

# Role of E-Commerce in Indian Banking Sector

Thomaskutty. M. O.<sup>1\*</sup>, Dr. Narender Singh<sup>2</sup>

<sup>1</sup> Research Scholar, Malwanchal University

<sup>2</sup> Associate Professor, Malwanchal University

**Abstract - The internet has changed the way things were done people purchase and sell products and services in the previous 10 years. Indian customers' buying experiences are being transformed by e-commerce. Electronic data exchange expands to producers, retailers' traders, stock market operations, and travel bookings, among other things, resulting in increased economic growth. The word "E-Commerce" refers to doing online commerce using computers, fax machines, and telephones. IBM was the first to adopt the word in 1972. The European Union and the United States conducted the initial transactions. The establishment of the internet market in 1995 marked the start of E-Commerce in our country. E-banking has grown in popularity because to its easy transactional advantages such as speed, efficiency, and accessibility are also available. The most significant benefit of e-commerce is that it brings individuals from all corners of the globe together in a relatively short period of time. Allow individuals to experience and access items, services, information, and other people that they may not otherwise have access to. Banks are the backbone of every country's economy, allowing for quick transactions that were previously impossible before the advent of E-commerce. The importance of the Indian banking sector in Ecommerce is demonstrated in this study**

**Keywords - e-commerce, Banking, Information**

-----X-----

## INTRODUCTION

Electronic commerce is the use of a telecommunications network to share business information, maintain business contacts, and make commercial transactions. Massive advancements in information technology have transformed the globe into a global village, resulting in unparalleled upheaval in the banking business. Banks presently operate in a highly globalised, liberalised, privatised, and competitive environment. Banks must employ technology to thrive in this climate. IT has ushered in a new commercial age. In terms of enhancing services, it is becoming more significant in the banking industry. Due to broad improvements in information technology, the Indian banking industry has seen remarkable growth. Banking has revolutionised the banking business as well as the services provided by banks to their consumers. 'Anywhere banking' became known as a way to provide distinctive and competitive services. Apart from traditional branch banking, click-and-order methods such as online banking, ATMs, Tele-banking, and mobile banking are becoming popular. Customers may access their accounts, obtain account statements, transfer cash, and acquire draughts with only a few keystrokes. Customers are increasingly required to visit branch locations due to the large number of people of ATMs and plastic cards. Smart Cards, which have an integrated microprocessor chip, have ushered in a revolution. Another invention that has had an influence on the

banking industry is electronic data exchange (EDI). Transaction costs have decreased, productivity has increased dramatically, and new financial products and services have been introduced to the market. [1]

## BRIEF HISTORY OF E-COMMERCE

Ecommerce has a 40-year history and is still growing today, with new technology, inventions, and hundreds of firms taking advantage of the internet market year. In the 1970s, electronic data interchanges and teleshopping paved the path for today's ecommerce store. The evolution of ecommerce is inextricably linked to that of the internet. Online shopping was a possibility when the internet was first made accessible to the general public in 1991. Thousands of businesses have since followed Amazon.com's lead, which was one of the first E-Commerce sites in the United States to begin selling goods online. Since its start, ecommerce has vastly advanced in terms of convenience, security, and customer experience. This article will discuss some of the important actors and E-Commerce milestones. [2]

## DEFINITION OF E-COMMERCE

E-commerce, often referred to as electronic commerce or EC, is the purchasing and reselling of products and services, as well as the transmission of

payments and data, through an electronic network, typically the internet. Business-to-business, business-to-consumer, consumer-to-consumer, and consumer-to-business transactions are all possible.

The terms e-commerce and e-business are sometimes used interchangeably. Occasionally, the term e-tail is used to refer to online buying transactional operations. [4]

## E-COMMERCE IN BANKING

In 1996, ICICI Bank became the first bank to promote its use by offering internet banking to its customers. Online banking was only launched in 1999, thanks to decreasing internet prices and growing awareness of electronic media. Other banks, including HDFC, Citibank, IndusInd, and the now-defunct Times Bank, followed suit.

With effect from October 17, 2000, the Government of India approved the IT Act, 2000, which gave legal legitimacy to electronic transactions and other forms of electronic business. The Reserve Bank is constantly monitoring and revising the legal and other requirements of e-banking to ensure that it develops along sound lines and those e-banking-related issues do not jeopardise financial stability. [5]

## FORMS OF E-BANKING

1. Internet banking
2. Electronic funds transfer system
3. Investment through internet banking
4. Automated teller machines
5. Debit cards
6. Credit cards
7. Bill payment service
8. Applying for/claiming insurance
9. Smart cards
10. Mobile banking

## BENEFITS OF E-BANKING

Computers are capable of storing, analysing, aggregating, finding, and displaying data according to user needs with a great deal of speed and precision, therefore E-Banking helps us overcome the shortcomings of manual systems. With the advancement of E-Banking, a slew of benefits flow to numerous parties.

