

# An Impact of Technology on E-Banking Dimension in Banking Sector

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**Abstract:** In Banking sector biggest revolution was taken place because of technology. After the adoption digitalization in banking sector, the internet banking merge into new concept which helps in faster and more faster than normal banking activities. Indian economic condition totally depends on the financial market, money market and capital market. Recent years, Indian banking sector taking out new development and innovation in banking products and adoption of new model payment system and micro finance process. Reserve Bank of India renowned the measures and restructuring the rules and regulation in Indian Industry. The main development in the banking sector recent day with the help of technology is immediate payment service, with the help of mobile application the money can be transferred immediately without any delay.

Empirical study is done to measure the e-banking dimension which is totally connected with technology for this purpose the data collection is processed to facilitate the study. Data is collected with the help of questionnaire and the analysis is done. The factor analysis is used for calculation for that we identified technology based three dimension is very important for electronic banking system in Chennai. The selected e-banking dimensions which are connected with technology are convenience, security and website aesthetic. In this paper researcher attempt to find the dimension that influence e-banking services. This will help the other researcher to do the further research.

**Index Terms:** E-Banking, Technology, Dimension

## I. INTRODUCTION

Computerized banking system improves core banking system. Technology plays a major role in Internet banking and reduction in fraud. Technology also encourages healthy competition among banks. Indian banking sector is one of the important sector which witness lot of technological changes starts from 1990's. Public sector banks are the major share player paved the way for foreign banks and private banks in India. The new innovation of banking sector is electronic banking, in simple e-banking means transfer of money without physical presences. Starts from internet banking, home banking, telephone banking, and the innovation are happened towards e-banking. After introducing the e-banking most of the customers feel happy to transfer the amount without sparing their time in the bank.

Banks provide e-banking facilities through mobile application, ATM, card payment which can be processed through Internet. ATM is called virtual banking process where customers able to make deposits and withdraw amount.

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In recent years, the contribution of public sector banks, private sector banks, foreign banks, rural bank, regional rural bank and cooperative banks increased as much as possible and credit control measures also place a major role in regulating the banking credit policies.

Banks with adoption of latest technology, it made the customer very Convenience and provide safety and security in their transaction. Banks provides facilities such as NEFT, RTGS, USSD Codes, UPI application etc.,

In simple, we can say that, technology has transformed banking industry. Indian banking Industry rapidly increasing their customers and their need to maintain database. This is happened only with the process of technology updation and maintaining their quality among customer.

## II. REVIEW OF LITERATURE

PoojaMalhotra&Balwinder SINGH (2009)In their research paper “The Impact of Internet Banking on Bank Performance and Risk” it describes the banking performance towards internet banking and service performance.

Dabholkar et al 2000; Parasuraman et al 1985, 1988) defines the service quality is identified in different scales for measuringand it can be analysed to deliver the result.

Ma, Z. (2012) deals withEmpathy, Convenience, Comfortable, Privacy, Security and Assurance

Seranmadevi, R., &Saravananaraj(2012), defines e-banking service quality deals with Tangibles, Reliability, Responsiveness, Assurance andEmpathy

Gupta, K. K., &Bansal, (2012) have also identified the five dimensions namely; Security/Privacy,Reliability, Efficiency, Responsiveness and Site Aesthetics for examining the internetbanking service quality in the banks in India.

Kaur, J., &Kaur, B, (2013) state that internet banking has witnessed an explosive growth inthe past decade in the Indian banking industry. Over the last decade, there has been a risingbody of work focusing on conceptualizing, measuring, and managing service quality in theinternet technology. A number of scales for measuring Internet Banking service qualityhave been developed. Further they described the five dimensions namely; Security,Reliability, Efficiency, Responsiveness and Site Aesthetic in their research paper whichexplaining the internet banking service quality in the banks in India.

Research Question –

The research question is raised in order to find out the solution,

Which is the most important dimension bank should think while analyzing the quality of electronic banking services?



Objective

Objectives of the study are:-

To find out the important dimensions used in Electronic banking services in Chennai.

