

# **E-Banking an Innovation in Financial Services: A Customer Perspective**

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## **Abstract**

*The innovation of e-banking in the e-commerce revolution has placed a shift in the financial services provided by banking sectors. Banking is the most dominant segment of the financial system, and is pivotal to the development of a sound economy. As per the emerging trends of electronic banking, banks are moving their focus of payments from the physical presence of money to the use of electronic money or digital wallet. Electronic banking refers to the use of technology which allows customers to access banking services electronically. This paper is an attempt to investigate the above emerging trend and reports on an empirical research conducted to study the customer's preference for e-banking. The study also determines the factors that influence the adoption of e-banking in banking sectors. For the same, the study analysis the responses of 300 respondents, the result indicates no significant difference between the age and educational qualifications of conventional and electronic banking users, while on other demographic variables exists some differences. Additionally, analysis exposed the factors that have an impact on the usage of e-banking in financial services such as, ease of access to internet, e-banking awareness, and customer's disinclination to change. Findings of this study will be useful for banks in formulating appropriate strategies for building customer loyalty thereby enabling them to retain customers.*

**Keywords:** *Customer perspective, e-banking, financial services, Innovation.*

## **1. Introduction**

In recent years, innovations in the sphere of information technology and telecommunication are critical for creating a market-driven, productive and competitive economy. To accelerate growth and support higher investment levels, an efficient financial system is required.

'Financial services' are services provided by the finance industry. The finance industry encompasses a broad range of organizations that deal with the management of money. Among these organizations are banks, credit card companies, insurance companies, consumer finance companies, stock brokerages, investment funds and some government sponsored enterprises. The prominent features of financial services are as shown in Fig 1:



**Figure 1: Features of financial services**

Source: Author's Compilation

The Indian Banking system has traversed a long journey to reach this phase where its health and quality and its contribution for economic development can be compared to international standards. That there has been a significant transformation of the banking industry in India is clearly evident from the changes that have occurred in the financial markets, institutional products and services in the country.

The new generation banks brought the necessary competition into the industry and spearheaded changes towards higher utilization of technology, improved customer services and innovative products. In spite of their strong and larger network, public sector banks proved to be surprisingly quick and flexible to meet the emerging needs of customers.

The mushroom growth of banking sectors, leads to the launching of variety of products and services to customers. This study conclude that although e-banking offers new frontiers of opportunities, there are several critical psychological and behavioral issues that needs to be addressed in trust, security, reluctance to change, etc. In the present study, the perspective of customers for the financial services provided by the banks is studied.

## **1.1 Indian Banking Sector**

The origin of banking in India is traced back to the Vedic period. The General Bank of India was the first joint stock bank to be established in 1786. In the first half of the 19<sup>th</sup> century the East India Company established three banks known as Presidency Banks. The Reserve Bank, which is the Central Bank, was created in 1935 by passing Reserve Bank of India Act 1935. On 19<sup>th</sup> July 1969, 14 major banks of the country were nationalized. Besides, several foreign banks were allowed to operate as per the guidelines of the RBI. At present, the Indian banking system consists of 27 Public Sector Banks, 26 Private Sector Banks, 46 Foreign Banks, 56 Regional Rural Banks, 1574 Urban Co-operative Sector Banks, and 93,913 Rural Co-operative Banks.

Currently, Indian banking sector is valued at Rs 81 trillion (US\$ 1.31 trillion). According to an industry report, by 2020, it has the potential to become the fifth largest banking industry in the world and the third largest by 2025. Indian banking has revolutionized over the years. Banks are now approaching the masses with technology to assist greater ease of communication, and the Internet and mobile devices are used to carry out transactions.

Since, the Reserve Bank of India (RBI) offers more features such as unlimited fund transfers between wallets and bank accounts, digital wallets are predictable to become tough players in the financial ecosystem.

The unorganized retail sector in India has huge unused capability for accepting digital mode of payments, as per a report by Centre for Digital Financial Inclusion (CDFI), about 63% of the retailers are attracted towards using digital payments like mobile, digital wallet and card payments.

The digital payments system in India has developed the most among 25 countries with India's Immediate Payment Service (IMPS) being the only system at level 5 in the Faster Payments Innovation Index (FPII). ICRA estimates that credit growth in banking sector of India would be at 7-8 % in FY 2017-18.

