UPI Fraud Detection Dashboard – Observation Report

1. Overall Transaction Overview

Total Transactions: ~250,000

Total Amount: ₹328 Million

Average Transaction Value: ₹1.31K

Fraud Share: ~0.19%

Observation:

UPI fraud volume is very low in count but significant when analyzed through patterns, timing, and demographics.

2. Fraud-Only Snapshot

Fraud Transactions: 480

Total Fraud Amount: ₹720K

Average Fraud Amount: ₹1.50K

Observation:

Fraud transactions tend to have a higher average value, indicating fraudsters target mid-value transactions.

3. Transaction Type Analysis

P2P transactions dominate both overall and fraud cases.

P2M follows next, while Bill Payments and Recharges are minimal.

Observation:

P2P transactions are highly vulnerable due to trust-based transfers and limited verification.

4. Network Type Analysis

4G network accounts for the majority of fraud transactions.

5G and WiFi contribute moderately.

Observation:

Fraud occurs mainly on mobile networks, suggesting on-the-go and less controlled environments.

5. Device Type Analysis

Android devices dominate both overall and fraud transactions.

Observation:

Android's widespread usage and device fragmentation increase vulnerability to malware and phishing.

6. Time-Based Analysis

Fraud peaks between 6 PM – 9 PM.

Higher fraud values are observed during weekends.

Observation:

User fatigue and relaxed vigilance during evenings and weekends increase fraud risk.

7. Merchant Category Analysis

Highest fraud concentration in Shopping, Grocery, Education, and Utilities.

Observation:

High-frequency and routine payment categories are more prone to fraud.

8. Demographic Analysis

Age group 26–35 shows highest fraud involvement.

Lower fraud incidence in users above 46 years.

Observation:

Digitally active age groups are more exposed to fraud attempts.

9. High-Risk Fraud Profile

P2P transaction

Android device

4G network

Evening hours

Weekend

Age group 26–35

Shopping/Grocery category

10. Conclusion

Though fraud volume is small, clear behavioral and demographic patterns exist.

The dashboard enables proactive fraud detection and risk mitigation.