



## A Study of Emerging Trends of E-Banking Frauds in India

Qazi Mohammed Usman\*

Tauseef Ahmad†

### Abstract

The banking industry is crucial to a nation's development. It is an economy's lifeline. A sound and robust banking system is a crucial prerequisite for economic expansion. The Indian banking sector is currently experiencing an IT (information technology) revolution. The banks have been reformed as a result of the adoption of the internet in banking organisations. E-banking has increased convenience and efficiency, but it has also presented regulators and supervisors with a number of difficulties. In India's banking sector, total banking automation is rising as a result of increased bank competitiveness. Internet banking, telephone banking, mobile banking, and other forms of banking are all included in the phrase "e-banking." Consumers in India started using the e-banking services, and they are completely integrated with the current core banking system. E-banking has brought forth many challenges and issues, however, e-banking fraud is one of fundamental issues in e-banking which deserves much attention due to larger stake involve in the issue. The present paper is an attempt to evaluate and analyse the challenges and future potential of electronic banking fraud in India. This paper presents an analyses of the existing Indian laws and regulation to tackle the menace of e-banking frauds. Finally, the paper put forth feasible suggestions for the robust legal and regulatory framework for e-banking businesses in India.

**Keywords:** E-Banking, Frauds, Information Technology and Security

### 1. Introduction

Technological developments have transformed our processes and procedures of governance and banking business is no exception to this change. We are witnessing a paradigm shift from manual

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\* Professor, Faculty of Law, Jamia Millia Islamia, New Delhi, India.  
email: qusman@jmi.ac.in

† Ph.D. Scholar, Faculty of Law, Jamia Millia Islamia, New Delhi, India

transactions of banking to e- banking transaction. Till 1980, banks were offering services to their customers through only one channel. Customers were required to visit the bank and avail services of the bank through physical mode only. The reforms in banking sector were introduced in early 1990s, and one of the salient features of these reforms is that banks are offering services to their customers through multiple channels that has considerably enhanced the efficiency of the banking services because these are more or less fault proof, speedy and efficient and far more superior than the manual banking process.<sup>1</sup> Technological advancement has brought forth vast changes like Internet Banking, Mobile Banking, ATM, UPI payments etc. in the banking sector. It took some time for public sector banks to accept digital technology, as they were not fully computerized at their initial stage, whereas, private sector banks and foreign banks, established during this transition from manual to digital, were fully computerized. Without gainsay, due to the technological developments, e-banking introduced many advantages, such as instant transferring of funds, payment of utility bills, keeping account balance in check, pay on time using auto-payments, etc. Nevertheless, use of digital technology in e-banking sector has posed numerous challenges. The challenges in e-banking services include operational risks, technological issues, security risks, lack of awareness and legal issues. The assorted security issues are numerous, and are still evolving as the technology is constantly developing. Presently, the issues with respect to security in e-banking include unauthorized access to data, data stealing by the hackers, causing data damage or loss by virus<sup>2</sup>, use of spyware and malware, robotics and artificial intelligence. Given the increase in e-banking fraud cases, the Depository Financial Institution of India, acting as regulator and supervisor body, has issued a number of

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<sup>1</sup> Available at: <https://byjus.com/bank-exam/history-banking-india/> (visited on July 4, 2023 at 10:30 PM).

<sup>2</sup> A. Abdallah, M. A. Maarof, and A. Zainal, Fraud detection system: a survey, *Journal of Network and Computer Applications* 68 (2016), 90–113.

guidelines to prevent bank frauds in order to safeguard the interest of the customers. It constantly updating these guidelines by issuing fresh guidelines in light of the technological developments. It also provides guidance to banks on how to prevent fraudsters from committing e-banking fraud. Hence, an assessment of the laws and regulations associated with e-banking frauds becomes crucial. Laws cannot be enforced with the absence of favorable consensus.

The financial stability of an economy of any country demands robust financial system that is resilient but accommodates the shocks of unfavourable circumstances<sup>3</sup>. There have been several global downturns, yet India's economic potential has managed to keep economic system to remain relatively stable and unscathed. Generally, production and consumption patterns are determined by a country's financial and banking systems. Monitoring closely happiness and health of residents of a country on a daily basis gives fair idea about the economic prowess of a country.

