# Advancement of Digital Transformation to Boost Financial Services Industry

## Dr. A. B. Mishra

Associate Professor, International Institute of Management Studies, Pune

## Prof. Nishant Ranjan

Assistant Professor, International Institute of Management Studies, Pune

## Dr. Krishna Mohan Sharma

Business coach & Sales trainer

## Dr. Pradip Padhye

Assistant Professor, Dr. Vishwanath Karad MIT World Peace University, Pune

## Prof. Kshirod Chand

Assistant Professor, International Institute of Management Studies, Pune

**Abstract:**

In the financial sector, digital transformation refers to the process of leveraging technology to develop new services, optimise consumer experiences, and improve financial business operations. This can entail a variety of steps, such as developing mobile banking apps, integrating artificial intelligence into customer support, or utilising blockchain technology to enable safe and effective transactions. The financial services industry has a profitable chance to modernise traditional work practises, upskill, innovate, and begin embracing digitalization through the effective use of technology. This research study is to determine presence of digital transformation in financial services. It is secondary research study which also focussed on futuristic technical trends for digitalisation in financial industry.

Keywords: Digital transformation, financial services, trends, technology, banking

**Introduction:**

Throughout the course of the last ten years, digital transformation has become mainstream as companies and sectors everywhere understand just how important it is to adopt technology in order to remain relevant and competitive. The finance industry is one that has been most impacted by this development. The emergence of fintech startups has been a major factor in the digital transformation of the Indian financial system. These start-ups leverage technology to provide cutting-edge goods and services that upend the status quo. They are frequently motivated by a desire to challenge established financial institutions. Due to their growing popularity among consumers, especially the younger generation who are more accustomed to digital technology, fintech companies in India are pressuring more established financial institutions to change or risk losing market share. There are many advantages to digital transformation in the finance sector. It could, for starters, lower expenses and boost productivity.

Financial institutions may become more flexible and optimise their operations by automating certain procedures and utilising data analytics to make better decisions. Better profitability and a more competitive position in the market may follow from this. Better client experiences can result from digital transformation in addition to improved internal operations. Financial institutions may provide a range of services, including customised suggestions based on client information, thanks to digital technology.Digital transformation in the financial sector is a trend that is unlikely to slow down anytime soon, despite the obstacles. Financial institutions must embrace digital transformation to stay competitive and relevant as long as technology and customer expectations keep changing. Technology has been widely adopted by Indian businesses, and new digital business models have the potential to penetrate most industries. While newly digitised industries and digital applications in the public sector and the labour market could each add US$ 10-150 billion to the economy over the same period, core digital industries like IT and business process management, digital communication services, and electronics manufacturing could double their GDP levels to US$ 355-435 billion by 2025. The productivity surge could create 60–65 million new jobs by 2025, but redistribution would be required to support the 40–45 million workers whose occupations are predicted to be lost or changed by digital technology in various Indian sectors. The banking industry in particular places a lot of importance on the idea of digital transformation. People are now selecting banks and other financial institutions based on their perceptions of them after Indian banks went digital. The way these institutions present themselves online is shaping the view. Assisting in attracting new clients and keeping hold of current ones is the second goal. Any institution that provides more easily navigable services will attract a larger consumer base.

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### Digital Transformation in Financial Services

Financial services are undergoing a rapid digital transformation that is altering every aspect of the business, including transaction processing and management as well as client interactions with their financial institutions. Maybe moving your current systems around a little bit won't be necessary. The goal is to adjust organisational culture and procedures, as well as deploying new technologies, to the quickly changing digital context. It radically alters the way you do business and give customers satisfaction. Moreover, it's a cultural transformation that calls for ongoing innovation and status quo questioning.

### Advantages of Digital Transformation in Financial Services

Financial services are undergoing a "digital transformation" as a result of the integration of digital technology, which has allowed the sector to better serve consumers' changing needs while cutting expenses and improving efficiency. Some of the advantages of digital transformation in financial services include the following:

- **Improved Customer Experience:** Digital transformation provides customers with a seamless and convenient experience. Today's tech-savvy customer expects fast-paced services, and digitization takes financial services to their fingertips. It helps financial service companies positively engage customers and offer personalized products and services. It enables customers to access financial assistance anytime and from any location, improving their satisfaction with the services.

