

# Increasing Trend of E-Banking in Banking Industry

<sup>1</sup>Bhaskar Dutta, <sup>2</sup>Dr. Gajraj Singh Ahirwar & <sup>3</sup>Shyam Sunder Shah

<sup>1,2,3</sup>Department of Commerce, UTD, Sri SatyaSai University of Technology and Medical Sciences, Sehore (M.P.) (India)

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## ABSTRACT

Internet banking (or E-banking) means any user with a personal computer and a browser can get connected to his bank's website to perform any of the virtual banking functions.

The proposed framework is mainly based on Self-Service Technology (SST) Attitude/Intention model. Self-Service Technologies (SSTs) is defined "technological interfaces that enable customers to produce a service independent of direct service employee involvement" such as, automated teller machines (ATMs), banking by telephone, and banking services over the Internet and m-banking.

Self Service Technology (SST) Attitude/Intention model is an extension to Technology Adoption model (TAM) model. TAM is considered one the famous models concerning consumer attitude towards technology acceptance literature and explain why users accept or reject information technology.

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## 1. Introduction

E-banking provides enormous benefits to consumers in terms of ease and cost of transactions, either through Internet, telephone or other electronic delivery. Electronic finance (E-finance) has become one of the most essential technological changes in the financial industry. E-finance as the provision of financial services and markets using electronic communication and computation. In practice, e-finance includes e-payment, e-trading, and e-banking.

E-banking transactions are much cheaper than branch or even phone transactions. This could turn yesterday's competitive advantage - a large branch network - into a comparative disadvantage, allowing e-banks to undercut bricks-and-mortar banks. This is commonly known as the "beached dinosaur" theory. E-banks are easy to set up, so lots of new entrants will arrive. „Old-world" systems, cultures and structures will not encumber these new entrants. Instead, they will be adaptable and responsive. E-banking gives consumers much more choice.

Consumers will be less inclined to remain loyal. Portal providers are likely to attract the most significant share of banking profits. Indeed banks could become glorified marriage brokers. They would simply bring two parties together e.g. buyer and seller, payer and payee. The products will be provided by monolines, experts in their field. Traditional banks may simply be left with payment and settlement business even this could be cast into doubt. Traditional banks will find it difficult to evolve. Not only will they be unable to make acquisitions for cash as opposed to being able to offer shares, they will be unable to obtain additional capital from the stock market. This is in contrast to the situation for Internet firms for whom it seems relatively easy to attract investment.

Internet banking comprises banking activities or services which can be avail by the customers at any point of time and from any places with their convenience, it is also called PC banking, online banking, cyber banking, virtual banking, etc [6]. Internet banking delivers banking services through the

openaccess computer network i.e. Internet, directly to customers' home that can be used with different electronic devices such as personal computer, mobile phone with a browser or desktop software, digital television [7]. So, we can say that Internet banking is about using banking facilities via the internet with the help various electronic devices.

Mail banking is another electronic banking service that makes it possible to communicate with the bank by electronic mail or e-mail. The most frequently used service is sending account statements at agreed periodicity to the client's mailbox. E-mail is not used for more complex operations.

Apart from those already mentioned, there are other more or less widely known forms of electronic banking, including a payment card, an electronic wallet and a self-service zone. A payment card is currently one of the most widely used payment instruments designated for authorized holders through which they can perform non-cash payments or cash withdrawals from an extensive network of automated teller machines. An electronic wallet represents a chip card similar to a payment card that contains a record of a financial sum that is available to its owner.

A self-service zone is a fully automated alternative work place of a bank with terminals and devices that clients can use to get various bank services. It enables active and passive operations offered by the bank to be made without the presence of a bank employee. Devices are constructed for very easy use with simple intuitive controls (user friendly). Equipment includes modern security systems outside and inside a self-service zone. A payment card in combination with a password is used to access a self-service zone. It is also possible to use other authentication devices, such as an electronic key, but also a fingerprint. Self-service zones are available 24 hours a day, 7 days a week. In expert circles it is sometimes possible to encounter another form of electronic banking: fax-banking. A fax is however mostly used as an addition to other forms, such as telephone banking, when a

client agrees with the bank that all output would be sent to him by fax.

Internet banking is changing the banking industry, having the major effects 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 deposit a cheque or request a statement of accounts. In true Internet banking, any inquiry or transaction is processed online without any reference to the branch (anywhere banking) at any time. Providing Internet banking is increasingly becoming a "need to have" than a "nice to have" service. The net banking, thus, now is 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.