Banks are life line of the economy of a country. There must be strong legal regime to protect the banks from turning into NPA, but at the same time to safeguard the interest of the customers. The bank frauds have always posed challenges to the bank administration but in recent years, the number of cases involving financial frauds have considerably been increased.<sup>4</sup> It is a fact that bank frauds have long been accepted as an unavoidable part of doing business in India. Indian authorities are concerned about the impact of banking frauds on bank profitability and the Indian economy since the country's economic liberalization.<sup>5</sup>

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<sup>3</sup> Available at: <https://www.findlaw.com/criminal/criminal-charges/fraud-financial-crimes.html> (visited on July 5, 2023 at 07:30 PM).

<sup>4</sup> Available at: <https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.pwc.in/assets/pdfs/publications/2015/current-fraud-trends-in-the-financial> (visited on July 6, 2023 at 08:30 AM).

<sup>5</sup> L. Anan, R. Hayden, K. Joshi, M.-C. Nadeau, and J. Steitz, *Fraud management: recovering value through next-generation solutions*, *McKinsey & Company, McKinsey on Payments*, Volume 11, Number 27, pp. 30–36, June 2018.

## **2. Bank Fraud in India: Conceptual Uncertainty**

Frauds in the Banking Sector commonly referred to as - Bank Fraud or Banking Frauds - are not considered as a separate class of Frauds and have, thus, not been clearly defined by either the legislators or the regulators or the academicians. In fact, Bank Frauds have a far greater impact on the confidence of the depositors, investors and borrowers causing severe crisis in the financial markets and the economy as a whole. One of the reasons for lack of research in the area of bank frauds lies in the fact that these are covered generally as a part of financial frauds, and Banking and Financial Institutions are considered as part of the industries covered by researchers in their research works. This has led to the lack of a clear definition of what would constitute a bank fraud and consequently there is a lack of specific legislation(s) for addressing this issue.

It is pertinent to mention that while not providing any specific definition, RBI has classified Banking Frauds, based mainly on the provisions of Indian Penal Code, 1860 to include:

- a) Criminal Breach of Trust.
- b) Forgery.
- c) Cheating.
- d) Criminal Misappropriation.
- e) Negligence.
- f) Unapproved credit services offered for reward or illicit gratification.
- g) Fraudulent encashment using falsified instruments or through falsification of Books of Accounts or fictitious accounts and transfer of property.
- h) Any other type of Fraud not coming under the specific heads as above.<sup>6</sup>

## **3. Bank Frauds in India: Causes and Challenges**

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<sup>6</sup> Reserve Bank of India. 2017. "Master Directions on Frauds- Classification and Reporting by Commercial Banks and select FIS" available at: <https://rbidocs.rbi.org.in/rdocs/notification/PDFs/MD28A4C421E7F7724C07B38E3C6207F3548E.PDF> (visited on June 4, 2023 at 06 :40 AM).

Public Sector Banks (PSBs) in India have lost huge money in the last decade on account of various banking frauds. Indian banking system is struggling due to the growth in NPAs in recent years, which has made recovery of loans difficult that has resulted in a vicious cycle affecting the sustainability of banks in India. The Reserve Bank of India has published its annual report 2020-21 in May, 2021, which has made startling revelations by disclosing that 22,864 banking frauds were reported in the last three years involving a whopping amount of over INR 3.95 trillion. Some of the notable frauds in last three years are ICICI Bank-Videocon bribery for a loan scam in 2020, Punjab and Maharashtra Co-operative Bank crisis in 2019 and Nirav Modi and Gitanjali Gems-Punjab National Bank scam in 2018. The preliminary investigations revealed the involvement of not only mid-level employees, but also of the senior most personnel in the management of the banks.<sup>7</sup>

