

# Analytical Study of Frauds in the Various Areas of Banking Operations in India

**Dr. Abhishek Tripathi,**

Dean (Commerce and Management), Kalinga University, Raipur

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## **Abstract**

Banking system is the backbone of any economy. It is very important that any economy which wants to develop to the full extent of its potential must have a robust banking system. The banking frauds lead to deterioration of public funds and also affect the confidence of the investors in the economy. Over the last decade, the Indian Banking system has gone through a sea of changes. The advent of technology and speedy adoption of the same due to the pandemic days has led to the revolution in the banking sector. The Indian Banking as it develops needs an excellent mechanism of regulation and monitoring to sustain its high growth trajectory.

## **Introduction:**

Banking system is the backbone of any economy. It is very important that any economy which wants to develop to the full extent of its potential must have a robust banking system. The banking frauds lead to deterioration of public funds and also affect the confidence of the investors in the economy. Over the last decade, the Indian Banking system has gone through a sea of changes. The advent of technology and speedy adoption of the same due to the pandemic days has led to the revolution in the banking sector. The Indian Banking as it develops needs an excellent mechanism of regulation and monitoring to sustain its high growth trajectory.

## **Literature Review:**

There is a big impact of banking frauds on the banks and their valuations in the market. Dr. P. Sai Rani, Dr. K. Martina Rani and Mr. Ramesh Babu Nemani, 2019). There has been increasing trend of banking sector frauds in India for last few years.(Swain & Pani (2016)). Though the banking sector in India is a well regular sector and the supervision is deep by the RBI but it has its own sets of problems and challenges related to the ethical processes and practices. (Vigneshwaran & Yokesh (2018) in A Study on Causes and Prevention of Fraud in Banking Industry).

The overburdened staff, enormous competition and low compliance level among employees along with less level of awareness makes the sector prone to various kinds of frauds. (Khanna & Arora (2009) in A Study to Investigate the Reasons for Bank Frauds and the Implementation of Preventive Security Controls in Indian Banking Industry).

The Liberalization of the economy in 1991 has brought enormous growth to the banking sector. There has been an upswing in international financial transactions, which have the banking sector more prone to frauds. There is an urgent need to monitor banks and other financial institutions to make sure that they adhere to the corporate governance standards as set by RBI. Also, it is imperative to ensure that the proper checks and balances are maintained in the banking sector to make sure frauds can be avoided. (Singh & Nayak (2015) in their paper entitled *Frauds in Banking: Corporate Governance Issues*).

The rising number of frauds on a day to day basis and increasing sophistication of financial crimes mandates active education of customers on various measures to prevent such kind of crimes from happening. The banks act as driving forces contributing towards the operations of the financial sector and in the economy. The increasing smartness of the fraudsters pose a great challenge and only customer education can be the best way to deal with such kinds of frauds. (Bhasin (2015) in his paper *An Empirical Study of Frauds in the Banks*).

The basic function of the banks is to bridge the gap between the surplus sector of funds in the economy to the deficit sectors. The fraudsters take all the possible routes to commit the fraud and lead to leakage of the funds. It is the high time when banks should be more vigilant. The banks should protect, monitor and evaluate the efficiency of fraud prevention strategies and re-align them with the growing complexities of the financial crimes. (Neha & Dhiraj Sharma (2018) in their study on *Rising Toll of Frauds in Banking: A Threat for the Indian Economy*)

The financial frauds affect the profitability of the business and also negatively affects firms solvency. However, preventive measures can be taken and it can be curtailed to great extent through continuous monitoring and verification. (Yego & John, 2016, in their study on *The Impact of Fraud in the Banking Industry: A Case of Standard Chartered Bank* ).

The bank insiders form the major case of bank fraud and corruption. The preventive measures are more important than the penal measures. The business ethics revitalization is required to ensure the willing compliance of law by organizations and individuals. (Cheng & Ling Ma (2009) in their study on *White Collar Crime and the Criminal Justice System: Government Response to Bank Fraud and Corruption in China*).

The customer expectations are the basic principles governing banking and financial industry like transparency, accountability, fairness and effective intermediation from banks. In the modern days, protecting public money and faith has been one of the greatest challenges. The adoption of modern technology can be game changes in the prevention of banking frauds to a great extent. (Kundu & Rao (2014) in their study *Reasons of Banking Fraud – A Case of Indian Public Sector Banks*).

The high rate of banking frauds and employee turnover are the major challenges faced by the banking sector in India. It has been seen that instrumental climate is an effective predictor for the

three components of commitment (normative, affective and continuance). (Japneet Kaur (2016) in his study on Exploring Relationships Among Ethical Climate Types and Organizational Commitment: A Case of Indian Banking Sector).

The usage of information technology on a larger scale and increasing popularity of alternative banking channels have led to the increasing rate of banking frauds. Cyber crime has been on rise. The collaborative information sharing can be very beneficial for the sector to prepare, protect and manage crises, also to manage the cost effectively. (Renuka & Jyothi (2014) in their paper Organizational Procedures and Structures for Indian Banks Centre for Analysis of Risks and Threats).

The Money Laundering frauds, ATM frauds and other types of electronic crimes are increasing everyday. It is imperative for the organizations to make sure that they are able to deliver services with all the trust and confidence leading to the satisfaction of the customer. (Pasricha & Mehrotra (2014) in their study on Electronic Crime in Indian Banking).

Forensic audit is an emerging profession. There is an urgent need to create a governed body regulating the profession like any other profession. As due to the growth of financial frauds, the need for more professionals in the sector is ever growing. (Njanike, Dube and Mashayanye (2009) in their study on The Effectiveness of Forensic Auditing in Detecting, Investigating, and Preventing Bank Frauds).

