



## Digitalization in Banking Sector

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### ABSTRACT

The role of digitalization in the banking sector has altered customer's preferences and demands.

The main purpose of the study is to know the impact of digitations in context to e-banking services. Traditionally the relationship between the bank and its customers has been on a one-to-one process.

The government of India has been curiously taking various steps to bring technological advancements in the banking sector in India. Introduction of debit cards, credit cards, NEFT, RTGS, Jan Dhanyojana, White label ATMs, mobile banking, internet banking and many other major initiatives to enhance banking in India have great responses from the consumer's end.

These diversified digital products help the organizations (service providers) to improve their firm performance and to remain competitive in the market. They also assist in increasing market share to grow their profitability and improve financial position and performance.

They all observe that despite rapid technological advancement in DFS during the last ten years, Digital Financial Services the factor affecting firm's performance didn't get the reasonable attention in academic literature and profitability.

Evolving new technologies like app banking, mobile wallets etc. more people are accessing and using

financial services provided by the banks. The paper discusses about the impact of digital technology over financial position with respect to the Indian economy and cultural.

**KEYWORDS:** *Banking Sectors, New innovations, Digitalization and Demonetization, Challenge to Digitalization, Recent Trends in Banking*

### INTRODUCTION

'Digital' is the new concept in the banking sector, with banks all around the world is shifting towards digitalization. Banks of all sized and across all regions are making huge investments in digital initiatives in order to maintain a competitive edge and deliver the maximum to its customers. Digitalization leads to data analytics and intelligence, which helps banks comes get closer to customers.

The financial development in Indian banking industry occurred after the nationalization of 14 major scheduled banks in July, 1969 and 6 in April, 1980. In the 1990s, The future of Indian Bank looks 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. Indian banks used technology based solutions to raise revenue generation, increasing customer experience, optimize cost structure and manage organization risk. However, there is a wide change in the technology applicability and capability across different banking industry.

## Banking digitalization

**New Innovations:**

There has been new way for innovation in the financial sector in recent years as banks realize the need of digital technologies such as mobile, analytics and telepresence to meet fast-changing demands from customers. Following are the some new innovations in banking sectors:

**1. Biometrics Technology :**

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

**2. Facial recognition Technology :**

A facial recognition system is a new 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 e-commerce firm Alibaba believes that payments could be made with a smile. HSBC is the first bank who adopts the facial recognition technology.

**3. 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. Smart Watches :**

Banking transactions can be done on smart watch-be it an Android Wear or Samsung Gear. It's not only global financial institutions and banks like Scotia bank, Deutsche Bank that have developed apps for smart watches that run on all major mobile operating systems. But some Indian private sector banks like ICICI, AXIS, HDFC banks have introduced smart watches apps.

**Table 1: Smart watch apps launched by Indian banks**

Name of the bank	Name of the smart watch app
HDFC bank	Watch Banking
ICICI bank	iWear

Source: compiled from different websites

### 5. Google Glass Technology:

Spain, Banco Sabadell in became one of the first banks to create 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.

### 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. The robots can answer basic customer service questions in 19 languages, as well as analysing customers facial expressions and behaviour. Country's leading private sector lender ICICI Bank has implemented robotics software. Over 200 software robots are now performing more than ten lakh transactions per day for the bank which comprises 10% of its total transactions.

### 7. Augmented Reality(AR) apps :

Augmented Reality (AR) is the 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 announced the release of an augmented reality app for mobile devices. Commonwealth Bank of Australia and St. George Bank Australia also adopted this technology.

### 8. Beacon technology :

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

### 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.

### 10. Crypto currencies :

A crypto currency 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. Bit coin is the most famous. South Africa's central bank is —open to crypto-currencies and block chain, according to new statements from its governor. According to a recent media report, the banks that are opening crypto currencies include Deutsche Bank, BNY Mellon, Banco Santander and UBS.

### 11. Artificial intelligence (AI) :

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

### Digitalization and Demonetization

Digitalization transition through Digital India Programme aims to provide the most needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance:

Reforming Government through Technology, e-Kranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes. Every pillar has its own importance, complexities in implementation and is a propellant for the overall growth of the country.

**1. Broadband Highways:** It covers 3 components broadband for all rural, broadband for all urban and National information infrastructures.



**2. Universal Access to Mobile Connectivity:**

It focuses on network penetration and filling the gaps in connectivity in the world.

**3. Public Internet Access Programme:**

To provide Common Services Centres (CSCs) and Post Offices as multi-service centres.

**4. e-Governance:**

Reforming Government through Technology: Government Process Reengineering using IT to simplify and make the government processes more efficient it is a critical for transformation to make the delivery of government services more effective across various government domains and therefore needs to be implemented by all Ministries.

**5. e-Kranti :**

Electronic Delivery of Services: The Government approved the National e-Governance Plan (NeGP), comprising of 31 Mission Mode Projects (MMPs) and 8 components. e-Kranti is an essential pillar of the Digital India initiative and

there are 44 Mission Mode Projects under e-Kranti, which are at various stages of implementation. (Includes Income Tax, Agriculture, Land records, Banking, Gram Panchayats and Post office etc.)