The root cause of weak corporate governance at top level can be attributed to the very process of appointment at highest level in the bank administration and poor remuneration scale of top level functionaries.<sup>8</sup> It is reported that there are serious issues involved in pay scale of higher level officers of PSBs, in contrast to their counterparts in Private Banks who are enjoying higher structure of remuneration. It is true that the PSBs senior rank officers are enjoying a higher prestige as against their counterparts in Private Banks but that alone is not going to satisfy their social needs. There are many factors that contribute in fraud culture in Banking businesses. The inability of the competent authority in banks to hire competent professionals and expertise from market (lateral entry) due to traditional recruitment policy, free mobility of officials to greener pastures like private or foreign banks, poor compensation structure, self-serving unions and lack of adequate professional

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<sup>7</sup>Available at: [https://www.icsi.edu/media/webmodules/02122021\\_BANKING\\_FRAUD\\_ITS\\_DETECTION,\\_PREVENTION\\_AND\\_REPORTING.pdf](https://www.icsi.edu/media/webmodules/02122021_BANKING_FRAUD_ITS_DETECTION,_PREVENTION_AND_REPORTING.pdf) (visited on July 7, 2023 at 11:30 AM).

<sup>8</sup>A. Abdallah, M. A. Maarof, and A. Zainal, Fraud detection system: a survey, *Journal of Network and Computer Applications* 68 (2016), 90–113.

training in contemporary fraud prevention techniques are key human resource issues that contribute to bank frauds.<sup>9</sup> At times, it has been observed that senior managements resort to “cover up policy” by which they like to cover-up some weaknesses to meet their short-term targets and goals, and create a rosy picture for the shareholders which is far from ground reality. This “cover up” is so strong that most of the officers retire before they can be booked for a fraud. Once an officer retires, pension regulations apply to them making them immune to any financial penalty. It was only after strenuous efforts and media coverage that those involved were prosecuted.

#### **4. Evolution of E-Banking in India**

The rapid development of digital technology and its enabled services have revolutionized the banking industry around the globe. The RBI has established numerous committees to integrate technology-based service delivery into the Indian banking system since the time financial liberalization has been undertaken by the Government of India. The designated committees were given some onerous responsibilities to design and coordinate financial technology across the Indian banking sector. The following are the key recommendations and actions that followed:

- a) The committee recommended mechanization of banking Industry (1984) and introduction of MICR technology which enabled faster processing of Cheques.<sup>10</sup>
- b) On the recommendations of the Committees on Communication Network for Banks, another Committee on Computerization in Banks (1988) was setup under the Chairmanship of Dr. C. Rangarajan, the then Deputy Governor of RBI. This committee recommended the computerization of

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<sup>9</sup>Available at: <https://www.indigolearn.com/blogs/Top-5-Financial-Scams-in-India/b218399bd14e4473907fdaa165b20f94> (visited on July 7, 2023 at 03:30 PM).

<sup>10</sup> Reserve Bank of India. 1984. Report of The Committee on Mechanization in Banking Industry. Bombay: Reserve Bank of India, 66. (Visited on June 3, 2023 at 05:00 PM.)

Banking Services, setting up of ATM's and provisioning of Credit/ Debit Cards.

- c) The Committee under the Chairmanship of W. S. Saraf was constituted in 1994. The mandate of the committee was to address technology issues relating to Payment System, Cheque Clearing and Securities Settlement in the Banking Industry etc.<sup>11</sup> The committee recommended and focused on the setting up of an EFT system that would facilitate intra and inter transfer of funds. The Committee also recommended the introduction of ECS for electronic transfer of repetitive transactions like interest, dividend, salary, pension etc. Besides this, Bills Payment System was also recommended to be set up to enable banks' customers to pay their utility bills from their accounts electronically. The Committee further emphasized on training of bank employees and recommended for establishing training institutes.
- d) A new concept of "BANKNET" was introduced by the Committee set up for Communication Network for Banks and Society for Worldwide Inter-bank Financial Telecommunications (SWIFT) implementation (1987)<sup>12</sup>. This committee recommended the setting up of a co-operative network with the name 'BANKNET' (in 2 phases). The BANKNET was to be jointly owned by the RBI and public sector banks. The object of this project was to connect the Regional and or Head offices of banks with their branches that would help in faster communication between them. Consequently, it was thought that this new move would help in faster movement of funds and also provide for faster transmission of data amongst them at reduced costs besides facilitating control and policy creation and communication. An

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<sup>11</sup>Available at: [https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CR202\\_1994FF8CFF62387A437DAE16DE1F577642](https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CR202_1994FF8CFF62387A437DAE16DE1F577642) (visited on July 7, 2023 at 10:10 PM).

