

## New Technological Changes in Indian Banking Sector

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### Abstract

The new financial year in India has seen a fuel growth in the banking sector with the development of innovations like Unified Payments Interface (UPI), adoption of cloud technology... etc. the Banking challenges of changing needs and customer's insights, new regulations and creating more technological innovations for customers in the banks. Nowadays we have E-Banking system along with currency notes. India's monetary system can create a new instrument along with liquidity and safety. The Indian banking sector where introduced Arrival of the card, introduction of Electronic Clearing Service (ECS) in 1990's, EFT, RTGS, NEF, mobile banking, online banking are the various innovations in banking. This paper highpoints out the new technological changes in Indian banking sector.

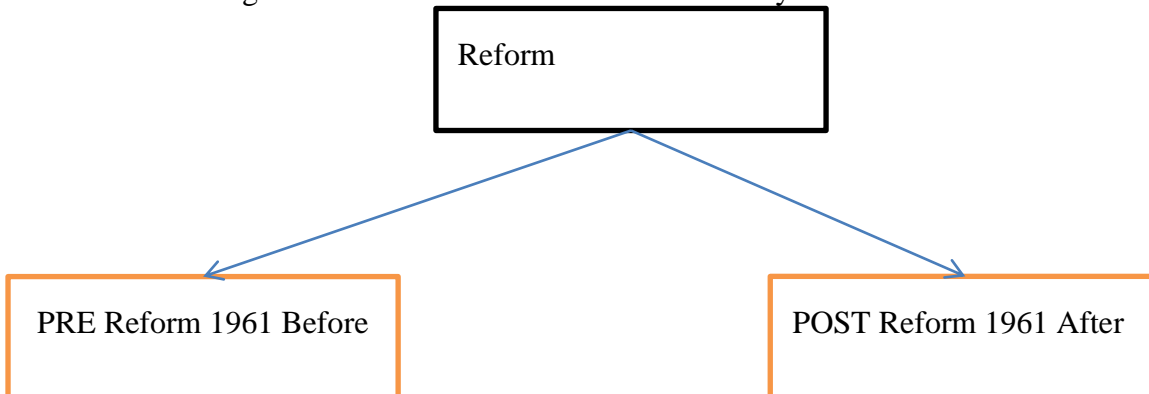
**Keywords:** Indian Banking Sector, Challenges of Banking, New Technological Changes, Product and Services.

### Introduction

Today Indian banking Sector is a flourishing Industry; it's mainly focused on new Banking technological innovations. Banks created to use technology to provide effective quality and services to the customer and get high speed. In the recent scenario has been changed, there are around 340 banks are working in India, in which are public and private banks. Today all the banks started with the different channels, like ATM, Credit Cards, Debit Cards, Mobile Banking, Internet Banking, etc. But Net Banking made it an easy way for customers to do their banking transaction from various places. In 2020 India's banking sector is a fifth largest banking sector and 2025 the banking system was a third largest banking sector in the world. The Indian Banking System cannot ignore the new technological challenges and banks are also facing great challenges, that the innovations policy and strategy. This paper examines with all the innovations and new technological changes in the banking sector.

Banking Transformation

The Indian banking sector has divided into two different ways like



### PRE Reform

- Consolidation of Bank up 1961
- Geographical and Functional Term 1966
- Consolidation of Branches from mid 1980s to 1991

#### Innovation in Indian Banking

Nowadays the Indian banking sector has seen number changes. Most of the Banks began to take an innovative challenge towards banking with the objectives, to create more customers, and consequently to the banks. The government result of regulations, tax policies, globalization, liberalization, privatization to raise risk in the monetary market. The financial innovation in development and design the implementation of innovative financial process. the financial year innovative banking sector are using Internet Banking, Mobile Banking, Debit Card, Credit Card, Automatic teller machine, Fund Transfer, RTGS, NEFT, EFT, ECS, Advisory Services, Payment Utility bills, fund Transfer, Insurance Schemes, Cheque Books, Travel Cheques and value added services. Today's digital age and hyper-connected environment requires banks to re-imagine their business continuously, and Indian banks are leading the pack when it comes to transforming from digital to truly digital. The year 2017 will be no different for the Indian banking sector; there will be growth fueled by innovative initiatives such as Unified Payments Interface (UPI) and technology. Our top picks for major technology trends that will reshape Indian banking are as follows:

**1. Open banking** -a connected ecosystem for financial and non-financial services with multiple underlying service providers is the future of banking.

