

Prospects, Status and Development of Internet Banking in India

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ABSTRACT

Internet banking's contribution to economic development is becoming increasingly important in emerging countries like India. The conventional banking system is being replaced by a virtual one, as banks no longer rely solely on it. The use of information technology in banking has made the banking experience more pleasant for customers. There has been an increase in the use of information technology in banking operations, which has resulted in better customer service. Customers can access banking services without having to visit a bank location. There is now a shift from the old mode of service to ATMs, Internet banking, and mobile banking, as well as IT-enabled services. Through internet banking, banks are focusing on value-based service. A look at the rise of Internet banking and the products that are being used in the banking sector is the focus of this study.

Keywords-- ATM's, Internet Banking, Development, Information Technology, Benefits

financial intermediary, banks have evolved into providers of a variety of monitoring services under one roof. In today's modern banking, finding new strategies to attract and keep consumers is just as important as finding ways to get an advantage over the competition.

II. AN OVERVIEW OF INTERNET BANKING

New and traditional banking products and services are delivered to customers via electronic, interactive channels via internet banking (internet banking) (Daniel, 1999; Sathye, 1999). Banks' ability to offer a variety of Internet banking services has been revolutionised by the efficient application of supporting technology. Many banks have realised the importance, competition, and problems that internet banking brings, and as a result, they are adapting to this new model of banking.

I. INTRODUCTION

India's financial system relies heavily on the contributions of banks, one of the most important financial institutions. Banking enterprises can take advantage of a variety of banking services. Since being taken over by the government in 1969, public sector banks have risen to a position of prominence and seen phenomenal expansion. Because of advancements in information technology, India is now poised to become an important global player. The history of banking in India is a long one. It has undergone numerous transformations as a result of technological advancements and new ideas. Over the past few years, the Indian banking industry has seen a radical transformation as a result of globalisation. As a rule, banks have traditionally taken the lead in using technology to improve their products and services and their operating abilities. The distribution of a wide range of value-added products and services has long been handled by banks using electronic and telecommunications means. ECS, internet banking, and mobile banking are just a few of the many banking developments that have taken place over the past several years. All banks now use the multi-channel idea, such as debit cards, credit cards, smart cards, ATMs, online banking, mobile banking, telephone banking, and electronic fund transfers, for example. Rather than being a

III. REVIEW OF LITERATURE

In Indian banking, Kamakodi et al. (2008) stated that there is an enormous gap between human services and IT-based services. Based on their research, Qureshi, Zafar, and Khan (2008) concluded that the majority of customers are receptive to the online banking culture due to its benefits and utility as well as its security and privacy features (Qureshi et al. 2008). Research by Uppal R K (2010) found that ATMs are the best while mobile banking clients are the highest in E-Banks, which has a good influence on net profit and company per employee. Using Mishra's (2011) suggestions, you may ensure the safety of your online transactions (IBT). If you receive an SMS, phone call, or email from a bank asking for your password, please do not respond or click on any link that directs you to the bank's website. In the wake of such significant progress, internet banking has come to prominence. According to Zamdi et al. (2013), a total of USD 983 billion was added to the cumulative real GDP of 56 nations between 2008 and 2012. India is the least developed among the rising economies, with a GDP growth rate of 0.047 percent. In recent years, the retail electronic payment system has developed, as stated by Dhananjay B and Suresh Chandra B (2015). As a result of NCPI's

establishment, electronic payment systems began to take shape. In this case, the percentage of electronic clearing went from 1% to 3%. A study by Mukhopadhyay (2016) indicated that cashless payments grow dramatically when more payments are deposited directly into the account. This year's research by Dr. Karunagupta and Mr. Ravindraarya (2017) focused on how India's financial sector is adapting to digitization. Digitalizing the financial system gives the economy a solid foundation and gets the Indian banking industry ready for a cashless economy.

IV. METHODS OF RESEARCH

The current investigation is purely descriptive in character. There is a lot of secondary data that has been utilised in this study. RBI bulletins, annual reports, and reports on banking trends and progress in India are used to compile this information. It is also available on the RBI's website and in numerous reputable publications.

