

# **A Commercial Store Sales Analysis**

**Internship Program**

**Data Analysis Track**

**Brainwave Matrix Solutions**

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# Introduction

This analytical report focuses on the sales data of a retail store, aiming to uncover meaningful insights that support strategic decision-making. The dataset includes key attributes such as transaction dates, branch locations, product lines, customer types, payment methods, and sales values.

The main goal of the analysis is to evaluate the store's performance across multiple dimensions, including total sales per branch, preferred payment methods, customer segmentation, and sales trends over time.

The data was processed and analyzed using Microsoft Excel, involving steps such as data cleaning, pivot table creation, and chart visualizations. The outcome of this report is to provide a clear understanding of business operations and identify areas for improvement and growth.

# Methodology

**Data Collection:** Sample sales data from a retail store, including transaction details.

**Data Cleaning:**

- Removed duplicates.
- Handled missing values.
- Formatted date/time columns.
- Standardized text entries.

**Processing & Analysis:**

- Calculated key metrics.
- Used Pivot Tables for summarization.
- Segmented data by branch, customer type, and product line.

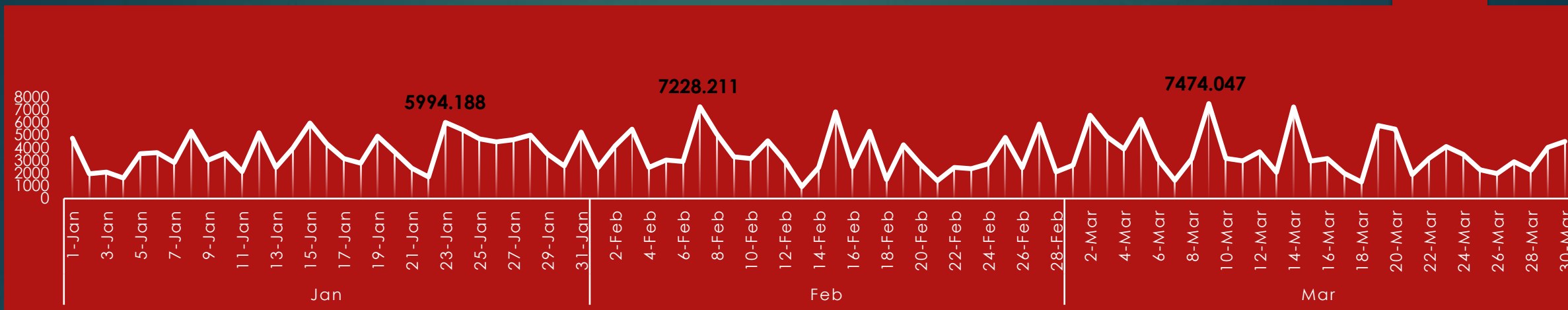
**Visualization:**

- Bar, pie, and line charts created using Excel for clear insights.

# Data Overview

- **Dataset Source:** Sample retail sales data used for training purposes.
- **Total Records:** 1,000 transactions.
- **Time Period:** January to March 2025.
- **Main Variables:**
  - **Invoice ID** – Unique transaction identifier.
  - **Branch & City** – Store location.
  - **Customer Type & Gender** – Demographic details.
  - **Product Line** – Product category purchased.
  - **Unit Price & Quantity** – Sales volume and pricing.
  - **Total & Tax** – Transaction amount with tax.
  - **Payment Method** – Cash, Ewallet, Credit Card.
  - **Date & Time** – When the purchase occurred.
  - **Rating** – Customer satisfaction rating (out of 10).
- **Purpose:** To analyze sales patterns, customer behavior, and operational performance.