- **Increased Operational Efficiency:** Automating laborious chores and streamlining operational processes are two benefits of digitization. Financial transactions take less time and money when digital technologies like blockchain, cloud computing, and artificial intelligence are used. Process automation boosts productivity and lowers human error. Improving operational efficiency, it facilitates seamless data sharing and integration between the systems. Financial organisations can transition from antiquated software to a centralised, user-friendly system with the aid of digital transformation.

- **Time And Cost Savings:** Transactions without cash are made possible by digitization, which lowers the amount of money spent on middlemen for transferring cash between participants. Costs could be saved by digital transformation initiatives that reduce hardware by decommissioned old technology. Financial organisations can cut expenses associated with physical infrastructure, paper-based transactions, and manual processes by implementing digital transformation. It results in cost reductions that can be transferred to customers.

- **Process Agility & Accuracy:** Operations automation boosts productivity and efficiency by removing human error and increasing the precision of reiterated procedures.

- **Insight-Based Decisions**: Finance firms can satisfy client demands and make critical decisions more quickly with the use of powerful analytics powered by AI (Artificial Intelligence) and ML (Machine Learning) and accurate, real-time data availability. Effective analytics is what is used to analyse this data in order to maximise growth and extract insightful knowledge.

- **Facilitates Innovation:** Financial institutions can develop new services and products that are more receptive to customer needs thanks to the opportunities presented by digital transformation. They can also work together to create new business models with fintech companies thanks to it.

- **Regulatory Compliance:** Banking organisations can more effectively comply with regulatory obligations thanks to digital transformation. For instance, it makes real-time transaction tracking possible, which aids in the fight against fraud and money laundering.

- **Easy Data Management:** Banking organisations can use cloud technology to efficiently gather, handle, and store data thanks to digital transformation. The financial services industry frequently experiences mergers and acquisitions, which can be facilitated by the use of cloud-based digital transformation solutions. On the other hand, conventional physical systems lead to incompatibilities and add complexity.

### Digital Transformation Trends in the Financial Industry

Financial organisations, including banks and non-banking ones, have a greater chance of meeting evolving consumer expectations and shifting market demands if they embrace and integrate the newest tools and technologies into their operations. Considering the crucial developments that banks and other industries financial institutions must prioritize include the following:

## Banking Sector

**Digital Banking:** Digital banking services are growing rapidly due to the increase in FinTech solutions. "Digital banking" is already a reality thanks to automation and artificial intelligence, from front-end to back-end! For example, these technologies now allow users to perform transactions, apply for loans, transfer money into their accounts, and get individualised financial advice from a distance.

- **Neobanks :** Neobanks are completely digital banks or financial institutions that operate through apps and offer a variety of services. Since all transactions take place entirely online, these banks operate far more quickly, more conveniently, safely, and affordably. Additionally, round-the-clock customer support services are simply accessible.

- **Contactless**, instant payments, digital wallets, and "buy now, pay later" options are reshaping the entire payment ecosystem. Banks are adopting cloud-native technology in order to save costs, increase flexibility, and improve security.Open banking and Banking-as-a-Service (BaaS) are becoming more popular because APIs make it possible for banks and other financial institutions to connect with each other more quickly, simply, and affordably.

## Investment Services

In spite of encountering challenges during the epidemic, the investment sector is giving priority to digital transformation. Investment experiences are becoming more convenient, quick, and secure thanks to industry-specific developments like automation, cloud usage, and APIs. As wealth management advice is being provided by robo-advisors, hybrid advising models—which blend human experience with self-learning tools—are becoming more and more popular.

## Insurance Companies

• In order to satisfy changing customer expectations for an Omni channel experience, insurers are making the shift to user-first, Omni channel approaches. They are reducing operating expenses and improving customer satisfaction by utilising automation and RPA. Advanced analytics is being used by insurance companies to anticipate customer lifetime value, reduce risks, identify fraudulent claims, and personalise marketing strategies.

## Tax and Accounting Industry

Continuous accounting is a cutting-edge strategy that improves accuracy across accounting procedures by streamlining processes and utilising automation and technology.

Data discrepancies are eliminated through data Harmonisation, which unifies all transactional data from many sources and formats into a single system. This is making it possible to leverage analytics driven by AI and other prediction tools to produce more effective analysis and reporting.

