WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Understanding the Legal Framework of E-Banking in India: An In-Depth Analysis

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ABSTRACT:

The legislative framework in India addressing e-banking frauds is evolving to keep pace with the growing use of digital financial transactions and the risks associated with cybercrime. Key legislation includes the Information Technology (IT) Act, 2000, which provides the foundation for legal recognition of electronic transactions and prescribes penalties for various cybercrimes, including fraud. Under this act, Section 43 deals with unauthorized access, while Section 66 addresses hacking and identity theft. Additionally, the Indian Penal Code (IPC), 1860, is applied in cases of fraud, forgery, and cheating in digital transactions under sections such as Section 420 for cheating. The Reserve Bank of India (RBI) has also issued various guidelines and circulars to enhance security in e-banking, such as mandating two-factor authentication and setting liability frameworks to protect consumers. The Payment and Settlement Systems Act, 2007, provides legal backing for payment systems in India, reinforcing consumer protection. While these laws cover many aspects of e-banking fraud, continuous updates and stricter enforcement are necessary due to the constantly evolving nature of cyber threats in the financial sector.

Keywords: E-Banking, Frauds, RBI, Risks

I. INTRODUCTON

Traditional Banking has been replaced with E-Banking, an internet-based system, which is fast, cost efficient and easily accessible that the customers can avail of from anywhere. India is one of the foremost countries in the world where Banking Business has seen a digital transformation, especially after Demonetization in 2016. Almost all Banking Institutions enhanced or introduced internet banking services through Internet or Mobile Banking applications to facilitate their customers.

E-Banking, also referred to as Net Banking or Online Banking, in simple terms is a system that enables customers and banks to conduct or provide financial or non-financial transactions, which were otherwise available at bank branches, using the internet. From transfer of funds, payment of utility bills, checking account balances to booking fixed deposits and insurance covers etc. all can be done by an individual by registering for Internet Banking with their bank.

Automation of Banking Services has greatly increased the efficiency of banks in handling large volumes of transactions and replaced cash transactions to a great extent. In fact, technology or E-Banking has widened the reach and scope of services provided by Banks and transformed the Banking Business. Various softwares and communication networks have been developed that process requests and services of multiple customers at the same time, while providing for a secure environment to conduct their business through the use of individual customer identification, unique passwords and two factor authentications using One Time Passwords(OTPs).

Where traditional banking required a customer to visit their local branch and conduct their business through that branch alone, E-Banking, by inter-linking all branches of a bank, provides for an integrated system where all facilities, like funds transfer, checking balance in accounts, Bank Statements, requesting Cheque Books, booking Fixed Deposits, withdrawing or depositing cash etc., can be availed from any branch or from Internet/Mobile Banking applications. Automation further updates the various ledgers and accounts simultaneously and, in most cases, instantaneously thereby providing instant updates to the account holders.

Besides facilitating services for the bank‘s customers, automation has also benefitted the banks in terms of not only intra-bank connectivity and communications, but also inter-bank communications. Various communication systems like BANKNET, RBINet (which works over BANKNET) and INFINET[1] have been developed by RBI which have resulted in providing, 24X7 online Banking Services, increasing business at low operational costs,

[1] Ainsley Granville, Andre Jorge Bernard, Brahma Edwin Barreto, Rodney D‘Silva. 2019. "Impact of Frauds on the Indian Banking Sector." 8 (7S2): 219-223.

reducing errors and Frauds in inter/intra bank transactions, quick communications between banks and their branches thereby improving decision making and strengthening the integration of technology in the Banking and Financial Sector.

E-Banking has almost completely taken over the traditional banking system and compelled Banking Institutions to change their business models and offer almost all Banking Services using online portals. The days of waiting in queues to withdraw or deposit money or physically visit local bank branches for any banking related services have been replaced by online services available from any electronic device anywhere anytime. Conventional Banking has made way for Modern Banking with digitalization, replacing the brick-and- mortar banks with digital banks, bringing banking to the fingertips of consumers.

Besides Banks and Financial Institutions, several Fintech Startups have been setup during the last decade. These Startups have invaded the payment systems, especially in the areas of peer-to-peer lending, crowd funding, insurance, payment aggregators/ gateways, wealth management etc. Banks are collaborating with these Fintech Startups to provide Banking Services alongside these mobile solutions.