The Internet has revolutionized the way we live, shop, entertain and interact and also the way we save and invest. Internet banking arrived in India in the late 1990s [1]. ICICI was the first bank to champion its usage and introduced internet banking to its customers in 1996. With lower internet costs and increased awareness about electronic media, online banking established itself only in 1999. Other banks followed suit, including HDFC, Citibank, IndusInd and the now redundant Times Bank [2].

Internet banking changed both the banking industry as well as banks' services to its customers. 'Anywhere banking' came to be recognized as an opportunity also for differentiated and competitive services. Ancillary online services like checking account status, fund transfer, ordering demand drafts, loan applications, credit card verifications, shopping portals etc. as well as not requiring a visit to the branch during office hours were viewed as high-value offerings and increasingly started to become a necessity rather than a service.

Once banking institutions recognized the low processing cost per transaction via the internet, they began viewing online banking as an extension of the bank rather than as an add-on service. The motivation to introduce online banking now also included new business potential, additional funds from new and existing customers, expansion in geographical reach, image as a tech-savvy bank especially if targeting the youth and the threat of customers shifting loyalty if they did not introduce it [3].

Nationalized banks initially viewed online banking as insecure and counterintuitive and were therefore hesitant. But eventually, SBI, Canara Bank, Allahabad Bank, Punjab National Bank, Bank of Baroda, Syndicate Bank and others introduced it. SBI launched internet banking in 2001 and experienced good response. In general, internet banking saw an exponential rise in users [4]. Today, banks encourage their customers to use online banking. Besides cost and revenue impacts, this paradigm shift is because they also recognize that self-control transactions have greater potential for customer satisfaction and retention. Online banking has thus come to be among essential banking services.

The approach to adopting online banking however is often to merely stay abreast of industry and technology and online banking is becoming a separate business unit driven by technological possibilities. The user often has minimal place in such an approach as evidenced by non-human centric experiences that flourish.

## 2. Review of related literature

Initially, information infrastructure was regarded by developed banks over the world as a mere possibility of creating new electronic distribution channels for existing products. For this reason, remote banking services have been called electronic or e-banking services (Nedelescu&Stănescu, 2012).

In time, the increase of investments in technology was followed by banking products innovation, a driving force of efficiency boost. Banks and information technology manufacturers have begun to stimulate each other more and more in the development and profit creation. The increasing range and complexity of electronic banking services has led to the expansion of customers while satisfying more sophisticated needs and ensuring customer loyalty imposed a continuous demand for new technologies (Drigă, 2012).

Remote banking, considered representative for the new economy, consists of electronic transactions between customers and their bank. Electronic banking, more commonly known as e-banking, is the newest delivery channel for banking services. The term had been defined in many ways by researchers mainly because electronic banking refers to several types of services through which customers can request information and execute transactions via telephone, digital television, computer or mobile phone.

Daniel (1999) defines electronic banking as the distribution of information and services by banks to customers via different delivery platforms that can be used with a personal computer or other intelligent devices.

According to Allen (2001), e-banking refers to the supply of information or services by a bank to its customers, via a computer or television.

Keivani et al. (2012) describes electronic banking as "an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution". Most specialists agree that e-banking ensures 24-hour-a-day, 7-day-a-week accessibility through a type of advanced information system. A common definition for electronic banking comes from the Basel Committee on Banking Supervision: "e-banking includes the provision of retail and small value banking products and services through electronic channels as well as large value electronic payments and other wholesale banking services delivered electronically" (BCBS, 1998).

E-banking, a term used for new age banking system, represents an automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. It is a service

that provides customers the opportunity to gain access to their accounts, execute transactions, and obtain information on financial products and services through a public or private network, including the Internet. There are several terms used in the literature all referring to one form or another of electronic banking: personal computer (PC) banking, internet banking, virtual banking, online banking, web banking, E-banking, phone banking, remote electronic banking, mobile banking etc., but they are often used interchangeably.

Electronic banking services have been around for quite some time in the form of automatic teller machines and telephone transactions. In more recent years, modern e-banking services such as internet and mobile banking has revolutionized banking services. The evolution of the e-banking industry can be traced to the early 1970s when banks began to look at these types of services as an alternative to some of their traditional bank functions. First, such a choice was considered appropriate since it ensures reduced costs as branches were very expensive to set up and maintain. Second, e-banking products and services like ATMs and electronic fund transfer were an important qualitative element of differentiation for banks that used them (Mobarek, 2007).

