

A STUDY ON INCREASING ONLINE BANKING FRAUDS & NECESSARY PREVENTIVE MEASURES

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ABSTRACT

The use of technology in financial services has, of course, greatly accelerated their growth. However, the safety and dependability of financial operations have also been seriously threatened because of the excessive reliance on electronic and digital technologies to conduct business and payment activities. The frequency of banking frauds has increased in tandem with the expanding trend of online and cyber transactions, impacting an increasing number of individuals who use financial technology tools. Fraud involving electronic cards, net banking transactions, ATMs, and internet payments has grown to be a significant problem. Even with strict security measures in place for electronic transactions, these cyber scams in financial firms result in a significant loss of money for both individuals and institutions each year. It has been discovered that banks themselves are heavily involved in fraudulent activities, resulting in significant losses for their clients. This research paper aims to comprehend the different kinds of online banking frauds that exist, the steps taken by the Reserve Bank of India and other organisations to prevent these frauds, and our own recommendations and suggestions for boosting customer confidence so that more people can use online services from the comfort of their homes.

Keywords: *The Banking Sector, Transactions, Online Crimes, and The Economy.*

1. INTRODUCTION

Almost every aspect of life has been impacted by information and computer technology. Online transactions, digital data transfers, electronic databases, and numerous other corporate, social, and other activities reliant on computers, the internet, and information technology tools have become increasingly popular worldwide. Every company aspires to raise its performance level in these times of fierce competition to reduce expenses, boost output, and provide better customer service. The main users of the internet and online transactions are banking, insurance, and financial institutions. They use this technology to submit account information, make

payments, transfer money, and do other remittance functions. Naturally, information and internet usage have greatly improved financial services. However, alongside these advancements, the threat of online banking fraud has also escalated, posing a significant challenge to the security and trust of the banking system (Umamaheswari, 2021). Data and transactions conducted online are not impervious to manipulation or attack. Instances of credit/debit card fraud, account information hacking, data theft, and illicit cash withdrawals are remarkably linked to computerized systems in the banking industry. Most of the information is now available online, making it extremely vulnerable to cybercriminals' attacks. Cases of cyber fraud in banks have increased in frequency, costing consumers a significant amount of money each year. Any illegal behaviour involving computers and the Internet is referred to as cybercrime. This covers anything from stealing millions of rupees from online bank accounts to downloading files unlawfully. Non-monetary crimes like developing and spreading viruses on other computers or publishing private company data online are also considered cybercrimes. Identity theft, in which thieves exploit the Internet to get personal information from other users, is arguably the most common type of cybercrime. Phishing and pharming, which are associated with the discovery of private online data, are two of the most popular methods for doing this. Cybercriminals have become increasingly sophisticated in their tactics, exploiting vulnerabilities and employing innovative techniques to breach the security measures put in place by financial institutions (Bhattacharya, 2024). The number of bank fraud cases increased significantly in the first half of the current fiscal year, with 18,461 cases reported. The amount involved in these frauds jumped more than eightfold to ₹21,367 crore. Internet and card frauds accounted for a substantial portion of these frauds, representing 44.7% in terms of amount and 85.3% in terms of the number of cases in 2023-24.

2. REVIEW OF LITERATURE

Ali L, Ali F, Surendran P and Thomas B (2017), in "The Effects of Cyber Threats on Customer's Behavior in e-Banking Services," *International Journal of e-Education, eBusiness, e-Management and e-Learning* (7), (1), (pp 70-78) found that consumers should be informed about the risks associated with security breaches in the event of online transactions. It also underlined the necessity of educating internet users about the strategies used by cybercriminals to perpetrate online fraud. Manisha M, More M, Jadhav P and Nalawade K (2015), in "Online Banking and Cyber Attacks: The Current Scenario," *International Journal of Advanced Research in Computer Science and Software Engineering* (5) (12) believed that India's cybercrime rate is always rising and emphasised the necessity of more stringent enforcement of laws and regulations. Gupta P.K. [cite_start](#) in the study "Internet Banking in India – Consumer Concerns and Bank Strategies," attempted to pinpoint the

shortcomings of traditional banking while also examining consumer awareness, usage trends, satisfaction, and preferences for online banking in comparison to traditional banking methods. Additionally, the study highlighted the variables that could influence a bank's decision to implement Internet banking. Additionally, it addressed the oversight and regulation issues surrounding online banking. In their paper "Cyber-Crimes and their Impacts: A Review," Hemraj Saini, Yerra Shankar Rao, and T.C. Panda have discussed the issue and types of cybercrimes along with their effects on various societal segments. B. Singh noted in their research "Online Banking Frauds In India" that the increasing usage of information technology in India is contributing to an increase in cybercrimes. Because there are so few cyber law firms in India, these cybercrimes are unreported. Even India's cyber security is still lagging below the current standards.

