



# Digital Banking Revolution: Understanding E-Banking Usage Pattern

Dr Sowmya. S

Assistant Professor, Department of Economics and Public Policy  
M.O.P Vaishnav College for Women. Chennai

**Abstract** – E-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 E-banking, any inquiry or transaction is processed online without any reference to the branch (anywhere banking) at any time. Providing E-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. E-banking has a lot of benefits which add value to customers' satisfaction in terms of better quality of service offerings and at the same time enable the banks gain more competitive advantage over other competitors. This paper discusses Features, Structural framework, Services of E-banking and its usage pattern in an emerging economy.

**Keywords** – E- Banking, Operational framework, Usage Pattern.

## I. INTRODUCTION

The fast-advancing global information infrastructure including information technology and computer networks such as the Internet and telecommunications systems enable the development of electronic commerce at a global level. The nearly universal connectivity which the Internet offers has made it an invaluable business tool. These developments have created a new type of economy, which many call the 'digital economy'. This fast-emerging economy is bringing with it rapidly changing technologies, increasing knowledge intensity in all areas of business, and creating virtual supply chains and new forms of businesses and service delivery channels such as E-banking. As a direct consequence of the emergence of the 'digital economy', the balance of power seems to be shifting to the customers. Customers are increasingly demanding more value, with goods customized to their exact needs, at less cost, and as quickly as possible. The economy of most developing countries is cash driven; meaning that monetary transactions are basically made through the exchange of bank notes and coins for goods and services.

There is faster delivery of information from the customer and service provider, thus differentiating Internet enabled electronic banking system from the traditional banking operation. E-banking has thus become important channel to sell Products and Services; leading to a paradigm shift in marketing practices, resulting in high performance in the banking industry. This development made e-banking pose as a threat to the traditional branch operations, despite the fact that electronic commerce is still developing and is rapidly changing. According to Ozuru et al. (2010) "The importance of electronic payment system in any country can never be over emphasized, due to the dramatic transformation in technological advancements that is being experienced by the global financial industry".

### E-Banking:

E-banking is the term used for New Aged Banking System. E-banking is an electronic payment system that enables customers of a financial institution to conduct financial transactions on a website operated by the institution, such as a retail bank, virtual bank, credit union or building society. E-banking is also referred as Internet banking, online banking, and virtual banking and by other terms. E-Banking is increasingly becoming popular because of convenience and flexibility. E-banking uses the internet as the delivery channel by which to conduct banking activity, for e.g. Transferring funds, paying bills, viewing checking and saving account balances, paying mortgages and purchasing financial instruments and certificates of deposits. Electronic banking has been around for quite some time in the form of Automatic Teller Machines (ATMs) and telephone transactions. In more recent times, it has been transformed by the internet – a new delivery channel that has facilitated banking transactions for both customers and banks.

### Need For E-Banking:

E-banking has enabled banks to scale borders, change strategic behavior and thus bring about new possibilities. E-banking has moved real banking behavior closer to neoclassical economic theories of market functioning. Due to the absolute transparency of the market, clients (both business as well as retail) can compare the services of various banks more easily. For instance, on the internet, competitors are only one click away. From the banks' point of view, use of the internet has significantly reduced the physical costs of banking operations. Around the world, electronic banking services, whether delivered online or through other mechanisms, have spread quickly in recent years.

### Objectives:

- To identify the various E-Banking services and digital delivery channels offered by banks.



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- To understand the operational and technological framework of E-banking systems.
- To analyze customer usage patterns and satisfaction levels regarding E-banking services.

**Hypothesis:**

- **Ho:** There is no significant relationship between gender of the customers and their usage pattern regarding services of e-banking.
- **H1:** There is a significant relationship between gender of the customers and their usage pattern regarding services of e-banking.

**II. RESEARCH METHODOLOGY**

The study was conducted with 100 respondents. Random sampling method was adopted for study. Primary data was collected through ‘questionnaire method’. The study also focuses on secondary data collected from various Books, National & international journals, publications from various websites which focused on E-banking. The collected data are presented in the form of pie diagram. Chi-square test was used to validate the hypothesis.

**Limitations**

- The study is limited to Chennai City and targeted group is Internet banking users.
- Some respondents were hesitant to give true responses.
- The inference applies only to the respondents of the study area and is not applicable to any other place and cannot be generalized.

**III. LITERATURE REVIEW**

1. **According to Afrouz Firouzeh (2006)** found that, e-banking allows the customers to submit their application for different services, make queries on their account balances and submit instructions to the bank and also electronically transfer fund to their accounts, pay bills and conduct other banking transactions online.
2. **According to Ahsanul (2009)** e-banking is the term for ‘New age banking system’. It is defined as the fund transfer, paying bills, viewing current and savings account balance, purchasing financial instruments and certificates of deposits.
3. **According to Broadie (2007)** the E-banking is leading to a paradigm shift in marketing practices resulting in high performance in the banking industry. Delivery of service in banking can be provided efficiently only when the back ground operation can be conducted only when it is integrated by an electronic system.

