

THE INDIAN SCENARIO

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ABSTRACT

Tap, click and swipe- these are the new sounds of money. Modern technology is fast replacing paper with computer files, bank tellers with automated teller machines (ATM) and the file cabinets with server racks, and banks too have come a long way from **the old days of manually recording transactions** in registers and tallying them up at the end of the day. Banking is now no longer confined to the branches where one has to approach the branch in person, to withdraw cash or deposit cheques or request a statement of accounts. Electronic banking is conducted through a computer, handheld gadgets such as tablets or smartphones, or any mobile device offering internet connectivity and with the development of hi-tech technologies these transactions are all done through secured electronic transaction technologies. Thus today each and every bank has come forward to use e-banking both as a transactional as well as informational medium.

KEYWORDS Electronic banking, online banking security, information technology, banking information.

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RESEARCH OBJECTIVE

- To study e-banking facilities offered by banks to its customers
- To gain insight about the future prospects of internet banking
- To study the benefits which are to be provided to the individual under the e-banking. It gives direction to research tools, research types and techniques.
- To analyze the awareness among the customers for internet banking in India.

INTRODUCTION

Delivery of banking services to the customer by using electronic communication i.e. internet, telephone, computer is called electronic banking. Internet banking or e-banking means any user with a personal computer and an internet connection can get connected to his bank's website to perform any of the virtual banking functions. ATM facilities are not the only e-Banking services offered by banks but other banking services such as – direct account payments, make online purchases, get complete banking statements, pay bills, request cheque books etc. all of these without services are also available to customers without having to physically visit the banks. Virtual banking/e-banking/online banking/internet banking/personal computer banking/home banking/remote electronic banking/phone banking, these all are synonyms for electronic banking. In internet 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 the menu of the bank's website. The convenience offered through e-Banking can be easily summarized as -banking anytime, anywhere and anyhow. To access a financial institutions online banking facility, a customer with internet access would need to first register with the bank for the service, and set up a password and other credentials for customer's online verification. Banking institutions have become an essential component of most economies whether they are described as “engine for economic growth” or as acting as “conduct towards promoting economic growth”. There are not many inventions that have changed the business strategies towards new opportunities offered by e-banking.

REVIEW OF LITERATURES

Raghavan (2006) opined that at present, over 85% of the finished payment transactions are electronic and traditional way of doing banking at the branch level has relatively little

importance to electronic banking users. Many banks, including PSU banks, would have online ATMs, phone banking, virtual banking, e-banking, Internet banking, etc. by 2020.

Mohan (2006) remarked that Indian banking is at the threshold of a paradigm shift and a significant development has been achieved by banks in offering a variety of new and innovative e-banking services to customers today, which was not thought of before. However, public sector banks have not been able to harness the benefits of computerization.

Kamakodi et al (2008) found that a wide gap exists in human service in Indian banking while technology based services are exceeding expectations.

Uppal and Chawla (2009) found that the customers of public sector, private sector and foreign banks in Ludhiana district of Punjab are interested in e-banking services, but at the same time are facing problems like inadequate knowledge, poor network, lack of infrastructure, unsuitable location, misuse of ATM cards and difficulty to open an account.

Indian customers' perception in the context of e-banking has been examined by **Reeti Agarwal et al(2009)** and found that people in the age group of 31-45 years use e-banking services most frequently. Respondents opined that e-banking is most useful for balance inquiry, closely followed by inter-account transfer of funds and they found e-banking least useful for lodging complaints. Slow transaction speed was found to be the most frequent problem faced, closely followed by non-availability of the server while using e-banking.

Sharma (2009) opined that 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 context.

Kumar and Sinha (2009) cited various instances of hacking and phishing attacks reported throughout India. They remarked that cyber crimes prove that e-banking has several loopholes that can be easily exploited and users need to be extra cautious while making online transactions.

Srinivas (2009) discussed various e-banking channels and suggested security tips for customers which include changing password frequently, abstaining from revealing PIN either via mails or phone, avoiding cyber cafes for net banking etc.

Mohammed and Shariq (2011) conducted a study in the city of Lucknow, U.P. to examine the adoption of e-banking channels, particularly ATM, it was found that ATM was the most adopted technology by banks.