<sup>12</sup>Available at: [https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CR29\\_1987CEC66352737149A5A7B64F5FC8DCB8](https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CR29_1987CEC66352737149A5A7B64F5FC8DCB8) (visited on July 7, 2023 at 11:10 PM).

international network was also conceived through SWIFT. The Committee recommended for implementation of SWIFT to facilitate a secure, standard and faster channel of communication between banks in India and abroad.

- e) Government of India continuously made efforts to make efficient use of technology. A number of committees were set by RBI and the Government of India for understanding the requirements of the electronic payment eco-system and proposing appropriate measures for strengthening the incursion and usage of digital payments. Some of the significant Committees like Committee on Medium Term Path for Financial Inclusion<sup>13</sup>, Committee of Chief Ministers on Digital Payments, Committee to Review the Framework related to Digital Payments, Steering Committee on Fintech Related Issues and the Inter Regulatory Working Group on Fintech and Digital Banking, made vital recommendations impacting not only the practical but also the regulatory aspects of digital payments.

### **5. Emerging Risks Associated with E-Banking**

The amount of technological penetration in all sectors of life is such that banking cannot be imagined apart from technology today. The reliance on technology presents its own set of challenges, such as the need for regular upgrades in the software on which the solutions are built resulting in complicated multiple delivery channels, frequent changes in compliance and regulatory requirements to meet policy demands, outsourcing of IT services to third party vendors and related security risks, the need for segregation of internal access controls of information and data, external cyber threats, constant employee training, and the need for continuous improvement.

In the last few decades, there has been a paradigm shift in E-Banking that has proven to be a game changer for both banks and

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<sup>13</sup>Available at:  
<https://rbidocs.rbi.org.in/rdocs//PublicationReport/Pdfs/FFIRA27F4530706A41A0BC394D01CB4892CC.PDF> (visited on July 8, 2023 at 1:00 AM).



customers. As previously stated, E-Banking, like all business models, is subject to standard business risks. Some hazards linked with E-Banking, on the other hand, can have a significant influence on the banking system and the economy as a whole. While strategic and compliance risks can result in reputational harm and commercial loss, security risks can result in a loss of confidence and trust in the entire banking system. Some of the risks associated with E-Banking are described further below:

- a) Security/ Fraud Risk
- b) Customer Misuse and Negligence
- c) Legal and Compliance Risk
- d) System Design Risks
- e) Operational Risk

#### **6. Tackling of E-Banking Frauds: Key Suggestions**

Bank Fraud have increased manifold due to e-banking in which either customer or the bank official who is deceived is cheated because his ignorance about the security breaches involved in the use of technology. These frauds will increase as more and more customers are using this technology for banking business. The strategies have to be developed by the Reserve Bank of India and government to lessen the incidences of fraud. Some of the such possible suggestions are:

- a) The government can establish a separate and independent specialized cadre of officers in banks that will function as a rapid emergency response unit to cases involving bank frauds and scams. The selection of such officers can be initially on the lines of recruitment of IAS/IES officers but the government should consider recruiting laterally for this cadre subsequently through lateral entry from a pool of professional commercial bankers, RBI and CBI officials.
- b) A separate department/cell should be formed in banks that would provide legal assistance to the bank officials as well as customers. The cell will serve as a single point of contact with investigating agencies and ought to facilitate easy access to

relevant documents. This would be similar to the provision in the UK where the 'Banking Protocol' was introduced in October 2016. This is considered as a ground-breaking rapid response scheme that is a joint partnership between the banking industry and police forces across the UK, through which branch staff can alert police regarding any instances of frauds suspected to be taking place. This experiment has proved successful over the years and now the system is operational in every police jurisdiction across the country. It has so far prevented £49.1 million frauds and enabled 253 arrests as of 2019.<sup>14</sup>

