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# INNOVATIVE BANKING AND PARADIGM SHIFT IN CUSTOMER PERCEPTIONS – A STUDY OF COMMERCIAL BANKS IN AMBALA

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#### Abstract

The economic growth of a country largely depends on the development of its banking sector which is further an outcome of the variety and quality of the services it offers. Various factors like high end market competition, modern banking practices and ever changing customer expectations have collectively forced conventional banking in India to transform into innovative and technology based banking. Today, every sector of society is facing a big challenge of Customer Satisfaction and banks are no exception to this. A paradigm shift in customers' perceptions calls for a shift in strategy to keep up and the banks are doing this very professionally by introducing more innovative services for better business prospects. The banking in India has undergone structural changes in recent the past mostly due to technological innovations. The dream of availability of banking services anytime and anywhere is no more a dream now as banking is just a click away and is available at home and even on the go. The value added and customized products have been developed by banks to meet the specific needs of the different categories of customers and the banking approach is changing from Mass Banking to Class Banking. Almost all the banks have upgraded to innovative banking by offering services like ATM, RTGS, NEFT, Internet Banking, Mobile Banking, SMS Banking and Cheque Truncation System, etc. with an aim to attract new customers while keeping the existing ones happy.

The motive of this paper is to find and analyze the Technological Innovation Initiatives taken by Indian Banks in response to the changed perceptions of customers, the Customers' Awareness towards the Technological Innovations in banks.

*Keywords*: Paradigm Shift, Customer Perceptions, Indian Banking Sector, Technological Innovations, Bank Digitization, Online Banking Products and Services, E-Banking, Mobile Banking.

# Introduction

The nationalisation of banks in July, 1969 and later in 6 in April, 1980 is responsible for the financial growth of Indian banking industry. The technology and innovation started making their way into Indian Banking Sector in 1990s. Today, the Indian banking sector is very well capitalised and regulated. There are 21 public sector, 22 private sector, 44 foreign, 56 regional rural, 1,574 urban cooperative and 93,913 rural cooperative banks in India. The future of Indian banking looks encouraging and transformative and it can potentially be the fifth largest banking sector in the world by 2020 and the third largest by 2025.

Indian Banking Sector has transformed into a highly competitive and high-tech sector as in order to survive and grow in the changing market environment, banks have to keep adopting the latest

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technologies. This adaptability of banks develops a more flexible and responsive structure to quickly handle the changing perceptions and demands of the customers and also help in achieving cost reduction and effective communication with people and institutions connected with the banking business. Most of the Banks have started taking on the innovative challenges with the objectives to create more customers while retaining the existing ones. Information Technology lead innovations have made it possible for banks and finance industry to design and deliver new products and systems as per the customers' current as well as future perceptions. Financial innovations as a result of technological changes have totally changed the banking philosophy and that is further transformed by the prevalent competition in the banking industry. Challenging business environment in the banking industry has necessitated more innovations in the fields of product, process and market. The banking sector is using Internet Banking, Mobile Banking, Electronic Clearing Services (ECS), Branch Networking, Satellite Banking, Debit Card, Credit Card, Smart Card, Automatic Teller Machine (ATM), Block Chains Technology (BCT), Robotic Software Electronic Fund Transfer, RTGS, NEFT, IMPS, EFT, SEFT, DEMAT, AI, Advisory Services, Payment Utility bills, fund Transfer, Point of sales Terminals (POS), Core Banking, Corporate Banking, Insurance Schemes and other value added services. Today's digital age and hyper-connected environment requires banks to reevaluate their business needs continuously, and Indian banks are leading when it comes to transforming from digital to truly digital. The Indian banking sector is likely to be growth fueled by innovative initiatives and technology. This paper deals with all the innovative strategies and the policies which are made by banks to cater the perceptions and aspirations of existing and potential customer.

## **Review of Literature**

**Capgemini (December 2016)** referred to the "Top 10 Trends in Banking – 2017" with an aim to analyse and find the trends that are likely to drive the dynamics of the banking in the future and highlighted the growing tendency of banks focusing oninnovation, by leveraging new technologies.

**Aruna R Shet (2015)** researched, "Technological Innovations in Indian Banking Sector" and observed the innovations that have contributed to the development of Indian banking and inferred that development of need-based products with low-cost technology is the key to win the market and the competitors.

