

An Investigation of Banking Cyber Frauds with Indian Private and Public Sector Banks

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Abstract

Certainly the use of technology in the financial services sector for their development has been a tremendous encouragement. However, business and payment transactions to be carried out due to heavy reliance on electronic and digital equipment, a serious threat to the safety and reliability of financial operations is imposed. With the growing trend of online and cyber transactions, banking scandals, the number of banking technology tool use is increasing more and more people are affected. Online payments, ATM machines, electronic cards and net banking transaction fraud has become a serious issue. Damage to people and institutions, electronic money transaction after the tight security measures, these cyber banking firms is due to fraud every year. Causing huge losses to the bank itself to its customers on a large scale has been found to be involved in fraudulent practices. Banks themselves have been found to be involved in fraudulent practices in a big way causing their customers enormous losses. This study is an effort to review and analyze the subject in Indian context with a comparative touch between private and public sector banks in the country.

Keywords : Cyber fraud, transaction in e-banking ,defensive, bank sector.

Introduction

Information and computer technology has made its reach into almost every area of life. The digital world, saw the growing trend of online transactions using Data transfer, electronic databases and so many business, social and other activities, computers, & internet are the based on Information technology equipment . In times of cut-throat competition, every business entity wants to improve their performance levels so as to cut costs for better customer service serve and increase productivity. Banking, insurance and financial organizations are prime users of the Internet and online transactions. Cash transfers , payments, account information and other kinds submit remittance services to the use of such

technologies .Banking services are actually Information and uses the Internet to become richer. However, the at the same time, the cyber threat is a big issue. Online transactions data are not free from attack or being manipulated. Case Fraudulent cash withdrawals, account information, hacking, data theft and credit / debit card fraud is a significant association with electronic systems in the banking business. Today, the maximum Information being online is highly susceptible to attack by cyber criminals. Banks have become many cyber fraud case which caused huge loss of money to the common customers in every year. Cyber crime can be described as a criminal activity done using computers and the Internet in Indian banking sector . The Illegal to steal anything from downloading files from online bank accounts. Cyber crime such as making non-monetary offenses, and includes distributing viruses on other computers or posting confidential business information on the Internet. Perhaps the most the major form of cybercrime, including identity theft Internet use by criminals to steal personal information other users. Two of the most common ways this is done is Phishing and pharming are linked together through Confidential online information searches.

According to the Zee Research Group (ZRG)¹ analysis, during the last decade, the Indian banking sector grew at an average rate of 18% in comparison to 7 % GDP growth rate. However, during the same period, cyber fraud in the banking sector has emerged as a big problem and a cause of worry for this sector.

Pawan duggal says, cyber fraud related to explain the reasoning behind the increase in cyber law expert averred, “the traditional approach of public sector banks continued to follow, while the relevant security mechanism has been followed by private sector banks.”

He lamented that the Gopala krishna Working Group (GGWG) report recommendations on safe electronic banking had met with poor compliance. These recommendations mandate that each and every bank function create separate Separate exclusively for giving information security clearance Information Security Management Board, need for Information security policy. The review of and at least for one year should be also considered necessary Digital evidence of any other legal evidence. Further, the manuscript takes on the issues relating to title.

Objectives of The Study

The present study Objective:

1. To Determine concept of cyber crimes in the banks relevant,
2. To Analysis of the data relating to meaningful Various banking sector banks cyber frauds.

Research Methods

Published by law by the Reserve Bank of India minor research Of data is designed to suit and India Research studies. Used was tables and graph Comparative analysis. The study on the basis of review of Chronological information relating to the title. Between the Comparative analysis of work, being a commercial organization called non- Government and public sector banks in a different category has been kept , Cheating in foreign banks are the cases of their share, even though they private sector.

