

Digital Lending Solution: Paperless Banking

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Abstract: *In the realm of Financial Technologies and lending or credit, digital lending is a new, revolutionary, and rising topic. Digital lending is the use of technology to originate and renew loans in order to provide a more efficient service and decisioning system. As a result of the widespread use of process digitalization and automation by lending institutions, the lending industry has begun to digitize. Banking industry is now moving to a completely paperless domain, with this the concern for security and need of encryption rises.*

Keywords: Digital Lending, Paperless Banking, OCR, eKYC, Banking, FinTech

1. Introduction

Financial technology is a combination of technology and innovation aimed at automating and improving the delivery and usage of financial services. It primarily uses sophisticated software and algorithms to assist businesses, financial institutions, and customers in managing their financial procedures and operations. FinTech, or as we say, Financial Technology, has completely changed the way financial institutions operate in the modern world. With banks moving toward digitalisation. FinTech has taken this a step further by removing the need for paper, reducing physical presence, and eliminating the direct flow of cash.

Until recently, paperless banking was only connected with bank-produced paperless statements. To some extent, this is correct, but it is only a tiny portion of a much more comprehensive picture.

From internet banking through account management, including account opening, paperless banking spans the entire banking organisation. When we say "paperless banking," we refer to all of the processes that can be automated and made available online to make service interactions and transactions more productive, environmentally responsible, and user-friendly.

1.1 Lending Sector in India

In India, banking is the foundation for the country's economic progress. With the growth of technology and consideration of people's demands, primary banking system and administration changes have occurred over time.

The banking sector in India comprises different categories of banks consisting of Public sector banks, Private banks, cooperative banks, Foreign banks, and Non-Banking Financial Institutions (NBFC's). The same is illustrated in the figure below:

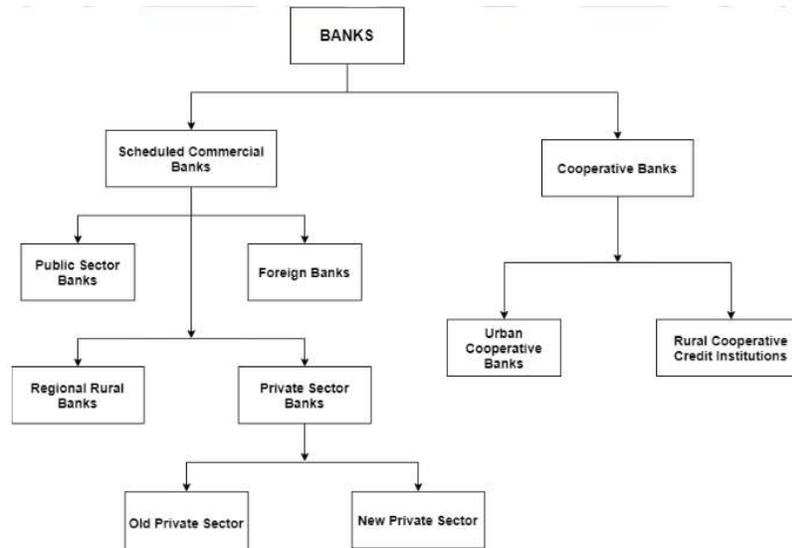


Figure 1. Banking Sector in India

Over the next five years, India's digital lending business is expected to be worth more than USD 1 trillion.[1]

All of the technologies necessary to run an application are included in a "stack," including computer languages, architecture, libraries or lexicons, servers, user interfaces and experiences, software (the applications themselves), and developer tools such as APIs connect databases and software.

A mandated verification technique used by banks, financial institutions, and other Indian organisations to reduce unlawful activity such as money laundering is called "KYC", i.e., "Know-Your-Customer". Since 2004, the Reserve Bank of India has made it unlawful for anybody or any business to create a bank account, a trading account, or a Demat account without first completing the KYC procedure.

In the "paperless" lending arena, new and easy-to-use OCR verification technologies are also available. They play a crucial role in pushing these Loan Products one step closer to digitisation.

