

Transaction Data Analysis Report

1. Dataset Overview

- **Total number of transactions:** 116,201
- **Initial columns (9):** Account No, DATE, TRANSACTION DETAILS, CHQ.NO., VALUE DATE, WITHDRAWAL AMT, DEPOSIT AMT, BALANCE AMT, .
- **Main issues identified:**
 - High number of missing values in certain columns
 - CHQ.NO. → 115,296 missing
 - WITHDRAWAL AMT → 62,637 missing
 - DEPOSIT AMT → 53,525 missing
 - TRANSACTION DETAILS → 2,499 missing

2. Data Cleaning & Preparation

- Converted DATE into **datetime format**.
- Converted monetary columns (WITHDRAWAL AMT, DEPOSIT AMT, BALANCE AMT) into **numeric values (float)**.
- Removed irrelevant columns (CHQ.NO. and .).
- Created a unique transaction ID (**id**) for tracking.

3. Key Statistics

- **Final number of transactions after cleaning:** 116,162
- **Distinct accounts:** Multiple accounts identified, with the most active being:
 - 1196428 → 48,758 transactions
 - 409000362497 → 29,840 transactions
 - 409000438620 → 13,454 transactions
- **Global totals:**
 - Deposits: **238,368,715,323.50**
 - Withdrawals: **240,201,132,284.76**
 - Net balance: **-1,832,416,961.26**

4. Most Common Transaction Types

- FDRL/INTERNAL FUND TRANSFE → 8,826 transactions

- **FDRL/NATIONAL ELECTRONIC F** → 6,261 transactions
- **INTERNAL FUND TRANSFER IN** → 3,250 transactions
- Transfers linked to **Indiaforensic Services** → ~5,000 transactions
- Additional frequent categories include cash deposits (**CASHDEP/...**), payments (**PAYU PAYMENTS PRIVATE LIM**), and sweep transfers (**Sweep Trf To: 40900036427**).

5. Potential Anomalies

- **Identified unusual transactions:** 1,162 (high-value or irregular amounts).
- Examples include very large transfers such as:

ID	Account No	Date	Transaction Details	Balance (after)	Net Amount ⁽¹⁾
2926	409000425051	2018-10-31	TRF TO Myur Joshi	-353,540,800	-354,000,000
2939	409000405747	2016-01-30	TRF TO Maur Joshi	-526,734,800	-170,000,000
2950	409000405747	2016-05-03	TRF FROM Indiaforensic Services	-356,652,000	+202,100,000
2972	409000405747	2018-09-28	Payments For: 9090000577	-546,734,800	-103,020,294
2990	409000438611	2016-02-25	GOLD LABEL INVESTMENTS (P)	-378,017,500	+170,250,000

6. Conclusion

- The dataset was successfully cleaned and structured for analysis.
- We now have a clear view of the **transaction volumes, accounts involved, and overall balances**.
- Frequent transaction patterns have been identified, with **Indiaforensic Services** being a key counterparty.
- Over **1,100 high-value transactions** have been flagged for further review as potential anomalies.

This report provides the foundation for deeper insights such as fraud detection, account behavior monitoring, or financial risk analysis.