In India, RBI has been the leading provider of digital payment technology and platforms, be it MICR, Electronic Clearing Service (ECS), RTGS or NEFT. Being the Regulator of the Money Market, digital payment infrastructure has not only been developed by RBI, but is also supervised and regulated by it, with banks providing the primary operations for the payment systems. The quick adaptation and penetration of digital payment systems in India can be assessed from the fact that the RBI Digital Payment Index (RBI-DPI) (with March 2018 as the base), stood at 270.59 in March 2021 as against 100 in March 2018

Technology and its adaptation in financial services brings both opportunities and risks. Whereas on the one hand, it increases efficiency but on the other, it carries the potential of increased cyber risks due to increased IT interdependency between Banks, Fintech Startups and other Financial IT Solution providers. The Financial Systems are becoming increasingly complex, with significantly rising IT risks, particularly with most bank employees having limited expertise in handling complex IT systems. These innovations though provide for cost effective services and enhance financial inclusion by providing Banking Services to the unbanked sector, they also pose a challenge of supervision, regulation and greatly increase cyber security risks, especially Fraud risks.

Importance of the study

Understanding the legal framework of e-banking in India is essential due to the rapid adoption of digital financial services across the country. As online banking has become integral to India’s financial ecosystem, it has also raised concerns around security, data privacy, fraud prevention, and customer protection. The study of this legal framework is crucial for ensuring that these issues are addressed within a robust regulatory structure, which not only safeguards users but also promotes confidence in digital banking services. Additionally, as new technologies like artificial intelligence, blockchain, and cybersecurity measures integrate into e-banking, understanding the legalities ensures these advancements align with existing regulations, thereby minimizing risks. This research can help policymakers refine or develop new regulations that foster a safer and more inclusive digital economy in India.

Research Question

- What are the key regulatory challenges in India's current legal framework for e-banking, and how do these regulations impact customer data security and privacy?
- How effective are the existing legal provisions in addressing fraud and cybercrime in India’s e-banking sector, and what improvements can be made to enhance consumer protection?

Scheme of paper

The study on "Understanding the Legal Framework of E-Banking in India" explores the regulatory and legal provisions governing electronic banking, aiming to understand how these laws shape and protect digital financial transactions in India. It addresses key legislation like the Information Technology Act, 2000, and the Reserve Bank of India's (RBI) guidelines, which collectively establish rules for data privacy, cybersecurity, authentication processes, and fraud prevention in e-banking. The study highlights challenges such as cyber threats, unauthorized access, and phishing attacks that threaten users' security. It also examines consumer rights in digital banking and emphasizes the need for clear, enforceable legal standards to enhance public trust and protect sensitive financial data. Additionally, it underscores the importance of evolving legal frameworks to keep pace with rapid technological advancements in the banking sector.

II. HISTORICAL BACKGROUND

Since liberalisation, the RBI has established many committees to integrate technology-based service delivery into the Indian banking system. The rapid expansion of IT and IT-enabled services has revolutionised the banking industry worldwide. Determining and coordinating banking technology within the Indian financial sector was the responsibility of these committees. The following is a summary of some of the important suggestions and actions that followed:

1. The Committee on Mechanisation of Banking Industry (1984) introduced MICR technology, which allowed checks to be processed more quickly.

2. The establishment of a cooperative network called "BANKNET" (in two phases) that would be jointly owned by the RBI and public sector banks was suggested by the Committees on Communication Network for Banks and Society for Worldwide Interbank Financial Telecommunications (SWIFT) implementation (1987)164. The network's goal was to connect banks' regional and/or head offices with their branches in order to speed up communication between them. In addition to making management, policy formation, and communication easier, the Committees believe that this would help transfer money more quickly and allow for quicker data transmission amongst them at lower costs. The Committees also suggested that SWIFT be put into place to provide banks in India and overseas a safe, standardised, and efficient way to communicate.

3. Another Committee on Computerisation in Banks (1988) was established under the chairmanship of Dr. C. Rangarajan, the RBI's deputy governor at the time, based on the Committees on Communication Network for Banks' recommendations. This committee suggested computerising banking services, installing ATMs, and issuing credit/debit cards.

4. Under the chairmanship of W. S. Saraf, the Committee on Technology Issues related to Payment System, Cheque Clearing and Securities Settlement in the Banking Industry (1994) emphasised and advocated the establishment of an EFT system that would make intra and inter-bank money transfers easier. For the electronic transmission of repeated transactions, such as interest, dividends, salaries, pensions, etc., the Committee also suggested using ECS. In addition, it was suggested that a Bills Payment System be established so that bank clients may electronically pay their utility bills from their accounts. The Committee also suggested the establishment of training institutions and placed more emphasis on bank workers' training.

