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# **CONVERGENCE OF DIGITAL BANKING AND AI: NAVIGATING LEGAL CHALLENGES**

AUTHORED BY - SANA PARAB

## **Introduction**

The banking systems through the various time period has under gone various change. The inception of the banking system was through the moneylending process which was later evolved through the increase in trade and industry and by the arrival of the Britishers in India. The traditional banking system was completely dependent upon the human force and upon the concept of trust. The services mainly evolved around the granting of loans which has now change and thus the banks now focus upon 3 core services which are deposit collection, payment arrangement, and loan underwriting. The banking system was only centric to the urban people as the access was restricted to them due to their availability. The public sector as well was dominant now which is not the case now as majority of the banking system in Indi is now dominated by the private players.

The banking system was seen as a bureaucratic approach as the customer satisfaction was not the primary objective however with the rise of competition the banks in Idia have started to keep the customer service the centre of their services. Now with the advent of the technology the banking system all over the world has changed. The online banking has taken over the traditional banking as people have started to use the UPI's and other online banking facilities to interact with banks. This has thus competently changed the customer integration and as well saved the time of the people by making transaction hassle-free. Furthe more the Indias goal to move towards cashless India has now added fuel to the digital transformation.

With the moving time and technology there can bee seen the unavoidable convergence between the ai and the e-banking for providing various financial services. Therefore, a revolution can be predicted in the finance sectors by the automatic customer services, bank operations and the interaction with the customers. However it the advantages come the disadvantages and the legal challenges which would be faced mostly related o privacy and safety related to data and the lack of trust upon the artificial model.

## Digitalisation of the Banking Sector

E banking has been defined by the BIS as, *'provision of retail and small value banking products and service through electronic channels as well as large value electronic payments and other wholesale banking services delivered electronically.'*

The RBI has defined e-banking in its report as, *"Internet banking is an extension of the traditional banking, which uses Internet both as a medium for receiving instructions from the customers and also delivering banking services. Hence, conceptually, various provisions of law, which are applicable to traditional banking activities, are also applicable to Internet banking."*<sup>1</sup>

The levels of financial services provided over the internet can be categorised into three categories:

- (i) The Basic Level Service- In this the website is only used to disseminate the information regarding the products and the services, therefore no interaction takes place between the service provider and user.
- (ii) Simple Transactional Website- In this the customers are allowed to submit instructions, applications for rendering various services by banks and as well can put forth the questions relating to their account balances; however, no transactions are allowed.
- (iii) Complete Transactional Websites- In the customer are allowed to completely operate their accounts through the internet, where they can transfer the loans, take loans and as well repay them.<sup>2</sup>

The banking services includes the automated delivery of services and dissemination of information and transactions electronically. The services of the e banking has thus helped to provide the services efficiently into the remote areas. Thulani and Henr defines e-banking as , *Internet banking refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations"*

Prior to the introduction of the e- banking, the traditional approach was followed that is the customers were expected to approach the banks for various services. The location of these banks as well was at a very remote places the engagement of the customers with the bank was not on frequent basis. Neglected Rural Markets constituting 70% of India's total population is

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<sup>1</sup> Dr. Seema Modi, Vanshika Premani & Mandeep Kaur, A critical analysis of e-banking frauds and laws in India, a. International Journal of Health Sciences, 5(S2), 931–938, 2021.

<sup>2</sup> Rajdeep & Joyeeta, Internet Banking -Legal issues, August 1, 2017.

a relatively untouched market for the banking industry. In the rural areas the people preferred to engage with the indigenous bankers however that lead to exploitation as the indigenous bankers were not regulated by any laws as they refused to be regulated by the RBI. Therefore, the interest which they posed was very high. The advantages of the e-banking are that it is convenient as, the check books, account management and understanding the interest rates the investment option and financial product provided very simplified<sup>3</sup>.

Further the operation cost required for setting up the office and day to day working has also been reduced as the services can be provided by attending the client virtually from anywhere. To encourage the usage of the service, the majority of banks provide low-or no-deposit internet banking accounts along with lowered penalties for premature withdrawals from fixed deposits.

### **Advent of AI into Modern Banking System**

The evolution of the digital technology has changed the working of the banking system as it has introduced the AI into catering the services to the customer thus ensuring the efficiency into the delivery of the banking system. As per the definition provided by the OECD, '*AI system is a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. AI systems are designed to operate with varying levels of autonomy.*'

Through the advent of the AI the customer services have been given more priority. The AI caters to the customers by understanding the characteristic behaviours, risk tolerance, goals and thus moulding its service, it further through the data provided by the person, hereby through enabling predictive analysis understands the financial requirements and the preference of the customer and thereby resolving the issue.

