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# A Study on Role of Information Technology in Banking Sector

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**Abstract:** *The article presents a study which aims to analyze the role of Information Technology (IT) in the banking sector. After Liberalization the IT and communications network system is set to change the operating environment of bank drastically. Technology has already enabled some of the banks to introduce innovative products to their customers in the form of ATM facility, mobile banking, home banks etc. With the use of technology there had been an increase in penetration, productivity and efficiency. It has not increased the cost effectiveness but also has helped in making small value transactions viable. The changing brought about by IT, new products, more sophisticated customers, high-end services, changing cost structures, and enhanced competitive pressures have all combined to transform the structure of the banking industry. Further development of new technologies the industry will likely continue to evolve allows banks to create what looks like a branch in a business building's lobby without having to hire manpower for manual operations. The branches are running on the concept of 24/7 working mode, made possible by the use of Tele banking. ATM'S, Internet banking, mobile banking and E-banking.*

**Keywords:** *Banking, Mobile banking, ATM's, Internet banking, E-banking.*

## I. INTRODUCTION

Information technology in banking sector refers to the use of sophisticated information and communication technologies together with computer science to enable banks to offer better services to its customers in a secure, reliable and affordable manner and sustain competitive advantage over other banks. The banking sector has embraced the use of technology to serve its clients faster and also to do more with less. Information technology architecture is an integrated framework for acquiring and evolving IT to achieve strategic goals. The banking industry in India is in the midst of an information technology revolution. A combination of regulatory and competitive reasons has led to increase in importance of total banking automation on this industry. Information technology has basically been used under different avenues in banking. One is communication and connectivity and another one is business process reengineering. Information technology enables difficult product development. Better market infrastructure, implementation of reliable techniques for control of risk and helps the financial intermediaries to reach geographically distant and diversified markets. IT also facilitates the information on new delivery channels in the form of Automated Teller Machines, Net Banking, and Mobile Banking to provide large services to customers and to meet the challenges posed by the new economy changes.

## II. OBJECTIVES

The main objective of the study is to search out;

- 1) To study the role of IT in banking operations.
- 2) The impact of IT on the service quality.
- 3) The impact of IT on privacy and confidentiality of data.

## III. REVIEW OF LITERATURE

In the field of banking, information technology implies the transaction processing and the integration of information system with communication technology and of innovative. The banking environment has become highly competitive today. To be able to survive and grow in the changing market environment banks are going for the latest technologies, which is being perceived as an enable resourcing that can help in developing learner and more flexible structure that can respond quickly to the dynamics of a fast changing market scenario. It also viewed as an instrument of cost reduction and effective communication with people and institutions associated with the banking business.



IT enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets.

The software packages for banking applications in India had their beginnings in the middle of 80s when the banks started computerizing the branches in a limited manner. The early 90s saw the plummeting hardware prices and advent of cheap and inexpensive but high powered PC's and services and banks went in for what was called Total Branch Automation (TBA) packages. The customers can view the accounts get accounts get account statements, transfer funds and purchase drafts by just punching on few keys. The smart cards that cards with micro- processor chip have added new dimension to the scenario. An introduction of cyber cash the exchange of cash takes place entirely through cyber books. The collection of electricity bills and telephone bills has become easy. The upgradation and flexibility of internet technology after unprecedented opportunities for the banks to reach out to its customers. No doubt banking services have undergone drastic changes and so also the expectations of customers from the banks has increased greater.

The Information Technology is increasingly moving from a bank office function to a prime assistant in increasing the value of a bank over time. IT does so by maximizing banks of pro-active measures such as strengthening and standardizing banks infrastructure in respect of security, communication and networking, achieving inter branch connectivity, moving towards Real Time Gross Settlement (RTGS) environment the forecasting of liquidity by building real time database, use of Magnetic Ink Character Recognition and Imaging technology for cheque clearing to name a few. The Indian banks are going for the retail banking in a big way.

SHASTRI R.V, (March 2003) "Recent trends in Banking Industry" IT emergence, Chartered Financial Analyst, stated that liberalization policy and intense competition keeps every banker on his toes. Implementation of Information Technology (IT) helps for maintaining proper accounts especially in decision making process. He also stated that facilities like ATM, anywhere banking, Internet and mobile banking have imported customer services which in turn helps for better customer relations management. He also explained the challenges faced by banks because of IT implementation like employment problem and security concerns. He suggested that the customer delight is the primary goal of all future IT initiatives.