Given that banks operate in a fiercely competitive industry, their ability to differentiate themselves on the basis of price is limited. Thus, in order to remain on the market it is imperative for banks to adjust their strategies in response to changing customers' needs and developments in technology. The term e-banking became popular in the early 1980's referring to using a computer to access banking service via a phone line. E-banking first appeared in New York in 1981, where it was offered by major banks in that city, such as Citibank, Chase Manhattan, Chemical and Manufactured Hanover.

PC banking - a form of banking that enables customers to perform bank transactions from a PC by providing a proprietary financial software program that allows the customer to perform financial transactions from his/her home computer via a modem;

Internet banking – also referred as online banking, web banking or virtual banking, an outgrowth of PC banking, is a more developed service, a system that enables bank customers to access accounts and general information on bank products and services or perform account transactions directly with the bank through a personal computer using the internet as the delivery channel; customers are able to access all of their accounts through the website of the bank and are allowed to conduct banking activities such as transferring funds, paying bills, viewing account balances, paying mortgages or purchasing financial instruments and certificates of deposits;

Mobile banking - is a system that allows bank customers to conduct different financial transactions through a mobile device, being the newest service in electronic banking; mobile banking relies on WAP (Wireless Application Protocol) technologies since a mobile device requires a WAP browser installed in order to allow access to information.

### 3. Objectives of the study

The objectives of the current research work are as follows:

1. To analyze the scope of e-banking in India.
2. To study the benefits of e-banking.
3. To analyze the trend of e-banking in India.

### 4. Benefits of using internet banking

Using Internet banking is beneficial for both i.e. Costumers as well as banks. The benefits of adopting internet banking are mentioned below:

#### Benefits for costumers

##### *Less waiting time:*

It offers less waiting time and more convenience as compared to the traditional banking system and significantly lowers the cost structure than traditional delivery channels [8]. It also reduces the time and place limitation and it provides various benefits to consumers so that they feel convenient while doing banking activities. Ease and Convenience: Internet banking is considered as more efficient in term of ease of use and access [9]. It allows the consumers to make transactions on internet provide them comfort of home or office without going outside. It also enables consumers to keep an eye on their transactions or account activities from their home, office or elsewhere so they can feel satisfied and convenient.

Even non transactional facilities like ordering check books online, updating accounts, inquiring about interest rates of various financial products etc. have become much simpler on the internet. 24\*7 Availability: With the help of internet banking, costumer can access their banking facilities and services all around the clock i.e. 24 hours and 365 days from anywhere anytime. They don't need to wait for timing of bank branches.

##### *Self service channel:*

Internet banking provides their customer a self service channel for various banking services they have not to depend on the bank's staff and other depending process to avail their services. Internet banking is one of the most popular self-service banking technologies. Continued use of self service technology is positively affected by buyers' perceived usefulness [10].

##### *Save time and money:*

Now customers don't have to go to branch to avail banking services it consist various advantages such as: it will save time, save fuel, do away from traffic, save the environment in term of reducing the use of motor vehicles and reduce waiting time.

#### Benefits for banks Increased Profitability:

Adoption of internet helps the banks to increase their profitability. Banks with Internet banking have better operating efficiency ratios and profitability as compared to banks, which are not using internet facilities [11]. The banks can provide banking services to the consumers using internet banking at a far lower cost as compared to the traditional banking [12].

##### *Cost effective mechanism:*

The internet banking provides an opportunity of self service channel to the consumers. This help the banks to cut

their workforce up to a particular extent that results in reducing the administrative costs bear by the banks. Compared to traditional banking system, internet banking is cost-effective as it reduces the administrative costs and researchwork needed for the bank transactions [13]. Many studies show that electronic banking has successfully reduced operating and administrative cost and fees.

#### *Reach where there is no branch:*

Internet banking has expanded their geographical reach and may increase customer base through deploying electronic delivery channels at lower cost [14]. Actually, some banks are doing in that way, they are providing banking services exclusively via the Internet in some areas because they do not have bank branches in these areas. whereas many financial institutions are using the Internet banking as a branchless banking to satisfy their existing customers and attract new customers in the perspective of convenience and cost effectiveness.

