UPI Transaction Analysis Dashboard

Dashboard Sections

The dashboard consists of five main sections, each addressing a specific analytical goal:

1. Transaction Overview – Displays key KPIs such as total transactions, total amount, success rate, and average transaction value.
2. Performance Analysis – Focuses on transaction trends by date, and bank performance.
3. Fraud Analysis – Evaluates transaction volume and amount.
4. Regional & User Behavior Analysis – Examines user and state-level patterns including states and age groups.
5. Recommendations & Actions – Highlights actionable insights, anomalies, and fraud detection indicators.

Data Requirements

Transaction Overview

- Fact_upi_transactions(Table)
- Transaction_id
- Transaction_date
- Amount_inr
- Transaction_status

Performance Analysis

- Fact_upi_transactions(Table)
- Banks(Table)
- transaction_types(Table)
- Transaction_date
- sender_bank_id
- Receiver_bank_id
- Transaction_type_id
- Amount_inr

Fraud Analysis

- Fact_upi_transactions(Table)
- bank_name(Table)
- fraud _flag
- amount_inr
- day_of_week

Regional & User Behavior

- fact_upi_transactions(Table)
- States(Table)
- Age_groups(Table)
- sender_state_id
- receiver_state_id
- sender_age_group_id
- Receiver_age_group_id

Recommendations & Actions

- Fact_upi_transactions(Table   )
- fraud_flag
- transaction_status
- amount_inr

Filters / Slicers

- Day
- Bank
- Hours
- Sates

Visuals / Charts

Transaction Overview

-
  - **KPI Cards**(Show *Total Transactions*, *Total Amount (₹)*, *Success Rate %*, *Average Transaction Value*)
  - **Line Chart**(Visualize transaction count & amount over time)
  - **Pie Chart**(Distribution of successful, failed, and pending transactions)
  - **Bar Chart**(Compare UPI types)
  - **Day Slicer**
  - **Map**

Performance Analysis

- **Bar Chart**
- **Line Chart**
- **Scatter chart**
- **Card**
- **Slicer**

Fraud Analysis

- **Waterfall chart** (Visualize contribution of each merchant category)
- **Bar Chart**(Identify highest-performing merchants)
- **Line and column chart**
- **Slicer**
- **KPI**

Regional & User Behavior

- **Map**(state)
- **Bar Chart**(Analyze transaction behavior by user age)
- **Column Chart**(Compare transaction count per state)
- **Decomposition chart**
- **Slicer**
- **Card**
- **Matrics**

Recommendations & Actions

- **Bar chart**
- **Card**(Display share of fraudulent transactions)
- **Text Box**(Business recommendations and insights summary)
- **Card**
- **Pie chart**
- **Column**

Interactivity

- Cross-filtering: Selecting a bank or merchant filters other visuals automatically.
- Tool tip: Users can drill down from yearly → monthly → daily transaction trends.

Calculations / Measures

1. Total Transactions

Calculates the total number of transactions recorded.

DAX:
 Total Transactions = COUNT(fact_upi[transaction_id])

2. Total Amount

Calculates the total value of transactions in INR.

DAX:
 Total Amount = SUM(fact_upi[amount_inr])

3. Successful Transactions

Calculates the number of successful transactions.

DAX:
 Successful Transactions = CALCULATE([Total Transactions], RELATED(transaction_statuses[status_name]) = "Success")

4. Failed Transactions

Calculates the number of failed transactions.

DAX:

 Failed Transactions = CALCULATE([Total Transactions],

RELATED(transaction_statuses[status_name]) = "Failed")

5. Success Rate %

Shows the percentage of successful transactions.

DAX:

 Success Rate % = DIVIDE([Successful Transactions], [Total Transactions]) * 100

6. Failed Rate %

Shows the percentage of failed transactions.

DAX:

 Failed Rate % = DIVIDE([Failed Transactions], [Total Transactions]) * 100

7. Average Transaction Value

Shows the average transaction value.

DAX:

 Average Transaction Value = DIVIDE([Total Amount], [Total Transactions])

8. Fraud Transactions

Counts the number of transactions flagged as fraudulent.

DAX:

 Fraud Transactions = CALCULATE([Total Transactions], fact_upi[fraud_flag] = TRUE())

9. Fraud Rate %

Shows the percentage of fraudulent transactions.

DAX:

Fraud Rate % = DIVIDE([Fraud Transactions], [Total Transactions]) * 100

10. Top Merchant Category

Finds the merchant category with the highest total transaction amount.

DAX:
```
Top Merchant Category =
TOPN(
1,
SUMMARIZE(
merchant_categories,
merchant_categories[merchant_category],
"Amount", [Total Amount]
),
[Total Amount],
DESC
)
```

11. Top Performing State

Finds the state with the highest total transaction amount.

DAX:
```
Top Performing State =
TOPN(
1,
SUMMARIZE(
states,
states[state_name],
"Amount", [Total Amount]
),
```

[Total Amount],

DESC

)

12. Total Amount (in Lakhs)

Converts total transaction amount into lakhs for better readability.

DAX:

 Total Amount (in Lakhs) = DIVIDE([Total Amount], 100000)

13. Pending Transaction

Pending Transactions =

CALCULATE(

  COUNTROWS('public fact_upi_transactions'),

  FILTER(

    'public fact_upi_transactions',

    RELATED('public transaction_statuses'[status_name]) = "Pending"

)

)

14. Pending Rate

Pending Rate = DIVIDE([Pending Transactions], [Total Transactions])

Export / Reporting Needs

- Export Options: PDF, Excel, Power BI Service shareable link
- Scheduled Refresh: Daily at 6 AM
- Distribution: Internal analytics team, management dashboard

Notes / Special Instructions

- Null or invalid data handled.
- Ensure all visuals maintain consistency in color and format across pages.