**2. Banking strategy-** Banks are already making gaits in cloud adoption. Technologies are changing the face of business—Big Data, block chain, artificial intelligence (AI), will be leveraged using cloud computing. Business models for merging banks will also be largely driven by the strategy.

**3. Block chain** – the banks try to meet the increasing demands of customers; block chain will be one of the enablers for re-imagining processes. The current year 2017 will increasingly move some project, product and leverage block chain to automate inter-organizational processes. The new Emirates NBD and ICICI Bank Partnership to launch a block chain pilot network for international remittances and trade finance is advancing in this technology.

**4. Artificial Intelligence-** has the potential to transform both front office and back office operations with its self-improving programs—at ICICI Bank. The banks will explore the concepts to integrate the conversational interface into their Omni channel strategy.

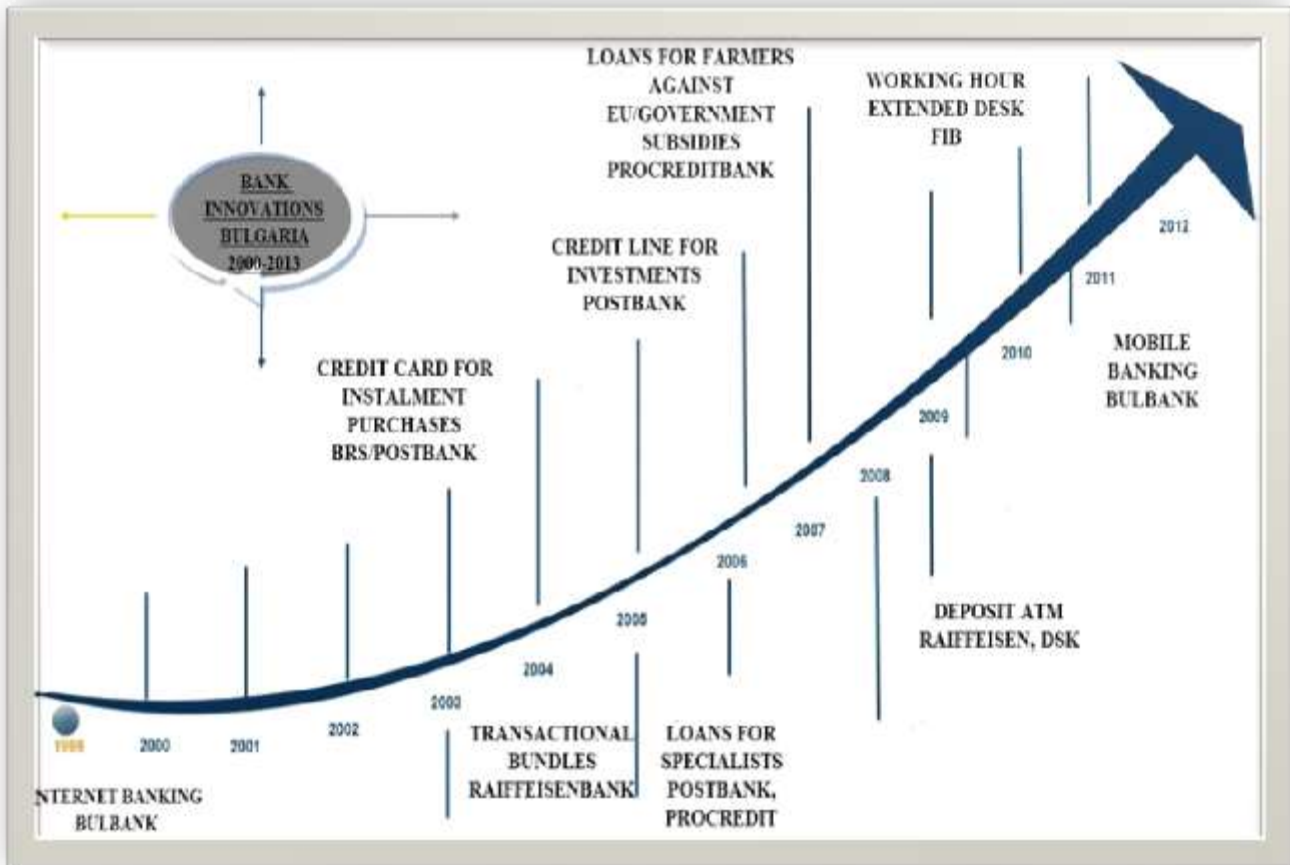
**5. More things to bank** -The year 2016 was the year of mobile-first strategy. Indian banks leveraged the increasing adoption of mobile to provide customized offerings on their apps.