#### *Improve Customer relationship: -*

Maintaining the relationship with consumers has become a strategic priority for most of the banks. Using the internet banking technology and facilities can provide a means for banks to develop and maintain a good relationship with their customers by offering easy access to a wide range of products and services [15]. Managing a good relationship with the customers may help to make customer loyalty, customer retention and improve cross-selling. Internet banking facilities have become a useful tool for improving customer satisfaction and increasing cross-selling opportunities [16].

#### *Eco-friendly image:*

Another important benefit of internet banking is that it is eco-friendly in nature. Internet banking cuts down the research usage and reduces pollution as people do not have to travel physically and also does not add carbon emissions. Implementing the e-banking facilities in the banks show the concern of the bank towards the environment [17], which further, will help the banks to create an eco-friendly image.

## 5. Research Methodology

To understand the problem at hand, an empirical study on bank customers was conducted using a quantitative approach, where 500 structured questionnaires were distributed over respondents. Respondents were divided into three groups in order to investigate the usage of ATM, Internet banking and m-banking. Data collected, was statistically analyzed using Chi square test, frequencies and cross tabulations. In order to achieve the research aim, a set of hypotheses have been formulated as shown in the following sub-section.

## 6. Data collection and analysis

A survey was undertaken where respondents completed a questionnaire about their perceptions of the three e-banking electronic channel's i.e. ATM, Internet banking and m-banking ease of use, usefulness, cost, risk with their lifestyle, and their need for interaction with personnel.

Most of the questions in the questionnaire were adapted from previous research. However, a number of questions were self-developed solely for the purpose of this research to address important concepts, which were not addressed in previous studies.

A five-level Likert scale, ranging from totally agree (1) to totally disagree (5) was used in all statements. The questionnaire also includes questions relating to socio-demographics (gender, age, income, and education), previous experience of online banking services and the use of mobile devices to access the Internet.

The samples were selected on a random basis and it may represent the whole population. It is important to study the insight about the significant of e-banking electronic channels with respect to SSTs model and to identify the problem areas and proposed recommendation leading to improvement for the channels.

The survey was administered both electronically and in person in order to increase the diversity of the respondents, increase the number of returned questionnaires, and increase the geographical accessibility. 500 questionnaires were distributed over respondents for each electronic service from Alexandria and other cities in India. Yet concerning ATM and m-banking usage, only 380 valid questionnaires were returned, while 127 valid questionnaires were returned regarding the usage of Internet banking.

## 7. Results

For ATM respondents, 58.7% are males while 41.3% are females. Most of respondents were from 26 to less than 40 aged with 42.6%. 1.3% had only attended primary or secondary schools, 12.7% had graduated from high schools, 59.8% were university graduates, and 26.2% were postgraduates.

Concerning Internet banking group, the proportion of male was greater than female respondents in this survey. The respondents were 77 males (60%) and 50 females (39.4 %). The majority of the respondents were in the 26-40 age groups (66.1 %). Population studied comprised graduate and post graduate, with frequency distributions of 45.7 % and 54.3 %, respectively.

On the other hand, the proportion of male and female respondents of m-banking was almost equally split in this survey. The respondents were 188 males (49.5%) and 192 females (50.5 %). Most of respondents were 26-40 age group (60.8 %). The population studied comprised postgraduate students with 31.6 percent and graduated students with frequency distributions 56.8 %.

ATM questionnaire respondents' frequency results revealed that 16.97% from those who have returned their questionnaires have never used ATMs, while the remainders have. 1.18% are infrequent users who use ATMs only a few times per month or per year, while 28.82% use ATMs either daily or weekly. 85% of respondents use ATMs most frequently in order to get cash, while 8.3% use them mainly to check their

balance, 2.7% mainly to deposit cash, 2.2% mainly to transfer funds, and only 0.9% use them mainly for other services.

While results of Internet banking questionnaire discovered that 65.8% of respondents used Internet banking. Moreover, respondents who have been using internet banking between 1 to 2 years are (33.9%) followed by the users between 2 years to 5 years was (32.3%). Most of the respondents can access their Internet banking account anytime with 53.5%. Moreover, the majority who are intended to use or adopt the Internet banking is business owner (54.3%) followed by the salaried employees (40.9 %).

