

# MIS784 – Assignment 1 – T3, 2024

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## Introduction:

This report evaluates transaction data from MarketCo, focusing on uncovering customer behaviour patterns, identifying high-performing products, and analysing engagement across sales channels. Using key marketing analytics techniques such as RFM analysis, it offers insights into how MarketCo can optimize its customer engagement strategies and maximize revenue. The analysis emphasizes actionable insights and data-driven recommendations that will help MarketCo enhance its competitive positioning in an increasingly dynamic retail environment.

## SECTION 1 – ANSWER TO QUESTIONS & EXPLANATION OF RESULTS

### QUESTION 1

#### Best-selling Product:

The best-selling product was StockCode SKU\_1114 ("T-shirt"), with total sales of **88 units**, demonstrating strong customer demand.

#### Product with the Highest Return Rate:

StockCode SKU\_1921 ("Notebook") had the highest return rate **1.0**, calculated as the ratio of number of returned items to total items sold. This suggests potential issues with product quality or unmet customer expectations.

#### Product with the Most Applied Discounts:

StockCode SKU\_1679 ("USB Cable") received the most significant discounts of **0.5**, indicating it might be a strategy to boost sales for a lower-demand product.

### QUESTION 2

The **online channel** attracted the highest number of unique customers, with **249 distinct users**, followed by the **in-store channel** with **248 unique users**. This highlights the significant role of e-commerce in MarketCo's omnichannel strategy. The data underscores the growing preference for online shopping, driven by convenience and accessibility. It suggests that MarketCo should continue investing in its online platform to maintain customer engagement and meet evolving consumer preferences. Meanwhile, the in-store channel remains important for localized customer interactions and brand presence.

### QUESTION 3

Customer behaviour was evaluated using RFM (Recency, Frequency, Monetary) scores:

- **Recency:** Days since their most recent purchase.
- **Frequency:** Total transactions made.
- **Monetary Value:** Total spending, adjusted for discounts.

These metrics allow MarketCo to segment its customers based on engagement and spending patterns. High-frequency and high-monetary-value customers represent the most valuable segment, contributing disproportionately to overall revenue. Understanding these behaviours is critical for designing effective customer retention and reward strategies.

### QUESTION 4

Customers were grouped into quintiles for each RFM metric and assigned a combined RFM code. The most valuable segment (555) includes customers who made recent, frequent, and high-value purchases. High-value customers were easily identifiable, enabling MarketCo to focus its efforts on this valuable segment for future strategies. Tailoring engagement strategies for this segment, while also nurturing mid-tier customers to move into this group, can maximize MarketCo's profitability and brand loyalty.

## SECTION 2 – RECOMMENDATIONS TO HELP NEWSSTREAM ENHANCE CUSTOMER ENGAGEMENT AND BOOST SALES

### Recommendation 1

Introduce a tiered loyalty program to retain high RFM-scoring customers by incentivizing repeat purchases and fostering long-term loyalty. This program rewards high-value customers (555) and encourages mid-tier customers to increase engagement.

#### Explanation of Recommendation 1

High-value customers, contributing a significant portion of total revenue, should be prioritized for retention. A tiered loyalty program could offer personalized rewards such as exclusive discounts, early access to sales, or bonus points for frequent purchases. For example, customers making a purchase within 30 days could earn an additional 10% loyalty points. This approach fosters engagement and retention while incentivizing higher spending. Offering exclusive benefits for higher tiers creates aspirational value, encouraging customers to increase purchases to unlock benefits. This program not only retains top customers but also motivates mid-tier customers to move up, ultimately increasing overall sales and engagement.

## **Recommendation 2**

Analyse and resolve issues driving returns for StockCode SKU\_1921 ("Notebook") and other underperforming products with high return rates to improve customer satisfaction and reduce revenue loss.

### **Explanation of Recommendation 2**

The return rate of 1.0 for StockCode SKU\_1921 ("Notebook") highlights dissatisfaction, potentially due to unclear product descriptions, poor quality, or unmet expectations, that needs immediate attention. Conducting customer surveys and quality reviews can pinpoint concerns. For instance, if usability is an issue, including detailed instructions or usage videos could help customers. Improved product descriptions and realistic visuals can set accurate expectations, reducing frustration. Furthermore, providing a satisfaction guarantee or streamlined post-purchase support can rebuild trust. Addressing these return issues will reduce operational costs, improve customer perceptions, and prevent loss of future sales opportunities.

### **Reflection:**

While this analysis provided valuable insights into customer behaviour and product performance, incorporating additional data could further enhance strategic decisions. External factors such as competitor pricing, seasonal trends, and customer feedback should be integrated to gain a more comprehensive understanding of market dynamics. Such data could reveal new opportunities for optimizing MarketCo's omnichannel strategy and tailoring offerings to align with evolving customer preferences.