The India Stack results from merging NPCI's digital payment programmes with Aadhaar's identification and verification capabilities via APIs. The same is further illustrated below:

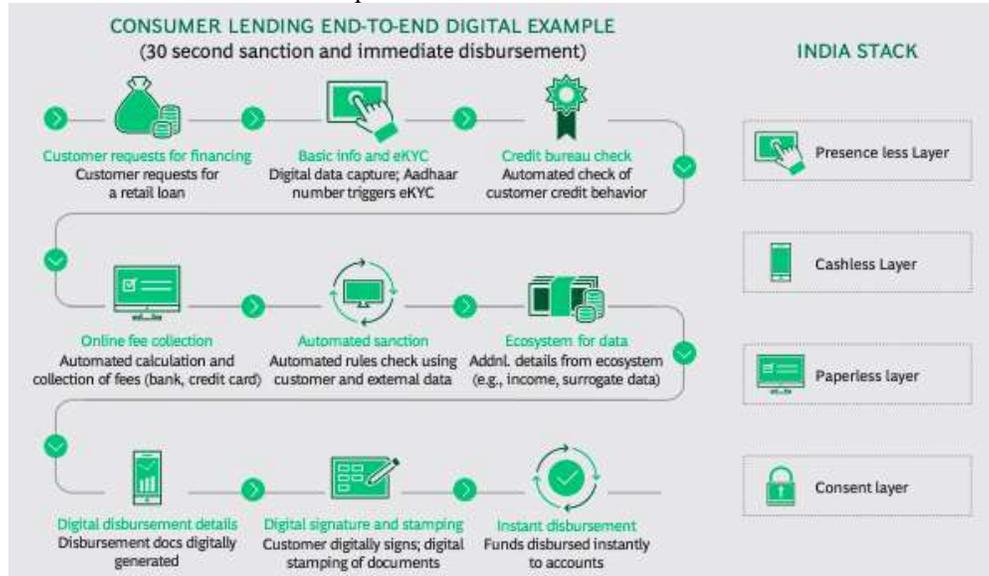


Figure 2. India Stack: End-to-End Digital Lending

Sources: FIBAC Productivity Survey 2018; RBI data; IBA data; BCG analysis

1.2 Presence of a Regulatory Environment in India

Along with customers and the digital ecosystem, the regulatory environment in India has changed dramatically in recent years. India has surpassed several advanced economies in terms of digital financing. Aadhar, UPI, Bharat Bill Payment System, and GST are examples of open architectural layers that have been established.

The government has aggressively supported the development of a comprehensive and paperless digital environment.

The paper-dependent to paperless loansystems is broadly grouped into four tiers of implementation in this research and may be characterised as follows:

1. To begin with, India's Urban and Rural Cooperative Banks serve smaller segments of the population. They operate on a no-profit, no-loss basis and generally support entrepreneurs, small businesses, industries, and self-employment in urban regions. They primarily support agricultural operations in rural areas, such as farming. As a result, they rely nearly exclusively on antiquated paper-based systems.
2. Second, sections of regional rural banks and a portion of the public sector's loan systems are "computer-based," such as data entry, computations, with just approximately 10% of the loan trip remaining paperless. Physical, paper-based systems are still frequently used.
3. Third, a small number of private sector banks, public sector banks (in major cities), and foreign banks have begun to digitise their loan systems. Even while the bulk of them have not reached 100 per cent digitisation, they guarantee that they have paperless loan application procedures, eligibility checks, and credit checks, among other things. The absence of the "Tech

Stack," such as API integration, automated checks, OCR integrated verifications, eKYC integration, might be the sole gap discovered.

4. Finally, just a tiny portion of the lending industry has nearly completed digitalisation and is working toward automation. Tech Stacks have been integrated into the lending procedures of online small financing and NBFCs such as Incred, Muthoot Gold, and others to achieve minimal manual involvement.

1.3 Financial Technological Advancements and Transactions in India

According to FIBAC Productivity Survey [2], from FY16 to FY18, the overall number of transactions completed by banks increased by 15% to 24 billion. In FY18, digital transactions increased by 21%, while branch/paper/physical channel transactions declined by 8%, and ATM transactions declined by 5%. According to these figures, consumers are getting more comfortable with digital transactions and are depending less on bank branches.