III. METHODOLOGY

Measurement instrument:

Variables is selected from the previous study conducted, based on that the questionnaire is framed for collecting data. In previous study the researcher considered more than five dimensions they have identified but in this study we consider only 3 dimensions which is directly involved in e-banking services. The questionnaire is framed with 2 sections, demographic information about the customer and another section deals with e-banking dimension which includes security, conveniences and website aesthetic.

DATA COLLECTION:

The data is collected through questionnaire and it is analysed with the help of Cronbach’s Alpha used to test the internal reliability and the factor analysis is also used in this study. Reduction of data and the formulation of new concept are the main reason for using Principal component analysis and to find out the suitability Bartlett’s test of sphericity and KMO method is used in this paper.

KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy .880

Bartlett’s Test of Sphericity - Sig. .000

KMO and Bartlett’s Test shows that the result of the Bartlett’s Test of Sphericity is 0.000, which fulfills the important criteria of value lower than 0.05 in order for the Factor Analysis to be considered. The result of the KMO is used to Measure of Sampling.

Adequacy is 0.880, which exceeds the minimum value of 0.6 for a good factor analysis (Tabachnick & Fidell, 2001). First of all, besides the Bartlett’s Test of Sphericity and the KMO Measure of Sampling Adequacy, presented above, the Correlation Matrix also confirms the suitability of the data for Factor Analysis as it includes considerable number of correlation coefficients higher than 0.3.

E-Banking Dimension:

Dimension I – Convenience in Banking: Customers view and their perception is convenience in doing Internet banking since the customer can do banking activity anywhere and anytime.

Dimension II - Security: Customer is very confidence and trust towards the internet banking services provided by the banks.

Dimension III – Web site Aesthetic: Customer feels that the bank webpage is very helpful for doing banking activities.

Principal component analysis was performed using three variables related to technology enabled e-banking dimension. Communalities for all variables together was observed and found that the extraction value of the communalities of all the variables is more than 0.5 which is sufficiently high. When performing the Factor Analysis, in order to decide what number of dimensions to retain, we used the Kaiser’s criterion. Considering Kaiser’s criterion, an Eigen value of more than one; and the meaningfulness, usefulness and

conceptual soundness of a factor.

Discussion:

THE REFINED DIMENSIONS:

Convenience	
Browser Efficiency	Ability to get on the Internet banking site quickly
Convenient Transaction	Ability to complete quick transaction
User-friendly interface	Able to use the Internet banking utilities of website without a lot of effort
Security	
Customer authentication	No misuse of customers personal Information
Safety and Security	Feel safe in internet banking transactions
Website aesthetic	
Website Attractively	The website design is aesthetically attractive
Website appearance	The website design is visually pleasing

As the table presented, measuring the dimension of electronic banking the multiple test is implanted and derived the result, Convenience in Banking consider the Internet banking website has a clear and easy guidance screen the factor Loading is 0.681, Completing transactions through my Internet bank is fast 0.664 and Internet Banking site is easy to navigate and simple to use 0.648.

Security is the dimension that considers the transaction processing system in the Internet banking is error free the factor loading is 0.746, the satisfied with the security system of the internet banking. 0.641 and the full trust in the Internet banking a service is loaded factor is 0.623.

Website aesthetic is one of the important dimension it consider electronic banking use does not require a lot of mental effort the factor loading is 0.716, electronic banking whether meeting the expectation the loaded factor is 0.560 and electronic banking website is visually attractive the loaded factor is 0.502.

The first dimension explains the most variance in the data and each succeeding dimension explains as much of the remaining variability as possible Four items, namely -- “Time to learn Internet Banking”; “Recover of losses if account has been hacked”, “Internet Banking related information”, “Worried to use Electronic Banking services”.

IV. CONCLUSION

This paper provides the detail information about the technology based electronic banking dimensions. These dimensions like conveniences, security and website aesthetic is totally deals with technology and it will act as important factor and provide various information about the e-banking to the managers of Various banking services, it



will helps them to understand why the customer selecting e-banking and it helps to evaluate the e-banking services with different qualities. These dimensions can be employed to determine the internet banking uses and it helps for further study can be used by research scholar and banker to evaluate the adoptions of electronic banking.

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