### **Research Gap:**

The time period of 2004-05 to 2020-21 has been very important from the point of view of the advent of technology in the banking sector. The technology has many advantages but at the same time it has come up with its own challenges. With the advent of technology, the banking system has reached to the doorstep of the customers and thus has opened new avenues of opportunities. On the other hand, it has led to the increase in the quantity and sophistication of banking frauds and cyber crime. This study focuses on the various types of banking fraud and their pattern over the period of last 16 years (from 2004-05 to 2020-21).

### **Research Objectives:**

- To quantitatively study the number of frauds happened in the banking sector over the time period of 2004-05 to 2020-21.
- To study and analyze the amount of funds lost due to frauds happened in the banking sector over a period of 2004-05 to 2020-21.
- To study various areas of operations in the banking sector which have contributed to the banking fraud from 2004-05 to 2020-21.

### **Hypothesis:**

**H1:** Due to the advent of technology, banking fraud has declined in value over the years.

**H2:** Frauds related to Internet Banking and Credit Cards constitute maximum volume of fraud.

**H3:** Frauds related to Internet Banking and Credit Cards constitute maximum value of fraud.

### Sampling:

The research is based on the secondary data derived from the data released by the Reserve Bank of India.

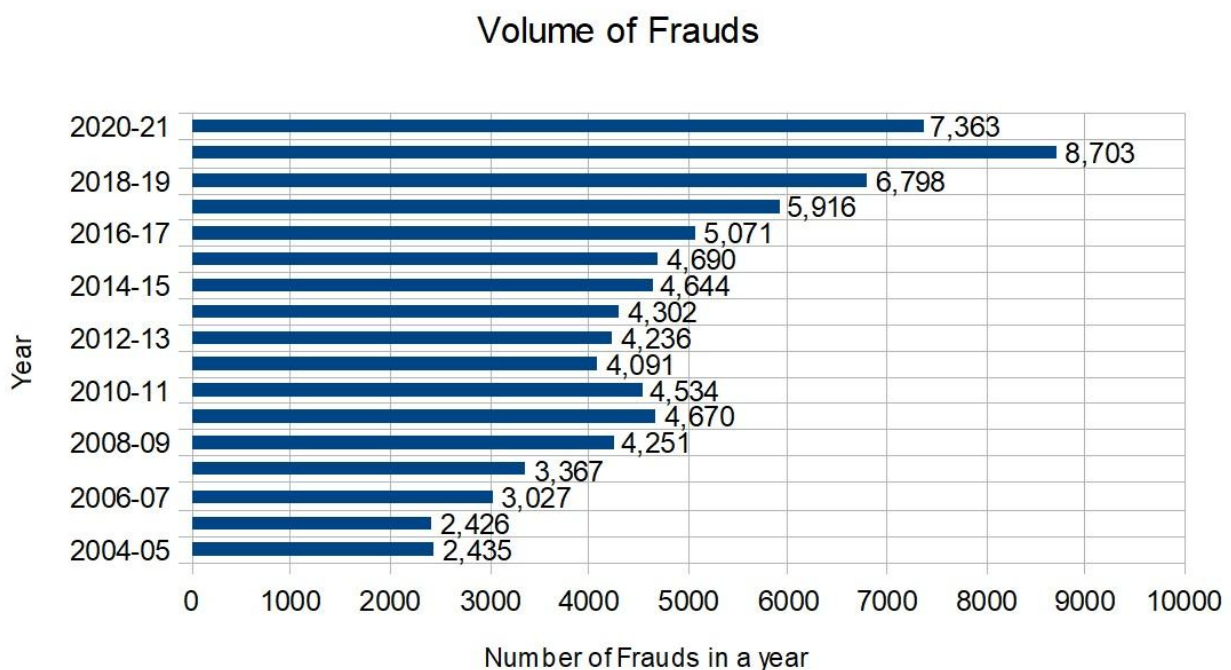
The RBI has divided the areas of operations of banking into 11 parts to simplify the data. There include, Advances, Card/ Internet, Deposits, Off-Balance Sheet, Foreign Exchange Transactions, Cash, Cheques/ DDs, Inter-branch Accounts, Clearing etc, Non-Resident Accounts and Others.

### Research Methodology:

- Time series analysis has been used to study the trend of banking frauds over a period of time of 16 years.
- Descriptive statistics techniques have been used to describe the data over a period of time.
- Data Visualization Techniques have been used to visualize and present the trend.

### VOLUME OF BANKING FRAUDS

The volume of frauds in the various areas of operations of a bank can be depicted as follows:



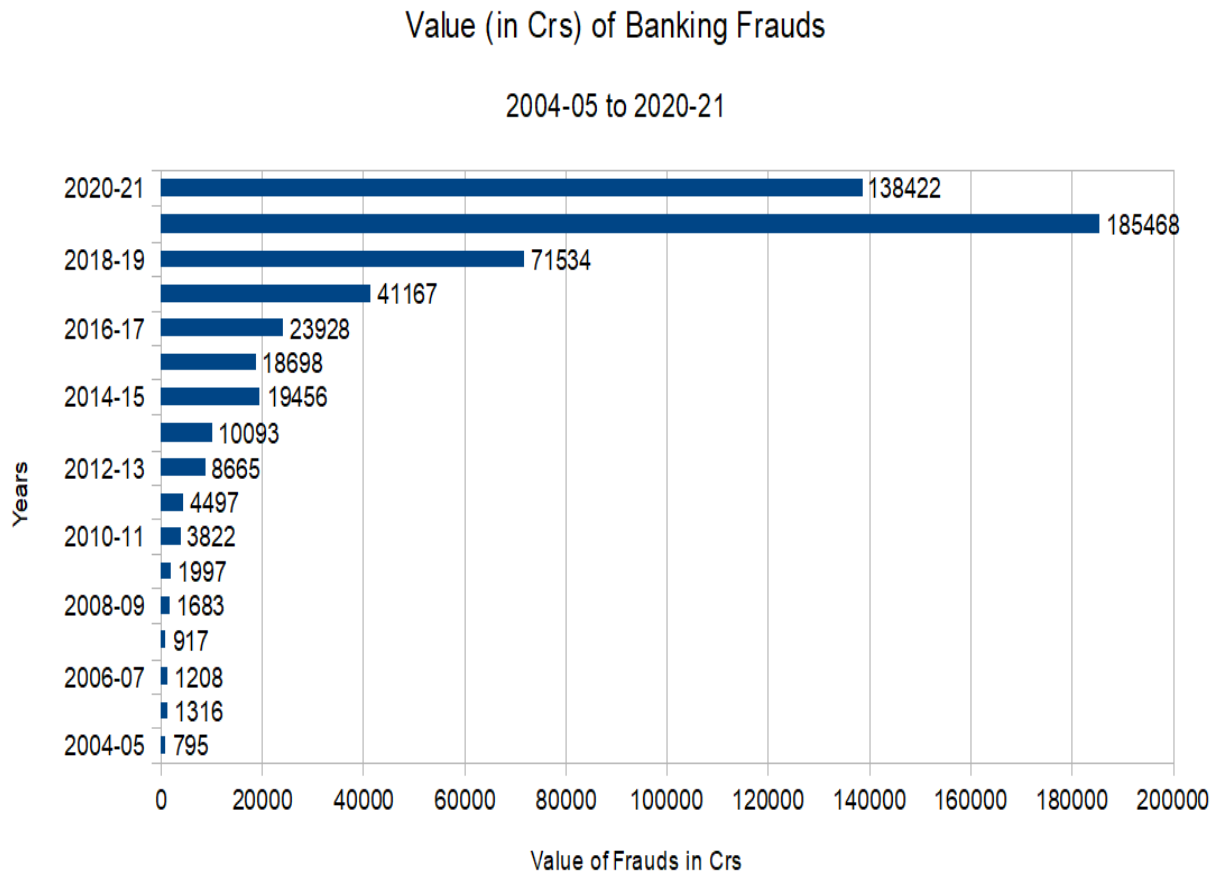
The above chart shows that the volume of frauds has increased over the years. In the last 17 years, the maximum number of banking frauds happened in the year 2019-20. Also, the volume of frauds have become four fold as compared to the year 2004-05. However, there has been a reduction in the volume of banking frauds in the year 2020-21 as compared to the previous year.

**Components of volume of frauds (Year 2020-21)**

<b>Area of Operation</b>	<b>2020-21</b>
	<b>No.</b>
Advances	47.55%
Card/Internet	0.31%
Deposits	0.05%
Off-balance sheet	34.56%
Foreign exchange transactions	6.85%
Cash	0.03%
Cheques/demand drafts, etc.	4.47%
Inter-branch accounts	2.21%
Clearing, etc. accounts	0.19%
Non-resident accounts	0.01%
<b>Others</b>	<b>3.76%</b>
<b>Grand Total</b>	<b>100.00%</b>

If we observe various components of the volume of frauds in the year 2020-21, then we can find out that 82.11% of the volume of frauds have happened in Advances and Off-Balance sheet areas of operations.

### VALUE OF BANKING FRAUDS



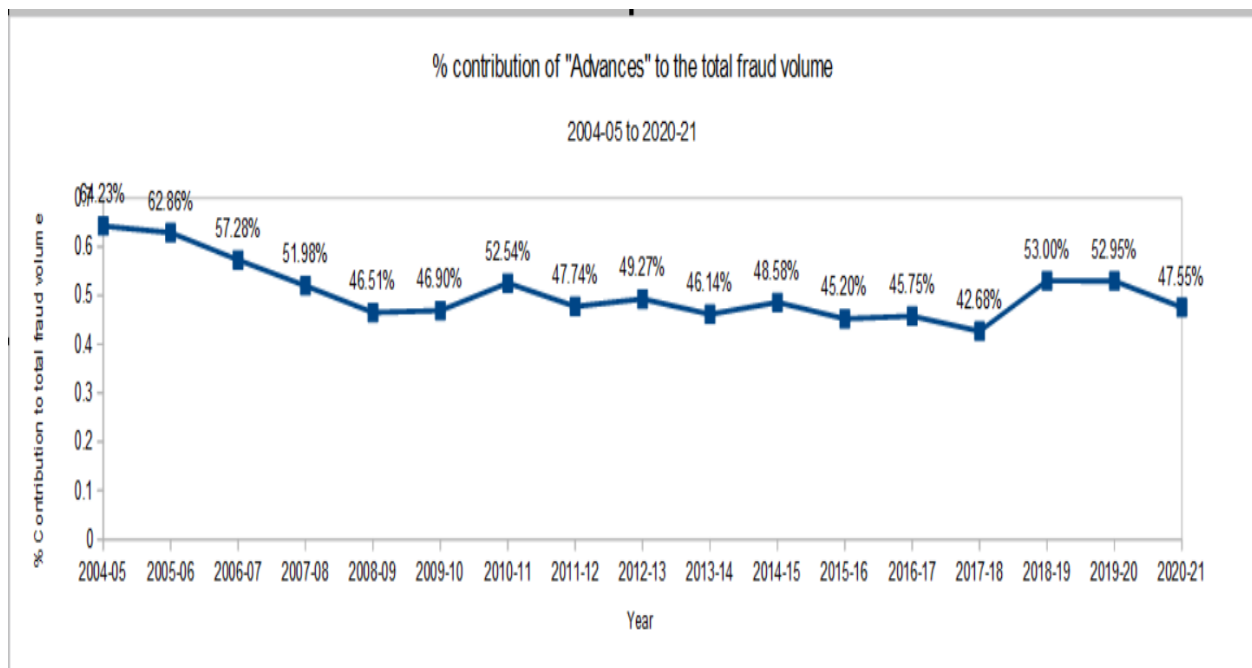
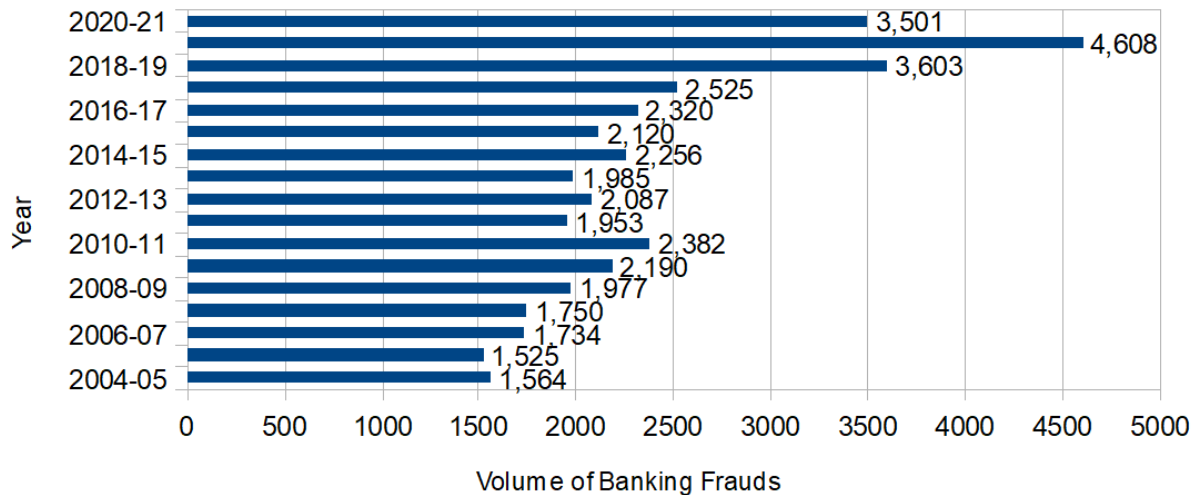
The value of funds lost due to banking frauds has been highest at Rs.185,468 Crs in the year 2019-20. However, it is evident from the chart above that the value of funds lost by banks due to banking frauds has increased about 233 times in the last 16 years. It is a cause of concern with regards to the safety of funds in the banks.

