

# Recent Innovations in Banking Sector in India

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## ABSTRACT

"Banking is necessary; Banks are not..." These words from Bill Gates<sup>1</sup> accurately summarise the basic need for many banks to reinvent themselves or at least adapt to a world where consumers require better and faster service, often online and mobile, and where organisational cost pressures require constant improvement in processes and applications in order to remain competitive. Innovation has turned out to be progressively imperative to the advancement of bank retail conveyance frameworks and the improvement of new electronic retail items. The capacity to convey new trend setting innovation items dependably has turned into a focal topic in the promoting techniques of a developing number of banks. Most organisations see presenting new items and administrations, for example, (PC) keeping money as a vital advance for holding profoundly esteemed clients, and for situating themselves deliberately for what's to come. As this pattern proceeds with, the nature and size of dangers presented by innovation will proceed to change, and these progressions will present huge difficulties for banks and saving money managers. A vital component to reacting to these difficulties is having a reasonable image of the changing managing an account and installments scene. This paper portrays that scene, concentrating on changes in "retail" installments (i.e., business-to-business and customer-to-business installments).

**Keywords:** E-Banking, electronic payments, B-B payments, technological innovations.

## INTRODUCTION

The budgetary improvement in Indian managing an account industry happened after the nationalisation of 14 noteworthy booked banks in July 1969 and 6 in April 1980. During the 1990s, managing an account part in India put more noteworthy accentuation on innovation and development. At present, Indian keeping money area is adequately promoted and very much controlled. There are 26 open segment banks, 25 private part banks, 43 outside banks, 56 provincial rustic banks, 1,589 urban agreeable banks and 93,550 country helpful banks. National banks allowed endorsement to 11 installments banks and 10 little account banks in FY 2015-16. Standard and Poor ('S&P') evaluates that credit development in India saving money area would enhance to 11-13% in FY17. The eventual fate of Indian bank looks energising as well as transformative. India's managing an account segment could turn into the fifth biggest saving money part on the planet by 2020 and the third biggest by 2025.



In future, innovation will make the commitment with banks more multi-dimensional proceed to create and extend keeping money administrations. Indian banks sent innovation-based answers for raise income, upgrade client experience, improve cost structure and oversee association chance. Be that as it may, there is a wide direct in the innovation usage ability crosswise over various players of the saving money industry.

## 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.

## 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 websites.

## INNOVATIONS IN BANKING

There has been a flood of advancement in the budgetary area lately as banks understand the need of computerised innovations, e.g., portable, wearable, investigation and telepresence to satisfy quick changing needs from clients. Following are some new advancements in managing an account segment:

### Biometrics Technology

Biometric innovation is any method by which an individual can be particularly recognised by assessing at least one distinctive organic characteristics. Biometric verification incorporates fingerprints; DNA, face, hand, retina and ear highlights. Biometrics frameworks could end the need of secret word and PIN code. As indicated by the BBC, Hong Kong and Shanghai Banking Corporation (HSBC) is propelling voice and contact acknowledgment security benefits in the UK. English saving money firm Barclays likewise increased security in 2014 – offering finger vein filtering for confirmation of substantial exchanges.

### In-vehicle Applications

Spanish budgetary establishment Caixa Bank has made the principal portable managing an ACCOUNT application that can be gotten to while driving, utilising voice control usefulness. The innovation utilised by Caixa Bank application, called Línea Abierta BASIC Drivers can make balance enquiries and exchanges, just as find close-by branches and ATMs, by talking into their Android gadget.

### Facial Acknowledgment Innovation

A facial acknowledgment framework is a PC application fit for distinguishing or checking an individual from a computerised picture or a video outline from a video source. There are numerous sorts of confirmation for banks and installment firms to consider however, and Chinese internet business firm Alibaba trusts that installments could be made with a grin. HSBC is the principal bank who receive the facial acknowledgment innovation.

## Shrewd Watches

Now, keeping money exchanges should be possible on smartwatch—be it an Apple Watch, Android Wear or Samsung Gear. It is not just worldwide budgetary organisations and banks like Scotiabank, Barclays, Nationwide, Deutsche Bank, Stanchart and Citigroup that have created applications for smartwatches that keep running on all real versatile working frameworks. Be that as it may, some Indian private division banks like HDFC, AXIS and ICICI Banks have presented brilliant watches applications.

### Smartwatch Apps Launched by Indian Banks

Name of the Bank	Name of the Smartwatch App
HDFC Bank	Watch Banking
ICICI Bank	iWear

Source: Compiled from Different Websites.