**6. Banking architecture simplification-** The new technology is the bedrock of banking architectural simplification. The New Year will see banks move to componentization instead of the traditional monolithic architecture. In other words, complex architecture will be broken up into smaller bite-sized pieces for ease of deployment and upgrade for specific functionalities. The Indian government has made it clear that India will be yanked away from a cash-based economy. GST rollout will give further impetus to the Indian economy. In 2017, banks will not only have to keep up with the growing expectations of a billion connected customers, but they'll also have to make sure that they are leagues ahead of the emerging competition. (Source: <http://www.huffingtonpost.in>)

#### Different Players of the Banking Industry

- Enhancing core banking value
- Revamping the digital agenda
- Moving from information to insight
- Dealing with a changing risk regime
- From cash to electronic modes of payment
- Grappling with financial inclusion
- Empowering employees
- Accelerating innovation

#### New Cross Method of Business Bank Innovative Products



(Source: [www.researchgate.net](http://www.researchgate.net))

### Recent Trends In Banking

The Indian banking business has changed dramatically over the past 25 years, due in large part to technological change. The various factors of innovations in banking and financial market are ECS, RTGS, NEFT, ATM, and Retail Banking. Etc., and including more product and services.

#### 1. ATM

The automated teller machine or ATM, is such a complicated piece of technology that it does not have a single inventor. Today we use ATM are an amalgam of several different inventions. Automatic Teller Machine enables the customers to withdraw their money 24 hours a day 7 days a week. ATMs can be used for cash withdrawal, payment of utility bills, funds transfer between accounts, deposit of cheques and cash into accounts, balance enquiry etc.

#### 2. Electronic Payment Services

- It is mainly based on the e-governance, e-mail, e-commerce, e-tail etc.
- EPS Being developed in US for introduction of e-cheque
- Negotiable Instruments Act

#### 3. Real Time Gross Settlement (RTGS)

- Introduced in India Since March 2004
- Operated by RBI
- Transfer Funds from their account to the account of another bank
- Fast Funds transfer (2 hours)

**4. NEFT**

- Nationwide payment system
- One to one Fund Transfer

**5. Electronic Funds Transfer**

Electronic is a system whereby anyone who wants to make payment to another person/company etc. Details - receiver's name, bank account number, account type (savings or current account), bank name, city, branch name etc. RBI is the service provider of EFT.

**6. Point of Sale Terminal**

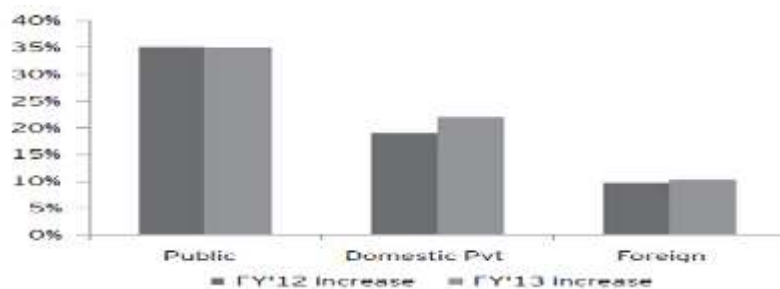
- Linked online to the computerized customer information files in a bank
- Plastic transaction card
- customer's account is debited and the retailer's account is credited

**7. Tele Banking**

- Entire non-cash related banking on telephone
- Automatic Voice Recorder
- Manned phone terminals are used

**8. Electronic Data Interchange (EDI)**

The electronic exchange of business documents like purchase order, invoices, shipping notices, receiving advices etc. in a standard, computer processed, universally accepted format between trading partners.