5. To determine legal problems pertaining to EFT and the use of IT in banking services, the RBI established the Committee for Proposing Legislation on Electronic Funds Transfer and other Electronic Payments in 1995. The committee is led by Smt. K. S. Shere. The Committee suggested both short-term and long-term measures that the RBI should implement in accordance with the 1934 RBI Act and the 1881 Bankers' Book Evidence Act modification. It also suggested that new laws, such as the Computer Misuse and Data Protection Act and the Electronics Fund Transfer Act, be needed to define, regulate, and establish the rights and responsibilities of banks and their clients.

6. Following the Narasimham Committee II's recommendations, a Committee on Technology Upgradation in the Banking Sector was established in 1998 to specifically look into the legal issues surrounding electronic payment systems, with a focus on the following: admitting electronic files as evidence; treating electronic funds transfers on par with crossed checks or drafts for income tax purposes, etc.; and keeping records. In order to solve the aforementioned challenges, the Committee suggested amending current laws and passing new legislation.

7. Following that, the RBI and the Indian government established a number of committees to understand the needs of the electronic payment ecosystem and suggest suitable actions to increase the adoption and use of digital payments. A number of important committees, including the Inter-Regulatory Working Group on Fintech and Digital Banking, the Steering Committee on Fintech Related Issues, the Committee of Chief Ministers on Digital Payments, the Committee on Medium Term Path for Financial Inclusion, and the Committee to Review the Framework related to Digital Payments, made crucial recommendations that affected both the practical and regulatory aspects of digital payments.

8. A High-Level Committee on Deepening of Digital Payments174 was established by the RBI in 2019 to assess the current state of the digital payment ecosystem, pinpoint areas for development, and suggest appropriate actions to fortify the environment by boosting consumer trust in online transactions.

The automation of banking services, which started with ATMs and credit/debit cards, has progressed to include payment gateways, aggregators, and internet/mobile banking. However, there are few explicit and unambiguous laws, rules, and regulations pertaining to digital transactions, data security, and data privacy.

i. TYPES OF E-BANKING

E-Banking is more than just a mode of online transactions related to Banking Services and encompasses various categories like CBS, Mobile Banking, various types of Cards (Debit/Credit/Prepaid/Forex/Travel etc.), Digital Wallets, ATM Banking, EFT, ECS to name a few. To better understand the risks and Frauds in E-Banking, it is pertinent to understand the various types of E-Banking available today.

CORE BANKING SOLUTIONS

As seen from the discussion on the development of E-Banking in India, it was in 1988 after the recommendations of the Committee on Computerization in Banks, under the Chairmanship of Dr. C. Rangarajan, the then Deputy Governor of RBI, that the idea of Core Banking was introduced. Centralized Online Real-Time Exchange, or Core as its name suggests, is a centralized network created by any bank and its branches, which enables the bank to have a centralized data center for all its customers. This also facilitates the customers in processing everyday transactions, accessing information and generally managing their accounts from any branch of the bank.

CBS also laid the foundation for services like Telebanking, Mobile Banking, offsite ATMs and have over time become essential for efficient functioning of banking operations across the world as they work in real time and provide for an accurate and instantaneous record of all transactions related to a particular account, to both the customer and the bank.

The main objectives of CBS were firstly, to ensure customer satisfaction by providing a seamless, cost efficient banking experience; secondly, to simplify bank‘s internal processes like maintaining ledger records, customer account balances, loan accounts etc., which were previously done manually, by automating the same; thirdly, to enable the banks to make informed decisions regarding their business policies and risk management using the centralized data centers and lastly, to provide customizations as per customer requirements.

CBS has become the backbone of all banking operations with features like processing and recording of deposits and withdrawals, opening new deposit accounts, processing loan applications, calculating rates of interest on loans and deposits, Cheque and other payment clearances and reconciliation, maintenance of KYC, business analytics, development of new banking products using data analytics, supporting Banking Services on Internet/Mobile Banking, ATM networks(inter and intra bank ATM transactions), providing for better supervision of internal process, faster and frequent internal audits allowing for timely measures to control any irregularities and facilitating better communication between the branches, Regional Offices, Head Office of a bank and RBI.

1. ATM BANKING

ATM Banking is a type of E-Banking where a bank customer can perform banking transactions, using their Debit or Credit Cards, like cash deposit or withdrawal, Cheque deposit, account balance enquiry, utility bill payment etc. without the presence of a bank teller or representative. The services are available 24X7 with the ATMs connected to the banks network systems. The ATM network in India has grown tremendously in the past decade and according to a press release by the Ministry of Finance, there were approximately

2.13 lakh ATMs across India in September 2021with 47% of these in rural and semi urban areas.[2]

From being simple dispensers of money, installed at bank branches, ATMs have evolved to provide multiple banking solutions to customers of not only the bank where the customer holds an account but of other banks too.

