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# A STUDY ON TECHNOLOGY TRENDS IN INDIAN BANKING SECTOR

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### **Abstract**

In recent years, technology has become increasingly important to the evolution of bank retail delivery systems and the development of new electronic retail products. The ability to deliver new advanced technology products reliably has become a central theme in the marketing strategies of a growing number of banks. Most institutions see introducing new products and services, banking as a necessary step for retaining highly valued customers, and for positioning themselves strategically for the future. As this trend continues, the nature and magnitude of risks posed by technology will continue to change, and these changes will pose significant challenges for banks and banking supervisors. While much attention has centered on the shifts away from paper-based payment media, the development and adoption of processes that broaden the scope of information transferred electronically in the course of a payment transaction will likely have a greater long-term impact on electronic commerce and banking. The response of banks to these technological developments and the challenges arising for bank management are increasing immensely. Banks are substantially increasing their investments in technology and banks are feeling strong competitive pressures to avoid being left behind in the technology area. This sense of urgency could lead to heightened technology-related risk exposures for banks if they fail to implement appropriate technology risk management practices.

## **Keywords**

Changes, Innovation, Innovative Banking, Products & Services, Electronic Systems, Technology Trends

## INTRODUCTION

The term 'Innovation' means 'to make something new'. Banks have no longer restricted themselves to traditional banking activities, but explored newer avenues to increase business and capture new market.

## INDIAN BANKING SECTOR

From the time of Bank of Bengal (1806), qualitative and quantitative changes took place

- ➤ With 1935 regulation, the RBI was proclaimed the central bank of India
- ➤ In the 1990s, greater emphasis being placed on technology and innovation
- New concept like personal banking, retail banking, total branch automation, etc were introduced



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## INNOVATIONS IN INDIAN BANKING SECTOR

Category I: Types of Innovative Banking

Category II: Types of Product & Services

Category III: Electronic Systems

## TYPES OF INNOVATIVE BANKING

#### 1. E-BANKING

Enables people to carry out most of their banking transaction using a safe website which is operated by their respected bank

## **Advantages**

- ✓ Faster & more convenient transaction
- ✓ No longer required waiting in long queues
- ✓ Opening of account simple & easy
- ✓ Apply for bank loan
- ✓ Cost effective for banker side
- ✓ Fund transfer become faster & convenient
- ✓ Stock trading, exchanging bonds & other investment

## 2. CORE BANKING

- Depositing and lending of money
- ✓ Core banking solution
- ✓ Knowing customers' needs

## 3. CORPORATE BANKING

Financial services to large corporate & MNCs

### **Services:**

- ✓ Overdraft facility
- ✓ Domestic and international payments
- ✓ Funding
- ✓ Channel financing
- ✓ Letters of guarantee
- ✓ Working capital facility for domestic & international trade

## 4. INVESTMENT BANKING

- ✓ Creating funds and wealth of clients
- ✓ Fund creating in two ways:
- ✓ Corporate Finance
- ✓ M&As
- ✓ Professional sales person providing advice on stock trading

## 5. RURAL BANKING

It provides & regulates credit services for the promotion & development of rural sector mainly agriculture, SSI, cottage and village industries, handicrafts and many more.

✓ Examples of Regional Rural Banks are

NABARD, HARYANASTATE COPERATIVE APEX BANK LIMITED, SYNDICATE BANK, UNITED BANK OF INDIA

✓ KIOSK BANKING

## 6. NRI BANKING

This facility is designed for diverse banking requirements of the vast NRI population spread across the globe.

- ✓ NRE (Non Resident External Account)
- ✓ NRO (Non Resident Ordinary Account)
- ✓ FCNR (Foreign Currency Non Resident Account)

## 7. RETAIL BANKING

It refers to banking in which banks execute transaction directly with individual, rather than corporate banks. It is also known as 'One stop shop'. Services:

- ✓ Saving and checking accounts
- ✓ Mortgage
- ✓ Housing Finance
- ✓ Auto Finance
- ✓ Consumer Durable Loans



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- ✓ Personal Loans
- ✓ Educational Loans
- ✓ Credit Cards

## TYPES OF PRODUCTS & SERVICES

## 1. TOTAL BRANCH AUTOMATION

- ✓ Speed up bank transactions and less error
- ✓ More customer friendly and flexible
- ✓ Towards paperless transactions

## 2. ANY BRANCHBANKING

It is a facility for customers to operate their account from any of the same banks network branch.

## **Facilities available:**

- ✓ Cash withdrawal & Cash deposits
- ✓ Account statement
- ✓ Facility to issue multi-city cheques
- ✓ Fund transfer
- ✓ Balance enquiry
- ✓ Purchase of demand drafts pay order
- ✓ Repayment of loan account

## 3. DEMAT SERVICES

- ✓ It offers secure and convenient way to keep track your securities and investment over a period of time without the hassle of handling physical documents
- ✓ It provide facility of online trading

## 4. MICRO FINANCE

It refers to a movement that envisions a world in which low income house holds have permanent access to arrange of high quality financial service to finance their income producing activities, build assets, stabilize consumption and protect against risks.