### To the Banks

- E-Banking Service helps in increasing the profits
- E-banking gives you a leg up on the competition. a border with fewer connections to the banks
- E-Banking carries when it comes to business, less is more when it comes to paper money and plastic money
- Websites that provide e-banking services might be useful in revenue earner through its promotional activities.
- Customers may use the e-banking service from anywhere, reducing the need to spend additional money on infrastructure.
- Websites that provide financial convergence for customers will result in a more engaged banking consumer who will use the banking websites more often. [6]

### To the Customers

- Access to and use of banking services is less expensive.
- Increased convenience and time savings – transactions may be completed 24 hours a day, without the need for a physical visit to the bank.
- Corporations will have quicker access to information since they will be able to check on several accounts with a single click of a button.
- E-banking services for better cash management shorten the cash cycle and improve the efficiency of company activities since Estonian banks' websites offer a wide range of cash management instruments.
- Reduced fees- This refers to the fees associated with obtaining and utilising different financial goods and services.
- Convenience- All banking transactions may be completed from the convenience of one's own home or workplace, or from any location the consumer desires.
- Speed - Because the medium responds quickly, clients can literally wait until the last minute to complete a financial transfer.
- Funds management- Customers may retrieve their account history and do "what if" research on their own PC before completing any online transaction. This will result in more efficient money management. [7]

### Traders and Merchants:

- It guarantees prompt payment and settlement for the dealers' varied transactions.
- It offers a wide range of services to businesspeople that are on par with international standards and have minimal transaction costs.

- Cost and risk problems involved in handling cash which are very high in business transactions are avoided. [8]

## **THE CHALLENGES OF E-COMMERCE**

### **ATM services**

This is possibly the most widely utilised electronic banking service in India. Since its inception in the mid-1990s, India now has over one lakh (100000) ATMs. This initiative was taken by private banks, led by ICICI Bank, and they have worked hard to popularise it. ATM services, on the other hand, have their own set of issues to deal with. [9]

#### **1. Inadequate infrastructure**

The lack of a suitable location, electricity, and satellite (VSAT) / internet access has hampered the service's expansion into rural and semi-urban regions.

#### **2. Safety Concerns**

While ATMs in cities are usually placed in congested places and guards are easy to come by, this is not the case in rural regions. Without sufficient protection, the machines are easy targets since they are loaded with cash. It's also problematic since, unlike other countries throughout the world, there's no connection to the state police apparatus.

#### **3. Working Environment**

India is a multilingual and multicultural country. Our literacy levels aren't particularly high. Having instructions displayed in different languages becomes tricky. However, technology has provided a remedy to this problem. However, illiterate individuals cannot benefit from technology, and ATMs cannot assure uniform functioning levels from all users, resulting in severe wear and tear. [10]

### **Debit/Credit Card Services**

Credit / Debit cards are one of the bank services that has witnessed the most increase in the recent one and a half decades. While Western banks like as Citibank and Standard Chartered were among the first to provide them (particularly credit cards), it was the new generation of Indian private sector banks such as ICICI and HDFC that reaped the biggest benefits from this development. Plastic money therefore made inroads into the Indian economy, enticing young, middle-class, literate urbanites in particular. However, they are also marked by a number of difficulties. [11]

#### **1. PIN Protection**

It is a significant obstacle to overcome. A four-digit PIN is all that is required to withdraw money from a card (Personal Identification Number). This streamlines

labour to a larger extent for an electronic system. However, the human mind, with its limits, makes it impossible to retain this number, especially for creative and illiterate individuals alike. A four-digit code with only 10,000 permutations is also quite easy to crack, especially with today's technologies. Biometrics, on the other hand, has a solution in the form of finger imprints. [12]

#### **2. Swipe/Signature Authentication**

When shopping, the majority of debit/credit cards are swiped to indicate a fund transfer. Despite the fact that a slip is created for consumers to sign, there has seldom been a scenario where the signature is tallied by the bank when settling claims, nor has a store been able to count signatures because most customers do not sign at the back of their cards. Customers and marketers dislike card swiping as a result, especially in small towns. The conflicts are extremely tough to resolve. [13]

#### **3. Fees for service**

The majority of cards in the world are issued by either 'VISA or MASTER Card.' They work in tandem with banks, saving all relevant and helpful information on cardholders. They do, however, charge for this service.