2. CARDS

Debit and Credit Cards changed the payment systems globally, dispensing with the need to carry cash for making payments for any transactions. Also referred to as Plastic Money, these Cards were introduced in the late 1960s and have since been upgraded with various security features like magnetic stripes with PIN, microchips embedded in the Cards that provide for added security. The magnetic stripes contain necessary information of the account to which the card is linked, in case of Debit Cards and credit limit in case of Credit Cards and the user either swipes the card at point of sales terminals or enters the card details for online transactions to make payments.

Plastic Money has steadily replaced paper money, as it is easier than carrying huge amounts of cash, provides security, as using a stolen card is more difficult than using stolen cash, and allows the user to keep a track and record of their transactions. Cards may be classified based on their usage and settlement of their payment by the card holder and also on the issuance of the cards. Various types of cards available to customers are Debit Card, Credit Card, Prepaid Card, Charge Card, Forex Card to name a few.

Debit Cards are issued by banks and linked to the account of the card holder. Money is directly debited from the account of the card holder and can be used to withdraw money from an ATM, transfer funds from one account to another (within prescribed limits), make payments for good and services, either through point of sales terminals or online transactions.

Credit Cards are issued by banks or other entities (that have the approval of RBI for issuing these) and have a specified limit of credit that is extended to the card holder, repayable monthly or in installments, on which an interest is charged by the issuer. The card can be used for carrying out any transactions upto the prescribed limit. Charge Cards are a type of Credit Card, which allow the card holder to transact but provide no line of credit and require the card holder to settle all their dues at the end of every month.

Prepaid Cards maybe issued by banks or other non-bank entities, where the cardholder pays the value of the card in advance, and thereafter these can be used for any transactions upto that value. Forex Cards or Foreign Exchange Cards are an example of such type of cards, where the cardholder pays the value of the foreign exchange in advance and the issuer issues the card of that value.

3. TELEPHONE BANKING

Telephone Banking or Telebanking is an automated facility, wherein an account holder can dial-in to dedicated telephone numbers of his bank using a landline or mobile phone, to access account information and perform other routine banking transactions without visiting the branch, ATM or website. It is a twenty-four-hour service, which uses an Interactive Voice Response system (IVR), is multilingual and reduces the need to visit bank branch for account related information. To avail this service, bank customers need to apply and register for the same with the bank branch where they hold an account. Thereafter they are allocated a Customer ID, Telephone Personal Identification Number (TPIN) and a Financial Personal Identification Number(FPIN), which is used to carryout transactions.

Telebanking enables for convenient, fast and safe Banking Services like access to account balances for all accounts linked with a particular customer ID, details of latest transactions (last five transactions), report a lost or stolen card, report any unauthorized transactions, clearance enquiries of Cheques, renewal of Fixed Deposits, request for Demand Drafts etc., stop payment requests or funds transfers. It also provides the bank a communication channel with its customers for disseminating information regarding new products, services and activities. Though this mode of E-Banking has been replaced by internet banking and mobile banking applications, it is still available.

4. INTERNET BANKING

[2] Haugen, S. and Roger Selin, J. 1999. "Identifying and controlling computer crime and employee fraud." *Industrial Management & Data Systems*, 99 (8): 340-344.

Internet Banking (I-Banking) or Home Banking is a E-Banking service that allows a customer to conduct their banking transactions from the ease of their home, using a personal computer or a laptop using the internet.

Banks have developed their own websites that offer not only informational but also transactional facilities to their customers. Account holders of banks are provided with unique customer identifications and passwords that they can use and login to the banks websites to avail services like balance enquiry, balance transfers, stop payments, request Cheque Books, book Fixed Deposits, open Recurring Deposits, buy insurance covers, process loan applications, buy financial products, amongst other traditional Banking Services.

It is one of the fastest growing forms of E-Banking with almost all commercial banks in India offering I-Banking services to their customers.

5. MOBILE BANKING

Another popular type of E-Banking that is being increasingly used by bank customers is Mobile Banking. Technological innovations in the area of mobile phones and the advent of

_Smart Phones‘ has enabled users to not only communicate but also perform almost all functions that were available through the use of personal computers.

Banks have developed special _Applications‘(Apps) that can be downloaded on the smart phones and using unique Customer Identifications and passwords, the users can register for Mobile Banking services. Considering the wide usage of mobile phones and their wide coverage, Mobile Banking is bound to grow and overtake most forms of E-Banking in the future. Like all other types of E-Banking, Mobile Banking services are also available around the clock from any location, without the need to visit the bank‘s branch.

