**Introduction of UPI Transaction Data Analysis**

Unified Payments Interface (UPI) has revolutionized digital payments in India by providing an instant, real-time payment system developed by the National Payments Corporation of India (NPCI). With UPI, users can transfer money between bank accounts using their smartphones without entering banking details, making transactions seamless, secure, and convenient.

As UPI adoption has skyrocketed across individuals, businesses, and merchants, analysing UPI transaction data provides valuable insights into user behaviour, payment trends, device usage, transaction failures, and bank performance.

This project involves analysing UPI transaction data to identify patterns, discover hidden insights, and visualize key performance indicators that help understand how people use digital payments in day-to-day life.

**Key Insights from UPI Transaction Data**

1. Success Rate:

Success rate stands at 92.3%, with 7.7% failures due to network and server issues.

The highest transaction activity is observed in Tier-1 cities.

2. Transaction Type Patterns P2P (Person-to-Person) transactions account for 65%, showing strong interpersonal use:

P2M (Person-to-Merchant) covers 35%, popular in e-commerce and retail settings.

P2M transactions peak between 5 PM – 9 PM, aligning with shopping hours.

3. Transaction Amount Analysis:

Average Transaction Value: ₹856.20

High-value transactions (above ₹10,000) form only 3%, but contribute to 18% of total volume.

Most transactions fall under the ₹100–₹500 range.

4. Demographic Insights Youth (18–25 years) are the most active, contributing 38% of all transactions:

Men make 55% of UPI payments, Women 43%, and other genders 2%.

Users aged 40+ show less adoption, indicating a digital divide.

5. Time-Based Trends Peak UPI usage occurs at lunchtime (12–2 PM) and evening (7–9 PM:

Sundays show the highest volume—likely due to personal/family transactions.

Lowest activity: 2 AM – 5 AM, mostly system-level or automated debits.

6. Bank Performance Top Performing Banks: HDFC, ICICI, Axis – above 95% success rates:

Failure-Prone Banks: Regional and cooperative banks due to outdated infrastructure.

NPCI alerts and throttling during peak times are a major reason for failed payments.

7. Device & Platform Trends Mobile apps (Phone Pe, Google Pay, Paytm) account for over 90% of usage:

Desktop/browser-based UPI usage is minimal, mostly for business payments.