### Components of value of frauds (Year 2020-21)

The data shows that 98.99% of the value of fraud comprises frauds happening the operations of Advances. Second major contributor to the value of fraud is Internet Banking and Credit Card which stands at 0.39%, which is negligible as compared to the value of funds lost in the operations of Advances. The off-balance sheet operations which comprised 34.56% of the banking frauds by volume, value at 0.09% of the total funds lost due to the banking frauds.

**Area of Operations wise analysis of banking frauds:****1) Banking Frauds in the areas of operations of “Advances”****Volume of Frauds in the operations of "Advances"**

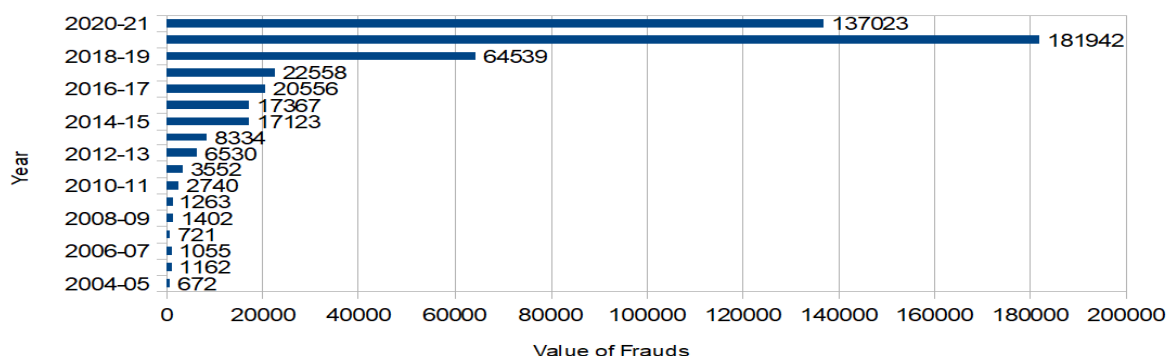
2004-05 to 2020-21



From the above two charts, it is clear that the “Advances” have remained a major contributor to the volume of frauds happening in the banking sector. In fact, on an average “Advances” have contributed to about 50.66% of the total volume of banking frauds.

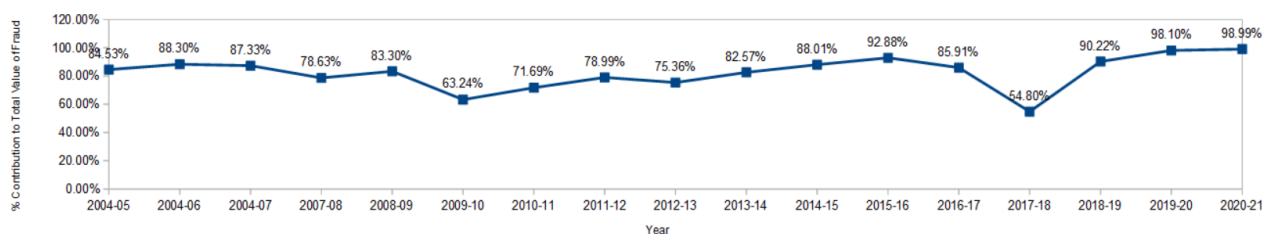
Value (in Crs) of Fraud in the "Advances" operations