- c) There is a need to have effective coordination between banks and agencies like the Central Board of Direct Taxes (CBDT) to share vital information on the personal wealth of promoters. In case any information raises a red flag, the RBI and CVC can jointly probe into such fraudulent activities. This proposal is already in place in the UK where a specialist police unit (the Dedicated Card and Payment Crime Unit *i.e.*, DCPCU) is given a professional training in handling organized criminal groups responsible for financial fraud and scams. This experiment proved very effective in the UK as is evidenced by the fact that this Unit prevented an estimated £20 million worth of fraud, secured 54 convictions, and disrupted 26 organized crime groups in 2020.
- d) Frauds like other crimes are first conceived and then executed. It sometimes takes a series of takes before it is finally delivered but in between it leaves clues for the wise to discover the actual fraud. It equally applies to bank frauds and e-banking frauds. It is, therefore, essential that regular audits should be conducted to catch early warning signals concerning frauds and an effective policies and procedures, should be laid down for stricter compliance processes, develop efficient monitoring

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<sup>14</sup> L. Anan, R. Hayden, K. Joshi, M.-C. Nadeau, and J. Steitz, Fraud management: recovering value through next-generation solutions, *McKinsey & Company, McKinsey on Payments*, Volume 11, Number 27, pp. 30–36, June 2018.

capabilities and initiate strict punitive action against the persons involved within a stipulated time line.

- e) Use of advanced technology like artificial intelligence could be used robustly to deal with these frauds. It can be done similar to an African fin-tech company, My Bucks, that offers micro-loans through mobile apps in Africa. This company has made use of their artificial intelligence (AI) to identify fraudulent applications for loans. The AI based app takes into consideration the user's behavioral, transactions, and employment data that combines together to produce a unique credit score, as well as to trace patterns of activity that would detect identity fraud and assesses their creditworthiness.
- f) Rotation in job in critical areas of banking operations and branches must be followed strictly and regular reorientation and training of bank personnel should be made a permanent feature.

## **7. Statutory Measures to Prevent Bank Frauds in India**

When evaluating the effectiveness of legislative responses to fraud, it is important to keep in mind whether the frauds under consideration are those that those existing laws directly address or if they come under the category of frauds that are usually regarded as criminal activity or unfair trade practices and cannot be prosecuted. The fraud legislations in India, as stated in the beginning, is contained mainly in the Indian Contract Act, 1872, the Companies Act, 2013 and the Indian Penal Code, 1860, all of which deal with Contractual or Tortuous Fraud and in very specific cases like Embezzlement, Forgery, Criminal Breach of Trust, Cheating or Manipulation come under the Criminal Law.<sup>15</sup> However, due to the absence of contractual rights between the perpetrators and the general public, not all Financial or Economic Frauds, which are

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<sup>15</sup> Mitra, D. N. (2001). The Report of the Expert Committee on Legal Aspects of Bank Fraud. Available at: <https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?ID=247> (visited on June 30, 2023 at 04:30 PM).

occasionally too intricate and entail cheating the general public, may be handled as contractual or civil wrongs. For instance, when loans are taken out against overvalued assets and defaults occur, the general public absorbs the losses rather than the parties to the contract, namely the bank and the borrower.

In addition to the laws already mentioned, numerous laws partially address the issue of reducing the growing threat of frauds in the banking industry, like the Negotiable Instruments Act, 1881, the Banking Regulation Act, 1949, the Prevention of Corruption Act (PCA), 1988, the Information Technology (ITA) Act, 2000, the Securitizations and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFESI) Act, 2002, the Prevention of Money Laundering (PMLA) Act, 2002, the Banking Ombudsman Scheme, 2006 and the Payment and Settlement Systems (PSSA) Act, 2007.

### **8. The Reserve Bank of India in Preventing E-Banking Frauds**

According to Section 35 of the Banking Regulation Act, 1949, the Reserve Bank of India (hereinafter RBI) has the authority to oversee several Bank operations in India. Any banking company's books and accounts may be inspected and audited by the RBI's Inspection Department, and necessary action may be taken. The information with respect to the date on which the bank has made the lending is included in Basic Statistical Return No.1 (BSR-1). The books of accounts of Indian banks' overseas branches are additionally audited and inspected on occasion by auditors and inspecting officers chosen by the RBI, who then report their findings to the Reserve Bank of India for further action. If there are any irregularities committed by banks, the Reserve Bank may remark on the report. All these anomalies must be fixed within the bank's time frame, and a corrected report must be submitted.