#### A. *To Study The Role Of It In Banking Operations*

- 1) To the Individuals: Anytime e-banking provides 24 hours, all day's service to the customers for cash withdrawal from any branch. Online purchase of goods and services and payments can be arranged for various purposes through cards.
- 2) To the Merchants: Assured immediate settlement and payment to the various transactions made by the traders. Providing various services to the businessmen at part of international standards with low transaction cost. Other benefits include improved image, improved customer services eliminating paper, reduced.
- 3) To the Banks: E-banking provides competitive advantage with unlimited network to the banks. Online banking an effective medium of promotion of various schemes of the bank, and indeed acts as a marketing tools. By connecting ATM and PO terminals. It involves ATM credit and debit cards.

#### B. *The Impact Of It On Service Quality*

- 1) The automation, no longer remains a marketing edge with the large banks only small and relatively new banks with limited network of branches become better placed to compete with the established banks.
- 2) In order to reduce service delivery cost, banks need to automate routine customer inquiries through self-services channels.
- 3) The technology has commoditizing some of the financial services. Therefore, the banks cannot take a lifetime relationship with the customers as granted and they have to work continuously to retain customer loyalty.

#### C. *The Impact Of It On Privacy And Confidentiality Of Data*

- 1) The data processing capabilities of the computer, particularly the rapid throughput, integration, and retrieval capabilities, give rise to doubts in the minds of individuals as to whether the privacy of the individuals is eroded.
- 2) So long as the individual data items are available only to those directly concerned, but the incidence of data being cross referenced to create detailed individual dossiers gives rise to privacy problems.
- 3) Customers feel threatened about the inadequacy of privacy being maintained by the banks with regard to their transactions and link at system.

#### IV. DATA ANALYSIS

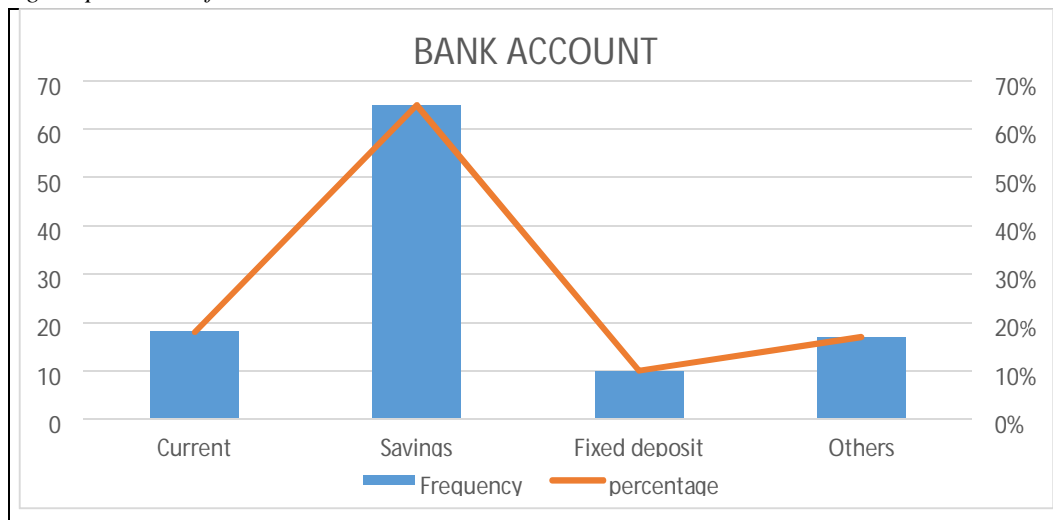
An analysis on socio-economic profile of sample customers:

##### A. Respondents By Usage Of Bank Account

The discussion given below provides the number of samples respondents by usage of bank account.

BANK ACCOUNT		
Particulars	Frequency	Percentage
Current	18	18%
Savings	65	65%
Fixed deposit	10	10%
Others	17	17%

##### B. Chart Showing Respondents Of Bank Account



#### INTERPRETATION:

The figure indicates bank account's current account 18%, savings account 65%, fixed deposit account 10%, and others 17%. Where it defines frequently most of an individuals are using savings account.