V. INTERNET BANKING IN INDIA'S DEVELOPMENT

Until the 1990s, banks preferred branch banking to the traditional means of doing business. Innovative moves in banking services were also seen as a result of financial reforms. To keep up with ever-increasing workloads and incompatibilities, India's banking sector has embraced computerization since 1993, more out of need than choice. In 1993, the Indian Banks' Workers' Association (IBA) signed an agreement with the bank administration about the implementation of computerised banking applications. For the first time in history, banks were able to use computerised applications and communication networks. Dr. C. Rangarajan, the former RBI governor, chaired the two committees that produced the seminal papers on bank computerization. Banking processes should be computerised at multiple levels, and the proper architecture was recommended in both papers. The Reserve Bank of India established a committee in 1994, headed by W.S. Saraf, which strongly recommended the use of electronic fund transfers (EFT), the introduction of electronic clearing services, and the expansion of Magnetic Ink Character Recognition (MICR) beyond metropolitan cities and branches. An Indian financial institution pioneered internet banking in 1996 by launching online banking services at its branches. As a result of HDFC Bank's foresight, IndusInd Bank and Citibank began offering online banking services in 1999. The Reserve Bank of India and the Indian government have taken a number of steps to promote the growth and stability of Internet banking in India. Indian law now recognises electronic transactions and e-commerce with

the passage of the IT Act, 2000. India's new payment structures feature the following key technological advances:

- The introduction of debit and credit cards in the 1980s and 1990s
- During this time, from 1984 to 1988, banks started to use computers and MICR checks came out.
- It was in 1987 that HSBC became the first bank in India to introduce ATMs.
- India's Reserve Bank of India (RBI) started taking electronic funds transfers (ECS) in 1990.
- As early as 1991, India became a member of the Society for Worldwide Interbank Financial Telecommunication.
- It was established in 1997 as a shared payment network system.
- In 1999, the Reserve Bank of India, IIT (Mumbai), and IDRBT (Hyderabad) jointly conducted a pilot project for smart cards.
- The year 2000 saw the passage of the Information Technology Act.
- Mobile banking was introduced in India via SMS banking in 2002.
- In 2003, the Special Electronic Fund Transfer was introduced.
- Real-time gross settlement was introduced in 2004.
- Since 2005, core banking solutions and the implementation of national electronic funds transfers have been implemented in 11% of public sector bank branches.
- The Payment and Settlement System Act of 2007 was signed into law in 2007.
- In 2008, the Cheque Truncation System and rules for mobile banking transactions were put into place for the first time.
- In 2009, ATMs offered free withdrawals of cash.
- In 2010, the Immediate Payment Service was introduced.
- The Unified Payments Interface (UPI) and the Bharat Bill Payment System (BBP) were launched in August 2016 in banks across the country.
- The National Payments Corporation of India (NPCI) has created Bharat Interface for Money (BHIM), a smartphone app that is based on the Unified Payment Interface (UPI).

VI. INTERNET BANKING USE AND BENEFITS

Internet banking is one of the most significant banking breakthroughs of the past three decades, a product of the information and technological revolution. Internet banking revolutionised the banking business by bringing together traditional retail financial services and the internet to produce a new type of financial service. Internet banking is a web-based service that allows customers to undertake basic banking services or transactions.

The following are some examples of these products and services:

- There are two types of accounts
- Loans to consumers, as well as mortgages
- MasterCard, Visa, and American Express are examples of credit cards.
- Services for the exclusive use of corporations and wealthy individuals.

Banking has become a lot easier and less time-consuming thanks to the introduction of internet banking. E-primary banking's goal is to provide customers with convenient and safe methods of making online financial transactions, such as automatic deposits, automatic bill payments from their bank account, online loans, and many more.

When it comes to internet banking, the process is really straightforward: customers simply call their bank, provide their user ID and password, and then log on to

their bank's website. They only need a secure web browser to access the Internet. A consumer's personal information is protected by 128-bit encryption, which scrambles all of the information exchanged between a consumer's computer and the bank. As a result, customers are more likely to be pleased.

Internet banking Innovations of the Present Day The banking sector in India A new product design, a variety of online payment methods, and a variety of electronic systems were all created as a result of banking innovation. All of this has given the modern financial system the catchy moniker of "Innovative banking." Innovating banking places a heavy emphasis on the ease and satisfaction of its customers. Innovation banking was founded on the idea that technology might help banks deliver better service to their customers, and the internet was a key component in this effort. As a result of the automation of labor-intensive and paper-based processes brought about by the internet's entry into the banking sector, significant shifts in efficiency, control, and cost have been noticed. The conventional banking system faced numerous issues that needed to be addressed, and the advent of new banking goods and services was able to do just that, resulting in a sea change in the industry's overall philosophies. The following is a list of internet banking innovations that have taken place.