## Electronic Banking

For some individuals, electronic saving money implies 24-hour access to money through a mechanised teller machine (ATM) or Direct Deposit of checks into checking or bank accounts. Be that as it may, electronic keeping money includes a wide range of kinds of exchanges, rights, obligations — and at times, expenses. Do your examination. You may locate some electronic saving money benefits more reasonable for your way of life than others. Some of them incorporate electronic reserve exchanges, exposures, errors, lost or stolen ATM or platinum cards. Managing an account exchanges led through mechanised frameworks, as electronic subsidises exchange via robotised teller machines, proposed to speed activities, diminish costs, and so forth.

## Electronic Funds Transfer

Electronic managing an account, otherwise called electronic store exchange (EFT), utilises PC and electronic innovation instead of checks and other paper exchanges. EFTs are started through gadgets like cards or codes that let you, or those you approve, get to your record. Numerous money related organisations use ATM or platinum cards and Personal Identification Numbers (PINs) for this reason. Some utilisation different sorts of platinum cards that require your mark or a sweep. For instance, some utilisation radio recurrence ID (RFID) or different types of “contactless” innovation that check your data without direct contact with you. The government Electronic Fund Transfer Act (EFT Act) covers some electronic customer exchanges.

## Disclosure

To comprehend your rights and obligations regarding your EFTs, read the archives you get from the budgetary establishment that issued your “get to gadget” – the card, code or other way you get to your record to exchange cash electronically. In spite of the fact that the technique shifts by establishment, it regularly includes a card as well as a PIN. Nobody should know your PIN except you and select representatives at your money related organisation. You likewise should peruse the records you get for your financial balance, which may contain more data about EFTs.



## Errors

You have 60 days from the date an occasional proclamation containing an issue or mistake was sent to you to tell your monetary establishment. The most ideal approach to ensure yourself if a mistake happens is to inform the money related organisation by confirmed letter. Request an arrival receipt so that you can demonstrate that the establishment got your letter. Keep a duplicate of the letter for your records.

## Lost or Stolen ATM or Debit Cards

On the off chance that your MasterCard is lost or stolen, you cannot lose more than \$50. On the off chance that somebody utilises your ATM or platinum card without your consent, you can lose significantly more.

In the event that you report the misfortune inside two business days after you understand your card is missing, you won't be in charge of more than \$50 of unapproved use. In the event that you report the misfortune inside 60 days after your announcement is sent to you, you could lose as much as \$500 considering an unapproved exchange. In the event that you do not report an unapproved utilisation of your card inside 60 days after the card backer sends your announcement to you, you hazard boundless misfortune; you could lose all the cash in that account, the unused bit of your most extreme credit extension built up for overdrafts, and perhaps more.

## Electronic Payments

An e-installment framework is a method for making exchanges or paying for products and ventures through an electronic medium, without the utilisation of checks or money. It is additionally called an electronic installment framework or online installment framework. The electronic installment framework has become progressively in the course of the most recent decades because of the developing spread of web based managing an account and shopping. As the world advances more with innovation improvement, we can see the ascent of electronic installment frameworks and installment preparing gadgets. As these increments enhance and give always secure online installment exchanges, the level of check and money exchanges will diminish. A standout amongst the most prevalent installment shapes online are credit and check cards. Other than them, there are likewise elective installment strategies, for example, bank exchanges, electronic wallets, savvy cards or bitcoin wallet (bitcoin is the most prominent cryptographic money). E-installment strategies could be arranged into two territories, credit installment frameworks and money installment frameworks.

- **Visa:** A type of the e-installment framework which requires the utilisation of the card issued by a money related establishment to the cardholder for making installments on the web or through an electronic gadget, without the utilisation of money.
- **E-wallet:** A type of prepaid record that stores client's budgetary information, similar to charge and Visa data to make an online exchange less demanding.
- **Savvy Card:** A plastic card with a microchip that can be stacked with assets to make exchanges; otherwise called a chip card.

## Cash Payment System

- **Direct Charge:** A monetary exchange in which the record holder educates the bank to gather a particular measure of cash from his record electronically to pay for products or administrations.



- **E-Cheque:** A computerised form of an old paper cheque. It is an electronic exchange of cash from a financial balance, generally financial records, without the utilisation of the paper cheque.
- **E-money:** It is a type of an electronic installment framework, where a specific measure of cash is put away on a customer's gadget and made available for online exchanges.
- **Put Away Esteem Card:** A card with a specific measure of cash that can be utilised to play out the exchange in the backer store. A common case of put away esteem cards are gift vouchers.

