

# A Study on New Innovations in Banking Sector

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**Abstract:** *The banking sector plays an important role in the development of one country's economy. The development of banking sector depends upon the services provided by them to the customers in various aspects. New entrants to the market, new business models, changing customer expectations and fragmentation of traditional services are all contributing to put traditional banks under pressure to launch new technology in their operations. The banking sector in India has seen a number of changes. Most of the banks start innovative banking with object to create more value customers. ATM, RTGS, NEFT, Internet banking, Mobile banking, SMS Banking and cheque truncation system are some existing innovations. But there are some new innovations used by the non-banking institutions and few foreign banks. These new innovations may be grabbed by the Indian banks. So, this paper enlightens the knowledge light on new innovations in banking sector.*

**Keywords:** Banking Sector, New innovations, Banking products and services, Digital technologies, E-economy

## 1. Objective of the Study

The purpose of the study is to highlight the new innovations in the banking sector at the national international level banks.

## 2. Research Methodology

The research is mainly based on secondary data. Data has been collected from different sources like scholarly articles, annual reports of the selected banks, newsletters, and various web sites.

## 3. Introduction

The financial development in Indian banking industry occurred after the nationalisation of 14 major scheduled banks in July, 1969 and 6 in April, 1980. In the 1990s, the banking sector in India placed greater emphasis on technology and innovation. At present Indian banking sector is sufficiently capitalised and well-regulated. There are 26 public sector banks, 25 private sector banks, 43 foreign banks, 56 regional rural banks, 1,589 urban cooperative banks and 93,550 rural cooperative banks. Central bank granted approval to 11 payments banks and 10 small finance banks in FY 2015-16. Standard & Poor's (S & P) estimates that credit growth in India banking sector would improve to 11-13 per cent in FY17. The future of Indian bank looks not only exciting but also transformative. India's banking sector could become the fifth largest banking sector in the world by 2020 and the third largest by 2025. In future, technology will make the engagement with banks more multi-dimensional continue to develop and expand banking services. Indian banks deployed technology based solutions to raise revenue, enhance customer experience, optimize cost structure and manage organisation risk. However, there is a wide ch in the technology implementation capability across different players of the banking industry.

## 4. New Innovations in Banking Sector

There has been a wave of innovation in the financial sector in recent years as banks realize the need of digital technologies such as mobile, wearable, analytics and

telepresence to meet fast-changing demands from customers. Following are the some new innovations in banking sector:

### 4.1 Biometrics Technology

Biometric technology is any means by which a person can be uniquely identified by evaluating one or more distinguishing biological traits. Biometric authentication includes fingerprints; DNA, face, hand, retina and ear features. Biometrics systems could end the need of password and PIN code. According to the BBC, Hongkong and Shanghai Banking Corporation (HSBC) is launching voice and touch recognition security services in the UK. British banking firm Barclays also upped security in 2014 – offering finger vein scanning for authentication of large transactions.

### 4.2 In-car apps

Spanish financial institution Caixa Bank has created the first mobile banking app that can be accessed while driving, using voice control functionality. The technology used by CaixaBank app, called Línea Abierta BASIC. Drivers can make balance enquiries and transfers, as well as locate nearby branches and ATMs, by speaking into their Android device.

### 4.3 Facial recognition technology

A facial recognition system is a computer application capable of identifying or verifying a person from a digital image or a video frame from a video source. There are many types of authentication for banks and payment firms to consider though, and Chinese e-commerce firm Alibaba believes that payments could be made with a smile. HSBC is the first bank who adopt the facial recognition technology.

### 4.4 Smart Watches

Now banking transactions can be done on smartwatch—be it an Apple Watch, Android Wear or Samsung Gear. It's not only global financial institutions and banks like Scotiabank, Barclays, Nationwide, Deutsche Bank, Stanchart and Citigroup that have developed apps for smartwatches that run on all major mobile operating systems. But some Indian

private sector banks like HDFC, AXIS, ICICI banks have introduced smart watches apps.