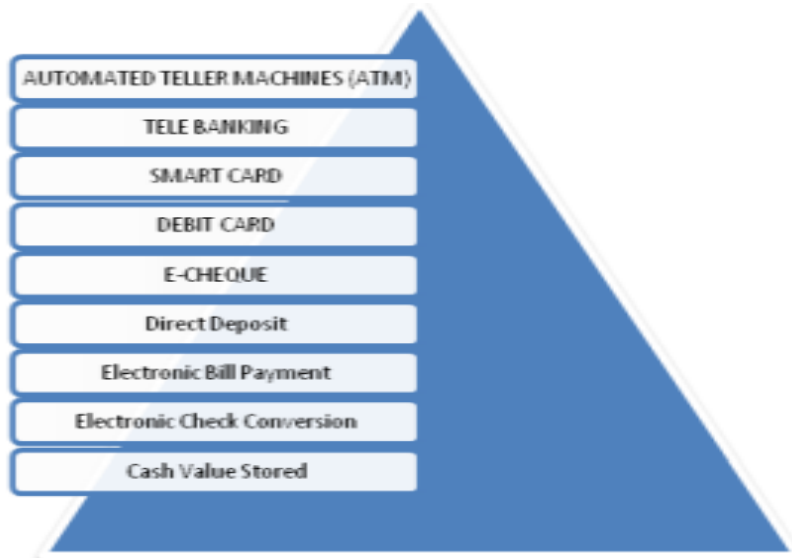


Figure 1: Automated Teller Machine (ATM)

ATM is known as an automated teller machine or automatic teller machine. In simple sense it is an electronic computerized telecommunications device that allows customers to complete financial transaction like cash withdrawals or cash deposit by using their ATM cards and report of the account's balance can also be received that

too without the aid of any bank branch representative or teller. In simple words, it is simple to use self-service solution.

The Smart Card

A smart card, also known as a chip card or an integrated circuit card (ICC), is a small plastic card with a

computer chip built into it. An on-card microprocessor is hidden beneath a contact pad. Microprocessors are being used in place of magnetic stripes on credit and debit cards, replacing the traditional magnetic stripe. For the sake of safety, the smart card's microprocessor is included. The microprocessor communicates with the host computer and the card reader. It's up to the microprocessor to control who has access to the card's data. Cash withdrawals, deposits, and balance inquiries are all possible using these cards' chips.

Paying using a Debit Card

When we make purchases, we can use a debit card instead of cash to cover the cost. Instead of using paper money, customers can make purchases and withdraw cash using their credit or debit cards. If you create a savings account with a bank in India, you'll be given a debit card. If a consumer needs cash, they can use their debit card to withdraw it. Customers can also use ATMs with this card. If the customer has enough money in his bank account, he can take the money out. Although the Rupay, Visa, and Mastercard debit cards are the most common, there are a slew of other types of debit cards that are only accepted in specific countries. When it comes to making purchases, customers should exercise extreme caution. The banks have raised the number of debit cards they issue from 33.68 million to 90.63 million, a more than double rise in the number of debit cards issued between 2013 and 2018. The average amount of money issued in debit cards each year is \$60.99 million. Debit card growth was at its highest in 2015 and has been steadily increasing over the past three years, with an overall compound annual growth rate of 22%.

Paying using a Credit Card

When a customer has a credit card, they can use it to buy goods and services on credit. Clients are offered a line of credit by banks when they use their credit cards to make purchases. The bank will then collect repayments from the customer in the future. Payments made with a credit card are more secure than those made with cash or a check. Customers are wary of making purchases using their credit cards because they worry that they may wind up overspending. Additionally, there was a strong potential for fraud if the card was lost or stolen, or if the cardholder's personal information was accidentally exposed.

A rise from 1.95 million to 3.77 million credit cards was recorded between 2013 and 2018, as seen in the table. There was a negative growth rate in 2014, and it has continued to rise ever since. According to the data, the total annual compounded growth rate is 14 percent.

National Electronic Fund Transfer

National electronic fund transfers are a payment mechanism that allows one-to-one transfers of money across the country. Individuals and corporations can

transfer payments electronically from any participating bank branch to any other participating bank branch in the country. A bank branch must be NEFT-enabled in order to participate in the NEFT money transfer network. It is important for clients to have an account with a bank branch that supports NEFT in order to receive or send money using the NEFT system. When using NEFT, there is no limit on the amount of money that can be transmitted. In the NEFT system, fund transfer requests are settled on a half-hourly basis starting on July 10, 2017.