**6. Information for All:**

Online hosting of information & documents to facilitate open and easy access to information for citizens to use digitalization in the country.

**7. Electronics Manufacturing:**

It focuses on promoting electronics manufacturing in the country with the target of NET ZERO Imports by 2020 as a striking demonstration of intent.

**8. IT for Jobs :**

IT focuses on providing training to the youth in the skills required for availing employment opportunities in the IT/ITES sector in the country.

**9. Early Harvest Programmes:** It consists of those projects which are to be implemented within short timeline.**Challenge to Digitalization:**

## Recent Trends in Banking:

**1. Automatic Teller Machine (ATM):-** Automatic Teller Machine is the most popular device in India, which enables the customers, can withdraw their money 24 hours a day 7 days week. ATM allows customer who has an ATM card to perform routine banking transactions without interacting with a human teller. In addition to cash withdrawal, ATMs can be used for payment of utility bills, funds transfer between accounts, deposit of cheques and cash into accounts, balance enquiry.

Digital: Key challenge is to convert awareness to usage



**2. Tele Banking:** - Tele Banking facilitates the customer to do entire non-cash related banking on telephone. Under this device Automatic Voice Recorder is used for simpler queries and transactions. For complicated queries and transactions, manned phone terminals are used in Tele Banking.

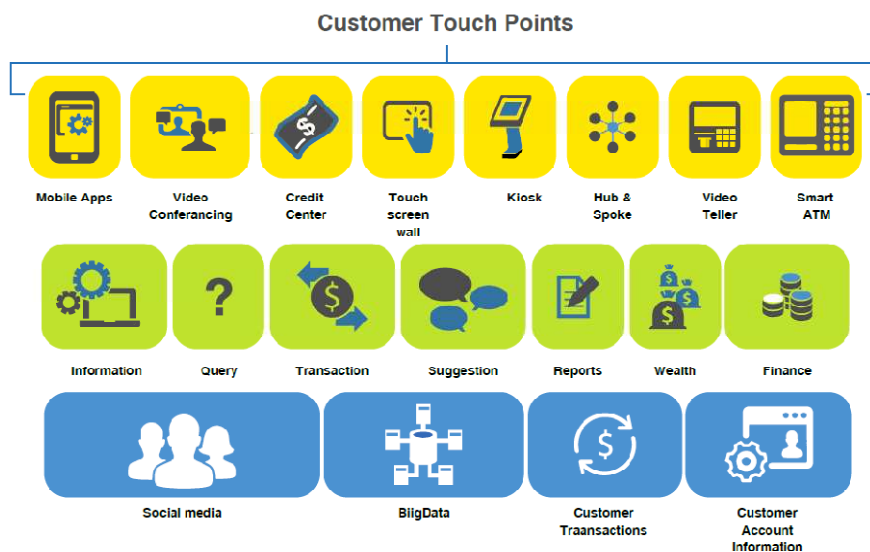
**3. Electronic Clearing Service (ECS):-** Electronic Clearing Service is retail payment systems that can be used to make bulk payments/receipts of a similar nature especially where each individual payment is of relatively smaller amount. This facility is meant for companies and government departments to receive large volumes of payments rather than for funds transfers by individuals in ECS.

**4. Electronics Funds Transfer (EFT) :-** Electronic Funds Transfer (EFT) is a system where by anyone

who wants to make payment to another person. can approach his bank and make cash payment or give authorization to transfer funds directly from his own account to the bank account of the beneficiary. Complete details such as the receiver's name, bank account number, account type (savings or current account), bank name, city, branch name etc. should be furnished to the bank at the time of requesting for such transfers so that the amount reaches the beneficiaries' account correctly and faster. RBI is the service provider of EFT.

**5. Real Time Gross Settlement (RTGS) :-** Real Time Gross Settlement System, introduced in India since March, 2004, is a system through which electronics instructions can be given by banks to transfer funds from their account to the account of another bank. The RTGS system is operated by the RBI and provides a means of efficient and faster funds transfer among banks facilitating their financial operations. As the name suggests, funds transfer between banks takes place on a 'Real Time' basis. Therefore, money can reach the beneficiary and the beneficiary's bank has the responsibility to credit the beneficiary's account within two hours of the transaction mode.

**6. Point of Sale Terminal:** - Point of Sale Terminal is a computer terminal that is linked online to the computerized customer information files in a bank and magnetically encoded plastic transaction card that identifies the customer to the computer. During a transaction, the customer's account is debited and the retailer's account is credited by the computer for the amount of purchase.



We have highlighted above some of the new emerging trends. Now I highlight the opportunities' that new trends bring in the growth and development of banking sector in our country.

### Conclusion:

1. The digitalization brings innovation, ease of working, new job opportunities and growth in the economy.
2. It helps to bring transparency in the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy.
3. With all these benefits available it also makes it necessary for the people to have basic financial knowledge and a push towards the importance of the financial literacy.
4. With the help of which they can protect their money in situations like inflation, depression, and know about different financial products and services to save it for their better future.
5. Digitalization can also play an important role in achievement this goal as it can have a greater reach to the people.

By this we can reach on a conclusion that the new technology needs to be harnessed well and for this it is not only the availability but also the knowledge to use it and get benefits from it.

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