Shukla and Shukla (2011) stated that E-banking offers a higher level of convenience for managing one's finances even from one's bedroom. However, it continues to present challenges to the financial security and personal privacy. Customers are advised not to share personal information like PIN numbers, passwords etc with anyone, including employees of the bank; change ATM PIN and online login and transaction passwords on a regular basis; ensure that the logged in session is properly signed out.

Mishra (2011) provided useful tips to ensure safety of IB transactions. IB users are advised not to reply to any mail, phone call or letter, asking for the IB information like login id or password, and not to click on any link provided in any mail, claiming to be the link for the bank's website are the important tips, among others. A review of existing literature reveals that though there is plethora of studies that examined customer's perception about e-banking including its popularity and problems, studies that examined the growth of e-banking in India in volume and value terms are not found.

Aayushi Gupta (2012) have investigated on the current levels of clients' satisfaction and also tried to explore the factors that led to client satisfaction in Indian banks. Data from 400 respondents were collected from various branches of the prominent banks of India and the service quality, ambience and hygienic and involvement factors showed a positive relationship with relative clients' satisfaction.

Chandio (2013) along with creative ways of business thinking usage of modern technology has transformed the modes and methods in which today financial services are offered to the customers. Still, heightened exploitation of modern technology seems to be little difficult to attain because prospective customers have restricted exposure and accessibility to the emerged technology. Therefore, in this paper the study has given attention on appropriate understanding of the major constructs which encourage not only acceptance but also usage of internet banking information system by the customers. Reason behind selecting Pakistan as a centre for this study was that, although a large amount of investment has been done in IT department of banking sector, the acceptance rate for technology seems to be at level which is less than expected. Various variables were used in the study which implies how much useful an information technology will be and how much comfortable will it be for the users. Data collected from 353 users was analyzed for the purpose of results. Results indicated that usage and comfort in usage of online banking services together were major factors in determining the desire to use online

banking. Likewise, even trust is a dominant forecaster in usage of banking information technology. It concludes that if trust of users is enhanced, in turn it will definitely influence their desire to use net banking services. Whereas, no association was found between usage and comfort in usage of armchair banking services. Efficiency in operating computer, accessibility and language clarity were found to be strong determinants influencing the usage of net banking. Therefore, research concluded with suggestions to educate customers on usage and accessibility of virtual banking transactions to increase their trust level. An undertaking can be given in writing to reimburse the losses suffered due to any unauthorized intrusion.

Unyathanakorn (June 2014) implications are discussed in relation to e-bank management. The internet has become a vital part of people's daily lives. It has changed consumer behaviour in many ways, including financial transactions formerly requiring a visit to a bank branch to achieve. Commercial banks have been in the forefront in utilizing this to meet customer needs for on-demand financial services. It was found that e-banks must focus on service quality to increase customer satisfaction and trust and to obtain customer loyalty.

Alain Yee-Loong Chong(2015) aim to empirically examine the factors that affect the adoption of online banking in Vietnam. Perceived usefulness, perceived ease of use, trust and government support were examined to determine if these factors are affecting online banking adoption.

Khan, M.S., Mahapatra, S.S. and Sreekumar (2016) in a study evaluated the quality of internet banking services in India from customers' perspective. The analysis showed that the customers are satisfied with the quality of service on four dimensions such as reliability, accessibility, privacy and responsiveness, but least satisfied with user friendliness. The study provides guidelines to bankers to focus on user friendliness to improve upon internet banking.

2016 Indian banknote demonetization:

The demonetization of 500 and 1,000 banknotes was a policy enacted by the Government of India on 8 November 2016, ceasing the usage of all 500 and 1,000 banknotes of the Mahatma Gandhi Series as legal tender in India from 9 November 2016.

The announcement was made by the Prime Minister of India Narendra Modi in an unscheduled live televised address at 20:00 Indian Standard Time (IST) on 8 November. In the announcement, Modi declared that use of all 500 and 1,000 banknotes of the Mahatma Gandhi

Series would be invalid past midnight, and announced the issuance of new 500 and 2,000 banknotes of the Mahatma Gandhi New Series in exchange for the old banknotes. The banknotes of 100, 50, 20, 10 and 5 of the Mahatma Gandhi Series and 2 and 1 remained legal tender and were unaffected by the policy.

The government claimed that the demonetization was an effort to stop counterfeiting of the current banknotes allegedly used for funding terrorism, as well as a crack down on black money in the country. The move was also described as an effort to reduce corruption, the use of drugs, and smuggling.