**Sandeep Kaur (2015)** studied, "A Study on New Innovations in Banking Sector" and highlighted the innovations in banking sector at national and international level. She also concluded that in future, technology will make the engagement with banks more multi-dimensional and Indian banks will continue to develop and expand banking services.

Maithili RP Singh (March 2014) identified the recent innovative practices in banking sector after a thorough study of studied, "Innovative Business practices in Banking Industry in India" and concluded that new concepts, new benchmarks, new forces are now transforming Indian banking industry.

**Dr A Jayakumar and Mr G Anbalagan (December 2012)** studied, "A study on Innovations and Challenges in Banking Industries in India" and discussed significant changes in the Indian banking sector, concluded that banks need to restructure themselves and identified the practices which needs to be adopted.

**Jim Marous (December 2016)**, studied, "Retail Banking Trends and Predictions for 2017" and identified the major trends impacting banks and their services in 2017.

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**Balachandher et al (2001)**, E-commerce is now considered to hold the guarantee of a new commercial revolution by offering a reasonably priced and direct way to exchange information and to sell or buy products and services. This revolution in the market place has set in movement a revolution in the banking sector for the provision of a payment system that is compatible with the demands of the electronic marketplace.

According to **Alu (2002)**, IT facilitates financial institutions by minimizing enquiry, saving time, and improving service delivery. In recent decades, investment in computerization and digitization by commercial banks has served to rationalize and optimize operations, improve competitiveness, and increase the variety and quality of services provided.

According to **Yasuharu** (2003), the implementation of information technology and communication networking has totally changed the way banks and the financial institutions performed in the past. There are numerous structural changes, in store, for financial services industry as a result of the Internet revolution; others forecast a continuation of trends already under way.

# **Objective of the Study**

- To find and analyse the technological innovation initiatives by Indian Banks
- To analyse the Customer's Awareness towards the Technological Innovations in banks.
- To analyse the factors affecting the Customer's Perceptions regarding Innovative Services provided by banks.

# Research Methodology

Being a descriptive research, it is based on primary data collected from customers with the help of a questionnaire specifically designed for the purpose and secondary data as collected from journals, articles, newspapers and magazines. The official websites of banks were considered along with the additional literature. The sample size taken for this study is 150 Customers of different Commercial Banks in Ambala. Journals and research papers were also referred for this study; personal interviews of the banks' employees were conducted regarding services provided by their respective banks.

## **Banking Innovations**

Over the years, the banking sector in India has undergone numerous changes. Most banks have adopted an innovative approach for banking with an objective of creating more value for customers. Today, the customers have an option of electronic payment system along with currency notes. Some of the innovations introduced by Indian Banking Sector are:

## **Internet Banking**

Internet banking is also known as online, Virtual and Web Banking. Internet Banking facilitates customers to execute transactions with the help of internet. Internet Banking provides all the functions which are offered traditionally at a local bank branch such as deposit of money, bill payment. ICICI was the first bank to introduce internet banking.

# **Automated Teller Machines (ATMs)**

ATMs were introduced by foreign banks and some private sector players in the Indian banking industry in the early 1990s when they suffered from a serious handicap due to the time-lack despite a strong branch network. ATM technology was put to use as a means to overcome this handicap by reaching customers at a lower initial and transactional costs and offering services without hassles.

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Since then, ATM technology has come a long way and customer acceptance has also increased manifold. Later, Public sector banks also joined ATM networks. More and more banks are joining ATM networks not only for lowering the transaction costs, but also as an effective marketing channel resource.

## **Branch Networking**

Networking of branches is the computerization and inter-connecting of geographically scattered stand-alone bank branches, into one unified system on a Wide Area Network (WAN) or Enterprise Network (EN) in order to create and share consolidated customer information/records.

# Satellite Banking

Satellite banking is going to be another technological innovation being adopted in the Indian banking industry, which is expected to help in fixing the problem of weak terrestrial communication links in many parts of the country. The use of satellites to establish connectivity between branches will enable banks to establish and reach branches in rural and hilly areas in a better way, and offer better facilities, especially in relation to electronic funds transfers.

