

## INTERNAL MEMO

**TO:** Lead Data Analyst

**DATE:** November 24, 2025

**SUBJECT:** URGENT: Investigation into Transaction Failures & Security Gaps

Dear Analyst,

We are facing a critical situation with our banking platform. Over the last 48 hours, the Customer Support team has been flooded with complaints, and the Risk Department has flagged some alarming financial discrepancies.

We have exported a raw dataset containing the last batch of transaction logs, including network performance metrics. I need you to dig into this data immediately. I don't need a list of numbers; I need you to build a **Performance & Risk Dashboard** that answers the following business problems:

**1. Why are we rejecting so many legitimate customers?** Our approval rates have dropped significantly. Customers are complaining that their transfers are failing even when they have funds.

- *The Problem:* We need to know if this is a banking error or if it's caused by poor network connectivity.

**2. Are we actually stopping the fraud we detect?** The fraud detection system was recently upgraded, but we are still seeing chargebacks.

- *The Problem:* I have a suspicion that our system is "flagging" fraud correctly but failing to actually "block" the transaction in real-time.

**3. Is our "5G Network Slicing" investment paying off?** We pay a premium to telecom providers for "Network Slice 1" and "Slice 2" to guarantee speed for our users.

- *The Problem:* We need to justify this cost.

**4. Where should we focus our App Development resources?** We have a limited budget for app updates next quarter.

- *The Problem:* We don't know if we should focus on the Desktop portal or the Mobile app.

Please prepare a **Dashboard** that visualizes these issues clearly so I can present it to the Board of Directors tomorrow. I need to see the trends and the root causes. Get to work!!

Best Regards,

**The MD**

## COLUMN DEFINITIONS:

### Identity & Money

- **Transaction ID:** A unique alphanumeric code assigned to identify this specific transaction.
- **Sender Account ID:** The unique identifier for the account sending the money.
- **Receiver Account ID:** The unique identifier for the account receiving the money.
- **Transaction Amount:** The value of the funds being moved (likely in currency, e.g., dollars).
- **Transaction Type:** The category of the action (e.g., Deposit, Withdrawal, or Transfer).

### Time & Status

- **Timestamp:** The exact date and time when the transaction was initiated.
- **Transaction Status:** (Labeled "Transactio..." in the image) Indicates if the transaction was "Success" or "Failed."
- **Fraud Flag:** A marker (TRUE/FALSE) indicating if the system flagged this transaction as potentially suspicious or fraudulent.
- **PIN Code:** The 4-digit security code entered by the user to authorize the transaction.

### Location & Tech (Network Metrics)

- **Geolocation:** The GPS coordinates (Latitude/Longitude) where the transaction originated.
- **Device Used:** The type of hardware used to perform the transaction (e.g., Mobile or Desktop).
- **Network Slice ID:** A specific segment of a 5G network allocated for this connection (used to prioritize traffic).
- **Latency (ms):** The delay in the network connection, measured in milliseconds (lower is faster).
- **Slice Bandwidth (Mbps):** The data transfer capacity allocated to this transaction, measured in Megabits per second.