## AI and ML to Identify Fraudulent Activities and Automate Processes

In order to enhance client experiences, streamline operations, and lower risks, financial institutions are progressively implementing AI and ML technology. Application areas include chatbots, compliance with rules and regulations, fraud protection systems, trading algorithms in wealth management (stock market, real estate, cryptocurrency, commodities, and more), risk assessment, prediction, and management, and more. These facilitate the analysis of vast quantities of data by establishments to detect trends and revelations that might guide judgements. Enhancing client relationships through learning from user experiences, utilising precise predictions to generate revenue, making better data-driven decisions, and expediting automated procedures are its advantages. To illustrate, The Bank of America's AI-driven chatbot, Erica, has assisted over 1 billion customers, greatly boosting operational effectiveness.

## IoT to Collect Data and Track Customer Behavior in Real-time

The financial services sector stands to gain greatly from the Internet of Things (IoT), since it allows financial institutions to gather and analyse real-time data from linked devices, facilitating informed decision-making. It collects and exchanges data in real-time and facilitates cashless transactions through a network of networked wireless devices embedded with sensors such as Bluetooth low energy (BLE) and radio frequency identification (RFID). Here are a few instances of IoT applications in the financial services sector: (Placeholder1)

- **Smart ATMs**: IoT-enabled ATMs may notify problems in real time and monitor their own performance, which lowers downtime and increases client availability. Additionally, based on past transactions and consumer preferences, these ATMs can offer customised services.

- **Insurance telematics**: Vehicle sensors with Internet of Things (IoT) features are capable of collecting information on driving habits, including acceleration, braking, and speed. By providing individualised coverage based on individual

driving habits, insurance companies can utilise this data to lower premiums for safer drivers and encourage better driving practises.

- **Smart homes**: Energy-efficient mortgages and environmentally-friendly house insurance plans are just two examples of the customised financial services that may be provided by IoT-enabled home sensors. These sensors can also gather data on water and energy consumption.

- **Asset tracking**: IoT sensors are able to monitor the whereabouts and state of assets, including machinery, cars, and stock. In addition to lowering the possibility of damage or theft, it can enhance supply chain management and allow financial institutions to provide asset-based financing and lending.

## Cloud Technology for Greater Scalability, Security and Resilience

Banks and other financial organisations, such as insurance companies, are warming up to the idea of migrating to the cloud and taking advantage of its cutting-edge technological tools for improved services and goods, as the cloud has grown more secure. Microservices frameworks and finance apps are made possible by cloud computing, which also lowers costs and increases corporate agility. Vanguard, an investment management organisation, leverages cloud-based Amazon Web Services (AWS) technology to enhance internal communication and develop more robust apps. Cloud technology has various uses in the banking sector, including real-time analytics, monitoring trading activity and implementing risk mitigation methods, Customer Relationship Management (CRM) systems, and high-performing apps.

## Big Data for Accurate Forecasting, Financial Analysis & Investment Advice

Utilizing predictive and prescriptive analytics, Big Data provides benefits like forecasting financial trends, analyzing risk, automating tasks, making data-based decisions, and improving customer transparency. It helps insurance companies with customer analytics and insights to determine whether they should accept someone as a client. It provides real-time analytics and support in marketing initiatives across all financial services.

Additional applications of big data in finance include fraud detection and prevention, risk assessment and management, financial market monitoring and help with investment advice, predictive analytics-based future planning, customer segmentation and targeted marketing, and more. One of the biggest banks in the US, JPMorgan Chase and Co., uses big data analytics, for instance, to produce reports for its customers and gain insights into consumer patterns. In a matter of seconds, they may generate the report and conduct an individual customer analysis.

## RPA to Drive Speed, Efficiency, and Compliance Across Operations

The field of finance is rapidly advancing robotic process automation, or RPA. The accuracy of forecasts and analyses is improved by complete process automation. By integrating RPA with other intelligent automation technologies, financial organisations may increase production, efficiency, and compliance.

RPA is being used in the finance industry in a variety of ways, such as general ledger, fraud detection, accounts payable, loan processing, customer care, onboarding of new customers, compliance, fraud detection, and know your customer. Benefits include the ability to scale operations, reduce costs, save time, integrate seamlessly with the current infrastructure, lower the risk of human mistake, and more.