## Business-to-Business Payments

Business to business, also called B to B or B2B, is a form of transaction between businesses, such as one involving a manufacturer and wholesaler, or a wholesaler and a retailer. Business to business refers to business that is conducted between companies, rather than between a company and individual consumers. Business to business stands in contrast to business-to-consumer (B2C) and business-to-government (B2G) transactions.

## Breaking Down B-B Payments

Business-to-business exchanges are regular in a common store network, as organisations buy parts and items, e.g., other crude materials for use in the assembling forms. Completed items would then be able to be sold to people by means of business-to-shopper exchanges.

With regards to correspondence, business-to-business alludes to techniques by which workers from various organisations can interface with each other, e.g., through online life. This sort of correspondence between the representatives of at least two organisations is called B2B correspondence.

## B2B E-Commerce

In 2017, Forrester said it is expected the B2B online business market to top \$1.1 trillion in the US by 2021, representing 13% of all B2B deals in the country. The web gives a vigorous domain in which organisations can get some answers concerning items and administrations and lay the basis for future business-to-business exchanges. Organisation sites enable invested individuals to find out about a business' items and administrations and start contact. Online item and supply trade sites enable organisations to look for items and administrations and start obtainment through e-acquisition interfaces. Specific online registries giving data about specific ventures, organisations and the items and administrations they give likewise encourage B2B exchanges.

## B2B Relationship Development

Business-to-business exchanges expect intending to be effective. Such exchanges depend on an organisation's record the executives workforce to set up business customer connections. Business-to-business connections should likewise be sustained, regularly through expert communications preceding deals, for fruitful exchanges to occur. Conventional advertising rehearses additionally help organisations associate with business customers. Exchange distributions help in this exertion, offering organisations chances to publicise in print and on the web. A business' essence at meetings and exchange indicates likewise manufactures familiarity with the items and administrations it gives to different organisations.



## TECHNOLOGICAL INNOVATIONS IN BANKING

Innovations and Challenges in Banking

New innovation in managing an account is now changing the money related division, and the customary saving money scene is set to quickly change in the following five years. Well-being highlights, for example, propelled cryptography and biometrics, will help ensure against bank tricks, and remote applications will make it less demanding than any time in recent memory to do your managing an account without visiting a branch — yet on the off chance that you do, the experience is probably going to be considerably more client inviting.

### Blockchain Technology

Blockchain innovation is set to on a very basic level change saving money and budgetary administrations. It decentralises monetary administration from a focal specialist to a far-reaching system of PCs. Monetary exchanges are separated into scrambled bundles, or “squares,” which are then added to the “chain” of PC code and encoded for upgraded cybersecurity — it is been contrasted with “e-mail for cash” by blockchain startup CEO, Blythe Masters. Since the innovation can possibly enhance various features of keeping money — and is the reason for other managing an account innovation patterns like bitcoin — it is never again an issue if blockchain will change the saving money industry, yet when, as indicated by the Wharton School of the University of Pennsylvania.

### Upgraded ATMs

ATMs changed the bank tech framework when they were first presented in 1967. The following upheaval in ATMs is probably going to include contactless installments. Much like Apple Pay or Google Wallet, soon you will have the capacity to direct contactless ATM exchanges utilising a cellphone.

Some ATM advancements are as of now accessible abroad. For instance, biometric verification is as of now utilised in India, and iris acknowledgment is set up at Qatar National Bank ATMs. These advancements can help in general bank security by ensuring against ATM hacks.

It may require some investment to see ATM overhauls in the US money related framework on account of the strict directions administering North American banks, as per Barometric, which is a main worldwide supplier of biometric security frameworks.

### Expansion of Non-banks

Banks are trusting that innovation will enable them to convey a quicker, progressively straightforward experience to shoppers. An extensive segment of their assets, nonetheless, is essentially committed to security, consistence and other industry-explicit necessities, which has permitted non-banks — or budgetary specialist organisations that are not controlled by the keeping money industry — to prosper, as indicated by a 2016 report from market insight firm Greenwich Associates. Since these organisations can give a more prominent level of their advantages for bleeding edge money related innovation, they may probably improve more quickly than conventional banks, pulling in technically knowledgeable clients all the while.