## **1.2 The Electronic Banking Revolution**

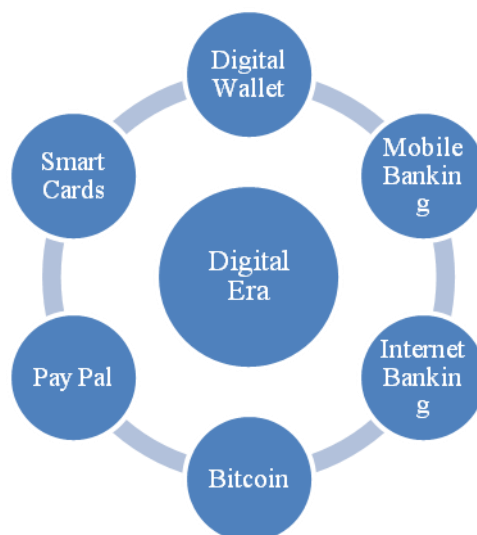
In 1970s, with the computerization of financial institutions, the electronic innovation in banking sector was traced. Although, it is obvious that the beginning of the ATM since 1981 made this innovation visible to the customers. Aided by technological progress in telecommunication and Information Technology industry, Innovative banking has developed tremendously. The emergence of automated voice response technology in early 1990s has opened the gate of telebanking amenities for financial services.

Technological advancement helped banks to present services through personal computers, operated by customers as per their ease using Intranet proprietary software. Corporate customers were the main users of these services.

The e-banking pledge of banks is clear by the considerable investments these banks have made in this area to offer customers with digital wallet and other online transactions. A number of banks are reported to have invested a huge amount in Internet technology. The need of satisfactory legal framework and security issues of

customers appears to be the reason for delay in this field. The success of digital wallet also depends on the confidence of customers in this system.

However, the higher access to smart technology is required in this global scenario and hence financial services are rapidly shifting towards digitalization. Digitalization is forcing banks to undertake many transformations in their services as depicted in the Fig 2:



**Figure 2: Aspects of digital era**

Source: Author's Compilation

## 2. Literature Review

A selection of empirical and evaluative studies carried out hitherto relevant to the present enquiry are reviewed here briefly to serve as a background for it, to obtain an insight into the proposed study, and also identify if there are any gaps to be filled in and also make it possible its point of departure.

**Gultinand and Donnelly** (1983) asserted that before acceptance of any innovative services, awareness is very important. Various factors affect the rate of adoption of an innovative service as e-banking.

**W.J. Doll, T.S. Raghunathan, J.S. Lim, Y.P. Gupta** (1995) emphasized that customer satisfaction is affected by the product information on the web design and its layout.

**K. Stewart** (1999) focused that the lack of customer's trust in the electronic channels is the reason of Internet failure in retail banking.

**K.E. Reynolds, S.E. Beatt** (1999) said in her article that banks have to depend more on building 'Customer Relationship', which is a permanent asset bringing in regular income rather than mere

hardware, which has obsolescence as a critical factor. Technology has to be prudently used more as a means to achieve the end results-‘The Customer Building’ has to become a global-leading bank.

**Tomiuk & Pinsoneault** (2001) pointed that the customer’s choice for e-banking and their loyalty towards the bank depends not only on the accessibility of internet service but also on other social and psychological factors.

**Booz, Allen, Hamilton** (2005) pointed out that India has made significant progress in the payment system by introducing modern payment media viz, smart/credit cards, electronic funds transfer, debit/credit clearing, e-banking etc. The RBI would soon put in the place Real Time Gross Settlement System (RTGS) to facilitate efficient funds management mitigating settlement risks.

**L. DeSourdy** (2005) in his article pointed out that since customers are not satisfied with all the progress made to evolve customer friendly service modes, it is reported that bankers are now planning to have 24 hours banking in certain branches. Many innovations has been made in this sphere, with limited success before computers came on the scene.

**M.S. Clark, J. Mills** (2005) said in his article that with the condition of banks and Technology up-gradation of the banking platforms, Internet Banking is bound to grow. With greater emphasis laid on e-governance, the Internet Banking Channel will be a key-facilitator with about 40-50% of the total banking and financial transactions to be done through the Internet.

Hence, studies indicate that the demand for e-banking services is determined by the number of people having easy access to internet and infra structural facilities. Previous researches reveal that web users’ satisfaction is correlated to the website downloaded speed.

### **3. Research Methodology**

#### **3.1 Objectives**

On the basis of previous researches the core concern of the research is directed towards the customer’s outlook towards these emerging trends in the digitalized era. To check the same the objectives is framed as:

1. To determine the impact of demographic variables on usage of Internet.
2. To investigate the difference between the conventional and electronic banking users.
3. To examine the factors that affects the adoption of digital wallet.

### 3.2 Data Collection

To identify the innovation in financial services and the customer's perspective towards E- Banking, a survey was conducted. For the collection of information, Questionnaire was designed, a survey technique focusing on various factors of customer's perception.