Review of Literature

Some specific literature has been reviewed to find Research work being done by professionals , Scholars and organization. Beirstaker Brody got Best Actor, Various techniques, pacini² has suggested that such cheating weakness To review the policies, fraud hotlines, telephone, Employee reference check, vendor to review the contract and Ban analysis (analytical review financial ratios etc.), Password protection, conservation and firewalls digital analysis and For detection of other forms of equipment software frauds and Control. Gupta³. The 'Consumer study in India Internet Banking and Bank 's strategy and weaknesses traditional banking Identifies explores tried to consumer awareness that , Models use of Internet satisfaction and priorities , Also highlighted as compared banking factors as banking and traditional It may be that affected Internet strategy of the bank for adopting Banking while addressing the concern of Internet this regulatory and Banking can supervise. Ashu Khanna, Bindu Arora⁴ in their survey based work 'A study to investigate the reasons for bank frauds and the implementation of preventive security controls in Indian banking industry' done to find out the attitude of and measures taken by bank employees/ managers in controlling banking cyber crimes observed The bank employees do not give due importance to the problem of frauds. The awareness level of bank employees regarding bank frauds is not very satisfactory, and majority of them do not dispose favorable attitude towards RBI procedures as they find difficulty in following them due to workload and pressure of competition. Hemraj Saini, Yerra Shankar Rao and T.C. Panda⁵ in their study 'Cyber-Crimes and their Impacts: A Review' have described the problem and kinds of cyber crimes with their effects on different segments the society in general. B. Singh⁶ in their report 'Online Banking Frauds In India' has observed that Cyber crimes in India are on rise thanks to the growing use of information technology. With limited numbers of cyber law firms in India, these cyber crimes are not reported properly. Even the cyber security of India is still catching up with the present requirements.

Result And Discussion

Reserve Bank of India (India) in the regulatory body banking. It keeps Close eyes, on Banking Operations. However, statistics and electronic manipulations leaves to place online. The RBI has recently in detail Frauds published (ATM frauds relating to credit card) /Debit cards/ Internet banking and scheduled commercial banks. It shows that the details table below-1:

Table-1
Cyber Crimes in Scheduled Commercial Banks in last 4 years⁷

S.No	Year	BankFraud Cases	Amt. Involved
1	2012	8322	5266.95
2	2011	9588	3672.19
3	2010	15018	4048.94
4	2009	21966	7233.31

(In Rs. Lakhs)

(Source:- Details of Calendar Year wise Cyber Frauds in Banks,Retrieved from www.rbi.org.in (2013))



Figure-1
Cyber Crimes in Scheduled Commercial Banks in last 4 years

(Source:- Graph as per Details of Calendar Year wise Cyber Frauds in Banks,Retrieved from www.rbi.org.in (2013))

Figure-1
Cyber Crimes in Scheduled Commercial Banks in last 4 years

The table 1 and figure 1 show reducing number of reported cases. The amount involved is also reducing, but the year 2012 shows an increase. The number of cases fell by 31.6%, 36.2% and 13.2% in the year 2010, 2011 and 2012 respectively. The amount involved also came down by 44.0%, 9.3% in 2010 and 2011 respectively, but in 2012 it rose by 43%

Comparative Analysis: The comparative position of fraud shows that data Number of cases have been analyzed in terms and amount are included . The study focuses two kinds of comparisons.

- i. intra sector (banks within same sector) comparison and;
- ii. inter banking (between sectors) comparison.

Inter Banking Sector Comparative Analysis: Banks belonging to the same sector, i.e. public, private, and foreign sector have been presented in different tables along with their data in terms of number of cyber crime cases and their monetary values.

Figure-2
Detail of Calendar Year wise Cyber Frauds in Public Sector Banks



(Source:- Graph as per Details of Calendar Year wise Cyber Frauds in Banks, Retrieved from www.rbi.org.in (2013))

Table-2
Detail of Calendar Year wise Cyber Frauds in Public Sector Banks ⁷

S. No.	Bank Name	2009		2010		2011		2012	
		No. of Cases	Amount involved	No. of Cases	Amount involved	No. of Cases	Amount involved	No. of Cases	Amount involved
1	Allahabad Bank	0	0	0	0	1	3.3	0	0
2	Andhra Bank	0	0	1	31.85	1	0.52	0	0
3	Bank of Baroda	6	6.88	5	12.4	5	31.82	3	62.45
4	Bank of India	5	5.21	2	14.61	2	54.49	7	15.82
5	Bank of Maharashtra	4	3.55	4	4.69	2	2.9	3	105.26
6	Bank of Rajasthan Ltd.	0	0	1	0.31	0	0	0	0
7	Canara Bank	6	1.39	0	0	1	0.6	1	10.24
8	Central Bank of India	2	0.84	2	2.15	0	0	0	0
9	Corporation Bank	2	0.72	2	6.21	5	6.44	47	21.69
10	Dena Bank	0	0	1	2.07	1	0.53	0	0
11	FIRSTRAND BANK	0	0	0	0	0	0	14	4.82
12	IDBI Bank Limited	24	16.29	13	15.29	50	44.64	87	203.04
13	Indian Bank	0	0	1	1.41	1	0.41	4	20.9
14	Indian Overseas Bank	2	0.39	3	1.44	10	176.03	0	0
15	Oriental Bank of Comm.	0	0	1	4.75	0	0	0	0