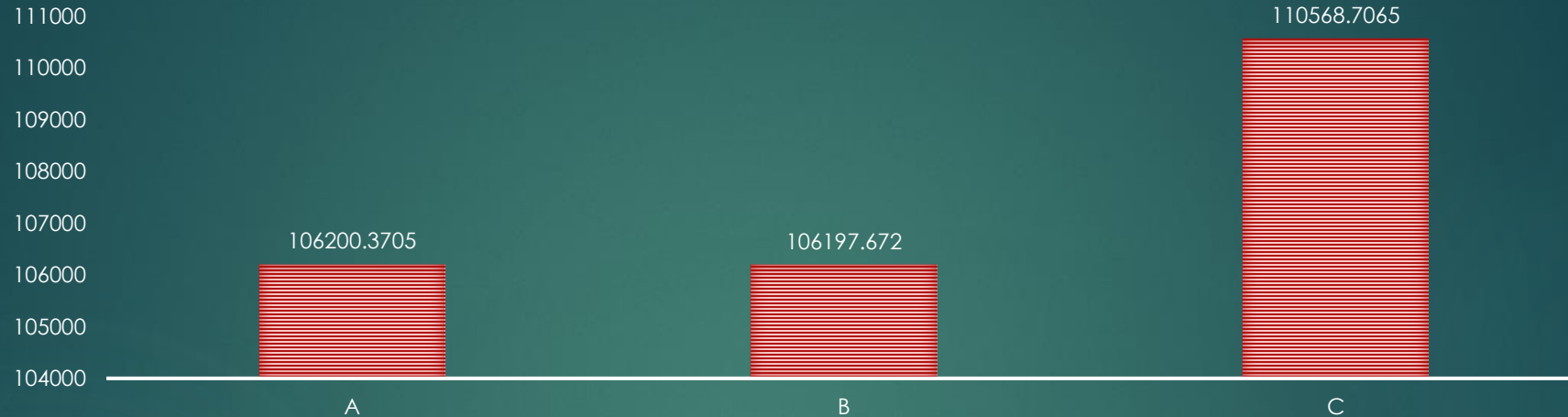
# DAILY SALES TREND ANALYSIS



- **Fluctuating Pattern:** Sales show frequent fluctuations throughout the three-month period (January to March), indicating variable daily performance.
- **Highest Peaks:** The most noticeable spikes occurred on **January 23rd**, **February 7th**, and **March 9th**, where sales reached around 6,000–7,500 USD, reflecting the highest sales performance during the period.
- **Low Points:** The lowest sales levels were recorded on **January 4th**, **February 13th**, and **March 18th**, where sales were notably low, reaching 934 USD on February 13th and 1,292 USD on March 18th.
- **Overall Stability:** Despite the ups and downs, the average sales remained within the 3,000–5,000 USD range on most days, suggesting a relatively stable performance with occasional high-volume days.

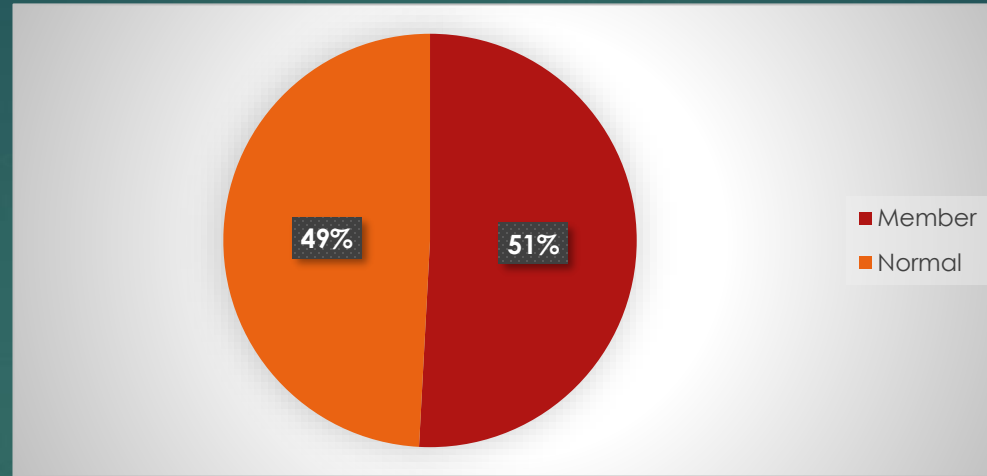


# BRANCH SALES ANALYSIS (IN USD)



1. Branch “C” Recorded the highest total sales, amounting to approximately \$110,568.71, reflecting outperforming the others, possibly due to higher customer traffic, better product mix, or stronger local demand.
2. Branch A and branch B have very similar sales totals, as branch A recorded ~\$106,200.37, and branch B recorded ~\$106,197.67.
3. The difference between them is minimal (around \$3), indicating similar performance levels.