# **Card Based Delivery Systems**

The card based delivery mechanisms like credit cards, debit cards and smart cards etc. designed to execute various banking services electronically have been immensely successful in India since their launch. The popularity of these card based systems has increased immensely over the past decade. Supported by spreading ATM networks and Point of Sale (POS) terminals, banks have been able to drive more and more customers towards these cards, thereby reducing their costs also.

## **Electronic Funds Transfer Systems**

The electronic funds transfer mechanisms were kick started in India with the Electronic Funds Transfer (EFT) System. The EFT System started functioning in 1995 and covered just 15 centres initially where the Reserve Bank handled the clearing houses. A variant of the EFT system called Special EFT (SEFT) scheme was launched with effect from April 1, 2003, for increased coverage of the scheme and for quicker funds transfers. Another variant of the EFT called the National EFT (NEFT) was decided to be implemented on November 2005 in order to broaden the base of the facilities of EFT. This was a retail electronic funds transfer mechanism between the nationwide networked branches of banks.

**NEFT:** NEFT is one of the ways for Electronic Funds Transfer. The funds transferred through this method are settled in batches based on Deferred Net Settlement (DNS) and during a specific time period in the day. Currently, the fund transfer requests through NEFT are processed in twelve batches from 8 a.m. to 7 p.m. from Monday to Friday and in six batches between 8 a.m. to 1 p.m. on Saturdays. NEFT does not accept fund transfer requests on Sundays and on bank holidays. NEFT is a service offered by banks without transaction fee.

RTGS: RTGS is another payment and settlement systems aimed at small value repetitive transactions, largely for the retail transactions. The introduction of RTGS in 2004 was a great support in the development of infrastructure for Systemically Important Payment Systems (SIPS). RTGS is applicable and available for fund transfers between Rs. 2 lakhs to Rs.10 lakhs, however, the biggest advantage of RTGS is the fastest/real-time settlement facility. The moment transfer instructions are sent, the fund gets transferred almost immediately.

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**IMPS:** IMPS is most widely used way of Electronic Fund Transfer across most banks. Unlike other methods of fund transfer, IMPS functions 24/7 allowing a fund transfer at any time of the day. IMPS allows transfer of low value-funds like NEFT but what makes it unique is, it instantly settles the funds. IMPS facility is provided only through the internet and online banking. Many of the digital wallets in India make use of IMPS services for fund transfer. The service fee for IMPS transactions is very low i.e., from Rs. 2.5 to Rs. 15.

## **Electronic Clearing Service (ECS)**

ECS is a retail payment system that can be used to execute bulk payments and receipts of a similar and repetitive nature and of relatively smaller amount. This facility has been specially designed for companies and government departments to pay and receive large volumes of payments rather than for funds transfers by individuals.

## E-Wallets/Digital-Wallets

A digital wallet also known as "e-wallet" refers to an online service that lets an individual to make electronic transactions like purchasing on-line with a computer or using a smart phone to purchase at a store. The digital wallet account of an individual can also be linked to his bank account. One can also upload and store one's IDs and documents using this account. The user can pass his/her credentials to a merchant's terminal wirelessly via near field communication (NFC). The digital wallets are used not just for basic financial transactions but also to authenticate the holder's credentials.

# **Banking through Smart Watch**

After smart phones, this is the time of wearable technology. Now banking transactions can be done using smart watch - be it an Apple Watch, Android Wear or Samsung Gear. It's not only global financial institutions and banks that have developed apps for smart watches compatible with all major mobile operating systems. But some Indian private sector banks like HDFC, AXIS, ICICI banks have also introduced smart watches apps.

# Robotics

Bank of Tokyo-Mitsubishi UFJ took a first step toward employing nonhuman staff, with the introduction of a customer service humanoid robot at its flagship Tokyo outlet. These robots can answer basic customer service questions in 19 languages, as well as analysing customers' facial expressions and behaviour. In India, ICICI Bank has already implemented robotics software. Over 200 software robots are now doing over 10 lakh transactions per day for ICICI which is only 10% of its total transactions.