However, in the days following the demonetization, banks and ATMs across the country faced severe cash shortages with severe detrimental effects on a number of small businesses, agriculture, and transportation. People seeking to exchange their notes had to stand in lengthy queues. Also, following the announcement, the BSE SENSEX and NIFTY 50 stock indices crashed for the next two days.

Initially, the move received support from several bankers as well as from some international commentators.

DEMONIZATION EFFECT ON ELECTRONIC PAYMENT SYSTEM

The government wants India to go cashless, but doing so is not easy. Cashless transactions have their downsides for consumers. But, for those with access to digital payments, rejecting cashless options or hesitating to embrace technology is also not the answer, especially in the wake of the cash crunch brought on by the government's demonetization move. Questions of access aside, a cashless world has its benefits. Embracing cashless options 683 | P a g e and being an informed consumer who is aware of the available systems and their designs increases the chances of a convenient and consumer-friendly experience. Traditionally, online transactions were done either by providing debit and credit card details or through net banking interfaces. While there were issues of security, which kept improving, the payment experience was not very user-friendly. These options were also largely restricted to computers with access to internet. But after the smartphone revolution, things have changed entirely. India has seen an explosion in digital

payment options, from e-Wallets to the Unified Payment Interface to a combination of the two. There are many cashless payment options available in India. 5 Best cashless payment options in India.

1) E Wallets – E Wallets have become very famous nowadays. After demonetization, use of e wallets has been implemented at a very large-scale. These e wallets allow users to make payments using your mobile number or by scanning a QR code which takes place in a jiffy. All you need to do is simply download a wallet like paytm.

2) UPI –UPI also known as Unified Payments Interface is another great way to go cashless. Unified payments interface also called UPI is system of payments. Using unified payments interface, people can transact using their smartphones. To pay using this system called unified payments interface, you need 2 important things: Smartphone and a Bank Account.

3) Plastic Money – Plastic Money means debit cards and credit cards that are used at ATM's for cash withdrawal and POS machines while shopping. Having a debit or credit cards make you burden free from carrying cash.

4) Net Banking – Net Banking is another handy way to get cashless transactions done. All you need is a bank account with e banking facility enabled on it. You can transfer funds to others account from the comfort of your home. There is no need of going to your bank to get transfers done. You can make all payments and transfers yourself. This is a very convenient way to go cashless in India as well.

5) Aadhaar Card – Aadhaar Card enabled payment system allows a person to pay using his aadhaar card if it is linked to his bank account. Once you link your aadhaar card to your bank, you can make payments using your finger prints.

RESEARCHMETHODOLOGY

Research methodology shows the various means of data collection for the present study. The study is carried out by using secondary data i.e. the data which has already been collected and analyzed. The present study is done to define e-banking. To find the answer to such questions descriptive research is done. The data was obtained from the secondary sources such as - websites, journals and magazines. I tried my best to take the data from various sources. This research paper may require additional citations for verification.

EVOLUTION OF E-BANKING

E-banking came into being in UK and USA in 1920s. It became prominently popular during 1960s through electronic fund transfer and credit cards. The concept of web based banking came into existence in Europe and USA in the beginning of 1980s. It has been estimated that around **40%** of banking has broken the barriers of branch banking.

EVOLUTION OF E-BANKING IN INDIA

Opening up of economy in 1991 marked the entry of foreign banks in India. They brought new technology with them. Banking products become more and more competitive. Thus, need for differentiation of products and services was felt. The ICICI bank, which is the second largest bank kicked off online banking in 1996. ICICI bank has seen big jump in transactions outside the branches. **Chanda Kochhar, MD and CEO**, says only **15%** of the transactions on average take place through the branches. She said, “The rest are happening outside.”

Currently **78%** of its customer base is registered for online banking. 1996-1998 marked the adoption phase, while usage increased only in 1999, owing to lower ISP online charges, increased PC penetration and a tech- friendly atmosphere.

A high level committee under the chairmanship of Dr. K.C. Chakrabarty and members from IIT, IIM, banks, and the reserve bank prepared the ‘IT Vision Document 2011-2017’, for the reserve bank and banks which provides an indicative road map for enhanced usage of IT in the banking sector. To deal with the pressure of growing competition, Indian commercial banks have adopted several initiatives and e-banking is one of them. Indian banks provide following e-banking products and services to their customers:

- Smart cards
- Automated teller machines (ATMs)
- Electronic fund transfer
- Electronic clearing services
- Mobile banking
- Balance enquiry and statement
- Prepaid mobile recharge

- Buy and sell mutual fund
- Demat holdings
- Online shopping

The three broad facilities that e-banking offers are:

1. Convenience: complete your banking at your convenience from the comfort of your home.
2. No more Queues: there are no more queues at an online bank.
3. 24x7 services: bank online services are provided 24 hours a day, 7 days a week and 52 weeks a year.