16	Punjab National Bank	33	50.15	108	248.64	28	170.19	14	99.43
17	SBBJ	2	6.66	2	0.15	2	3.49	1	49.32
18	State Bank of Hyderabad	0	0	0	0	4	63.33	6	50.52
19	State Bank of India	0	0	0	0	2	14.62	0	0
20	State Bank of Indore	1	0.8	0	0	0	0	0	0
21	State Bank of Mysore	0	0	1	1.01	0	0	0	0
22	State Bank of Patiala	0	0	0	0	4	80.45	2	31.42
23	State Bank of Travancore	0	0	0	0	6	10.3	3	3.2
24	Syndicate Bank	2	0.53	1	2.32	1	0.56	2	7.87
25	UCO Bank	2	0.58	1	1.6	0	0	4	31.22
26	Union Bank of India	5	10.45	7	19.22	2	7.86	9	70.17
27	United Bank of India	1	1.37	0	0	0	0	6	32.86
28	Vijaya Bank	0	0	0	0	0	0	1	8.4
	Grand Total	97	105.81	156	370.12	128	672.48	214	828.63

(Sources:- Details of Calendar Year wise Cyber Frauds in Banks Retrieved from www.rbi.org.in (2013))

It can be observed from table-2 that the numbers of fraud cases in public sector banks were small but they rose during the four years period with a small drop in 2011. The amount involved had no relationship with this fall and had a rising tendency. In year 2009, PNB recorded the highest number and amount of cyber crime cases followed by IDBI bank. In 2010, PNB showed highest number of cases followed by IDBI, but amount wise, PNB was followed by Andhra Bank, Union Bank of India and IDBI respectively. IDBI crossed PNB in 2011 in terms of cases, but amount wise, Indian Overseas, PNB and Bank of Patiala witnessed a substantial rise. In 2012, IDBI came on top followed by Corporation Bank and PNB. In terms of money involved, IDBI, Bank of Maharashtra and PNB recorded highest positions respectively. Figure-2 also describes the story.

Table-3
Details of Calendar Year wise Cyber Frauds in Private Sector Banks ⁷

S. No	Bank Name	2009		2010		2011		2012	
		No. of Cases	Amount involved	No. of Cases	Amount involved	No. of Cases	Amount involved	No. of Cases	Amount involved
1	Axis Bank Ltd.	20	110.58	14	44.59	23	209.59	85	1225.41
2	Development Credit Bank	2	0.96	2	0.3	0	0	0	0
3	Dhanlaxmi Bank Limited	0	0	3	2.29	1	3.02	4	1.09
4	Federal Bank Ltd.	0	0	2	20.5	0	0	3	83.69
5	HDFC Bank Ltd.	211	165.58	208	125.98	386	276.68	525	409.56
6	ICICI Bank Ltd.	15666	3731.95	9811	1920.28	6013	1096.67	3428	676.51
7	IndusInd Bank Ltd.	0	0	3	7.59	3	1.19	2	4.61
8	Jammu & Kashmir Bank	1	4.51	2	6.58	0	0	1	13.88
9	Karur Vysya Bank Ltd.	0	0	1	23.14	0	0	0	0
10	Kotak Mahindra Bank Ltd.	57	75.26	31	29.63	52	33.11	78	67.64
11	Lakshmi Vilas Bank Ltd.	0	0	0	0	0	0	1	10
12	South Indian Bank Ltd.	1	2.47	1	0.54	2	0.84	2	0.49
13	Tamilnad Mercantile Bank	0	0	0	0	1	0.27	1	1.49
14	The Royal Bank of Scott.	142	141.3	51	44.52	46	49.35	14	12.1

Grand Total	16100	4232.61	10129	2225.94	6527	1670.72	4144	2506.47
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(Source:- Details of Calendar Year wise Cyber Frauds in Banks, Retrieved from www.rbi.org.in (2013))

Table-4
Details of Calendar Year wise Cyber Frauds in Foreign Banks⁷

S. No	Bank Name	2009		2010		2011		2012	
		No. of Cases	Amount involved	No. of Cases	Amount involved	No. of Cases	Amount involved	No. of Cases	Amount involved
1	American Express Banking Corp.	980	904.57	819	360.75	908	522.76	1231	816.99
2	Barclays Bank Plc	35	21.68	48	8.38	14	6.03	7	1.11
3	Citibank N.A.	1226	773.18	925	521.27	774	420.01	1504	690.32
4	Deutsche Bank (Asia)	61	116.64	35	81.94	9	13.67	2	34.74
5	Hongkong & Shanghai Banking Corporation Ltd.	3093	722.45	2520	293.02	793	181.41	709	180.73
6	Standard Chartered Bank	374	356.37	386	187.52	435	185.11	511	207.96
	Grand Total	5769	2894.89	4733	1452.88	2933	1328.99	3964	1931.85