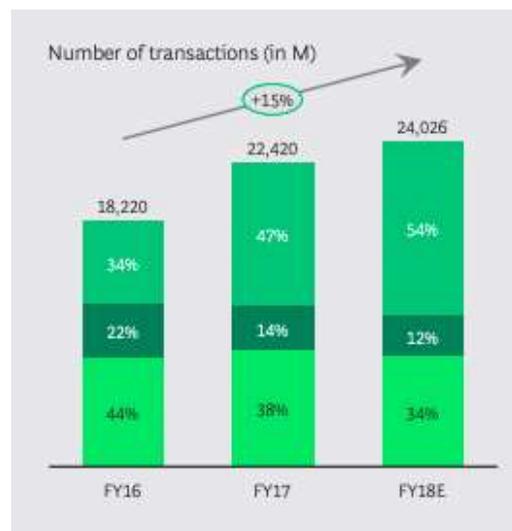


Figure 3. Changes in Bank Transaction Profiles

Sources: FIBAC Productivity Survey 2018; RBI data; IBA data; BCG analysis

India is experiencing the same technological breakthroughs as the rest of the world. In India's technological stack, mobility (particularly mobile internet), cloud (e.g., a proliferation of software as a service), a slew of public and private APIs (e.g., India stack related), and big data and analytics-related technologies (e.g., data lake) are all crucial.

According to GFK's Consumer Research Reports [3], a quantitative study was conducted on a sample of 2,364 customers, with 1,882 of them having "bought" a digital loan product in the previous 12 months and the remaining 482 intending to do so in the next three months (at the time of responding to the survey). All of the people who took part in the survey were regular internet users (accessed the internet at least four days a week).

The poll was carried out in nine cities throughout the country across three population groups; 55 per cent from cities with populations of 4 million or more: New Delhi,

Mumbai, Bangalore, Ahmedabad; 19 per cent from cities with populations of 1-4 million: Lucknow, Madurai; 23 per cent from cities with populations of 500,000 to 1 million: Bhubaneshwar, Kolapur, Jalandhar.

1.4 Research Problem Statement

This section gives a descriptive statement about the problem statement to be addressed and gives a focused sense of direction. It allows for identifying gaps between the existing state and the intended state to find a solution.[4]

Due to people's attitudes, banks' infrastructure, and a significant initial investment in technologically advanced equipment, implementing paperless financial transactions has proven difficult, particularly in developing nations.

This paper will help us understand the factors that affect paperless banking in India.

2. Paperless Financial Transaction Techniques

In contrast to traditional transaction techniques that use paper documents, paperless banking refers to the performance of transactions via electronic means of exchanging documents and monetary sums. Paperless transactions are conducted electronically in the same way as paper-based transactions are conducted, except that document exchange is conducted electronically within the extent of the definition and scope.

Commercial banks have been employing paper-based financial transactions for centuries. As a result of the time spent processing documents, errors, and lost papers, they have suffered in cost, profitability, and efficiency. Even though banks have invested in numerous cost-effective processes, they have failed due to a lack of expertise in bank management. Banks must implement a system that reduces costs, improves profitability and efficiency while improving client relationships.[5]

The rapid rise in institutional expenses, combined with growing environmental concerns, has fueled demand for the deployment of paperless banking. Which enables more straightforward and faster access to information promptly, faster customer response, and lowers the danger of data theft and other disasters, all of which promote efficiency and collaboration.

This further allows banks to engage in worldwide partnerships since financial transactions may be completed quickly without time-consuming traditional techniques such as advance payments, opening foreign accounts, and so on, which cause gaps and miscommunications in financial operations.[6]

Paperless banking allows both parties to transfer funds without having to carry cash. Carrying enormous sums of cash about is bulky, reducing the risk of theft and the need to be always attentive while the physical currency is in possession. The ongoing need for information and account verification will ensure that financial transactions are carried out in the proper owner's name.[7]

Paperless banking transactions have revolutionised the way banks handle their operations, management, communication, and risk assessment and have established best practices for effective bank management. The growing number of banks transitioning to paperless financial transactions puts pressure on the government and auditors to move to a paperless system.[8]

Banks have been under pressure to improve and remain competitive over the last year. Thus, one effective way for them to focus on expenses is to reduce paper usage in

operations by engaging in electronic operations and transactions. Going paperless has numerous benefits, including increased efficiency, reduced paper usage, printing expenses, storage expenses, environmental benefits, and efficient retrieval of data and information while improving customer service to boost customer loyalty.[9]

3. Factors Affecting Paperless Financial Transactions

Cost, Efficiency, and Security have been identified as independent variables for this study.