**E-Banking In India:**

Opening up of economy in 1991 marked the entry of foreign banks. They bought new technology with them. Banking products became more and more competitive, need for differentiation of products and services was felt. The ICICI Bank kicked off Online banking in 1996. Until the advent of ATMs, people were unaware and/or not directly affected

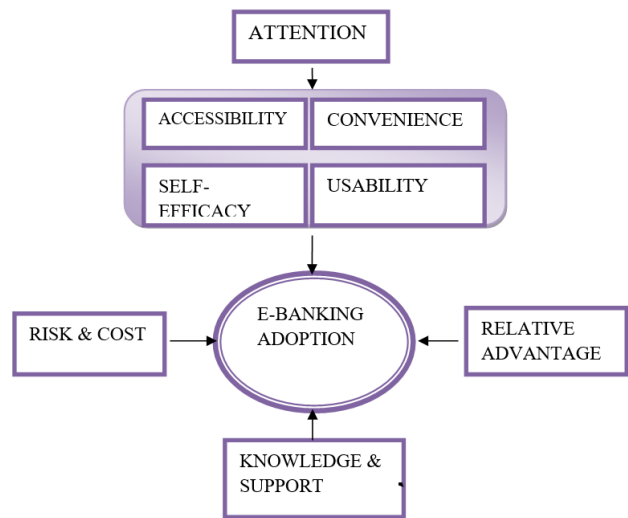
by the technological revolutions happening in the banking sector. ATMs became the major revelation for customers, since it offered the facility to avoid long queues in front of the cashiers in banks. It also provided them the flexibility of withdrawing money— anytime, anywhere. Currently 78% of customers are registered for online banking. The 1996 to 1998 marked the adoption phase while usage increased only in 1999, owing to lower ISP online charges, increased PC penetration and technology-friendly atmosphere.

**Electronic Delivery Channels:**

Today’s banks are offering various delivery channels to their customers. The IT has helped banks in increasing the range of their products and serices and also in marketing them more effectively. The electronic delivery channels offered by banks are:

- Debit cards
- Credit cards
- Automated Teller Machine (ATM)
- Mobile Banking
- Internet Banking
- Point Of Sale (POS)

**IV. OPERATIONAL FRAMEWORK OF E-BANKING**



The framework shows that a bank must first attract banking consumer attention to the e-banking service before the consumer will consider e-banking. However, unless the consumer has a high level of internet accessibility at home or at work, she is unlikely to consider using e-banking. The consumer also assesses whether it is convenient to conduct her banking that way (convenience), how usable the application appears (usability), and her perceived competence at internet use and banking application use (self-efficacy). The four factors of accessibility, self-efficacy, convenience and usability are interrelated.

The consumer also considers whether the perceived relative advantages of e-banking compared with other banking forms outweigh perceived risks and costs. In addition, the availability of sufficient support and in-depth knowledge

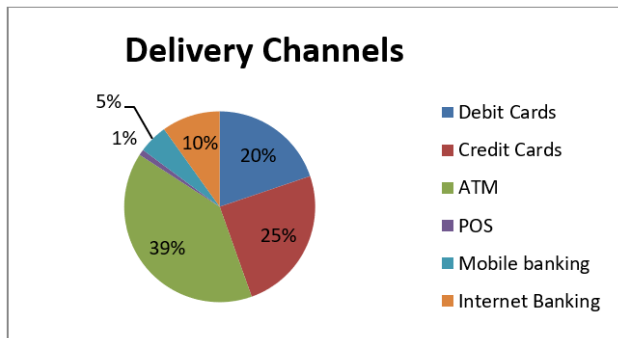


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from the bank and its employees contribute significantly to the adoption decision.

### V. DATA INTERPRETATION AND DATA ANALYSIS

#### Usage Pattern Of Electronic Delivery Channels



Interpretation: Out of 100 respondents, 39% of customers make use of ATM as it is convenient way to withdraw cash, credit cards have become part of our life, 25% of them use credit cards, 20% use debit card, 10% use internet banking as their medium of transaction, 5% use mobile banking and only 1% use POS due to unawareness of this electronic delivery channel. The recent technological advancement in banking sector has increased the usage of these electronic channels as it is convenient and saves time than branch banking.

#### Application Of Statistical Tool – Chi Square Test

H0: there is no significant relationship between gender of the respondents and usage pattern of E-banking services.

H1: there is significant relationship between gender of the respondents and usage pattern of E-banking services.

#### OBSERVED FREQUENCY

##### SERVICES

Service s	Recharg e Of Mobile	Shoppin g	Ticket s	Eft	Tota l
Gender					
Male	20	19	10	4	53
Femael e	12	23	10	2	47
Total	32	42	20	6	100

#### EXPECTED FREQUENCY

Service s	Recharg e Of Mobile	Shoppin g	Ticket s	Eft	Tota l
Gender					
Male	16.96	22.26	10.6	3.18	53
Femael e	15.04	19.74	9.4	2.82	47
Total	32	42	20	6	100

Source: Primary data

$$X^2 = \sum (O-E)^2 / E$$

Degrees Of Freedom = 3

Calculated Value	Table Value	Result
2.695	$X^2_{0.05} = 7.82$	Null Hypothesis Accepted

#### INFERENCE:

The calculated value is less than table value, Null hypothesis is accepted. Hence it can be concluded that there is no significant relationship between gender of the customers and the E-banking services provided by the banks. It can be interpreted that technological advancement in banking sector has influenced both male and female as it benefits the customers in terms of convenience, saves time; low transaction cost etc. Thus e-banking services are used equally by both male and female customers.

### VI. CONCLUSION

The banking industry has been a leader in the e-business world in recent years. In India, it has strongly impacted the strategic business considerations for banks by significantly cutting down costs of delivery and transactions. It must be noted, however, that while e-banking provides many benefits to customers and banks, it also aggravates traditional banking risks. Compared to developed countries, developing countries face many impediments that affect the successful implementation of e-banking initiatives. One of the benefits that banks experience when using e-banking is increased customer satisfaction. This due to that customers may access their accounts whenever, from anywhere, and they get involved more, this creating relationships with banks. Banks should provide their customers with convenience, meaning offering service through several distribution channels (ATM, Internet, physical branches) and have more functions available online. Other benefits are expanded product offerings and extended geographic reach. With all these benefits banks can obtain success on the financial market. But e-banking is a difficult business and banks face a lot of challenges.

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