(Source:- Details of Calendar Year wise Cyber Frauds in Banks, Retrieved from www.rbi.org.in (2013))

Data of table-3 reveals that private sector banks had the largest share in banking cyber frauds not only in number of cases but also in terms of money. But the noticeable point is their falling trend. The number of cases came down from 16100 in 2009 to 4144 in 2012. Similarly the amount also came down from 4232.61 lakhs in 2009 to 1670.72 in 2011, but it again rose to 2506.47 in 2012. However, overall a declining trend has been observed in cyber frauds in private sector bank. ICICI bank had a highest position in cyber frauds during this four years period showing a very high number of cases and large money involved. HDFC and Axis Banks followed the position respectively with a sudden rise in value by Axis Bank in 2012. This can be easily understood by figure-3.

Figure-3
Details of Calendar Year wise Cyber Frauds in Private Sector Banks



Figure-3
Details of Calendar Year wise Cyber Frauds in Private Sector Banks

(Source:- Graph as per Details of Calendar Year wise Cyber Frauds in Banks, Retrieved from www.rbi.org.in (2013))

Figure-4
Details of Calendar Year wise Cyber Frauds in Foreign Banks



Figure-4
Details of Calendar Year wise Cyber Frauds in Foreign Banks

(Source:- Graph as per Details of Calendar Year wise Cyber Frauds in Bank, Retrieved from www.rbi.org.in (2013))

Foreign banks can be observed in the case of cyber crime, cyber fraud cases suggests that such a table-4. After a decline in the trend, in 2012, like in the case of public and private sector banks, and the increase in the number of cases of fraud.

The table also shows that HSBC, which had the largest share in 2009, has corrected the situation up to 2012 while two other leading banks Citibank and American Express have surpassed HSBC. Figure-4

portrays the same. Inter Banking Sector Comparative Analysis: Banking cyber fraud data of public, private and foreign sector banks have been depicted in figure-5 and figure-6 respectively.

Figure-5
Banking Sector Wise No.Cases



Figure-5
Banking Sector wise No. of Cases

(Source:- Graph as per Details of Calendar Year wise Cyber Frauds in Banks, Retrieved from www.rbi.org.in (2013))

Figure-6
Banking Sector wise Amount Involved (in lakhs)

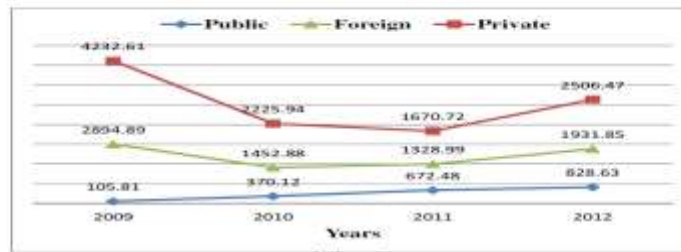


Figure-6
Banking Sector wise Amount Involved (in lakhs)

(Source:- Graph as per Details of Calendar Year wise Cyber Frauds in Banks, Retrieved from www.rbi.org.in (2013))

Look at the number of cases of fraud figure-5, which portrays From 2009 to 2012, it is clear that private sector banks Recording a large number of cases has gone too far. Foreign Banks are no different either. Wise, both monetary damages Banks have made such a bad picture. However, public sector Displays the number of cases of banks is very modest. However, a Substantial drop in both cases has been seen in private More prominent and strict investigation reveals that foreign banks Operation.

Monetary involvement in fraud cases is shown in figure-6. There are also two private sector banks and foreign banks are Many of the public sector banks. After a declining trend over 2011, prices rose again in 2012.

Conclusion

Title of the study showed a large share of private and foreign banks Online banking, ATM cards and other digital-related fraud Banking transactions. Even reducing the number of cases with In such cases, the ratio of the price did not come down. Banking in the country are the result of cyber fraud ATM, online banking technology like the early stage of Banking, mobile banking, EFT, etc. for people who need time, Market and technology to mature. Regulatory framework It is also strengthened by the experience. The RBI has recently issued Suggest means and methods of cyber reporting guidelines Fraud cases to be followed by banks.

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