### 3.3 Sampling & Data Analysis Technique

Selection of the 300 respondents is on the basis of Non-random sampling, whose responses are further analyzed on the basis of various statistical tool like mean, t-test & factor analysis for justifying the premeditated hypothesis.

### 3.4 Hypothesis:

To justify the objectives two null hypothesis is framed:

**H<sub>0a</sub>**: There is no impact of demographics on usage of internet

**H<sub>0b</sub>**: The customers are not impacted by the features of E-Banking system.

### 3.5 Analysis and Discussion:

The conventional and e-banking users are compared with the demographic variables to examine the impact of demographic variables on the usage of e-banking. The basic reason for this analysis is to understand the belief that-

- E- Banking is more likely to be used by the younger generation as they are more computer friendly.
- E-banking adoption is directly related to higher literacy rate.
- It is adopted more by rich people as they are supposed to own computer.

An idea of preference for e-banking and customer's demographic characteristics is provided by Table 1:

**Table 1: Descriptive Statistics of Users**

Demographic Characteristics	E-banking users	Conventional banking users	Significance
Mean Age	28 years	26 years	0.325
Mean Monthly Income	3633	2224	0.006
Percentage of Graduates & Undergraduates	86.2%	84.6%	0.892

Source: Author's Compilation

For testing of first hypothesis, the two groups conventional and e-banking users based on the selected demographic variables were compared by t-tests. The analysis result is given by Table 1. Only monthly income as demographic characteristic was established to be significant, which means there is impact of income on user interface. Remaining two shows that there is no significant difference, in terms of age on comparing the two groups of bank users. As well as, in both the groups, the graduate and undergraduate percentage of respondents and their preference for conventional banking and e-banking is almost the same.

To investigate the second hypothesis and to recognize the unrevealed scope of the construct and its association with each other, factor analysis was done. Also, to decide whether the data can be reduced or summed up into smaller set of factors, the analysis was undertaken. The seven factors resulted from above analysis are properly named in line up with the factors affecting the e-banking acceptance along with the factor loading.

Table 2 indicates the relative estimation of conventional banking and e-banking users including the two sample t-test for means and the p-values.

**Table 2: Assessment of mean conventional banking and e-banking users**

Factors	Mean Scores E-banking		t-value	p-value
	Conventional banking	e-banking		
Accessibility	63.00	72.20	-3.50	0.00*
Security concerns	61.07	54.84	2.02	0.04**
Cost of computers and Internet access	55.11	52.71	1.08	0.28
Declination to change	70.34	63.27	1.88	0.06***
Faith in bank and security of Internet bank transactions	58.67	58.67	-0.003	0.99

Significance at 1%, 5% & 10% is denoted by \*, \*\*, \*\*\* respectively.

Source: Author's Compilation

The analysis of above table shows that there is a significant affect of accessibility on the banking services usage. Further, it is revealed that usage of e-banking is affected by the security concerns of e-banking (p-value 0.04). E-banking usage is again significantly affected by customer's declination to change (p-value 0.06). It is appealing to notice that cost of computers and Internet access, along with trust in bank and security of Internet bank transactions does not significantly impact the e-banking usage.

Factors influencing the acceptance of E-Banking are provided in Table 3.

**Table 3: Factor loading of selected Variables**

<b>Factors</b>	<b>Rotated factor loading</b>	<b>Percentage of variance</b>
<b>Ease to access</b>		
Internet access	0.8.9	13.35
Internet connection speed	0.730	
<b>Declination</b>		
Willingness to adopt technology enhancement	0.859	12.96
Level of awareness of current trends	0.782	
Attitude towards change	0.617	
<b>Expenses</b>		
Cost of computers	0.873	
Cost of Internet connection	0.870	12.86
<b>Faith in one's bank</b>		
Banks reliability in correcting erroneous transactions	0.831	11.08
Faith in the bank to compensate for losses due to security Infringements	0.772	
Banks response rate to queries	0.618	
<b>Security concerns</b>		
Clear an Table d understandable instructions	0.888	10.42
Security of Internet transaction	0.677	
Length of Internet experience	0.608	
<b>Expediency</b>		
Time saving	0.911	9.90
Convenient way of doing bank transactions	0.795	
<b>Ease of use</b>		
Ease of performing digital wallet transaction	0.739	8.38
Ease of navigation in the bank site	0.608	

Source: Author's Compilation



The analysis of 3 gives the pertinent factors which appear to influence the acceptance of E- banking ease of Internet access, declination, expenses of computers and Internet connection, faith in one's bank, security concerns, expediency, and ease of use. It is noteworthy that the factor ease of use received the average load but the value of variance depicts that it is more considerer parameter in customer's mind set. This is perhaps due to the fact that the above respondents are Internet friendly and hence, are previously acquainted with the e-banking services.

