele banking

Net Banking

Net Banking means carrying out banking transactions through Internet. Thus the need for a branch is completely eliminated by technology. A customer can view his account details, transaction history, order drafts, electronically make payments, transfer funds, check his account position and electronically communicate with the bank through the Internet for which he many have wanted to visit the bank branch.

Phone banking

Phone banking means carrying out of banking transaction through the telephone. A customer can call up the banks help line or Phone banking number to conduct transactions like transfer of funds, making payments, checking of account balance and ordering cheques. This also eliminates the customer of the need to visit the banks branch.

Mobile banking

It helps a customer conduct certain transaction through the mobile phone with the help of technologies like WAP and SAP. This helps a bank to combine the Internet and telephone and leverage it to cut costs and at the same time provide its customers the convenience.

PC Banking

Most of the major banks today provide PC software that when installed on your PC enables you to dial (via a Modem) directly to the banks Private and secure network to access your own bank account details.

Most of there applications allow you to process

- Single or batched payment instructions
- Direct Debit instructions
- International payments
- Bank transfers as appropriate

They also you to download balance and statement information for reconciliation purposes.

Internet banking

Internet banking or on-line banking has been very successfully launched by a number of banks and the take up has been very encouraging. this banking service is currently aimed at providing information for personal bank accounts and sole traders or SOHO (small office, home office) business banking web site. Features available normally include:

- View your bank balance and statement.
- Make pre- defined bill payments.
- Initiate bank transfers.
- Download statement information.

The services are secured through user ID and Password and all activity between your Brower and we site encrypted.

Tele- Banking

Anywhere Banking is the fore under to a host of convenience banking services to come. With Tele- banking and Internet banking customers can access a range of banking services, simply by dialing the telephone of a click of the mouse.

ATM (Automatic Teller Machine)

An ATM ((AUTOMATIC TELLER MACHINE) is an electronic device which allows a Banks customers to make cash withdrawals and check their account balance at any time without the need for a human teller. Many ATMs also allow people to deposit cash or cheques, transfer money between their bank accounts or even buy Postage Stamps.

Credit card

Very time you use a Credit Card. But we are actually borrowing money that is made available to you by a bank or other financial institution. The institution pays the debt to the vender and in turn you pay back the money that you borrowed in addition to any interest drawn on the amount you borrowed.

E-Banking Scenario

The banking industry is expected to be a leading player in E-Business while the banks in developed countries are working primarily via Internet as non- branch banks, Banks in developing countries use the Internet as an Information delivery tool to improve relationships with customers. In early 2001, app. 60% of E-business in UK was concentrated in the financial services sector, and with the expected 10-fold increase oOf the British E- business market by 2005, the share of the financial services will further increase. Around one fifth of finish and Swedish bank customers are banking on line, while in US, acc. To UNCTAD online banking is growing at an annual rate of 60% and the number of online accounts is expected to reach 30 million by 2007.

Banks have established an Internet presence with various objectives. Most of them are using the Internet as a new distribution channel. Financial services, with the use of Internet, may be offered in an equivalent quality with lower costs to the more potential customers. There may be contacts from each corner of the world at any time of day or night. This means that banks may enlarge their market without opening new branches. The banks in US are using the web to reach opportunities in three different categories: to market information, to deliver banking products and services and to improve customer relationship.

In Asia, the major factor restricting growth of E- banking is security, in spite of several countries being well connected via Internet. Access to high quality E-banking products is an issue as well. Majority of banks in Asia are just offering basic services compared with those of developed countries. Still, E-banking seems to have a future in Asia. Acc. To McKinsey survey, E- banking will succeed if the basic features, especially Bill Payment, are handled well. Bill Payment was the most popular feature, cited by 40% of respondents of the survey. However, providing this service would be difficult for banks in Asia because it requires a high level of security and involves arranging transactions with a variety of players. In India, app. four % of high and middle –income group banking customers conducted banking on the Internet in 2006 compared to 7 to 8% in Singapore and South Korea. In 2006, a Reserve Bank of India survey revealed that all of the major banks were either offering E- banking services at various levels or planned to do so in the near future. Some of the Private Banks included ICICI Bank, HDFC Bank, IndusInd Bank, IDBI Bank, Citibank, Global Trust Bank, Bank of Punjab and UTI Bank. In the same year, out of an estimate 0.9 million Internet user base, app. 70% were reported to be banking on the Internet. The above statistics reveal that India does have a high growth potential for e- banking. The banks have already started focusing on increasing and improving their E- banking services.

