TO: Data Analysis Team

FROM: Marcus Thorne, Regional Operations Director

DATE: December 1, 2025

SUBJECT: URGENT: **Q1-Q3 2025 Performance Gaps & Strategic Analysis Request**

Team,

I have attached the raw sales transaction logs for our three branches (New York, Austin, Chicago) covering Jan 1, 2025, to Nov 30, 2025.

While our top-line revenue looks stable, I am seeing some concerning trends in our operational reports and customer feedback. We are heading into the December holiday rush, and we cannot afford to fly blind.

I need you to dig into this dataset and build a dashboard that addresses the following four strategic headaches I am currently facing:

1. The "Staffing Mismatch" Crisis

I am getting conflicting reports from the Branch Managers. The New York team complains they are understaffed during lunch, while Chicago claims they are overwhelmed in the evenings. We are currently paying a lot of overtime, yet customers are still complaining about wait times.

The Problem: I suspect we are deploying staff at the wrong times.

What I need to know: When exactly are our "rush hours"? Are they the same across all three cities, or am I wrong to try and apply a universal schedule? I need to know when the foot traffic (volume of invoices) actually hits so I can fix the rosters.

2. The Membership Program Audit

The Finance Department is pushing to scrap our "Member" loyalty program. They argue that the operational cost of managing members isn't worth it because they don't believe members spend significantly more than "Normal" walk-in customers.

The Problem: We might be giving discounts and perks to customers who aren't actually driving our revenue.

What I need to know: Is the "Member" status actually valuable? Do they have a higher ticket size? Do they prefer specific payment methods that save us processing fees? I need data to either defend the program or kill it.

3. **Marketing Spend Efficiency**

Our Marketing team has been spending 40% of their budget on digital ads for "Health & Beauty" and "Electronics," targeting everyone equally. I have a gut feeling this is a waste of money.

The Problem: I suspect we are marketing to the wrong demographics.

What I need to know: Who is actually buying these categories? Is there a clear gender divide in purchasing habits? For example, if men aren't buying "Fashion Accessories" in Austin, I want to stop showing them those ads immediately.

4. **The "Premium" Customer Experience**

We have positioned ourselves as a high-end supermarket, but I'm seeing erratic satisfaction ratings (1-10 scale). I am worried that we are failing our best customers.

The Problem: I fear that as customers spend more money with us, their satisfaction might actually be dropping due to higher expectations.

What I need to know: Is there a relationship between how much a customer spends and how they rate us? Are our high-value transactions resulting in happy customers, or are we disappointing the people who pay our bills?

Next Steps: Please ingest the attached dataset and prepare a comprehensive Excel Dashboard that visualizes these issues. I need clear visual evidence that I can present to the Board next Monday to justify changes in staffing and marketing.

Regards,

Marcus Thorne.

Regional Operations Director.

COLUMN DEFINITIONS:

Identity & Location

- **Invoice ID:** A unique alphanumeric code generated to identify each specific sales receipt (e.g., `1001-A`).

- **Branch:** The store identifier code (**A**, **B**, or **C**) indicating which specific outlet processed the transaction.
- **City:** The geographical location of the branch where the purchase occurred (New York, Austin, or Chicago).

Customer & Demographics

- **Customer Type:** The membership status of the buyer (`Member` for loyalty cardholders, `Normal` for walk-in customers).

- **Gender:** The gender identity of the customer (Male or Female) used for demographic segmentation.
- **Payment:** The method used to settle the transaction (Cash, Credit Card, or E-wallet).

Product & Financials

- **Product Line:** The specific category of the item purchased (e.g., Health & Beauty, Electronics, Home & Lifestyle).

- **Unit Price:** The cost of a single unit of the product before tax.
- **Quantity:** The number of units purchased in this specific transaction.
- **Tax 5%:** The amount of tax added to the bill, calculated as 5% of the cost of goods.
- **Total:** The final amount paid by the customer, including the cost of goods plus tax.
- **COGS:** Cost of Goods Sold; the total cost of the items before tax (`Unit Price` × `Quantity`).
- **Gross Margin %:** The profit percentage earned on the transaction (constant at ~4.76%).

Time & Feedback

- **Date:** The specific calendar date when the transaction took place (Range: Jan 2025 – Nov 2025).

- **Time:** The exact timestamp (hour and minute) of the purchase, used to identify peak operational hours.
- **Rating:** A customer satisfaction score ranging from 1.0 (lowest) to 10.0 (highest) given after the transaction.