### **Internet Banking**

It is arguably the most significant banking innovation of the last century. Automation of banking and the birth of the internet are two big factors to this. While one insured that operations were converted from manual to automated, the other ensured that it reached everyone involved in the activity, whether it was the bank, the consumer, or a third-party supplier. However, in India, this revolution has yet to materialise in a significant way. While it represents a significant cost savings for banks aside from early expenditures, customers are hesitant to embrace it entirely. [14]

#### **1. Lack of Online Banking Access**

While internet banking remains the fastest and most convenient method of banking (even when done from home), the country lacks internet banking connectivity. The majority of rural and semi-urban regions are still disconnected or only partially connected. This is a problem that banks cannot solve.

#### **2. Internet Service Bandwidth**

Even in regions where connectivity is sufficient, bandwidth is still an issue. While bank offices in this area can afford satellite connectivity/VSAT, the customer does not have access to these services on a personal basis. As a result, customers lose

patience and connectivity is lost. It also leads to increased foot traffic at branches, as well as consumer discontent.

### 3. Safety and security

This is still the most serious worry with Internet Banking across the world. While the Reserve Bank of India has issued instructions in this respect, the problem continues to be a source of worry for both banks and their customers in India. While some smaller banks have already compromised on this problem, technical advancements in the sector have aided fraudsters in continuing to discover methods to elude Bankers and Lawmakers alike, despite Banks and Customers adhering to norms and regulations.

#### Telebanking/Mobile Banking

The consequence of a boom in the telecom industry in the shape of mobile telephony in India during the first decade of this century has witnessed a massive increase in the number of telecom customers, which now stands at over 875 million. This reality has prompted bankers to provide an increasing number of services over the phone rather than through branch banking. These services include things like check book requests, password resets, and DD requests, among others. However, there are certain specific issues with this sort of banking.

#### 1. Lack of literacy

Banking, unlike the usage of mobile phones, necessitates knowledge of systems, laws, and regulations. However, the majority of lower-class mobile users do not comprehend them and find them difficult to use.

#### 2. Technology

When it comes to using mobile equipment, technology might be a major stumbling block. Because most consumers acquire instruments based on their budgets, service providers are severely limited in terms of the capabilities available in these devices.

#### 3. Penetrability

Banking, unlike mobile phone service, has not been able to penetrate India's rural core. The fact that 83 percent of Indians do not have a bank account demonstrates this. As a result, the issue must be handled at the bank level.

#### 4. Security

This is a huge worry once again due to two considerations. a. The Mobile Service Provider's inability to provide a Reliable Network in the Area b. Information leakage owing to the easy accessibility of a mobile device Apart from this, there is always the

risk of apps on a smartphone accessing information saved on the device and stealing sensitive information.

#### Transfer of funds via electronic means

This function has greatly aided businesses and is one of the most significant implementations of E-Banking. Only intra-bank transactions were real-time at first. Intra bank transfer in real time (RTGS) became a reality after the Reserve Bank of India made the effort to connect all of India's scheduled banks. However, due of the following issues, this technology still requires a lot more work.

#### Transfers of funds limitation

Even if the RBI has restricted financial transfers using Internet Banking for security concerns, visiting a bank every time a larger fund transfer is required is inconvenient and time consuming. There must be a mechanism to ensure that the same thing happens from an office computer rather than a bank branch.

### ADVANTAGES OF E-COMMERCE FOR BANKS

Banks have a compelling motivation to seek online commercial transactions. If businesses don't take advantage of the Internet's prospects, they risk being relegated to a secondary position as commerce changes toward electronics. In that case, they would process payments for e-commerce customers and sellers but they would have limited opportunity to interact with consumers and sellers independently or offer their own items in the electronic marketplace. If banks, on the other hand, create an online presence they should be able to more effectively promote traditional banking goods as well as develop and offer new products required by e-commerce participants.

### IMPLICATIONS OF THE RISK

While banks stand to benefit from their engagement in e-commerce, they will also face some substantial new dangers. Some of these dangers are strategic, such as banks' inability to react to the changes in the business environment brought on by e-commerce.

Others are up and running, which means that the computers and network infrastructure that underpin e-commerce might go down. [15]

#### Strategic risk

The competitive environment in banking and finance will undoubtedly be transformed by e-commerce. One risk for banks is that they may be caught off guard by the developments, unable to foresee or respond appropriately to new forms of competition. This is what we call a strategic competitive risk.

