

# Cyber Crime in Banking Sector in Mumbai

**Iqra Parkar**

The Byramjee Jeejeebhoy College of Commerce, Mumbai

**Abstract:** *Cybercrime in Mumbai's banking sector has sharply increased, leading to financial losses of ₹1,127 crore over 15 months from January 2024 to March 2025. Most of these scams involve older people and stem from cyber-cheating like fake investment schemes. Successful actions, such as avoiding unknown phone calls and blocking UPI transactions, have reportedly stopped losses of ₹500 crore. An analysis of reported cases has found that phishing, fraud, and ATM skimming are major threats. However, conviction rates remain low, at under 0.1%, highlighting systemic issues in tackling cybercrime. The study calls for the use of advanced AI-driven fraud detection, real-time alerts as required by the RBI, and increased public awareness efforts. The research highlights the need for a thorough look at the effects of cybercrime and ways to reduce it within Mumbai's financial system. The paper also covers trends up to 2026 regarding the social and economic impacts, along with policy suggestions for lowering cyber threats in banking.*

**Keywords:** Cybercrime in Mumbai's banking sector has sharply increased, leading to financial losses of ₹1,127 crore over 15 months from January 2024 to March 2025. Most of these scams involve older people and stem from cyber-cheating like fake investment schemes.

## I. INTRODUCTION

While the study on cyber threats to India's banking sector grapples with limitations like underreported secondary data, its strength lies in timely insights extending to 2026, aligning perfectly with the Reserve Bank of India's (RBI) upcoming cyber drills. Mumbai, managing 20% of national banking transactions, has faced a 15-20% annual surge in incidents since 2023, fueled by UPI and mobile apps boasting over 500 million users nationwide—high-profile scams like ₹118 crore investment frauds have eroded trust among salaried workers and seniors alike. Aiming to quantify financial losses, dissect common tactics such as phishing or fake apps, evaluate response effectiveness, and propose frameworks synced with Information Technology Act 2000 amendments, this research offers practical steps to bolster security and restore confidence in digital finance

### Statement of Problem

Despite strong banking regulations and cybersecurity frameworks, cybercrime in Mumbai's banking sector continues to rise. Customers suffer substantial financial losses due to phishing, impersonation, and digital manipulation.

The core problems identified are:

- Exploiters utilize social engineering and tech vectors, defrauding through mule accounts (21.65 lakh flagged in 2025).
- Scams caused ₹964 crore loss, leading to mental health crises, business disruptions, and hindered financial inclusion in low-income areas.
- Cybercriminal techniques becoming increasingly sophisticated.
- Customers exhibit low awareness of digital fraud.
- Insider threats persist within banking systems.
- Delayed fraud reporting and fund freezing issues.
- Insufficient coordination between banks and law enforcement agencies.

This study seeks to examine why cybercrime persists despite regulatory measures and what strategic interventions can reduce banking fraud in Mumbai.



## II. RESEARCH METHODOLOGY

Mixed secondary analysis: Aggregated cyber police FIRs (Mumbai's 4 stations), RBI reports, NCRB stats (2021-2025), and 25 case studies from TOI/Free presses.

Quantitative: Descriptive stats (e.g., loss distributions via Excel); qualitative: Thematic analysis of scam tactics Mumbai-focused ; ethics via public data only, no primary surveys.

This study uses a simple mix of number data and story analysis from public records on cybercrime in Mumbai banks (2021-2026). It looks at stats like ₹1,127 crore losses in 2,002 cases from police FIRs, RBI reports, and news, plus details from 25 big scam examples. We picked key banking frauds under IT laws, crunched numbers in Excel for trends (like 85% from cheating scams), and grouped stories by trick types and victim ages (40% seniors). All data is public and safe, checked from many sources to fix underreporting gaps, but it skips new 2026 info and focuses on cities only

### Data Analysis

Breakdown: Cyber-cheating dominated (₹964 crore), followed by sextortion (₹47 crore), card skimming (₹34 crore); Q1 2025 peaked at ₹73 crore "digital arrests"

Period	Cases	Losses (₹ Cr)	Top Scam	Convictions	Recovery
2021-2023	~1,500	~700	Phishing	1-2	<10%
2024	55,707	1,181	Investment	Low	~12%
Jan-Mar 2025	152	Part of 1,127	Digital Arrest	0	2%
National 2025	24L	22,495	Investment (75%)	Low	N/A

## III. LITERATURE REVIEW

Digpal Singh (2015) identified early phishing threats in Indian banks.

International Journal of Communication and Technology (2025) links Mumbai's high population density to increased cyber fraud risks.

LawBhoomi (2024) explains the evolution of ransomware attacks in India.

NCRB crime statistics

Data related to cybercrime cases reported in Mumbai from 2018–2025.

## IV. CONCLUSION

Mumbai's banking sector has suffered over ₹1,127 crore in cybercrime losses from 2024-2025, driven by investment scams (75% of cases), digital arrests, and phishing, with 2,002 registered cases yielding just two convictions due to enforcement gaps. Core findings highlight the need for immediate reforms like RBI-mandated biometric logins, AI real-time monitoring of mule accounts (26.48 lakh frozen nationally), and 50% loss insurance funds with mental health support for victims, including elderly in areas like Dadar. Expanding Mumbai's cyber police labs, enforcing UPI fraud alerts, and boosting literacy programs could achieve 20% convictions by 2027 while protecting ₹10 lakh crore daily transactions and financial inclusion for 2 crore residents. Future research should explore blockchain pilots in banks like SBI/HDFC and rural-urban fraud dynamics to secure India's digital economy. Urgent reforms: Mandatory biometric logins, victim compensation funds (e.g., 50% insurance), and Mumbai Cyber Lab expansion to hit 20% conviction by 2027. Broader impact: Protects ₹10 lakh crore daily flows; future research on blockchain defenses essential



**REFERENCES**

1. Times of India (Jul 2025). Mumbaikars Lose ₹1,127 crore
2. Times of India (Apr 2025). 2K Cases, 2 Convictions
3. Free Press Journal (Feb 2026). 24L Complaints, ₹22,495 Cr Fraud.
4. IJARSCT (2025).Cyber Crime Mumbai Banking
5. Law Bhoomi (2024) NCRB Reports ;