The introduction of paperless banking procedures is projected to increase client loyalty by providing better customer service. Unauthorised individuals should be prevented from accessing information by using advanced technology, yet a security breach would prevent them from moving further with the deployment.[10]

Paperless banking systems are projected to minimise employee workload, improve efficiency, and save costs. This is the determination of the variables' strength and direction, i.e., the strength of their relationship with one another and the amount to which they may impact the adoption of paperless banking procedures.[11]

3.1 Factor of Cost

The number of documents is created daily to process payments, client registration, manual recording and maintenance of files resulting in an excessive amount of time and energy lost unproductively. The cost of document handling, labour expenditures, and the number of human errors would all be reduced if this procedure was converted to an electronic format. Reducing these costs would allow the company to deliver better service while also increasing earnings.[12]

The usage of a passbook system to record debts and other transactions have been practised for millennia. Paperless banking transactions would lower transaction costs and the annoyance and cost of printing, physical handling of papers, continuous transfer charges, and redemption fees incurred as part of the transaction expenses, which allows banks to enhance their liquidity while also shortening the time it takes for their debts to be recovered. This would allow them to improve their financial situation while also improving their commercial relationships.[13]

Adapting paperless banking transaction procedures and transitioning to online banking will need dealing parties such as savers and borrowers to adopt digital methods and implementing cutting-edge technology. This will be difficult since not all savers and borrowers can go through this, particularly in terms of financial aspects. As a result, to retain clients, they will have to continue using traditional transaction methods for such savers and borrowers. Due to the procurement of essential gear and software, the initial implementation of paperless financial transaction processes is costly and time consuming for banks. Even if these techniques have their advantages in the long run for both clients and banks, the bank would need to organise training programmes and educate its workers on applying them and their benefits.[14]

Most banks are unaware that the document handling process is costly and results in unnecessary duplication of information and work, so they are willing to incur high costs to maintain document warehouses in order to keep a large number of records for a more extended period, which is time-consuming and wastes bank office space.[15]



Figure 4.Total Capital (in Lakh Crores INR)

Sources: RBI

For successful growth and sustainability, banks in developing nations must reduce costs and participate in international services and markets. Paperless banking, or the interchange of papers and bank administration electronic transactions, is one approach for these institutions to cut expenses.

Because no physical transactions or interactions are required, travel costs between the consumer and the bank are reduced as well. It also allows the bank to discover any excessive expenditure incurred throughout the transaction process that may impact the bank's long-term profitability.[16]

3.2 Factor of Efficiency

Electronic depositing, invoicing, payments, and withdrawals are examples of paperless banking transactions in which all transactions, accounting entries, and recording and saving of information are done electronically. This would save the bank's accounting costs while also providing more accurate and dependable data. Increased personnel efficiency would alter the bank's attitudes and working procedures.[17]

By offering an integrated system, gathering and processing information electronically allows the company to deliver better service to its customers. This removes the need for a physical signature, minimises paperwork, and eliminates time-consuming and error-prone documentation and form completing processes. Automation of procedures and authorisations would allow for more services to be provided with fewer people involved in the process.[12][18]

Paperless banking transactions would minimise effort, boost transaction transparency, and benefit auditors, banks, and other legal regulating agencies. Information confidentially might be preserved and maintained. It also prohibits banks from engaging in any unlawful or unauthorised financial transaction and participating in a variety of actions to avoid central bank oversight.[19]

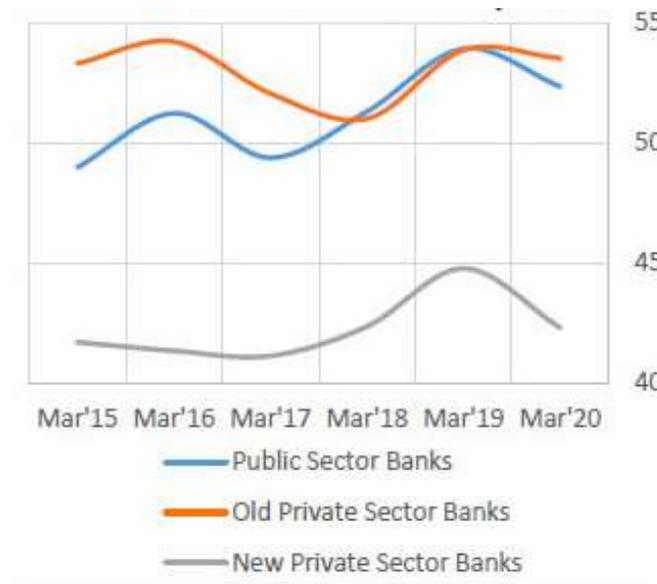


Figure 5. Efficiency Ratios in Banking Sectors

Sources: RBI

3.3 Factor of Security

According to a Boston Consulting Group (BCG) analysis, banks and credit unions are 300 times more likely than other businesses to be cyber-attack victims.