3. TYPES OF ONLINE BANKING FRAUD

Internet banking fraud is the most prevalent type of cybercrime in India. Online crimes are increasing in tandem with the steady increase in the number of individuals using smartphones and the internet for banking transactions. Cybercriminals utilize every tactic in the book to obtain the user's personal information. The most prevalent and well-known categories of internet banking fraud include:

- **Phishing:** Phishing is a sort of fraud in which the perpetrator attempts to get the user's sensitive account information or login credentials. In this type of fraud, the perpetrator will pose as an organization and send phishing emails with malicious attachments and links that can retrieve private bank account data. Given that people are increasingly drawn to social networking sites these days and are typically receptive to emails, messages, and texts, it is seen to be an easier method of conducting online fraud.
- **Spoofing:** It is a form of cyberfraud in which the con artist deceives the bank customer into giving their private account information because they believe the scammer to be reliable. Websites, email, IP addresses, text messages, and caller IDs can all be used in spoofing attacks.
- **Identity Theft:** Identity theft is a crime in which a fraudster uses another person's name, account number, or card number without that person's consent to perpetrate crimes and financial scams. Since the harmed party typically isn't aware that their personal information is being exploited, these kinds of frauds are quite challenging to remedy.
- **Trojan virus:** Trojan viruses are allegedly extremely dangerous programs that are capable of seriously jeopardising online banking passwords. Trojan is an extremely smart and affordable piece of software that

can easily infiltrate a computer system when a user visits a website that has already been infected with it or downloads an attachment that contains a trojan.

4. RESEARCH METHODOLOGY

The entire study is predicated on secondary data gathered from pertinent sources such as websites, research publications, media, and authorities like the Reserve Bank of India.

4.1. OBJECTIVE OF STUDY

1. To research the most common forms of online banking frauds.
2. Comprehend the steps taken by the RBI and other organisations to prevent online banking frauds.
3. Recommend ways to make online banking transactions safer in order to attract more users.

5. DATA ANALYSIS

5.1. TABLE 1: FRAUD CASES: BANK GROUP WISE

Bank Group	2021-22 Number of Frauds (Amount Involved)	2022-23 Number of Frauds (Amount Involved)	2023-24 Number of Frauds (Amount Involved)
Public Sector Banks	3,044 (32,288) (33.7) (71.1)	3,392 (18,750) (25.0) (71.8)	7,472 (10,507) (20.7) (75.3)
Private Sector Banks	5,312 (10,653) (58.7) (23.5)	8,979 (6,159) (66.2) (23.6)	24,210 (3,170) (67.1) (22.8)
Foreign Banks	494 (1,206) (5.5) (2.7)	804 (292) (5.9) (1.1)	2,899 (154) (8.1) (1.1)
Financial Institutions	9 (1,178) (0.1) (2.6)	10 (888) (0.1) (3.4)	1 (NIL) (NIL) (NIL)
Small Finance Banks	155 (30) (1.7) (0.1)	311 (31) (2.3) (0.1)	1,019 (64) (2.8) (0.5)
Payments Banks	30 (1) (0.3) (NIL)	68 (7) (0.5) (NIL)	472 (35) (1.3) (0.3)
Local Area Banks	2 (2)	NIL (NIL)	2 (NIL)
Total	9,046 (45,358)	13,564 (26,127)	36,075 (13,930)

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Source: RBI Table 1 depicts the frauds during the last three years from 2021-24 in public sector banks, private sector banks, foreign banks, financial institutions, small finance banks, etc. The number of frauds is rising in the last three years in public sector banks but if compared to private sector banks the number frauds are much more than public sector banks.