**Table 1:** Smartwatch apps launched by Indian banks

Name of the bank	Name of the smartwatch app
HDFC bank	WatchBanking
ICICI bank	iWear

Source: compiled from different websites

#### 4.5 Google Glass technology

Banco Sabadell in Spain became one of the first banks to create a retail Google app that allowed users to locate the nearest ATM, check account balances, and use video conferencing for technical support. Spanish financial firm, Caixa Bank has also already developed a Google Glass app. It works by super imposing directions to the nearest branch onto the Glass screen, providing information such distance and phone number of the nearest branch, all of which is accessed through the voice recognition system.

#### 4.6 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, country's leading private sector lender ICICI Bank has implemented robotics software. Over 200 software robots are now performing over 10 lakh transactions per day for the bank which comprises 10% of its total transactions.

#### 4.7 Augmented Reality (AR) apps

Augmented Reality (AR) is a method of enhancing and improving your view of the real world using different technologies. It is the integration of digital information with the user's environment in real time. Australian Bank Westpac announced the release of an augmented reality app for mobile devices. Commonwealth Bank of Australia and St George Bank Australia also adopted this technology.

#### 4.8 Beacon technology

Bluetooth Beacons installed at banks to integrate physical and mobile channels, to create a new type of interaction and effective commercial communication and to deliver to the customers a positive and personal experience. Barclays is one of the first bank to use this technology.

#### 4.9 Oculus Rift

Rift is advanced display technology combined with its precise, low-latency constellation tracking system enables the sensation of presence. The US bank has been testing the use of Oculus Rift virtual reality headsets at its Digital Labs in San Francisco, offering customers the ability to 'virtually' enter a branch and speak to a teller face to face.

#### 4.10 Cryptocurrencies

A cryptocurrency is a medium of exchange like normal currencies designed for the purpose of exchanging digital information. A crypto-currency is a digital currency created through encryption techniques. Bitcoin is the most famous. South Africa's central bank is "open" to cryptocurrencies and blockchain, according to new statements from its governor. According to a recent media report, the banks that are opening cryptocurrencies includes UBS, BNY Mellon, Deutsche Bank and Banco Santander.

#### 4.11 Artificial intelligence (AI)

Artificial intelligence is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Computers can perform activities like speech recognition, Learning, Planning and Problem solving with AI. Swiss banking giant UBS entered into a commercial agreement with software vendor Scream, which crunches huge volumes of information about a clients behaviour to offer them detailed, personalised informat

#### 4.12 Cheque Truncation

Cheque truncation is the conversion of a physical cheque into a substitute electronic form for transmission to the paying bank. Cheque truncation reduces the physical movement, time and cost of processing the cheque clearance system. Britain with Barclays and Lloyds trialling the tech, allowing payment information to be desposited digitally using a mobile device.

**Table 2:** Latest apps launched by Indian banks

Name of the bank	Apps launched by banks
Axis bank	Airtel Money, Kisan card
SBI	BOUTIQUE FINANCING SCHEME, Twitter Handle account, E-KYC
ICICI Bank in Odisha	Branch on Wheel
Canara Bank	M-Wallet
ICICI bank	Tap and pay, ) M-Pesa, Student Travel Card, iwear
Hdfc Bank	Chillar, watchbanking
Kotak Mahindra Bank	Facebook-based funds transfer platform "KayPay"
BOI	Instant money transfer
Indusuld & federal bank	Video Conferencing
Laxmi Vilas Bank	LVB Mobile' app
Yes Bank	Yes Mobile 2.0 mobile bank app

### 5. Conclusion

To conclude, Banks have to understand that survival in the new e-economy depends on delivering all of their banking services on the Internet with help of the latest technology. From the above discussion it is clear that most of the foreign banks adopted the new technology very earlier than Indian banks. Some of the private banks in India like ICICI, AXIS and HDFC bank has taken initiative the the field of innovative banking. The technological advancement in banking sector can be made effective only when a simple, flexible and modular approach is considered and implemented in Indian Banks. So to meet the demands of the

growing customers public sector banks will need to upgrade their technology and pursue digitisation with greater willingness and enthusiasm.

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