2004-05 to 2020-21



% contribution of "Advances" to the total value of fraud

2004-05 to 2020-21

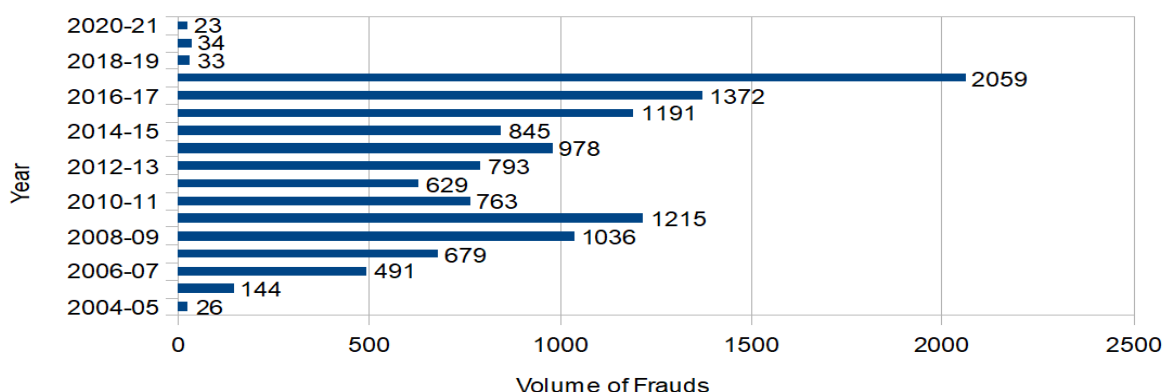


From the above chart, it can be seen that the operations of “Advances” contributed on an average 82.52% of the total value of frauds happening in the banking sector. Clearly, it is the major contributor of banking frauds.

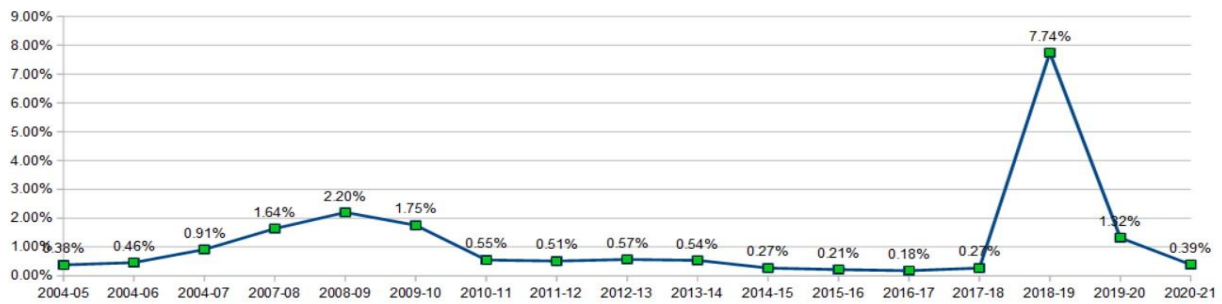
## 2) Banking Frauds in the areas of operations of “Card/ Internet”

Volume of Frauds due to Card/ Internet

2004-05 to 2020-21





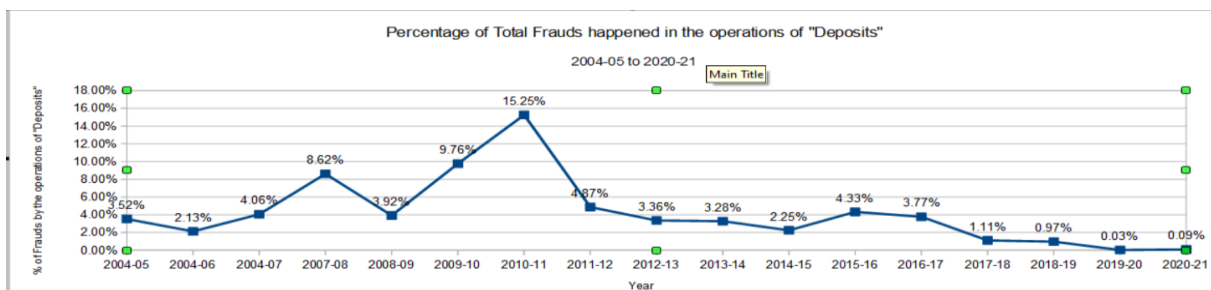
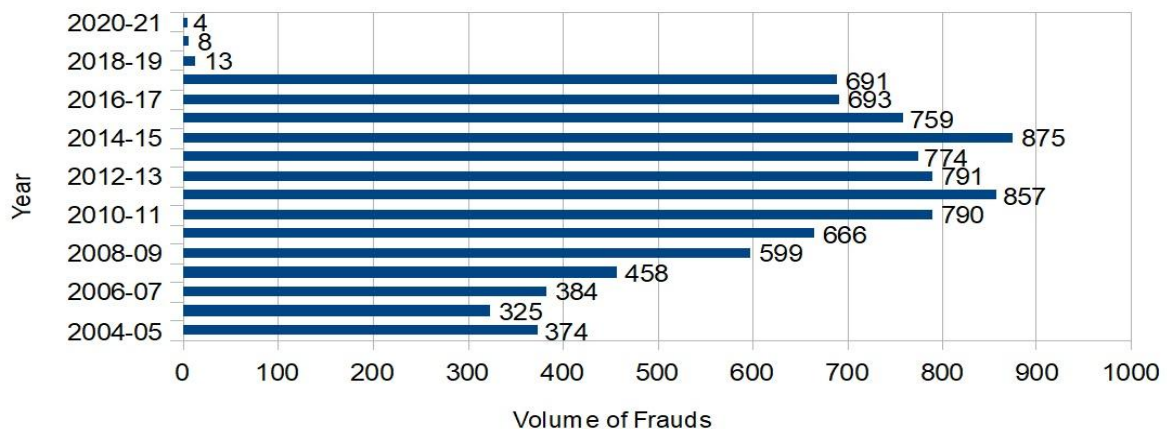


The banking fraud due to card/ internet has reached a maximum of Rs.2059 Crs. Out of the total frauds only 7.74% has been contributed by Card/ Internet. Also, the fraud due to card/internet has reduced to 34 Crs and 29 Crs in the 2019-20 and 2020-21. From the above chart, it is visible that the year from 2006-07 to 2017-18 has seen a spike in the volume of frauds happening due to card/ internet. The average fraud percentage in the area of operation of Cards/ Internet stands at 1.17%.