5.2. TABLE 2: FRAUDS IN PRIVATE SECTOR BANKS OVER THE PREVIOUS FIVE FISCAL YEARS, INVOLVING SUMS OF AT LEAST RS. 1 LAKH

Name of the bank	FY 2017-18 No. (Amount involved)	FY 2018-19 No. (Amount involved)	FY 2019-20 No. (Amount involved)	FY 2020-21 No. (Amount involved)	FY 2021-22 No. (Amount involved)
Axis Bank Limited	680 (2.24)	740 (2.48)	1,622 (5.38)	5,372 (12.16)	5473 (13.58)
Bandhan Bank Limited	56 (0.24)	69 (0.18)	158 (0.41)	157 (0.39)	206 (0.50)
Catholic Syrian Bank Ltd	7 (0.03)	29 (0.13)	35 (0.12)	28 (0.09)	18 (0.09)
City Union Bank Limited	5 (0.01)	89 (0.20)	182 (0.34)	246 (0.54)	27 (0.07)
DCB Bank Limited	12 (0.04)	136 (0.34)	207 (0.44)	80 (0.22)	42 (0.12)
Federal Bank Ltd	21 (0.08)	199 (0.47)	412 (0.87)	295 (0.63)	328 (0.39)
HDFC Bank Limited	3,538 (9.53)	5,106 (14.09)	7,197 (17.90)	4,890 (12.21)	5,044 (11.72)
ICICI Bank Limited	1,902 (6.44)	1,737 (4.90)	2,126 (5.72)	1,263 (3.06)	4,429 (9.52)
IDBI Bank Limited	89 (96.16)	469 (43.29)	1,835 (4.69)	1,673 (3.91)	1,488 (3.50)
IDFC First Bank Limited	42 (0.09)	182 (0.61)	406 (1.46)	235 (0.79)	142 (0.29)
Indusind Bank Limited	4 (0.02)	9 (0.02)	122 (0.33)	415 (1.08)	889 (2.53)

Jammu and Kashmir Bank Limited	2 (0.01)	- (-)	2 (0.01)	- (-)	- (-)
Karnataka Bank Limited	9 (0.03)	94 (0.29)	233 (0.45)	48 (0.08)	- (-)
Karur Vysya Bank Limited	5 (0.02)	6 (0.02)	3 (0.01)	4 (0.01)	5 (0.02)
Kotak Mahindra Bank Limited	14,568 (17.60)	25,416 (25.26)	39,871 (43.81)	45,438 (49.81)	33,044 (42.49)
Lakshmi Vilas Bank Limited	1 (0.00)	1 (0.01)	3 (0.01)	2 (0.01)	- (-)
Nainital Bank Limited	- (-)	- (-)	- (-)	1 (0.00)	- (-)
RBL Bank Limited	43 (0.14)	157 (0.43)	375 (0.90)	347 (0.62)	411 (1.02)
South Indian Bank Limited	17 (0.06)	120 (0.29)	390 (0.73)	401 (0.84)	326 (0.87)
Tamil Nadu Mercantile Bank Limited	21 (0.07)	33 (0.10)	35 (0.11)	26 (0.08)	9 (0.03)
The Dhanalakshmi Bank Limited	10 (0.04)	5 (0.02)	17 (0.05)	17 (0.06)	4 (0.01)
Yes Bank Limited	70 (0.14)	71 (0.15)	29 (0.07)	293 (0.60)	203 (0.35)