FEATURES OF ELECTRONIC BANKING

1. Easy electronic fund transfer.
2. Better efficiency in customer relationship management.
3. Making payments of utility bills like electricity, telephone bill and even mobile recharge.
4. Easy view of balance of accounts and statements.
5. Brings services to your 'doorstep'.
6. Balance and transaction history search.
7. Effectively make any type of payment and even multiple payments.
8. Order mini statement.
9. Mobile banking.
10. SMS banking services.

FUNCTIONS OF E- BANKING

At present, e-banking system provides following services.

1. INQUIRY ABOUT THE INFORMATION OF ACCOUNTS:

The clients inquires about the details of his/her account information such as the card's/account's balance and the detailed records of all transactions of the account and download the report list.

2. CARD ACCOUNT TRANSFER:

The client can transfer the funds to another person's credit card in the same city.

3. TRANSACTION OF FOREIGN EXCHANGE:

The client can trade foreign exchange, cancel orders and inquire about the information of the transaction of foreign exchange according to the exchange rate given by the bank over the internet.

4. THE B2C DISBURSMENT ON NET:

The client can do real time transfer and get the feedback information about payment from bank when the client does shopping in appointed websites.

ELECTRONIC BANKING SERVICES IN INDIA

The RBI constituted a working group on internet banking. The group divided internet banking products in India into 3 types based on the level of access granted. They are as given below:

1. **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. There exist facilities for downloading various types of application forms. The communication is normally done through e-mail. There is no interaction between customer and bank's application system. No identification of the customer is done. Thus, there is no possibility of any unauthorized person getting into production system of the banks through internet.
2. **Electronic information transfer system:** The system provides customer specific information in the form of account balances, transaction detail, and statement of accounts. The information is still in a 'read only format'. Identification and authentication of customer is done through password.
3. **Fully electronic transactional system:** This system allows bi-directional capabilities. Transactions can be submitted by customer for online update. This system requires high degree of security and control. In this environment, web server and application systems are linked over secure infrastructure. It comprises technology covering computerization, networking and security, interbank payment gateway and legal infrastructure.

TECHNOLOGY USED IN E-BANKING

1. ELECTRONIC FUND TRANSFER-

The facility offers you to make payments to account holders of other banks in an efficient and fast manner. As against the physical clearing, where the cheques are cleared on presentation of the physical instrument at the clearing house, in EFT the transactions are settled electronically. It

also provides you with an opportunity to move your collections to an electronic platform, whereby you can instruct your dealers to pay through EFT, thus reducing the time for realization of funds. At present this facility is available in two modes and you can avail either of the following modes to transfer your funds:

i) **NEFT (National Electronic Fund Transfer):** This is the faster mode of fund transfer in which the funds are credited to the beneficiary's account on the same day. It is offered by computerized branches of certain banks. During 2011-12 the volume of online fund transfer through NEFT, used for low volume transactions grew by **71%**, according to RBI data.

ii) **EFT (Electronic Fund Transfer):** This is the normal electronic fund transfer facility offered by the banks. It is similar to NEFT in all respects with the exception of the transaction cycle time- an EFT transaction takes a minimum of 3 working days to be credited to beneficiary's account whereas in NEFT the amount is credited on the same day of the transaction. The key features that are common to both EFT and NEFT are:

➤ EFT/NEFT clearing is conducted by RBI and it takes place thrice a day during Monday to Friday and twice on Saturdays.

➤ The payment instructions can be given through corporate electronic banking. Alternatively the instructions can also be sent to the designated branches.

➤ Presently offered at more than 125 locations, which covers all the major cities of the country.

iii) **ATM (Automated Teller Machines):** These are meant for balance inquiries, cash withdrawals and many other facilities depending upon the policies of the bank. This requires a valid customer id/password to log in and thus it is safe to be used. Debit cards can also be used in the ATMs and some banks also offer certain services for those who have credit cards at an ATM machine.