The highest factor loading is for factor Expediency- time saving parameter, which is one of the desired outcome as in today's era everyone is facing shortage of time parallel there is no specified work hours as well. Hence, E-banking provides a platform which facilitates to meet the required expectations.

On the whole, the seven factors that affect the adoption of E-Banking accounts for nearly 78% of the total variance. Still there is a scope of reducing this variance to attract the untouched customers by making it more convenient and easier to use.

#### **4. Conclusion and Future Implication**

The research revealed the factors that have an influence on the adoption of e-banking in India such as ease of access to Internet, awareness, declination to change, cost of access to computer and Internet, faith in one's bank, security concerns, convenience and ease of use. Above all, these factors are supported by the findings of the previous studies.

It is revealed by facts that banks undertake great promotional activities to generate awareness of e-banking and its benefit is necessary for the victory of e-banking services support. Presently, such promotional efforts are not astonishing, as the e-banking services are still at its developing stage. In this study, the distinctions between conventional and e-banking users were not apparent, especially with reference to age and educational background of demographic factors. Basically, this may be the fact, as the sample respondents are already Internet friendly and consequently, have analogous characteristics. As per the income level is concerned, it is significant. So far as security and risk in e-banking transaction is concerned, greater preference towards e-banking appear in rich members of the sample. Moreover, adoption of e-banking services by 20% of the sample respondents is appreciative and indicates a brilliant future for e-banking in India. Though, this study contains some limitations.

This exploratory research has indicated some appealing outcomes but even then readers need to be careful on few of its limitations. Firstly, the generalization for the entire population from the online survey method is a limitation. Second limitation is the size of sample. Hence, results of this study are uncertain and require additional confirmation. Extended research is recommended with representatives from all regions for a systematic analysis and results. In later future, ease of navigation in the bank site which appears to be a problem can be overcome by the bank services by working on the infrastructure.

## References

- [1] J.P. Guiltinand, J.H. Donnelly (1983),” The use of product portfolio analysis in bank marketing planning, in: Shanmugam, Burke (Eds.)”, Management Issues for Financial Institutions, , p. 50.
- [2] W.J. Doll, T.S. Raghunathan, J.S. Lim, Y.P. Gupta (1995),”A confirmatory analysis of the user information satisfaction instrument”, Information Systems Research 6 (2) 177-188.
- [3] K. Stewart (1999),”Transference as a means of building trust in World Wide Web Sites”, in: Proceedings of the 20th ICIS, Charlotte, North Carolina.
- [4] K.E. Reynolds, S.E. Beatt,(1999),”A relationship customer typology”, Journal of Retailing 75 (4) 509-523.
- [5] D. Tomiuk, A. Pinsonneault, Alain (2001), “Customer loyalty and electronic-banking: A conceptual framework”. (Industry trend or event), Journal of Global Information Management 9
- [6] Booz, Allen, Hamilton (1997), “E-banking: A Global Study of Potential”, Booz Allen & Hamilton Inc., New York, NY,
- [7] L. DeSourdy (2001),” Developments in the New Zealand banking industry”, the Reserve bank of New Zealand Report, 64 (2) 4.
- [8] M.S. Clark, J. Mills (1993) ,” The difference between communal and exchange relationships”, Personality and Social Psychology Bulletin 19 684-691.
- [9] Bimal Jalan (2002),”Indian banking and finance: managing new challenges”, Reserve Bank of India Monthly Bulletin, February.
- [10] Economist. (2000) “ Emerging-market indicators: Foreign banks”, (November 4) 118.
- [11] J. Pang (1995),” Banking and Finance in Malaysia”, Federal Publications Sdn Bhd. Malaysia.
- [12] K. Gwinner, D.D. Gremler, M.J. Bitner,(1998),”Relational benefits in service industries: The customer's perspective”, Journal of the Academy of Marketing Science 26 (Spring) 101-114.
- [13] L. Bielski,(2000),”E-business models stress putting the customer first”, ABA Banking Jour(July) 67-76.
- [14] Raghunadhachary.A.V., Sai Baba Rudra and Anjaneyulu (2009),”Financial Services Banking & Insurance”,Kalyani Publishers.
- [15] Rangarajan. C (1982),”Innovation in Banking”, Oxford & IBH Publisher and Co.,New Delhi.
- [16] Srivastava R.M.(2004),”Management of Indian Financial Institutions”,Himalaya Publishing House, Mumbai.

## **Webliography**

- [1] [www.banknetindia.com](http://www.banknetindia.com)
- [2] [www.SBI.ac.co.in](http://www.SBI.ac.co.in)
- [3] [www.rbi.org](http://www.rbi.org)
- [4] [www.wikipedia.com](http://www.wikipedia.com)