Export to Sheets

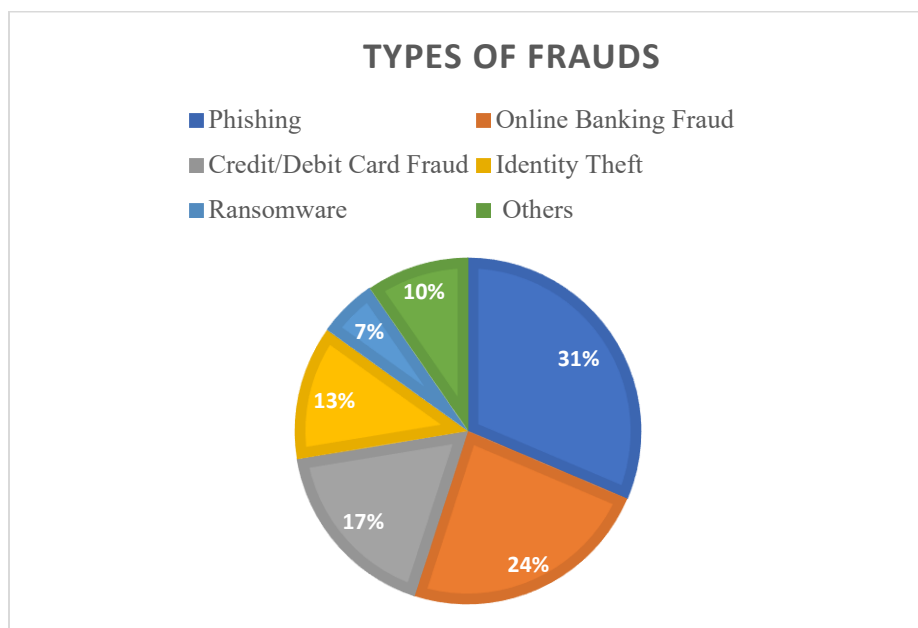
Source: RBI

5.3. TABLE 3: FRAUDS IN PUBLIC SECTOR BANKS OVER THE PREVIOUS FIVE FISCAL YEARS, INVOLVING SUMS OF AT LEAST RS. 1 LAKH

Name of the bank	FY 2017-18 No. (Amount involved)	FY 2018-19 No. (Amount involved)	FY 2019-20 No. (Amount involved)	FY 2020-21 No. (Amount involved)	FY 2021-22 No. (Amount involved)
Bank of Baroda	211 (6545.9)	128 (1695.16)	125 (2339.68)	88 (334.12)	71 (589.75)
Dena Bank	11 (232.57)	3 (2.71)	Amalgamated into Bank of Baroda		
Vijaya Bank	22 (145.96)	2 (0.94)			
Bank of India	148 (2802.76)	146 (1549.13)	101 (1046.86)	49 (222.00)	54 (33.49)
Bank of Maharashtra	64 (2253.8)	86 (2559.80)	33 (179.15)	19 (20.03)	12 (5.16)
Canara Bank	111 (1973.75)	96 (1333.62)	57 (4980.67)	35 (110.23)	23 (350)
Syndicate Bank	169 (733.12)	78 (101.30)	37 (60.33)	Amalgamated into Canara Bank	
Central Bank of India	95 (638.26)	99 (1271.32)	109 (309.81)	81 (6.39)	126 (4.95)
Indian Bank	76 (255.79)	75 (1349.64)	71 (926.62)	60 (656.99)	48 (10.42)
Allahabad Bank	143 (1144.71)	56 (1445.48)	10 (9.19)	Amalgamated into Indian Bank	
Indian Overseas Bank	90 (1942.56)	95 (3108.94)	65 (428.57)	39 (92.62)	24 (99.43)
Punjab And Sind Bank	28 (1835.35)	19 (734.86)	38 (1921.03)	51 (162.79)	2 (1.93)
Punjab National Bank	202 (1133.46)	136 (1521.58)	117 (3948.30)	79 (480.66)	73 (2193.29)
Oriental Bank of Commerce	29 (131.71)	14 (25.68)	8 (18.02)	Amalgamated into Punjab National Bank	
United Bank of India	22 (128.06)	65 (2138.35)	25 (395.05)		
UCO Bank	61 (1271.81)	85 (760.01)	144 (990.90)	194 (777.76)	64 (1085.68)
Union Bank of India	172 (3575.5)	113 (1907.34)	122 (3233.57)	93 (452.2)	60 (67.89)
Andhra Bank	55 (1342.84)	35 (765.19)	4 (53.74)	Amalgamated into Union Bank of India	
Corporation Bank	20 (108.85)	12 (4.05)	4 (0.22)		
State Bank of India	966 (2136.22)	1008 (5630.26)	748 (728.49)	369 (4075.95)	330 (215.87)

Export to Sheets

Source: RBI Tables 3 and 4 show the private and public sector bank wise number of frauds as well as amount of fraud involved from FY 2017-2022. It was noted that while private sector banks reported the maximum number of frauds over the last 5 years, the public sector banks contributed maximum to the fraud amount.



5.4. FIGURE 1: COMPOSITION OF ONLINE FRAUDS

Figure 1 shows that out of total number of cyber fraud cases reported in India in 2022, 31.4% of them involved phishing attacks. This clearly denotes that phishing was the most common type of cyber fraud in India in 2022, accounting for nearly one-third of all cyber fraud cases. Similarly, it can be concluded that online banking fraud was the second most common type of cyber fraud in India in 2022.

6. CONCLUSION

Online fraud is becoming more common, but the most crucial thing is to educate and inform people about the precautions they can take to make safe online purchases. Customers should contact their banks right away if they fall victim to internet fraud so that they can take swift, preventative measures. While internet banking offers numerous benefits, such as ease of use, simplicity, and time savings, it also has some concerns, such as the possibility of online fraud. If we conduct a risk-benefit analysis of online banking transactions, we conclude that

the benefits outweigh the risks and that more people ought to use Internet banking because it offers numerous benefits; all one needs to do is exercise caution when making an online banking transaction.

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