### Apple Store-style Experience

The in-bank understanding of things to come may be increasingly similar to shopping at an Apple Store. Since such huge numbers of individuals currently can download easy-to-use saving money applications or effectively discover an ATM to deal with essential managing an account exchanges, the normal in-bank client today is looking for help including an individual communication. Banks wanting to expand deals later on are thinking about this change as a path for clients to connect all the



more straightforwardly with the bank and its items, much the same as in an Apple store, guiding clients to interface with tech booths for a few exchanges and saving individual-to-individual collaboration for noting questions or tending to needs interesting to the individual purchaser.

## Mechanised Financial Services Employees

Vikram Pandit, who ran Citigroup Inc. amid the money related emergency, said up to 30% of keeping money occupations could vanish inside the following five years because of improvements in innovation, in a 2017 meeting with Bloomberg TV. Numerous representatives of Wall Street's biggest firms are as of now adjusting or search for different positions because of the utilization of advances, for example, machine learning and distributed computing, which computerise their activities, as indicated by Bloomberg.

## Mobile and Digital Banking

The portable and advanced change in the keeping money framework has just barely started and development is as of now unstable. Banks are putting vigorously in advanced keeping money innovation, in which clients utilise versatile, web or computerised stages to utilise managing an account administration. Man-made consciousness arrangements, for example, chatbots, frequently help clients in straightforward assignments, for example, making installments. In a Forbes overview on managing an account client commitment from late 2016, 86% of banks demonstrated that these sorts of administrations speak to their best innovation speculations.

## Partnerships

Although banks can empty heaps of cash into innovation, the quickest method to convey money related development later is likely going to include key organisations. Quickly developing organisations that as of now have new-wave fintech or web-based social networking stages set up could make incredible accomplices for conventional banks looking to improve client experience. Card-connected advertising organisation Cardlytics, which takes part in information examination, is banding together with a few money related establishments like Bank of America to use secure buy information to tailor promoting dependent on purchasers' card use.

## Wearables

Wearables — for example, smartwatches — are ready to end up the eventual fate of the retail managing an account involvement, as per Samsung Insights. One model is that banks could utilise Bluetooth reference points to push individual welcome to clients' smartwatches when they enter a keeping money area.

In general, customers conduct and shrewd gadget patterns are guiding account innovation to propel towards comfort. An expanding number of remote advances will enable you to interface with your bank directly from the palm of your hand. Also, from your e-mail inbox to visiting a genuine branch, you can hope to experience a totally different client experience, maybe much sooner than you might suspect.

Google Glass innovation Banco Sabadell in Spain wound up one of the main banks to make a retail Google application that enabled clients to find the closest ATM, check account adjusts, and use video conferencing for specialised help. Spanish budgetary firm, Caixa Bank, has effectively built up a Google Glass application. It works by very forcing bearings to the closest branch onto the Glass screen, giving data such separation and telephone number of the closest branch, which is all gotten to through the voice acknowledgment framework.



## CONCLUSION

In this paper, we have examined the entirety and hugeness of the exposures banks right currently give around their interests being developed. We find that banks reliably believe that headway is a material issue that is essential to their strategy and whole deal supportability. We found that money related authorities continuously watch disclosures around progression to be exceedingly fundamental and search for progressively quantitative exposures, for instance, entirety spent, number and nature of exercises grasped, the consequence of advancement attempts, and a capability between the IT spend on upkeep/refreshing ebb and flow systems and enthusiasm for new developments. Customers and controllers also have an excitement for such revelations to choose the future organisations and perils that the banks face. Despite these observations, we find that relatively few banks give more than sporadic disclosures around their improvement attempts. From tending to banks preparing fused reports, we find that they see the need to give better exposures as the accounting rules do no starting at now empower them to reflect the estimation of improvement. The Multi-capital International Framework gives a significant gadget to help banks consider improvement that can provoke augmentations in budgetary and insightful capital in later periods. The central obstacle to giving this introduction is the inability to develop a causal association between the enthusiasm for, for example, IT advancement and the financial results, given the limited data accumulated and available. The affectability of disclosures is also seen as an issue. The keeping cash territory in India has ended up being more grounded with respect to capital and the number of customers. It has ended up being generally forceful and different pointing, at higher productivity and viability. Prologue to in-general test and deregulation in Indian money related zone has incited the improvement of better-quality things and organisations. Changes have changed the substance of Indian keeping cash and reserve. The dealing with a record division has upgraded manifolds similar to technology, deregulation, product and services, information systems, etc. "With new open entryways spreading out banking sector, India is creating an overall influence in keeping cash benefits in the accompanying two decades."

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