Take, for example, the issue offered by the advent of Internet-only banks. Such banks will be unconstrained by the requirement to maintain an expensive branch network when they enter the electronic marketplace. As a result, these Internet-only banks may provide competitive deposit and lending rates, as well as perhaps forgo many of the costs that larger banks demand. Similarly, some traditional banking products may be added to the product offerings of on-line financial service providers such as mutual funds or discount brokers. These suppliers, which are not bound by branch networks, may be able to provide exceptionally low rates on credit cards and transaction accounts.

### **Operational Risk**

The admission of banks into the electronic economy exposes them to greater risk of technical failure. The continuous seamless operation of banks' computers and the underlying computer network will be critical to their efforts to promote items through the Internet. Individual banks' reputations may be harmed if individual computers fail, giving clients discomfort; if the network fails, a considerable amount of business may be lost. Banks might potentially lose money if hackers carried out false transactions on bank systems, causing the organisations to shut down their operations.

### **MANAGEMENT OF RISK**

Banks will build information systems to monitor the financial exposure resulting from their engagement in e-commerce in order to efficiently manage strategic and operational risks. Banks have made progress in building up risk management systems that estimate how much value is at risk under various assumptions about interest rates, the relative prices of financial instruments, and other market circumstances on the wholesale side. It's more difficult to put a cash number on the exposure associated with strategic and operational risks in e-commerce, especially if legal and regulatory action is necessary to settle any issues that develop. Furthermore, e-commerce is still a relatively new phenomenon with little historical data on which to base risk predictions.

### **CONCLUSION**

Banks doing to take advantage of the opportunities that the rise of online commerce has created. For traditional banking products, several institutions have already implemented a cost-effective electronic access route. In addition, a number of banks are intending to provide new e-commerce-focused solutions. The makeup of banks' business operations will alter if these efforts are extensively embraced across the sector. Indeed, banks may increasingly serve as e-commerce facilitators as their traditional business lines go away. Banks would most likely reduce the size or vary the scope of their branch networks in response to

such a shift, allocating more resources to the development and maintenance of computer networks and software. The precise role that banks play in e-commerce, on the other hand, will be determined in large part by how successfully they handle the strategic and operational risks that come with doing business in the digital world.

### **REFERENCES**

- [1] Albert H., Judd, Rivers, (2006) "Creating a winning E-Business", Wagner Course Technology Thomson Learning, pp. 37-255.
- [2] Alawneh A., and Hattab E, (2007) "E-Business Value Creation: An Exploratory Study, Proceedings of the Seventh International Conference on Electronic Business", Taipei, pp. 181-188.
- [3] Alawneh A., and Hattab E (2009). "International Arab Journal of e-Technology", Vol. 1, No. 2, pp. 1-8
- [4] Amit Basu and Steve Muyllle (2007), "How to Plan E-Business Initiatives in Established Companies", Vol. 49, No. 1, pp. 11-22
- [5] Aranda-Mena, G. and Stewart, P. (2005), "Barriers to E-Business Adoption in construction international literature review", pp. 33-49
- [6] Ayo, Charles K. (2006). "The Prospects of e-Commerce Implementation in Nigeria, Journal of Internet Banking and Commerce", Vol. 11, No.3, pp. 68-75
- [7] A. K. Sohani, (2009), "Technology and Banking Sector", ICFAI University Press, pp. 1-39
- [8] Brahm Canzer, (2009) "E-Business and Commerce Strategic Thinking and Practice", Houghton Mifflin, pp. 114-312.
- [9] Chiemeké, S. C., Ewwiekpaefe, A. and Chete, F. (2006), "The Adoption of Internet Banking in Nigeria: An Empirical Investigation, Journal of Internet Banking and Commerce", vol. 11, No.3, pp 33-49
- [10] David Whiteley, (2001) "E-Commerce Strategy, Technologies and Applications", Tata McGraw Hill, pp. 3-143.
- [11] Daft, Richard L. (1982), "Bureaucratic Versus Nonbureaucratic Structure and the process of Innovation and Change", pp. 129-166

- [12] Earl, M. (2000), "Evolving the E-Business, Business Strategy Review", pp. 33-38
- [13] Eben Otuteye (2003) "A Systematic Approach to E-Business Security", pp. 87-103
- [14] Hackbarth, G. & Kettinger W. J. (2000), "Building an E-Business Strategy: Information Systems Management" pp. 78-90.
- [15] Kalakota, R. and M. Robinson (1999), "E-Business: Roadmap for success", Addison-Wesley, 112-149

---

**Corresponding Author****Thomaskutty. M. O.\***

Research Scholar, Malwanchal University

**Email -** [thomaskuttyveliyanad@gmail.com](mailto:thomaskuttyveliyanad@gmail.com)