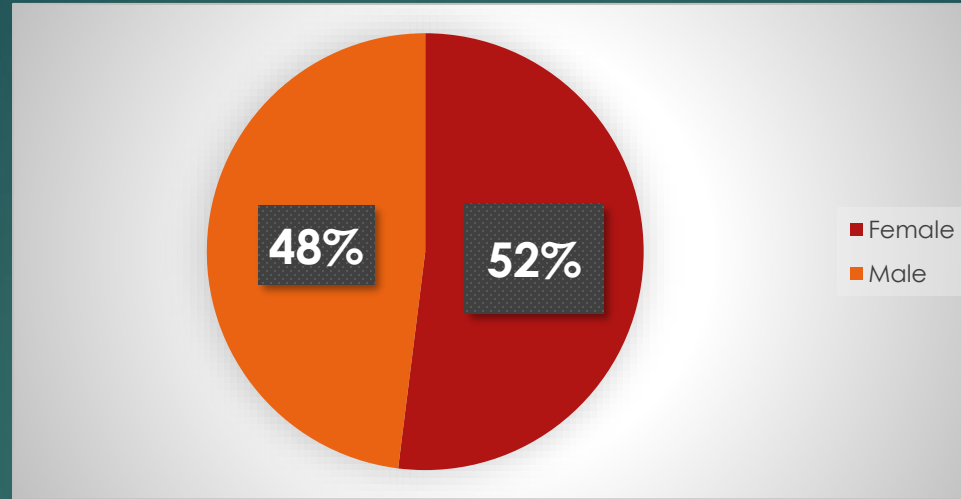
# CUSTOMER TYPE DISTRIBUTION



- **The chart** shows a nearly even split between member customers, 49%, and normal (non-member) customers, 51%.
- **The minimal 2% difference** indicates that membership benefits may not be compelling enough to drive significant enrollment.
- **Possible scenarios:**
  1. Membership perks aren't attractive or well-communicated.
  2. The store naturally attracts more casual shoppers.
  3. Membership requirements might be too restrictive.



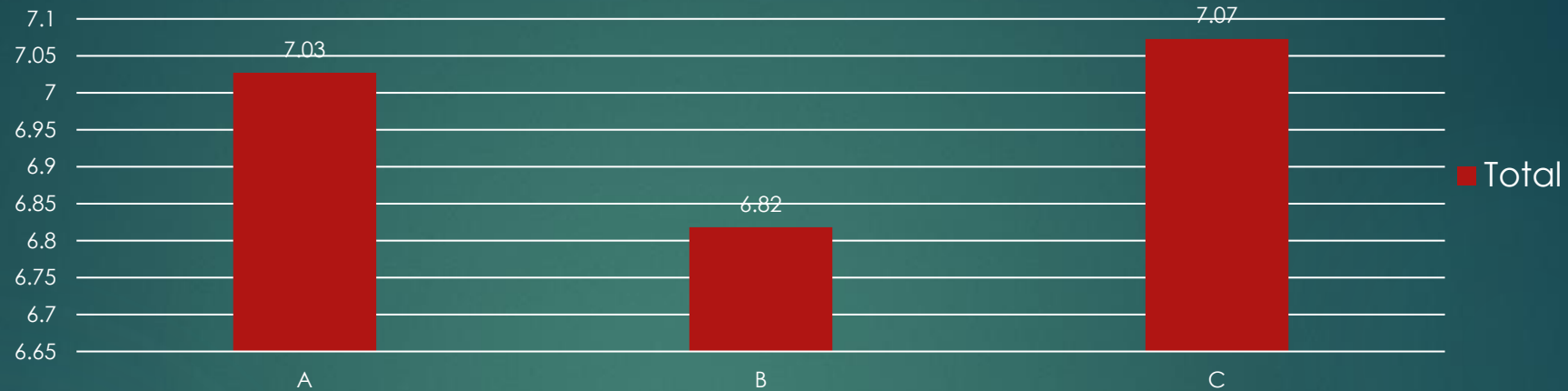
# CUSTOMER GENDER DISTRIBUTION



The chart displays a nearly equal gender distribution among customers: **Male**, 48%, **Female**, 52%, which reflects:

- **Balanced Demographics**
  1. The minimal 4% difference shows that the store appeals equally to both genders.
  2. This could **indicate**:
    - Gender-neutral marketing strategies.
    - A well-balanced product mix catering to all customers.
    - A location with balanced demographic foot traffic.
- **Slightly Higher Female Representation (52%) because:**
  - Products/services may align more with female preferences.
  - More effective marketing campaigns targeting women.
  - Differences in shopping habits (e.g., frequency or loyalty).

# BRANCH CUSTOMER SATISFACTION SCORES



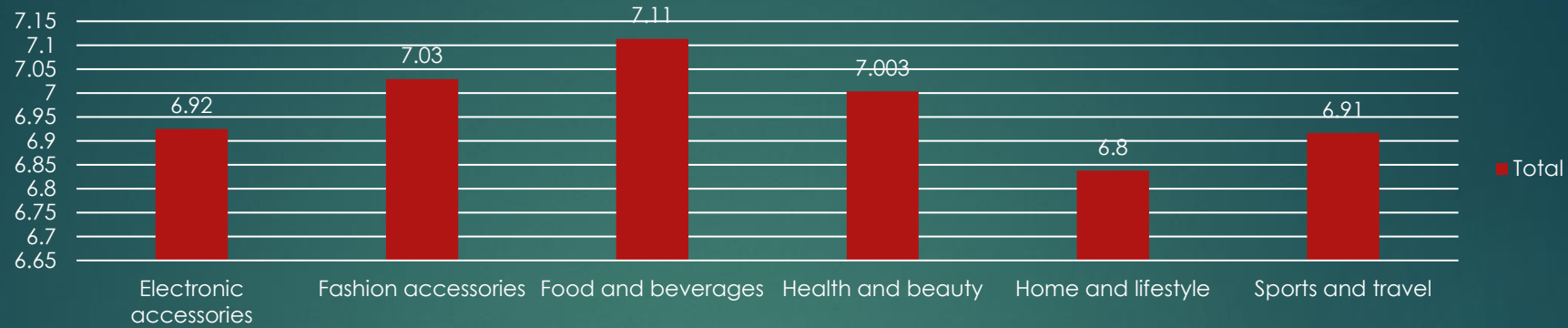
## Performance Ranking:

1. 1st: Branch C (7.07).
2. 2nd: Branch A (7.03).
3. 3rd: Branch B (6.82).

## Observations:

1. All branches scored above 6.5, indicating generally positive customer satisfaction.
2. Narrow range (6.82-7.07) shows relatively consistent service quality.
3. Branch B is the clear underperformer, falling below the average (6.97).

# CUSTOMER SATISFACTION ACROSS PRODUCT CATEGORIES



## Top Performing Categories:

- Food and Beverages (7.11) - Highest satisfaction score.
- Health and Beauty (7.00) - Consistently meets expectations.