Furthermore, financial services leaders listed "rapid IT changes and increased complexities" as their top cybersecurity concern in a Deloitte poll, an issue that did not abate throughout the epidemic. With the fast expansion of digital media in recent years, recent years, financial services security teams must become more nimble and pragmatic in their approach to preventing data breaches.

In the financial sector, security has always been a top priority. It is all the more important because the fundamental core of banking is cultivating trust and credibility.

Reasons why banking security is crucial and why it should be a priority-

1. With the growth of "paperless" banking systems, it is more critical than ever to ensure that all cybersecurity safeguards are in place to safeguard data and privacy.
2. Financial organisations might be difficult to trust as a result of data breaches. It is a significant issue in the lending industry. A shoddy cybersecurity system can lead to data breaches, which can easily lead to customers going elsewhere to spend their money.
3. In the wrong hands, personal information may cause much damage. Even if the cards are revoked, and the fraud is swiftly dealt with, data is sensitive and can expose a great deal of information that may be exploited against an individual.

Traditional financial transaction methods, which entail using paper records and receipts for every transaction, raise the risk of security information access, which means that the odds of information being obtained by a third party are significant. Electronic transactions diminish the interaction of paper transactions by limiting the amount of information sent to the parties involved.[20][21]

The existing process has several flaws, including delays in obtaining and transmitting paperwork, which has resulted in longer credit terms, putting banks' financial positions in jeopardy. Because documentation are delivered immediately to authorised people' email addresses, and payments are instantly deposited to their appropriate accounts, online transactions and paperless banking procedures would help them to solve these obstacles. It protects both the consumer and the bank from various mistakes, such as not receiving payments and misplacing paperwork.[15]

Moving to a paperless system ensures that all information is protected, preventing data breaches. Information access may be closely monitored and regulated, unlike with a paper-based system, where the risk of information theft is substantial even if many protections are taken. Even in international transactions, all transactions can be easily traced by banks, consumers, and the central bank across all types of savings and borrowings in a timely way. This establishes a single platform for connecting worldwide trade, allowing all international transactions and communications to be carried out quickly and efficiently through the exchange of digital documents and online transactions. This would reduce the possibility of physical connection between papers and monetary funds, reducing the danger of theft and illegal access to information. The central bank can also act to improve supervision by addressing regulating measures.[22]

4. Conclusion

For decades, banks have been concerned about the deployment of paperless financial transactions.

Commercial banks have been attempting to introduce means and methods for maintaining a paperless environment within the bank to minimise staff workload and allow for more creativity and efficiency. These paperless financial transactions have been effectively adopted in wealthy nations. However, they have proven difficult to execute in developing nations because of the high initial investment in hardware and software, even though they are beneficial in the long run.

5. Recommendations

Bank management must educate its personnel on the benefits and usage of sophisticated technology to deploy paperless banking transaction processes. This would allow them to avoid harming employee attitudes and job security. As a result, it is critical to hold regular training workshops and hands-on experience working in a paperless environment so that bank employees can expand their knowledge and experience while saving money and time.

Paperless banking transactions do not need lengthy authorisation levels or many people to handle financial transactions. To run a successful online transaction system, banks must restructure their organisational hierarchy to minimise permission levels, speed up the documentation process, and shorten the payment credit term, all of which will enhance the banks' overall liquidity position. Along with changing the authorisation level, it is also essential to modify the span of control or execute a broad range of control to make some financial choices at the appropriate levels rather than waiting for top management.

This will modify the document sharing and processing flow within the transition, preventing the interchange of superfluous documents handling and providing chances to engage in global cross-border trade. It also aids banks in meeting regulatory compliances more effectively and at reduced costs. As a result, banks must decentralise service administration processes to enable Cooperatives and Public Sector Banks and other commercial banks in accessing foreign markets.

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