Case Study: Customer Segmentation Using RFM Analysis in Excel

Project Title: Customer Segmentation Table (RFM Analysis)

Tool: Microsoft Excel

Domain: Manufacturing

Tools Used: Excel formulas, Pivot Tables, RFM Framework, Customer Segmentation Logic

Problem Context

A regional cement distributor in Northern Nigeria needed a way to categorize its business customers based on their transaction behaviors. The company lacked visibility into which customers were highly valuable, which ones were slipping away, and which had gone inactive.

The goal was to design a segmentation model that could help:
- Personalize marketing campaigns
- Strengthen customer retention strategies
- Prioritize high-value accounts

Project Objectives
- Generate synthetic B2B sales transaction data (100+ records)
- Apply the RFM (Recency, Frequency, Monetary) model to score each customer
- Categorize customers into strategic segments using rule-based logic
- Summarize insights to inform decision-making

Dataset Structure
The dataset included the following columns:
- Transaction Date
- Customer ID
- Customer Name
- Product
- Transaction Amount

Methodology

1. Data Cleaning

Formatted dates, names, and currency values. Removed duplicates and ensured numeric consistency in transaction amounts.

2. RFM Calculation

- Recency: Days since the most recent purchase
- Frequency: Count of purchases per customer
- Monetary: Total amount spent per customer

3. RFM Scoring

Each RFM metric was scored from 1 (lowest) to 5 (highest) using Excel's QUARTILE.INC function.

4. Customer Segmentation

Used nested IF statements to assign customers to segments such as Champions, Loyal Customers, At Risk, and Lost.

Example formula:
=IF(AND(R>=4,F>=4,M>=4),"Champions", ...)

5. Insights via Pivot Table

Generated segment-level views using Pivot Tables to show customer count, total revenue, and average revenue per customer.

Key Insights

- Champions (15%) generated over 25% of the revenue
- Loyal Customers (22%) were frequent and reliable buyers
- At Risk and Can't Lose Them segments highlighted potential churn
- Lost customers showed signs of long-term inactivity

These insights enable data-driven decisions for retention, upselling, and account management.

Outcome

The segmentation model empowered business stakeholders to:
- Focus marketing efforts on high-value customers
- Identify and recover at-risk clients
- Improve ROI through targeted sales strategies