

# SALES DATA REPORT

Using Super market dataset to answer the following analysis questions.

## Data Transformation and Cleaning

The data was transformed, cleaned by removing outliers in the rating column, normalized by changing the date datatype for mat to the right date datatype for mat.

### SQL Objectives:

1. Calculate the average purchase amount, total sales, and number of purchases for each combination of Customer\_type and gender

Ans:

Members spend more per purchase, especially female members.

Female customers generate more sales overall.

Normal males buy more often, but spend the least per transaction.

2. Select all information from the table

Ans:

All columns were generated from the table

3. Calculate the average quantity sold per transaction for each Product\_line, Identify high-demand products by setting a threshold on this average quantity.

Ans:

Customers buy more than 5 items per transaction in categories like electronic accessories, home and lifestyle, and health and beauty, making them high-demand products.

Electronic accessories lead in average quantity sold, showing strong customer interest.

4. Extract Branch and Rating distribution to get branch with the highest rating

Ans:

Branch A has the **highest total customer rating** followed by C and then B

This suggests that Branch A provides the best overall customer experience and may have better service or environment.

It can serve as a model for improving other branches.

5. Identify Product\_line with the highest unit price

Ans:

Fashion accessories have the highest total unit price, making it the most valuable product line in terms of pricing.

This suggests it contributes significantly to revenue and should be promoted or featured more to boost profit.

## POWER BI INTERPRETATION



Using the sales dataset to answer some analysis questions.

### FILTER OPTIONS (Top Section)

- **Product line, Payment, and Branch & City** slicers allow dynamic filtering.
- Users can view specific segments based on a product line, payment type (Cash, Credit, E-wallet), or by branch/city.

### KPI METRICS (Top Row Cards)

1. **Total Sales:** 322.97K
  - Represents the overall sales revenue generated.

- Indicates strong sales performance over the selected period.
- 2. **Total Quantity:** 5,510
  - Total number of items sold
  - Shows the volume of transactions regardless of price.
- 3. **Rating:** 6.97K
  - Could represent either average customer satisfaction or cumulative rating points.
  - Suggests moderate to high customer satisfaction.
- 4. **Tax % (Tax Amount):** 15.38K
  - Total tax collected from all sales.
  - Useful for tax reporting and pricing strategies.
- 5. **COGS (Cost of Goods Sold):** 307.59K
  - Total cost associated with producing or purchasing the goods sold
  - Used to calculate gross profit.

## VISUALIZATIONS

### 1. Total Sales by Product Line (Donut Chart)

- Top 3 contributors:
  - **Food and beverages**
  - **Sports and travel Beverages**
  - **Electronic Accessories**

### 2. Quantity by Payment Type (Donut Chart)

- **Cash** and **Credit Ewallet** are the most used payment methods.

### 3. Total Sales by Month (Line Chart)

- Sales peaked in **January**, dipped in **February**, and started recovering in **March**
- Indicates possible seasonal trends or marketing impacts.

### 4. Sum of Quantity by Branch (Bar Chart)

- Branch B has slightly lower quantity.
- Shows Branch A & C as top performers in volume.

## DATA TABLE (Bottom Section)

Contains detailed breakdown by:

- **Product Line, Customer Type, Payment**
- **Quantity Sold, Total Sales, COGS, Tax, Rating, Gross Income, Gross Margin Percentage**

## GENERAL INSIGHTS

- **Performance** is strong across all product lines, with consistent use of multiple payment methods.
- **Branches A and C** perform best in terms of volume.
- **COGS is high** which affects overall profitability – consider reviewing pricing or supplier costs.
- **Sales Trend** shows a dip in February – may indicate post-holiday slowdown or opportunity for promotions.
- **Ratings are good** across categories – indicates customer satisfaction.

## Conclusion

The sales analysis shows a total revenue of 322.97K with 5,510 items sold. Most sales came from Food and beverages and Sports and travel, while Cash and E-wallet were the most common payment methods. Branches A and C recorded the highest sales quantity. Customer ratings are generally positive, and there is a fairly balanced sales distribution across product lines.

## Recommendation

To improve performance:

- Focus on increasing sales in low performing months like February through promotions.
- Provide more support to Branch B to improve its sales.
- Continue promoting digital payments, especially E-wallets, due to their growing usage.
- Prioritize products with high gross margins for profitability.