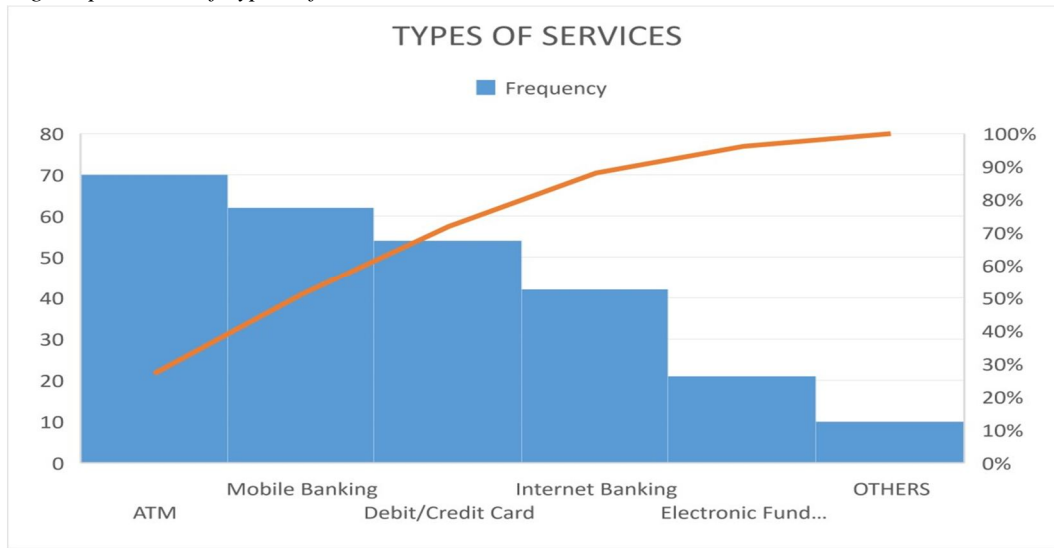
##### C. Respondents By Usage Of Types Of Services

The discussion given below provides the number of samples respondents by usage of types of services.

TYPES OF SERVICES		
Particulars	Frequency	Percentage
Internet Banking	42	42%
Mobile Banking	62	62%
ATM	70	70%
Debit/Credit Card	54	54%
Electronic Fund Transfer	21	21%
Others	10	10%



D. Chart Showing Respondents Of Types Of Services



INTERPRETATION:

The figure indicates types of services as the internet banking 42%, mobile banking 62%, ATM 70%, debit or credit cards 54%, electronic fund transfer 21%, and others 10%. Where it defines frequently most of an individuals are using ATM services.

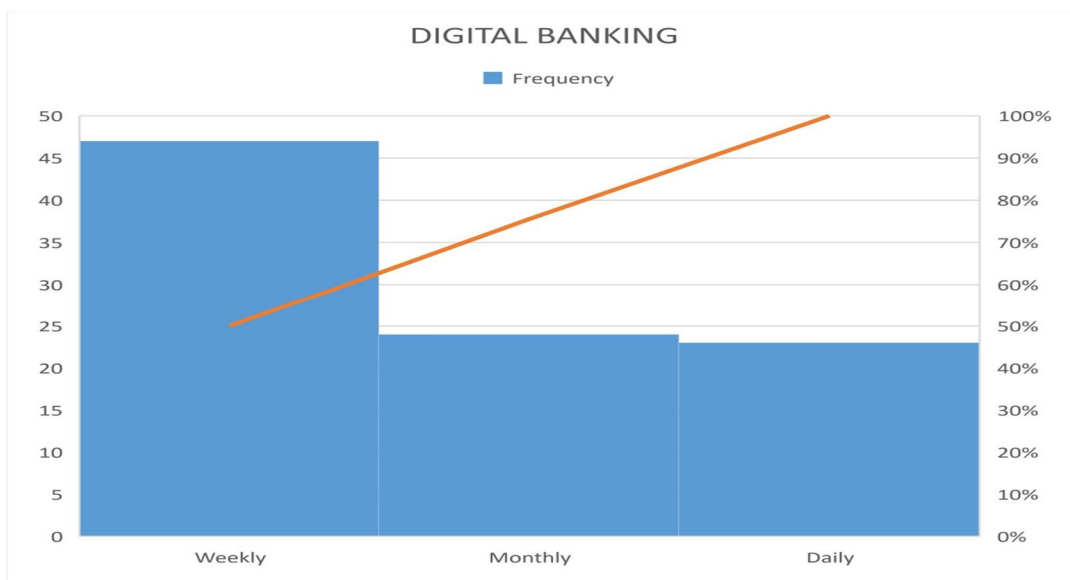
E. Respondents Of Frequency By Using Digital Banking

The discussion given below provides the number of samples respondents of frequency by using digital banking.

DIGITAL BANKING

Particulars	Frequency	Percentage
Daily	23	23%
Weekly	47	47%
Monthly	24	24%

F. Chart Showing Respondents Of Digital Banking



**INTERPRETATION:**

The figure indicates about using of digital banking daily usage 23%, weekly usage 47%, monthly usage 24%. Where it defines frequently most of an individuals are using weekly basis of digital banking.