With the introduction of zero responsibility and limited liability concepts, the Reserve Bank of India has made electronic payments safer for bank clients. With the new program, consumers who report unauthorized electronic banking activities within three days

will not incur any losses, and the money will be reimbursed to the account in question within ten days. The RBI circular addresses both in-person and online electronic payment transactions done in retail settings.

- a) The banks should provide a direct link hosted on their website's home page for receiving grievances.
- b) Reserve Bank should caution public to be aware of fraudulent messages, bogus calls, unknown links, fake notifications, unauthorized QR codes, etc. promising to facilitate securing of concessions/ expediting response from banks and financial service providers in any manner.
- c) The Central Vigilance Commission has directed all the public sector banks and insurance companies to ensure that they seek recommendations from the advisory board regarding all the cases of fraud involving Rs 3 crore and more.
- d) RBI has provided awareness among customers through its E-BAAT programs and organizing campaigns on the safe use of digital payment modes, to avoid sharing critical personal info like PIN, OTO, Passwords, etc.
- e) The Reserve Bank of India has official and genuine website, i.e., [www.rbi.org.in](http://www.rbi.org.in). The public should be careful and should not be misled by any fake website with similar addresses beginning with Reserve Bank, etc., along with fake logos.

## **9. Conclusion**

Today, E-Banking frauds have assumed menacing proportions. If these frauds are not controlled the customers will be losing faith in technology that will not augur well with banking business which now overwhelmingly is banking with the use technology. Bank frauds siphon off hard earned money that has a detrimental effect on the national growth.<sup>16</sup> The E-banking frauds are deep and diverse and there cannot be a single solution to the problem.

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<sup>16</sup> L. Anan, R. Hayden, K. Joshi, M.-C. Nadeau, and J. Steitz, Fraud management: recovering value through next-generation solutions,

The e-banking frauds are basically due to lack of adequate monitoring of officials in the management responsible for supervision; inadequate incentives for employees; absence of understanding between the staff, borrowers and third-party agencies; weak regulatory system; lack of appropriate tools and technologies in place to detect early warning signals of a fraud; ignorance of bank employees and customers; and absence of coordination among different banks in and outside India.

Various measures, such as strengthening of regulatory and supervisory mechanism of banks and financial institutions in accordance with the transnational best practices and latest technology for efficient customer services and meaningful fraud detection can help in reducing the number of frauds in banking sector.

Different strategies will have to be adopted by RBI and Government of India, legal as well as non-legal to curb the Banking Frauds. The study finds that there's no comprehensive law on the Banking Frauds. There are certain legislations which in an isolated way deal with the Bank services and frauds. The utilization of banking services in electronic transactions like bank automation, Cheque Truncation System (CTS), MICR Cheques, Plastic Cards (ATM/Debit/Credit/Smart), Digital Wallet, Electronic Purse, Tele Banking, Mobile Banking, Cyber Banking *i.e.*, EFI, ECS, EDI, RTGS, CBS, INFINET, BANKNET, RBINET, I-net, SWIFT, NICNET etc. have been proved the most vulnerable areas where the fraudsters misuse the technology by devising new ways of committing bank frauds. These emerging developments have made the job of law enforcement agencies much difficult because in most of these cases, it becomes difficult to track the perpetrators and money stolen through frauds is seldom returned. The challenges of diverse nature faced by the banks in e- transactions have necessitated the re-evaluating the legal strategies and processes so as to provided solutions to the issues those are surfacing after every passing day

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*McKinsey & Company, McKinsey on Payments, Volume 11, Number 27, pp. 30–36, June 2018.*

by the use the technology. The 19th Century laws supplemented by the 21st Century piecemeal legislations cannot hold the guard against the brute attack by bank fraudsters. There is a need for further futuristic research and expert guidance on the practical difficulty involved in e-banking businesses.<sup>17</sup>

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<sup>17</sup> A. Abdallah, M. A. Maarof, and A. Zainal, Fraud detection system: a survey, *Journal of Network and Computer Applications* 68 (2016), 90–113.