## 5. PLASTIC MONEY

- ✓ Plastic money are the alternative to the cash or standard money
- ✓ Convenient to carry
- ✓ Generic term for all types of bank cards, debit cards, credit cards, smart cards

### 6. MOBILE BANKING

- ✓ The account that can travel with you
- ✓ Facility one can bank from anywhere, at any time, & in any condition or any how

## **Facilities are:**

- ✓ Balance enquiry
- ✓ Fund transfer
- ✓ Cheque book request, etc

## TYPE OF ELECTRONIC SYSTEMS

## 1. ATM

- ✓ It stands for Automatic teller machine.
- ✓ In simple words, it is simple to use self service solution
- ✓ Value added services like recharge their mobile, pay the utility bills, mutual fund transactions, etc

## 2. RTGS

- ✓ It stands for Real time gross settlement system
- ✓ It is a fund transfer mechanism where transfer of money takes place from one bank to another on a real time and on gross basis.
- This is the fastest possible money transfer system through the banking channel.
- ✓ It is different from EFT and NEFT



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- ✓ It is primarily for large volume transaction
- ✓ The time taken for effecting funds transfer from one account to another is normally 2 hours

## 3. FINACLE

This system provides the holistic and integrated transformation approach, complete with solutions and services. Finacle solutions addresses the requirements of retail, corporate and universal banking worldwide like

- ✓ Core banking solution
- ✓ E-banking solution
- ✓ Mobile banking solution
- ✓ Wealth management
- ✓ CRM requirements, etc

## The Technology Trends That Transforms Banking

While most banks are burdened by legacy systems and processes, India has leapfrogged into the era of innovation in banking by adopting the latest in technology. Today's digital age and hyperconnected 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. There will be different kinds of trends for the Indian banking sector; there will be growth fueled by innovative initiatives such as Unified Payments Interface (UPI) and technology. The top picks for major technology trends that will reshape Indian banking are as follows:

1. Open banking is the new normal:
Open banking—a connected ecosystem
for financial and non-financial services
with multiple underlying service
providers—is the future of banking.
The launch of UPI by the National

Payments Corporation of India (NPCI) has thrown open the gates for innovation in the open banking space. UPI will empower payment service providers to create state-of-the-art products/offerings without being limited by the underlying account relationships. Customers will be given the flexibility that they desire and a unified interoperable interface will allow all service providers to innovate for better customer experiences.

- 2. Banking on the cloud first strategy: Progressive banks are already making strides in cloud adoption. Disruptive technologies that are changing the face of business—Big Data, blockchain, artificial intelligence (AI), IoT—will be leveraged using cloud computing. Indian banks are coming around to the idea that the business agility provided by cloud outweighs the concerns. Business models for emerging banks and fintechs will also be largely driven by the cloud-first strategy. Demonetisation is pushing India towards a cashless society, and as banks prepare to deal with the increased influx ofelectronic transactions, cloud will provide banks with the required elasticity to meet these demands.
- 3. Blockchain the and race production: As banks try to become more efficient and agile to meet the increasing demands of customers, blockchain will be one of the enablers for re-imagining processes. The banks will increasingly move some projects from pilot to production and leverage blockchain to automate interorganisational processes. The



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recent Emirates NBD and ICICI Bank partnership to launch a blockchain pilot network for international remittances and trade finance is a precursor for advances in this technology.

- 4. Artificial Intelligence—From sci-fi to reality: Artificial intelligence (AI) has the potential to transform both front office and back office operations with its self-improving programs—at ICICI Bank, for example, software robots have been deployed in over 200 business process functions, reducing the response time to customers by up to 60%. AI has already proven itself in providing seamless differentiated customer experience digital on channels, and security measures with its integration within the banking infrastructure. Intelligent digital assistants are commonplace, and these self-learning programs keep getting better with every interaction. The banks will look to explore more proof of concepts to integrate conversational interfaces into their Omni channel strategy.
- 5. More things to bank on: The year 2016 was the year of mobile-first strategy. Indian banks leveraged the increasing adoption of mobile to provide customised offerings on their apps. However, digital technologies are evolving at an unprecedented rate, and so is customer adoption. To keep pace, banks would be required to provide services on a gamut of connected devices and wearable. Apps, while still widely used, are not the only channel for customer interaction. Today there are smart virtual personal assistants on mobile phones that can

- engage with customers in a more interactive manner. Progressive service providers are taking a lead in enabling their services on these new interfaces. In fact, such services are already enabled by innovative banks globally.
- 6. Banking architecture simplification: All of these overlying technologies will be built on the bedrock of banking architectural simplification. The banks will move to componentisation instead the traditional monolithic of architecture. In other words, complex architecture will be broken up into smaller bite-sized pieces for ease of deployment and upgrade for specific functionalities. Componentisation will not only increase agility to modernise selectively to keep pace with current technology trends, but also allow for risk-mitigation of projects. Banks will simplify architecture by implementing enterprise-class applications, which will be able to deliver capabilities required across business units and eliminate silos that currently exist.

With initiatives like demonetisation, 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. The 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.

### **CONCLUSION**

The banking sector in India has become stronger in terms of capital and the number of customers. It has become globally competitive and diverse aiming, at higher productivity and efficiency.



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Exposure to worldwide competition and deregulation in Indian financial sector has led to the emergence of better quality products and services. Reforms have changed the face of Indian banking and finance. The banking sector has improved manifolds in terms of Technology, Deregulation, Product & Services, Information Systems, Etc. With new opportunities unfolding Banking Sector, India is emerging as a global power in banking services in the next two decade."

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