**Blockchain to Expedite Transactions and Secure Data Across Finance Verticals:** It gives customers more autonomy by enabling a Decentralised Finance (DeFi) environment. It uses smart contracts to replace centralised banking systems and modifies financial settlements. Faster transactions and real-time cross-border payments are the outcome of this. Transaction security is increased via blockchain-based ledgers. In addition to **crypto currencies**, the DeFi architecture includes Web3-ready infrastructure, peer-to-peer (P2P) protocols, decentralised exchange (DeX) protocols, and non-fungible tokens (NFTs). Financial organisations also employ blockchain technology to increase client trust, increase brand value, and protect critical data. In the financial sectors of capital markets, asset management, payment and remittances, lending and banking, trade finance, and insurance, blockchain has a wide range of applications. It is applicable to practically all financial industry operational procedures.

### Cybersecurity for Safeguarding Sensitive Data and Mitigating Risks

The finance sector deals with extremely private client and third-party data. Thus, it makes use of data privacy solutions such as biometric authentication, role-based access control, automated data compliance, financial data encryption, and network monitoring systems. By continuously monitoring network activity and data access, they assist network administrators in reducing cybersecurity threats. In the quantum era, FinTech also makes use of quantum computing to ensure data security and integrity.

### Mobile for Instant Access, Secure Transactions, and Enhanced UX

Google determined when it comes to updating their accounts, six out of ten smartphone users would rather use a banking app than a website on another platform. Instant access to customer accounts and related services is offered by mobile banking and financial services apps. Every stage of the process includes user authentication to guarantee strong security and dependability. Users of mobile apps find it easier to keep track of all financial transactions, including payments, receipts, and saves, as well as to spot trends like spending patterns and cycles of saving money. Financial institutions can lower operating expenses by providing a range of services with improved customer experiences on mobile apps.

### Challenges in digital transformations in finance

### 1. A big transition from traditional to digital systems

The digital demands of today can no longer be met by conventional technologies. For financial institutions, however, making the switch from antiquated legacy systems to cutting-edge digital systems is not simple. Making the transition from an outdated, analogue workplace to a modern, digitally connected one may be difficult. The newest systems require the newest security measures, which also come with higher installation costs. Financial institutions will have to make significant investments in order to transition from outdated digital technologies to conventional methods. A firm that wants to go digital also needs to make sure that all of its staff members are properly trained and knowledgeable about the most recent developments in the digital space.

### 2. Proper utilisation of customer data

To maximise the benefits of digital adjustments, financial companies must collect, handle, and distribute customer data. This ensures that these companies may use the data in an efficient manner in order to better match their services to the needs, desires, and requirements of those who use their services.

### 3. Threat from cybercrimes

An increasingly pressing aspect of digitalization in the financial sector is the rise in cybercrimes. Financial organisations cannot afford to take any chances when it comes to cybersecurity because they handle the private and sensitive data of their clients. The security and compliance of the financial data should be their top priorities. A financial company must therefore guarantee its privacy, security, and compliance requirements before utilising any technology.

### CONCLUSION:

Digital technologies are utilised by financial services organisations to boost client experience, increase operational efficiency, and stimulate innovation. Technologies like cloud computing, block chain, data, artificial intelligence, and the Internet of Things (IoT) are all part of the financial sector's digital transformation. Their desire to take on well-established financial institutions is often what drives them. Fintech companies operating in India are putting pressure on more established financial institutions to modify their offerings or risk losing market share, given their increasing popularity across consumers, particularly among a younger demographic that is more acclimated to digital technology. It could be challenging to make the switch from an antiquated, analogue workplace to a contemporary, digitally connected one. The most recent security measures are necessary for the newest systems, and they also cost more to implement. Financial institutions will need to commit large sums of money to make the switch from antiquated digital technologies to traditional processes. With the rise of FinTech solutions, digital financial services are expanding significantly. Banks are implementing cloud-native technologies to boost security, reduce expenses, and provide more flexibility. APIs enable banks and other financial institutions to communicate with each other more swiftly, easily, and economically, which is why open banking and Banking-as-a-Service (BaaS) are growing in popularity. Financial institutions can offer asset-based lending and financing in addition to improving supply chain management and reducing the likelihood of damage.

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