Considering m-banking, results indicate that 60.3 % don't have the intention to adopt m-banking services. Moreover, 82% of customers that have the intention to adopt m-banking possessed smart phones. Only 56% of Internet banking users will adopt m-banking services. Also, percentage of male and female who are willing to adopt m-banking service was almost returned their questionnaires have never used ATMs, while the remainder have. 1.18% are infrequent users who use ATMs only a few times per month or per year, while 28.82% use ATMs either daily or weekly. 85% of respondents use ATMs most frequently in order to get cash, while 8.3% use them mainly to check their balance, 2.7% mainly to deposit cash, 2.2% mainly to transfer funds, and only 0.9% use them mainly for other services.

## 8. Significance of the study

Internet Banking has become an integral part of banking system in India. The concept of e-banking is of fairly recent

origin in India. Till the early 90's traditional model of banking i.e. branch based banking was prevalent, but after that non-branch banking services were started. The Indian government enacted the IT Act, 2000, with effect from the 17th October 2000. To examine different aspects of Internet banking RBI set up a committee on Internet Banking. The committee had focused on three major areas of Internet banking, Technology and security issues, legal issues and regulatory and supervisory issues. RBI had accepted the suggestions and recommendations of the Working committee and accordingly issued guidelines to banks to implement internet banking in India. The old manual systems which were prevalent in Indian banking for centuries seem to be replaced by modern technologies.

## 9. Conclusion

While banks view online banking essentially as a technology solution, it is a relatively new area for Indian consumers and not yet self-supporting. Being a savings based culture still, Indian consumers are cautious about their financial assets. They are also relatively recent entrants to internet based services. Design of these systems must therefore be based on an understanding of these users' outlook and priorities through task centric, security assured and service oriented solutions minus the technological challenges. Design lessons suggest viewing online banking not just as a convenience alone anymore but beyond it, to provide service, simplicity and security. This will create satisfied online banking customers and therefore profitability for the bank.

## References

- Ghosh S. & Reilly D.L., (2014), 'Credit card fraud detection with a neural network', System Sciences, ISBN: 0-8186-5090-7, pp. 621 - 630.
- Greco T.H., (2010), 'Money: Understanding and Creating Alternatives to Legal Tender', White River Junction, Vt: Chelsea Green Publishing ISBN 1-890132-37-3
- Hayhoe C., Leach L., Turner P., Bruin M., & Lawrence F., (2010), 'Differences in spending habits and credit use of college students', Journal of Consumer Affairs, Vol. 34, pp. 113-133.
- Humphrey D.B., (2014), 'Replacement of Cash by Cards in US Consumer payments', Journal of Economics and Business, Vol. 56, Issue 3, pp. 221- 225.
- Joo So-Hyun, Grable J.E. & Bagwell D.C., (2013), 'Credit Card Attitudes and Behaviors of College Students', e-journal, College Student Journal, ISSN: 0146-3934, Vol.37, pp. 405-419
- Kaynak E., and Harcar T., (2010), 'Consumer's attitudes and intentions towards credit card usage in an advanced developing country', Journal of Financial Services Marketing, Vol. 6, No. 1, pp. 24-39.
- Khatibi A., Haque A. & Karim K., (2013), 'E-Commerce: A Study on Internet Shopping in Malaysia', Journal of Applied Sciences 6 (3), pp. 696- 705.
- Kumar D & Ryu Y. (2011), 'A Brief Introduction of Biometrics and Fingerprint Payment technology', International Journal of Advanced Science and Technology', Vol. 4, pp. 25-38.
- Lie C., Hunt M. & Peters H.L. (2010), 'The "Negative" Credit Card Effect: Credit Cards as Spending-Limiting Stimuli in New Zealand', The Psychological Record, Vol. 60, pp. 399-412.
- Lin Shang-Hung. (2010), 'An Introduction to Face Recognition Technology', Informing Science Special Issue on Multimedia Informing Technologies – Part 2, Vol. 3, No. 1, pp. 1-7.
- Mann J.R. (2015), 'Credit Cards and Debit Cards in the United States and Japan', Monetary and Economic Studies, pp. 123-159.
- Matejkovic J.E. & Lahey K.E., (2010), 'Identity Theft: No Help for Consumers'. Financial Services Review, Vol. 10, No. 1, pp. 221-235.
- Mathew L. and Slocum J. (2011), 'Social class and commercial bank credit card usage', Journal of Marketing Volume 33, pp. 71-78.
- Mathew L. and Slocum J., (2010), 'Social class and income as indication of credit behaviour', Journal of Marketing Volume 34, pp. 69-74.