Branches and ATM scheduled commercial banks as of end December, 2016.

Bank type	Number of branches	On-site ATM	Off-site ATM	Total ATMs
Nationalized bank	33,627	38,606	22,265	69,871
state bank of	14,107	29,926	22,827	51,873

India				
old private sector banks	4,511	4,761	4,624	9,635
New private sector banks	1,792	12,546	26,839	39,385
Foreign banks	392	295	1054	1,349
Total banks	54,429	86,134	77,609	1,72,113

iv) **DEBIT CARDS:** These are multi-purpose cards and can be used in ATMs for balance inquiry for cash withdrawal or can be used for easy shopping at various counters. This card shows the automatic deduction of amount from the account just by scratching it on the POS machine. It makes easier shopping without having to carry cash. Online payments and shopping can also be done with a debit card.

v) **CREDIT CARDS:** A credit card system is a type of retail transaction settlement on a credit system. The difference between credit card and debit card is that it does not deduct the amount from the user's account after each and every transaction. Most credit cards' payments are settled after a period of 60 days, but each bank has their own policy regarding this.

vi) **CHARGE CARDS:** A charge card is a means of obtaining a very short term (usually around 1 month) loan for a purchase. It is similar to a credit card, except that the contract with the card issuer requires that the card holder must pay charges each month. Since there is no loan, there is no official interest.

vii) **SMART CARDS:** It is a card used for storing and retrieving personal information, normally the size of a credit card and contains electronic memory and possibly an embedded integrated circuit. The card can be used to do many tasks:

- Will verify the carrier of that card in order to access systems.
- Storing a patient's medical records.
- Storing digital cash.

To use a smart card, either to pull information from it or add data to it, you need a smart card reader, a small device into which you insert the card.

BENEFITS OF E BANKING

The benefits of this e-banking facility for the customers are unending. Internet banking in India is a welcome change for the customers and money spinning delivery network for the financial institutions. Mentioned below are some of the advantages of internet banking in India:

ADVANTAGES OF E-BANKING

- The customer can access his account anytime and from any part of the world.
- Attracts new customers
- Facilitate the offering of more services.
- No monthly payments are required to forfeit for availing this service.
- Credit card service at minimal charges.
- Provide service offered by competitors.

LIMITATIONS OF E-BANKING

- Safety situations around ATMs.
- Abuse of bank cards by fraudsters at ATMs.
- Danger of disclosing card number/details when buying online.
- Possible hacking of system while net-banking.

NEW CHALLENGES FOR REGULATORS

This changing financial landscape brings with it new challenges for bank management and regulatory and supervisory authorities. It includes:

- **Regulatory risk:** Because the internet allows services to be provided from anywhere in the world, there is a danger that banks will try to avoid regulation and supervision. What can regulators do? They can provide services from a remote location through the internet to be licensed. Licensing would be particularly appropriate where supervision is weak and cooperation between a virtual bank and the supervisor is not adequate.
- **Legal risk:** E-banking carries high legal risks for banks. Banks can potentially expand the geographical scope of their services faster through electronic banking. In some cases, however, they might not be fully involved in jurisdiction's local laws and regulations before they begin to offer services.

- **Operational risk:** There is a possibility of security threats which can come from inside or outside the system, so banking regulators must ensure that banks have appropriate practices in-place to guarantee the confidentiality of data, as well as the integrity of the system and data.

TIPS FOR ONLINE BANKING

Internet banking comes with its share of flaws and it is essential to be aware of the precautions that can avoid you in landing in any undesired scenario:

- Do not use shared computers when accessing your account
- Do not access your bank account using vital passwords at internet cafés/parlors or any other public places to avert the potential duplication of your personal/bank data.
- Contact your bank immediately if you doubt any changes in your banking password.
- Modify your password frequently.
- Always logoff from your internet banking account and close the internet browser after accessing the information.

FINDINGS:

- It has been found that 85% of the bank customers are aware of e-banking concept.
- It has been noticed that 30% of the customers are such who are not aware of the various facilities which come under the umbrella of e-banking.
- It has been observed that banks are not showing much interest to induce its customer to use internet banking.
- It has been found that 40% of customers are aware about e-banking concept but still somewhat feel hesitant to make full use of internet banking facilities.
- It has been observed that cooperative banks are lagging behind in providing net banking facility.
- It has also been observed that despite being educated, there is a class of bank customer who find online banking to be “unsafe”.

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