Mobile Banking offers almost all the services available through I-Banking, like Balance Enquiry, Account Statements, various service requests, fund transfers using NEFT, IMPS and RTGS.

6. DIGITAL WALLETS

The newest development in e-banking is the advent of digital wallets, often known as electronic wallets (E-Wallets). These wallets don't need a bank account and enable users send and receive money and remittances for goods or services.

As the name implies, a digital wallet removes the need for carrying a physical wallet by storing a user's payment details for all of their payment methods online. On a smartphone or other electronic device, a user must download the Digital Wallet app, set up a user ID and password, save payment details, and utilise them for all of their online purchases. These wallets conduct transactions using either QR Code scanning technology or near field communication technology, which allows smart devices to connect with one another if they are nearby.

There are three types of E- Wallets namely:

a. Closed Wallets: These are developed and offered by a company to its consumers, who can use the funds stored in these wallets for transactions with the issuer company only. Money from transactions like refunds from returns, cancellation of orders etc. are also stored in these wallets. For example, Amazon Pay is a closed wallet which allows users of Amazon to pay for any products or services purchased from its website or mobile application.

b. Semi Closed Wallets: These are wallets developed and issued by Fintech companies offering digital payment solutions and can be used for payment of good and services from merchants who have a contract with the issuer to accept such payments. The users need to download the specific application of the issuer and either store funds or link these wallets with other payment methods to transact digitally through them. PayTm is an example of a Semi Closed Wallet available in India.

c. Open Wallets: These wallets are generally issued by Banks and are linked to the bank accounts of the users. They can be used not only for making or receiving payments, but for any king of transactions and do not require close communication between devices. These wallets allow users to transact from anywhere in the world. M-pesa offered by Vodafone India Ltd. in collaboration with ICICI Bank Limited, is an example of an Open Wallet.

7. SWIFT (SOCIETY FOR WORLDWIDE INTERBANK FINANCIAL TELECOMMUNICATION)

Late in the 1970s, banks across the globe formed a cooperative community, known as the Society for Worldwide Interbank Financial Telecommunication or SWIFT, to facilitate cross border communications between banks and financial institutions. Originally the services included a messaging platform, a routing system to safely deliver the messages to the intended user and a set of message standards that enabled for safe and quick receipt and processing of communications between users. Today the SWIFT network allows free format messages between banks and financial institutions enabling for secure transfer of funds, creation of Letters of Understanding or Bank Guarantees (an essential requirement in terms of International Trade) amongst facilitating other cross border banking services.

SWIFT assigns each of its member banks or financial institutions with a unique ID code, known as SWIFT Code, that recognizes the name of the bank or financial institution, its country, city and branch. In today‘s globalized world SWIFT provides for a reliable and secure network for international payments.

E-Banking platforms have transformed the business models of the Banking Industry and are a tremendous step towards financial inclusion. However, technology comes with its own risks, be it operational, regulatory or compliance, reputational or security risks. In the next section some of the risks associated with E-Banking have been discussed.

III. E-BANKING RISKS

The last couple of decades have witnessed a paradigm shift in E-Banking and proved to be a gamechanger for not only the banks but also the customers. Like all business models, E- Banking, as mentioned above, also faces normal business risks. However, some risks associated with E-Banking can have a great impact on the banking system and the economy as a whole. While strategic and compliance risks can lead to reputational damage and loss of business, security risks can lead to loss of confidence and trust in the entire banking system.

IV. CONCLUSION

In the last two decades, technology has brought a paradigm shift in all walks of life including the way we Bank‘ today. The modernization and automation of Banking Services has benefitted both the banks and the customers alike. On the one hand, banks have benefitted in terms of widening their reach and business and reducing their costs, customers on the other hand have the benefit of availing Banking Services anytime anywhere. The flipside, however, is that this technological innovation has created new risks and avenues, especially fraud risks, that are moving in pace with the technology and getting more sophisticated and complex. Both the Banking Business and the Fraudsters have adopted the technology to their advantage. Unfortunately, the Laws and Regulations are still playing catch-up rather than moving at the same pace as the advancements in technology and its usage. In fact, it is time to move faster.

The Research shows that Banking Structure in India is multi-layered, serving a broad customer base with varied needs. Modern day banking is evolving at a fast pace becoming more diversified and competitive, vastly increasing the vulnerabilities of the Banking Sector, especially fraud risks from both internal and external sources.

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