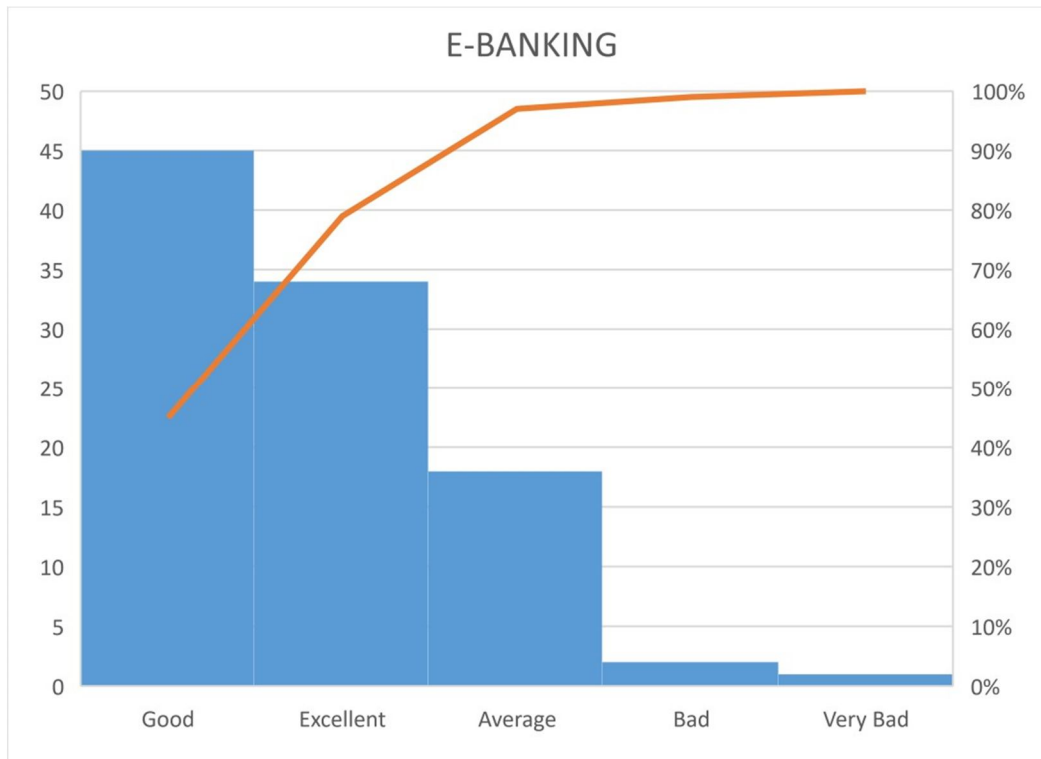
**G. Respondents Opinion About Money Transfer Offered By E-Banking**

The discussion given below provides the number of sample respondents opinion about money transfer offered by e-banking.

**E-BANKING**

Particulars	Frequency	Percentage
Excellent	34	34%
Good	45	45%
Average	18	18%
Bad	2	2%
Very Bad	1	1%

**H. Chart Showing Respondents Of Money Transfer Offered By E-Banking**



**INTERPRETATION:**

The figure indicates of money transfer offered by e-banking excellent 34%, good 45%, average 18%, bad 2%, and very bad 1%. Where it defines frequently most of the individuals reviewed as good of the money transfer through e-banking.

**V. FINDINGS**

- 1) Defined and implemented efficient process to be able to reap benefits off technology to its fullest potential.
- 2) Nearly 50% of respondents are not using internet banking daily. Banks has to improve their technology day by day.



- 3) Frequent challenges in technologies used focusing upgrades in hardware and software attending to that implementation issues and timely roll out.
- 4) Upgrading the skill of work force spread across the country.
- 5) Managing technology, security and business risks.
- 6) The 43% of respondents are from urban areas.
- 7) Meet customer expectations on service and facility offered by the bank.
- 8) The banks should provide more awareness to the customer with the age of 31-40.
- 9) Majority of E-Banking customers are using savings accounts, whereas the bank has to popularize current accounts and fixed deposit account through information technology.
- 10) The most respondents on banking is measured as online banking are safe by the usage of information technology.

## VI. CONCLUSION

The study focus on the role of information technology in banking sector. Indian public sector banks that hold around 75% of market share do have taken initiative in the field of IT. Awareness and appreciation of IT is so predictable. The big-push is the way given to post nationalization period for expansionary activities. The information technology offers enormous potential and emancipated various opportunities to the banking sector. The IT and communication networking system have crucial impact on money, capital and foreign exchange market. Banks have a clear strategy driven from the top and should ensure proper management of risks involved in internet banking through adopting effective policies, procedures, and controlling measures. The banking services enabling to driving transformation in the industry. The information technology course changes the pace of banking to the next few years. The mobile bank and internet banking are going to make indoor in the banking sector for the upcoming information technology. Hence, the future for banking sector is going to make rapid straights in near future.

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