Real Time Gross Settlement

Order-by-order settlement of financial transfers is what it is defined as. Instantaneous implies processing orders as soon as they are received rather than at a later date; Gross Settlement indicates that each transaction is settled one at a time (on an instruction by instruction basis). Because the payments are recorded in the books of the Reserve Bank of India, they are final and irrevocable. RTGS is primarily intended for transactions of large value. In terms of RTGS transactions, the lowest amount that can be settled is Rs. 2 lakh, and there is no maximum limit. As soon as a consumer receives a notification that a bank has transferred money from one account to another, they must get that money within 30 minutes. Customer transactions can be processed using the RTGS service from 9:00 a.m. to 2:30 p.m. on business days through the bank. For outgoing transactions, banks charge Rs 30 for transactions of Rs 2 lakh to Rs 5 lakh and Rs 55 for transactions of more than Rs 5 lakh. There are no charges for inward transactions performed through RTGS.

App-Based Financial Services

Transactions are made on a mobile device such as an iPhone or Android tablet. Mobile phones have become an increasingly important medium for providing banking services because of their widespread availability. After acquiring the relevant approval from the department of payment and settlement systems, banks are permitted to offer mobile banking services via SMS, USSD, or mobile banking applications. Customers of any mobile network will be able to use mobile banking services, regardless of where they are located. To provide mobile banking services, only banks that are licenced and have a physical presence in India are allowed to use Core Banking technology. Mobile banking services can only be activated if the customer meets the Know Your Customer requirements. Volume (millions) and value (billions) of mobile banking transactions made by banks from 2012-13 to 2017-18. According to the data shown in the table below, mobile banking transactions have grown rapidly over time. According to data from 2016 and 2017, mobile banking transactions grew at a faster rate than those in 2014 and 2015. The overall yearly growth rate of volume and value of mobile banking transactions is greater than 100%, i.e. 104% and 201 percent, respectively.

Adopting Electronic Banking Faces Obstacles

In today's world, electronic banking has become the standard rather than an exception for banks. While electronic banking provides a wide range of benefits to customers, they nonetheless face a number of hurdles in implementing the technology. The following are some of the difficulties we're facing:

1. Customers are reluctant to use electronic banking services because of the potential for security breaches. Spyware, phishing, online theft, spamming, and other forms of electronic financial fraud are still widely used.
2. Due to technological issues, customers risk losing their confidential information.
3. There is a lack of preparedness on the part of both clients and banks to adopt new technologies.
4. There is a lack of infrastructure in place to support electronic distribution networks.
5. The implementation of internet banking by bank management, supervisors, and regulatory agencies is fraught with difficulty.
6. Customers are concerned about the possibility of giving their financial information to third parties, hence they are concerned about privacy.
7. Internet communication may not be the greatest foundation for banking and customer relations because some of the trust may be lost.

Reasons for the Success of Online Banking

Internet banking usage in India is quite low when compared to Western nations. Internet banking has seen a recent uptick in the development of information infrastructure as a result of these efforts. E-implementation banking is influenced by a number of factors, including:

1. One of the most important factors in the widespread use of internet banking is the ease with which consumers may use it around the clock, saving them both money and precious time.
2. When it comes to internet banking, banks constantly invest in new online products and have an interactive customer care mode ready to help customers with any questions they may have.
3. Marketing and advertising help customers to conduct transactions online since it is more cost-effective than branch banking, and significant advertising about internet banking helps to raise awareness of the service.
4. The customer's prior understanding of the internet and information about internet banking helps them to carry out banking activities swiftly and safely.
5. Today's banks reassure their customers about security and privacy, building customer trust and ensuring that client information is kept secure and not leaked in any way.

VII. CONCLUSION

As time goes on, the concept of internet banking is becoming more popular in India. Many public and private sector banks have successfully introduced internet banking services since it is beneficial for both consumers and banks. E-success banking has been bolstered by the use of information and technology. Financial technologies such as ATMs, credit cards, RTGS, debit cards, and mobile banking have radically reshaped the Indian banking landscape. However, there is still a need for more innovative solutions as internet banking continues to face many challenges, such as risks related to security, privacy, trust, lack of knowledge among consumers in relation to internet banking, unsupportive infrastructure, low level of computer literacy among existing staff, etc. A joint effort by the government of India and a number of public banks and financial institutions is attempting to establish a more secure, dependable, and protected Internet banking system. This report also discusses the potential for internet banking development in India. Untapped rural markets, a competitive edge for banks, a growing internet user base and government initiatives are just a few examples of opportunities that exist. Domestic banks' internet services still have a long way to go in comparison to those offered by international banks. One thing to keep in mind is that a supporting and efficient infrastructure can make Indian banks accessible to a broader audience. In this study, the fundamentals of internet banking in India are analysed and sketched out. It's clear that Internet banking is accepted by Indian consumers, but it's going to be a long time before it becomes mainstream. It is possible to perform research in advance to investigate the numerous factors influencing consumer decisions to use internet banking.

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