### 3) Banking Frauds in the areas of operations of “Deposits”

#### Volume of Frauds in the area of operation of "Deposits"

2004-05 to 2020-21



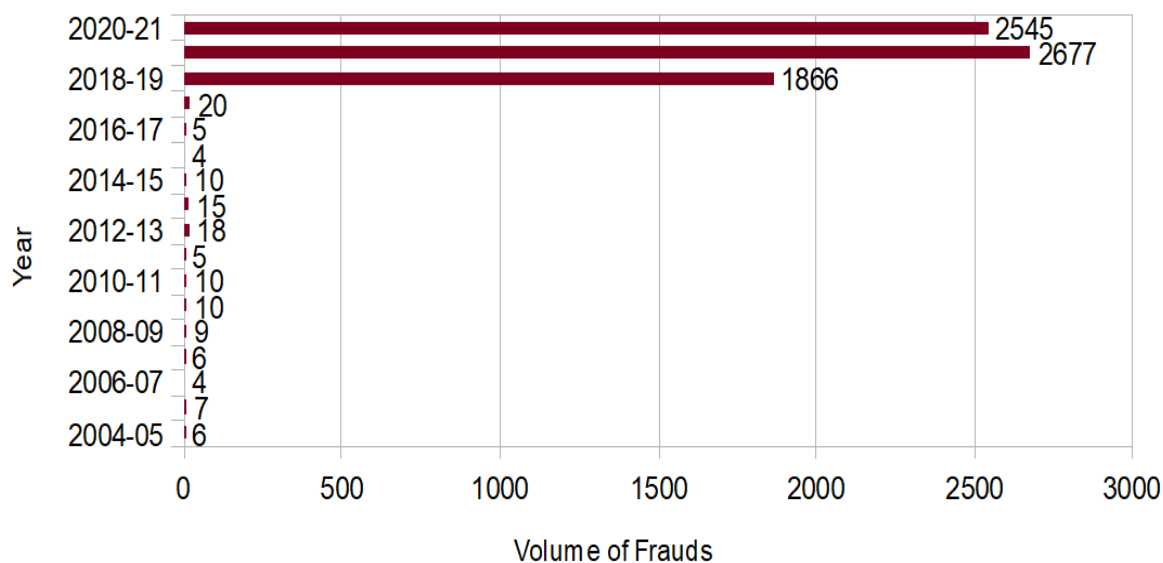
The frauds in the areas of operations of “Deposits”, on an average contributed 4.20% of the total frauds happening in the banking sector. Rs.318.88 Crs on an average is lost every year in the

“Deposits” Fraud. It can also be observed that this type of fraud has reduced drastically in last 3 years. The highest volume of fraud happened in the year 2014-15 (875 in number).

#### 4) Banking Frauds in the areas of operations of “Off-Balance Sheet Operations”

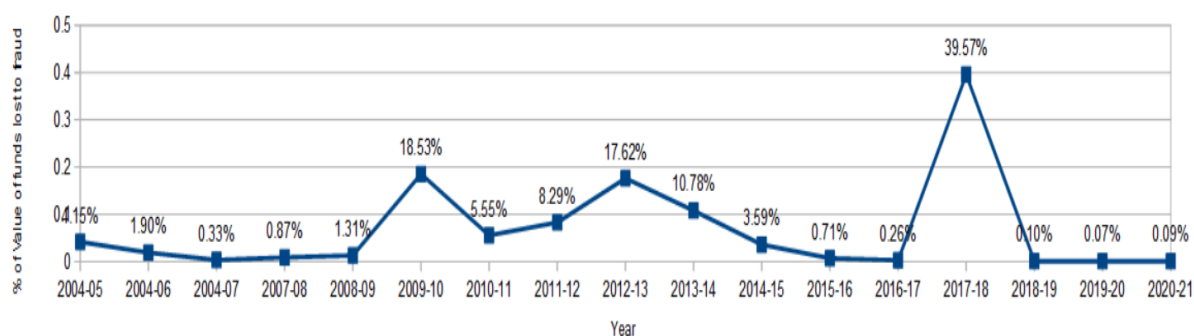
##### Volume of Frauds due to "Off Balance Sheet" transactions