It has been possible through the AI to ensure 24/7 the customer service and ensuring that the apt and high-end information and services are provided thereby ensuring the uniformity. However, the one of the disadvantages of the same is that it has taken away the reliability on the human leading to decrease in workspace.

This has in turn motivating the banks to get more competitive with the help of data analytics. Banks may make well-informed judgements quickly by using real-time market data analysis.

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<sup>3</sup> Dr. Kavita, ANALYSIS OF INTERNET BANKING, Kurukshetra Law Journal, 2021.

This enables them to adjust interest rates and fees dynamically and allocate resources more wisely across various departments. Further the time-consuming task such as the checking the compliances and reviewing the applications are undertaken in a automated form thus eliminating the human error and thereby saving time., The AI thus helping to allocate the human and financial resources efficiently and thereby increasing the profitability. It further plays a quintessential role in day to day working as well as it simplifies and facilitates the procedures which are included in the daily working.

One of the important facets of introduction of the AI into banking is that it would help into detection of fraud and thus to prevent it from occurring in time. His can be done by analysing the customers behavioural patterns and the types of transaction and the frequency can be taken into consideration to understand the fraud which might happen.

The machine learning model can be put to use in this regard by keeping a check upon the persons patterns relating to the banking transaction. And alert may be send to the banks and the customers where various transactions are taking place at a same time or in case unexpected amount is withdrawn by the person. In such cases the customers can be intimated to as to prevent the frauds. It will constantly monitor global financial markets, detecting trends and making timely recommendations to keep investors ahead of market changes.

Furthermore, the AI model in formed in such a manner as it reverts to persons questions by taking into consideration all the data provided by the person and the behavioural pattern. Therefore, personalized solution is provided to the customer.

The Ai thus would analyse the data provided and take into consideration the risk tolerance, the investment preference, the economic category the consumer lies into and the financial goals of a person.

There are various financial companies who have been using the AI for offering their services such as the amazon, JP. Morgia, Bank of America and Santander<sup>4</sup> Even in India there can be seen huge shift upon the AI from human force, such as HDFC Banks, Indus land Banks, Axis Banks etc.<sup>5</sup>

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<sup>4</sup> Sasha B, AI in Banking: How artificial intelligence elevates the financial sector, 25 September, 2023.

<sup>5</sup> Beena Parmar & Annapurna Roy, Banking on GenAI: The artificially intelligent future of the finance, ET, July 16<sup>th</sup>, 2024.

The interception between the ai and the e banking even if is beneficial, transformative and promising opportunity to all the human being yet the advancement comes with potential legal challenges which needs to be timely addressed for prevention of cybercrimes.

The quintessential part to any banks is the data and the trust of the customers, upon this data and trust the various financial services are offered a policy are framed accordingly. However there lie a risk of discriminatory practices, privacy and transparency issues. The existing financial framework is not quite well adapted to the upcoming issues in the banking sector. The RBI has yet not provided any guidelines as to governing the intelligence model in banking sector eve if it is already been adopted by various banks for providing services related to loan approval, marketing, scrutinization of the documents, risk monitoring, biometric authentication etc. Hence advancement of the digitalisation of the banking sector should be timely governed to curb the potential risks.

### **Legislative Lacunas and Upcoming Potential Challenges**

The Internet banking in India is regulated through various laws such as the RBI guidelines which focuses mainly upon the 3 important aspects such as the legal implications faced, technology and the security threats and the supervisory issues. These guidelines states that prior approval from the RBI I required for the banks who desires to set up internet banking system. Upon such application license shall granted to such banks and be permitted to provide the internet banking services. A few novel concepts were introduced, such as user IDs and passwords. The usage of banks' data, systems, apps, phone lines, etc. were required to have logical access constraints. Common logical access control systems include use rids, passwords, smart cards, and other biometric technologies.

In case the security of the system is breached then the RBI shall be immediately reported so as to ensure adopting quick actions. It was necessary for banks to make sure that the Banks System and the Internet were not in close proximity. This decision was made to provide a high degree of oversight and management. This bank should, at the very least, utilise a proxy server kind of firewall. Further the risk of engagement into the internet banking shall be disclosed to the Customers s as to ensure that the informed consent is taken from the customers. The laws stipulate that each institution must appoint a Security Officer who is responsible for monitoring the application of information technology legislation and who works only with information systems.