**9. Internet Banking****Fig.1 Internet Banking Dynamic Changes****10. Customer management**

Banks need to clearly articulate and measure the expected benefits from the winning strategies which would be dependent on the value various initiatives provide customers. These include:

- Customer segmentation
- Co-creation
- CRM to customer experience
- Use of alternative channels
- Effective cross and upsell

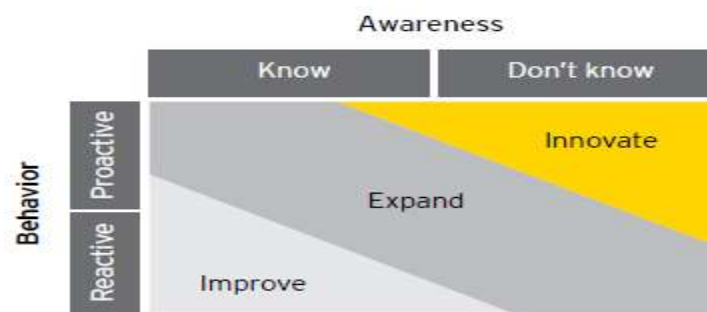
**Fig.2**



## 11. Risk management and information security

- Risk management methods include:
- Credit systems
- Enterprise Risk Management Systems
- Liquidity risk systems

Fig.3



## 12. Technology in training and e-learning

- ERA of liberalization and reforms in the country
- Increase in investment on training and development by banks in India

### New technology

- Adoption
- Productivity
- Responding to skills deficiencies
- Staff performance management (Source: <http://www.ey.com>)

## 13. Mobile banking

Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a smartphone or tablet.

**14. Core Banking** - Core banking is a banking service provided by a group of networked

**15. Corporate Banking** - Corporate banking, also known as business banking, refers to the aspect of banking that deals with corporate customers

### Services

- Overdraft
- Domestic & International Payment
- Funding
- Channel Financing
- Letters of Guarantee
- Working Capital Facilities
- International Trade

**16. Investment Banking-** Mainly two ways of fund creating  
Corporate Finance & M& As

**17. Smart Card**

- Chip Based Card
- Pin
- Powerful Cards like ATM, Credit Card, Debit Card

**Product and Services of Innovative Banking**

**1. Bank Automation**

- 1) Speed Up
- 2) Friendly and Flexibility
- 3) Towards Less transactions

**2. Banking Branches**

3. Cash Withdrawal
4. Cash Deposit
5. Account Statement

6. Cheques

7. Fund transfer

8. Balance Enquiry

9. Purchase of Demand

10. Draft Pay Order

11. Repayment of Loan Account

12. **Demat Services** – Provide online trading facility

**13. Microfinance-** Income Producing Activities, Build Assets, Stabilize Consumption

**14. Plastic Money-**it is alternative to cash and convenient to carry

**15. Mobile banking-**Balance Enquiry, Fund Transfer

**Conclusion**

The banking sector in India has become tougher in term of development and economic growth the number of customers in the financial sector. In the next generation will play a vital role in further strengthening the banking sector. Nowadays, the new technology is sure that the future of banking will introduce more offers and services to the customers with the bust banking product and innovations. Banking sector also increased the accessibility of a common person to bank for his productivity and requirements.

The Indian banking sector has improved the terms and new Technology. The innovative banking technology changing reforms have changed the face of Indian banking and financial sector. The banking system has improve the manifolds in terms of product and services, technology, banking system, trading facility etc. it is the evident that the banking system has grown in India to compare with other country. Future, the banks comprehends their customer and bank will be meeting their requirements. Indian Banking Sector provide better services with other developed banks.

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