In 2006, over 70% of the banks in US were offering E-banking services. However, large banks appeared to have a clear advantage over small banks in the range of services they offered. Some banks in US were targeting their Internet strategies towards business customers. Apart from affecting the way customers received banking services, E- Banking was expected to influence the banking industry structure. The economies of E-banking were expected to favour large banks because of economies of scale and scope and the ability to advertise heavily. Moreover, E-banking offered entry and expansion opportunities that small banks traditionally lacked.

E- Banking: Key issues and solutions

In spite of several benefits of Internet in the banking industry, it may prove to be a double edged sword. For instance, banks may gain revenue advantage on the retail side by charging for services such as EBPP and may improve cross selling of products. But on the other hand, the effect of the Internet on the commercial side of the bank is negative. Cash managers are worried about potential revenues decreases as the processing of paper bills declines and third parties attract customers to competing services. There are fears that the Internet is the first step on a downward spiral in commercial banking that begins with losses in cash management and lockbox services and ends with banks being excluded from the payment loop. As EBPP become more popular, checks and check processing fees, a major source of bank revenues will decline. Banks will be left to handle settlements, which have low margins and will be less equipped to offer newer and potentially more profitable services.

Security that may arise due to the unauthorized access to a banks key information like accounting system, risk management system and portfolio management system a breach of security could result in direct financial loss to the bank. In addition to external attacks, Banks are exposed to

security risk from internal sources e.g. employee fraud. Employees can acquire the authentication data in order to access the customer accounts causing losses to the bank. Banks face the risk of wrong choice of technology, improper system design and inadequate control processes. Technology, which is outdated, not scalable or not proven, any lead to loss of banks investment and risk its business. Many banks rely on outside service providers to implement, operate and maintain their E- banking system since they do not have the requisite expertise. However, it adds to the operational risk. Legal risk arises when violation of laws, rules and regulations or prescribed practices takes place or when the legal rights and obligations of parties to a transaction are not well established. These risks may also arise due to the uncertainty about the validity of some agreements formed via electronic media and law, regarding customer disclosures and privacy protection.

E-banking extends the geographic reach of banks and customers beyond national borders, which may lead to cross border risks. This risk involves legal and regulatory risks, as there may be uncertainty about legal requirements in some countries and jurisdiction ambiguities with respect to the responsibilities of different national authorities. The risk of unauthorized data alteration is real in an E- banking environment both when data is being transmitted or stored. Proper access control and technological tools to ensure data integrity is of almost importance to banks. Banks system must be technologically equipped to handle these risks.

Reputation risk is the risk of getting significant negative public opinion, which may result in loss of funding or customers. The main reasons for this risk may be system or product not working to the expectations of the customers, system deficiencies, security breach, inadequate information to customers, about product use and problem resolution procedures, problems with communication networks that impair Customers access to their funds or account information. This may cause the customer to discontinue the use of product/service. As E-banking transactions are conducted remotely, banks may find it difficult to apply traditional method for detecting and preventing undesirable criminal activities, which may lead to money laundering risk. Application of money laundering rules may also be inappropriate for some forms of electronic payments. This may result in legal problems for non-complying to “knowing your customer” laws.

Banks, International organizations, Govts. And financial institutions have to work together to manage all the risks mentioned above. It is critical that partnerships must continue to enhance consumer trust towards E- banking. Banks conducting business online have to consider security and reliability as their first business priority for customer retention.

Conclusion

In nutshell, we can say that there is vast opportunity as well as challenges for E- Banking in India. It has been found that due to technological innovations and significant change in demographic profile of customers, there is huge market potential lying ahead. As there is increasingly challenging business environment, E-Banking in India requires competitive tools, Products development and differentiation, business process reengineering, micro planning, market prudent pricing, customization, technology up gradation, home/electronic mobile Banking, cost reduction and cross-

selling. In future, Banks need to equip themselves with internal capabilities and build efficient and viable business models to create advantage of new opportunities available into a long- term sustainable competitive advantage.

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