## Solid Performer:

- Sports and Travel (6.92) - Maintains satisfactory performance

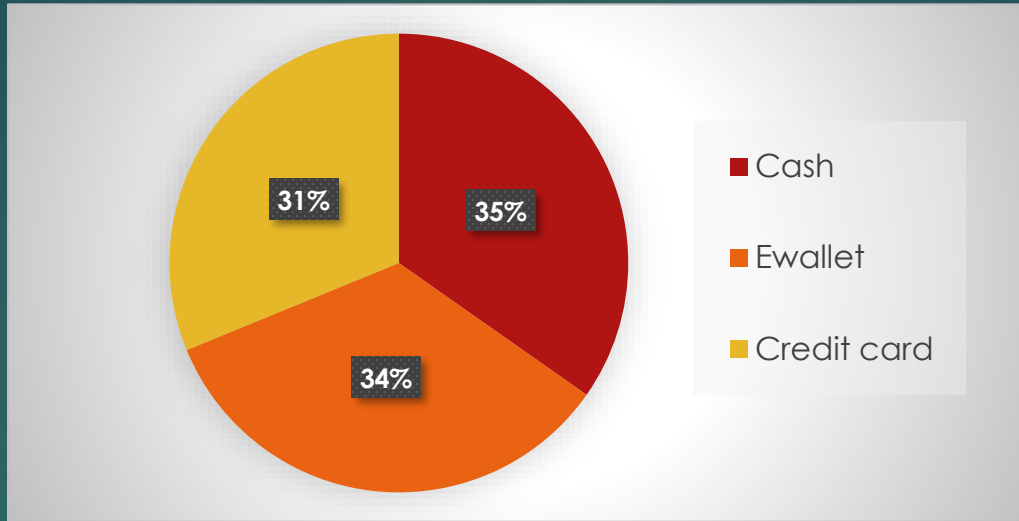
## Areas Needing Improvement:

- Electronic Accessories (6.92) - Below average performance
- Home and Lifestyle (6.84) - Lowest satisfaction scores

## Insights:

1. **Food & Beverage Dominance** (7.11) appears as a major customer attraction and revenue driver.
2. The underperformance of the **“Home & Lifestyle” category** (6.84) presents a clear improvement opportunity.
3. The below-average score of the **“Electronic Accessories” category** (6.92) warrants the necessity to make a review.

# PAYMENT METHOD DISTRIBUTION



- **Cash** is the most used method at **35%**, showing strong customer preference for traditional payments.
- **Ewallet** follows closely at **34%**, indicating growing digital adoption.
- **Credit Card** usage is **31%**, also widely accepted.

**Insight:** Usage is well-balanced, with **65%** preferring digital methods (Ewallet & Credit Card).

# Recommendations

## For Sales Volume:

- **Increase promotional activities** during the periods with noticeable drops (like January 4th, February 13th, and March 18th), such as targeted offers or marketing campaigns.
- **Leverage high-sales days** (like January 23rd, February 7th, and March 9th) by expanding offers or planning bigger promotions during those specific periods.
- **Review marketing strategies** for low-performance days to identify the reasons behind the drops and address them (e.g., seasonal changes or lack of offers).

## For Customer Types:

- Review and enhance membership program value.
- Conduct customer surveys to understand preferences.
- Compare spending patterns between groups.

# Recommendations

## **For Customer Gender:**

1. Compare spending patterns (average purchase value per gender).
2. Evaluate product preferences by gender to optimize inventory.
3. Assess if marketing efforts need adjustment to maintain balance.

## **For Enhancing Branches' Sales:**

1. Recognize Branch "C"'s performance.
2. Initiate quality improvement programs at Branch B.
3. Set measurable goals for all locations.



# Recommendations

## **For Enhancing Home & Lifestyle's sales :**

1. Conduct root cause analysis of satisfaction gaps.
2. Implement targeted marketing campaigns.
3. Consider product assortment adjustments.

## **For Product Lines:**

- Analyze **success** factors for potential replication in other categories.

## **For Enhancing Electronic Accessories' sales :**

- **Evaluate** product quality and customer service in this category.

## **For Payment Methods :**

- Maintain all payment options and consider promoting Ewallet for faster, contactless transactions.

# Conclusion

The analysis of the store's sales data provided several key insights:

- **Cash** was identified as the most commonly used payment method (35%), closely followed by **Ewallet (34%)** and **Credit Card (31%)**, indicating a balanced use of both traditional and digital payments.
- The **sales trend over time** showed notable fluctuations, with sales peaking around **February 6th** and **March 11th**, and dropping significantly around **January 25th** and **February 14th**.
- Despite these variations, average daily sales remained within a stable range, reflecting consistent customer engagement.

Using Microsoft Excel, the data was cleaned, organized, and analyzed through pivot tables and visual charts. These findings highlight opportunities to enhance digital payment promotions and understand customer behavior patterns.

The analysis emphasizes the value of data-driven decisions in improving sales performance and operational efficiency.