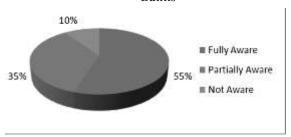
**Open Banking UPIs Open banking** is a connected network for financial and non-financial services with several service providers. **UPI** (Unified Payment Interface) and **BHIM** (Bharat Interface for Money), a mobile app based on UPI Interface by the National Payments Corporation of India (NPCI) provides opportunity for innovation in the open banking space. Technology is the key support to open banking. BHIM facilitates sending and receiving money to other UPI accounts or addresses.

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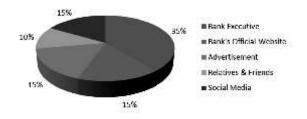
## **Findings and Interpretations**

Graph-1: Level of Awareness of Customers Regarding Innovative Services Provided by the Banks



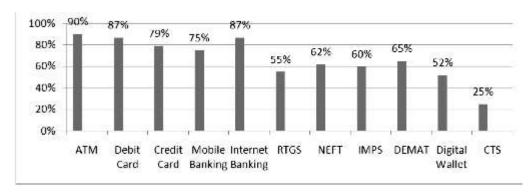
As shown in Graph-1, the overall percentage of the customers who are Fully Aware about the Innovative Services provided by the banks is 55% and those who are Partially Aware are 35% and the percentage of customers having no awareness are 10%. It can reasonably be concluded that nearly 90% of the population is having awareness about e-banking services

Graph-2: Sources from where Customers get Knowledge about Innovative Services of Banks



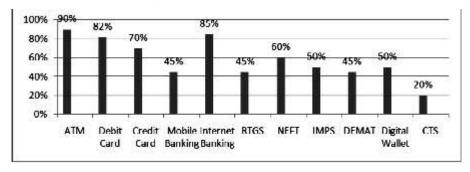
The Graph-2 indicates the percentage distribution of the sources of information from where the customers get the knowledge about the Innovative Services of the Banks. It shows that they get the knowledge mostly i.e. 35% through Bank Executives, then equally i.e. 15% each from Bank's Official Website, Advertisement and Social Media. The data shows that only 10% of the customers get this knowledge from Relatives & Friends.

Graph-3: Level of Awareness Regarding Different Innovative Services Provided by Banks



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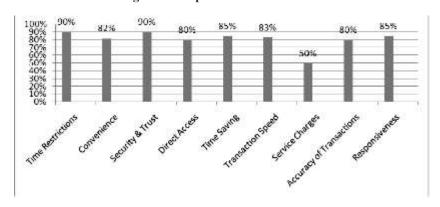
The Graph-3 shows the Awareness Levels of Customers regarding innovative services like ATM, Debit Card, Credit Card, Mobile Banking, Internet Banking, RTGS, NEFT, IMPS, DEMAT, Digital Wallet and CTS provided by banks, of which ATM, Debit Card and Internet Banking have come out as most well known services to the customers.



Graph-4: Customer Actually Using Innovative Services Provided by Banks

The Graph-4 depicts the %ages of the customers actually using the different innovative services offered by their banks. This graph shows the same trend as Graph-3 that shows awareness levels. We can clearly make out that ATM at 90% is the most prominent service being used and admired by a majority of the bank customers; this is closely followed by the Internet Banking (85%) and Debit Card (82%) and rest of the services are less popular and moderately used by the customers.

Graph-5: Factors Influencing the Perceptions of Customers towards Innovative Services



The Graph-5 **presents the percent responses about diverse factors** influencing the customers' perceptions regarding the innovative services facilitated by the banks. Out of these factors, Time Restrictions (90%) and Security & Trust (90%) influence the satisfaction levels of the customers the most. Time Saving, Responsiveness and Transaction Speed are the next most influencing factors followed by the others like Convenience, Direct Access, Accuracy of Transactions and Service Charges.

# Conclusion

The technological innovations and advancements are likely to keep happening especially in the banking sector to add more customers while retaining the existing ones. As per this study, though most

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of the people are using these innovative services but still there are people who are not using these services thoroughly due to various concerns like insecurity and fear of hidden costs etc. So banks need to come up with appropriate solutions to remove the apprehensions and prejudices of the customers through awareness campaigns and by means of fresh and meaningful advertisements to make Innovative Banking popular among the people of all ages and income groups. Further, with ever increasing consumer expectations as a result of their changing perceptions, banks should constantly strive to introduce innovative and customized services to stay competitive.

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