Along with the RBI regulation, IT Act, 2000 as well also regulates the e-banking system as the act penalises any theft in respect of the data is carried out under section 66 of the IT Act. There exist numerous ways through which the data hacking can be performed such as through gaining unauthorised access to the customer bank account or through misrepresenting as bank as thus sending messages and malware that is through setting trap, thus the act of impersonation as agent of bank as well is punished under the section 411 and 425 that is mischief of the IPC. Such data theft is as well protected by the Indian Penal code under section 378(now 303 of BNS). the person who helps the accused in the crime as well is punished under the Section 424(323 of BNS)<sup>6</sup>. Thereafter through amendment 513 was added which defined and punished every person who is involved and committed the financial frauds.

In furtherance of the same, the IT Act, penalises the act where the privacy of the person is breached, therefore if the information provided to the banks is leaked or hacked then the section 72 and 66E of the said act shall penalise the same, as such information provided is protected by the confidentiality clause.<sup>7</sup> The bankers evidence Book Act as well makes it mandatory for the banks to keep the digital records of the bank transaction which therefore can be treated as a documentary evidence under the evidence act/ BSA.

The RBI vide circular UBD.BSD.I/PCB/No.45/12.05.00/2001-02 dated May 30, 2002, has brought upon the new concept of 'zero liability' which states timely resolution of the customers complaints. The main aspect introduced through this notification is that the customers shall not be held liable for the circumstance where the loss suffered through this unauthorised banking transaction are reported within 3 days from the cause of action. The loss suffered thus would be indemnified to the customer within the next 10 working days. These includes the act of negligence on the part of the banks as well and also the acts of third party. However, the zero liability concept is time restraint that is in case the customer delays the lodging of the complainant therefore lodges the complaint in 3-7 working days then the customer shall as well be liable for minimum 5000 and maximum 25000 rs.<sup>8</sup> As per Income Tax Act section 40(3) the payments are recognized only through cheques therefore the recognition to the internet banking

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<sup>6</sup> Madhura Pite, CRITICAL ANALYSIS OF LEGAL FRAMEWORK REGULATING INTERNET BANKING IN INDIA, Indian Journal of Integrated Research in Law, May 9<sup>th</sup>, 2023.

<sup>7</sup> Rohit Jain, Legal Framework of Internet Banking in India, International Journal of Law Management & Humanities, 2021

<sup>8</sup> Jaro Jasmine, Awasthy Rajan, A Critical Study on Concept of E Banking and Various Challenges of IT in India with Special Reference to RBI'S Role in Safe Banking Practices, International Journal of Pure and Applied Mathematics, 2018.

has not been given under this section,

The regulatory and the supervisory framework however has lacked to deal with AI which has been introduced in every arena and therefore it is necessary to timely recognize the issue as well as to curb and regulate the same so as it prevent the crimes which might take place.

However as now no regulation has been framed in India with respect to the advent of the AI in the banking sector. The UNESCO, in the 'Recommendation on Ethic of AI' stated the need for robust framework to ensure that the AI related work should be transparent, ethical and does not breach the privacy.<sup>9</sup>

AI systems are vulnerable to adversarial attacks, in which evildoers manipulate input data to confuse AI systems, leading to false or damaging conclusions. Model drift is a phenomena that occurs when AI models become less effective over time as the data environment changes. This necessitates ongoing monitoring and updating of AI systems, which adds to operational complexity.

There have been various incidences already where the ai has deep faked the voices of the customers to withdraw the cash from the bank accounts, not only this the customers details related to bank has as well being stolen and were later used to hack the accounts.<sup>10</sup>

E-banking is a non-reversible marvel in India that will gain more traction in the years to come. E-banking will become more popular as the Indian economy becomes more digital and efforts are made to make India a paperless society. The next wave is not as concerned about the changing banking system as they are about convenience; they have already accustomed to it. With evolving times, the has been felt necessity to embrace the AI and the technology The banking regulation and RBI are very important legislations to stop and safeguard India's E-banking practices.

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<sup>9</sup> UNESCO, Recommendation on Ethics of AI, 2021

<sup>10</sup> Terence Huang, The Dark Alliance: Addressing the Rise of AI Financial Frauds and Cyber Scams, Feb 14<sup>th</sup>, 2024.