2004-05 to 2020-21



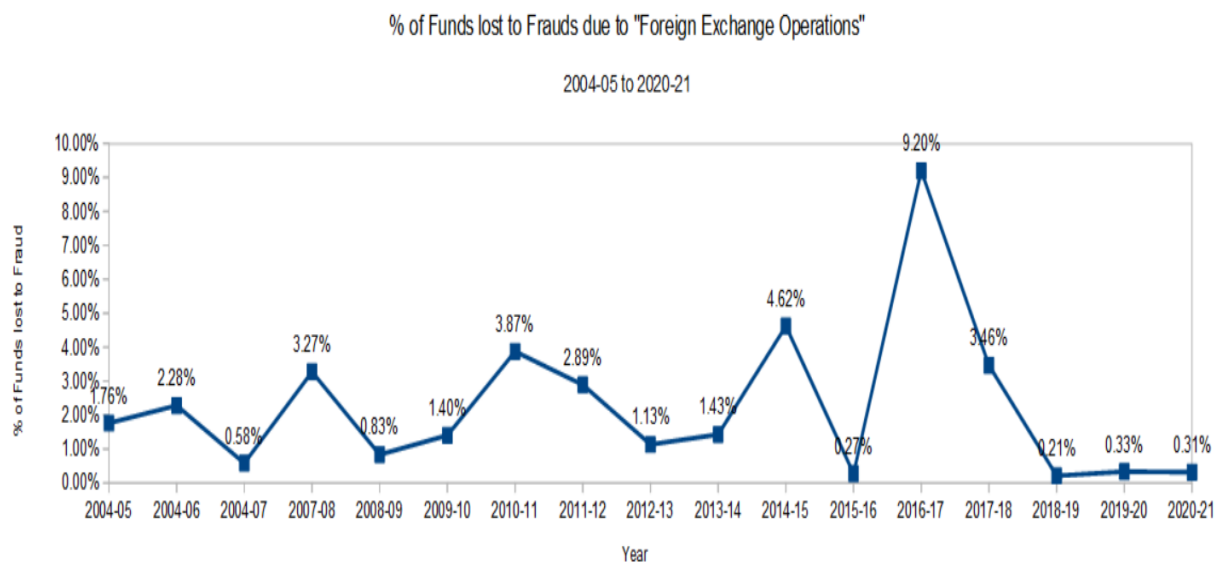
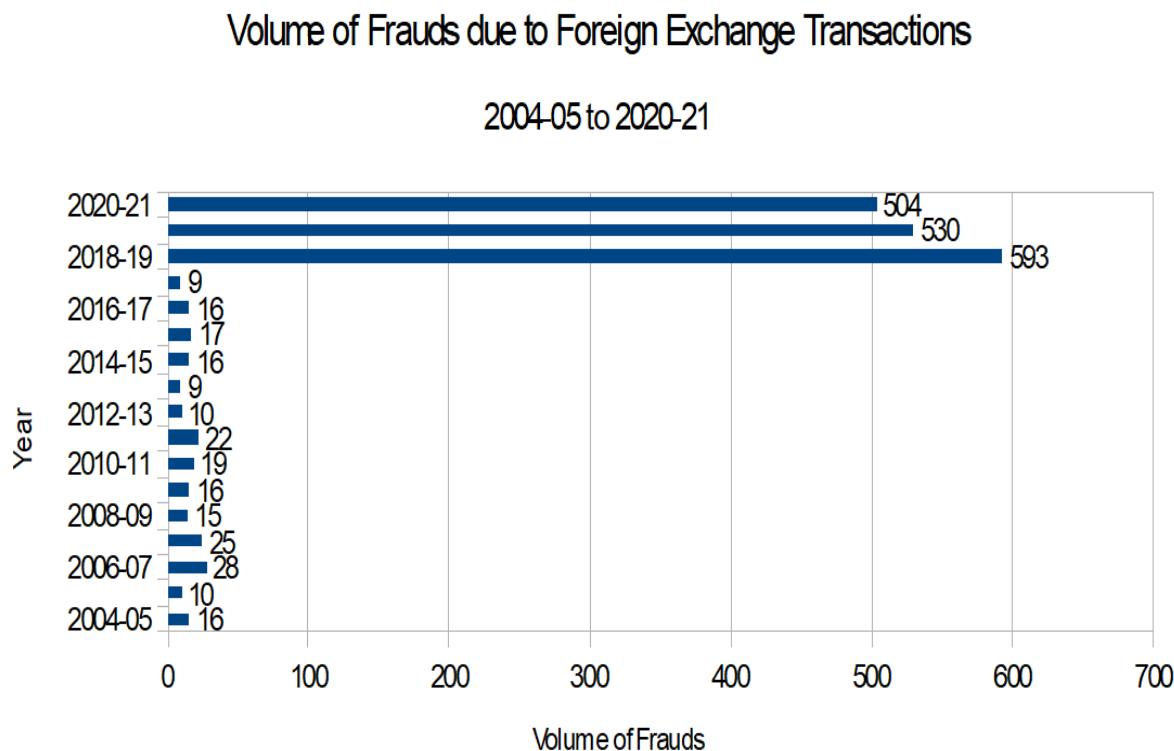
##### % of Value of Fraud (% of Funds Lost to "Off-Balancesheet" transactions Frauds

2004-05 to 2020-21



The volume of frauds due to “off balance sheet” operations have recently seen a spike in the year 2018-19, 2019-20 and 2020-21. It has grown phenomenally in the last three years. In the year 2017-18, this type of fraud contributed to 39.57% of the total funds lost due to frauds in the banking sector. However, the same has come down drastically for the last 3 years. On an average about 6.69% of the total funds lost due to frauds, have been lost due to these types of transactions.

### 5) Banking Frauds in the areas of operations of “Foreign Exchange Transactions”

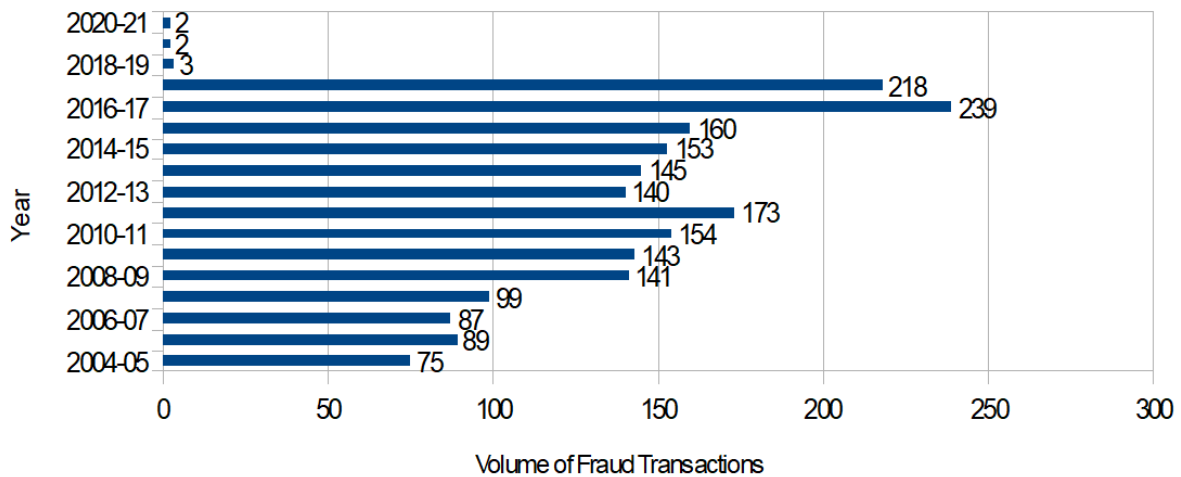


The volume of fraud transactions in the foreign exchange operations has increased in the last three years. On an average about 2.23% of funds lost due to fraud is contributed by the FOREX Operations. In the year 2016-17, the contribution of forex operations fraud was 9.20% of the total value of banking frauds.

## 6) Banking Frauds in the areas of operations of “Cash Transactions”

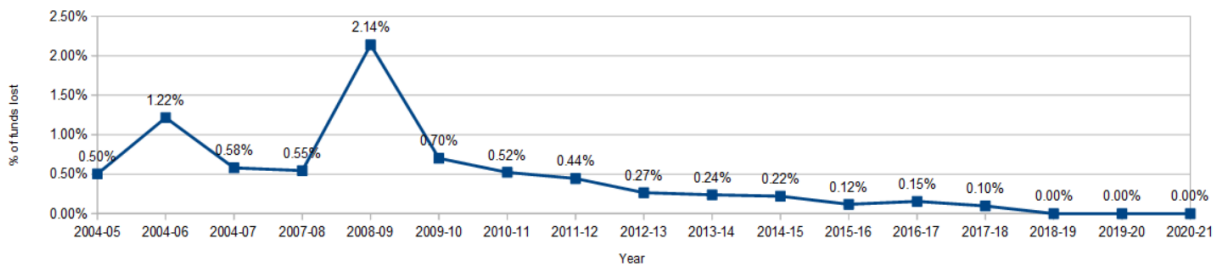
### Volume of Fraud Due to Cash Transactions

2004-05 to 2020-21



### % of Funds lost to the Cash Transactions

2004-05 to 2020-21



The volume of fraud transactions due to Cash Operations has been in rising trend till 2017-18. However, there has been a drastic reduction in it for the last three years. The percentage of funds lost to the cash operations has come down to nearly 0% in the last three years. The highest percentage loss due to these kinds of transactions was in 2008-09, which was 2.14% of the total funds lost due to fraud.

### Tabular presentation of the analyzed data:

S.N	Area of Operations	Average Volume of Fraud Transactions	Average % Volume of Fraud Transactions	Average Value of Money lost per year in Fraud (in Crs)	Average % Value of Money Lost in Fraud

1.	Advances	2357.65	49.77	28737.59	91.54
2.	Card/ Internet	724.18	15.29	530.35	1.69
3.	Deposits	533.00	11.25	314.88	1.00
4.	Off- Balance Sheet	424.53	8.96	1244.88	3.97
5.	FOREX	109.12	2.30	377.53	1.20
6.	Cash	119.00	2.51	18.29	0.06
7.	Cheque/ DD etc	209.88	4.43	27.88	0.09
8.	Inter-branch Accounts	44.47	0.94	12.12	0.04
9.	Clearing etc. Accounts	30.88	0.65	28.12	0.09
10.	Non-Residents Accounts	12.88	0.27	3.24	0.01
11.	Others	171.12	3.61	97.18	0.31
	TOTAL	4736.71	100.00	31392.06	100.00

About 90% of the volumes of fraud transactions are attributed to operations of Advances, Card/ Internet, Deposits, Off-balance sheet operations and Cheque/ DD. 50% of the volume of frauds happen in the operations of “Advances”. Top three contributors to the volume of fraud transactions are Advances, Card/ Internet and Deposits.

91.54% of the value of funds lost due to frauds in the banking sector is due to the operations of “Advances”. Other major contributors are Off-Balance Sheet transactions (3.97%), Card/ Internet (1.69%), FOREX (1.20%) and deposits (1.00%).

### Acceptance/ Rejection of Hypothesis

<b>H1:</b>	Due to the advent of technology, banking fraud has declined in value over the years.	Rejected	The value of banking fraud has increased over the years.
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<b>H2:</b>	Frauds related to Internet Banking and Credit Cards constitute maximum volume of fraud.	Rejected	49.77% of the volume of banking frauds is due to the operations of “Advances”
<b>H3:</b>	Frauds related to Internet Banking and Credit Cards constitute maximum value of fraud.	Rejected	91.54% of the value of funds lost is due to the operations of “Advances”

### **Conclusion and Suggestion**

On the basis of the above findings it can be concluded that it is the “Advances” which contribute to the maximum amount of funds lost due to banking frauds in India. If the frauds in “Advances” can be reduced it will lead to reduction in banking frauds by 49.77% in volume and 91.54% by value of the total frauds. So, there is an urgent need to design a proper monitoring and recovery system for “Advances”. Also, it is also required to leverage technology and newer aspects like Artificial Intelligence and Machine Learning to reduce the frauds in the banks in general and frauds related to “Advances” in particular. Also, it is clear from above study that the contribution of Internet and Card related frauds is very less as compared to other factors like “Advances” and “Off-Balance Sheet” Operations.

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