



Supermarket Sales Business Insights

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Executive Summary

Purpose:

This report provides key business insights derived from supermarket sales data. The goal is to identify trends, customer behavior, and opportunities for increasing sales in various product categories. The analysis highlights the performance of different product categories and customer demographics, providing actionable recommendations to optimize sales and enhance customer engagement.

Introduction

Background:

This report analyzes supermarket sales data, focusing on understanding customer behavior, category performance, and demographic patterns. The data includes transactional records from various cities, covering sales, customer purchases, and product preferences. By examining these trends, we aim to provide insights into how to boost overall sales and tailor marketing strategies to customer needs.

Objectives:

The main objectives of this report are to:

- Analyze the sales performance of different product categories.

- Understand customer behavior based on time, location, and demographics.
 - Identify opportunities for increasing sales and improving customer satisfaction.
 - Provide recommendations to optimize sales across various regions and product categories.
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Methodology

Data Source:

The data used for this report includes transactional records from supermarket sales over the past three months. The dataset covers key attributes such as product categories, purchase times, customer demographics, sales figures, and city-wise trends.

Tools:

This analysis was conducted using **Power BI** for visualizations and **Python** for statistical analysis. Both tools were essential in identifying trends, calculating performance metrics, and generating data-driven insights.

Key Business Insights

Gender-Based Preferences

- Females are highly interested in Fashion Accessories but show low interest in Health and Beauty Products.
- Males are interested in all categories, with the most interest in Health and Beauty Products.
- Males purchase Health and Beauty Products more than females.
- Females purchase more of Sports and Travel and Fashion Accessories than males.
- Males purchase more Health and Beauty and Electronic Accessories than females.
- Females in Naypyidaw city paid more than males, but their total purchases are less than males in Mandalay and Yangon.
- Females paid less than males in the last three months.

City-Specific Preferences

- Yangon customers prefer purchasing in the morning.
- Mandalay customers prefer purchasing in the evening.
- Naypyidaw customers prefer purchasing in the afternoon.
- Naypyidaw customers spend the least on Home and Lifestyle and the most on Sports and Travel.
- Mandalay customers spend the least on Fashion Accessories and the most on Health and Beauty.
- Yangon customers spend the least on Health and Beauty and the most on Home and Lifestyle.

Category-Based Insights

- Fashion Accessories have the best customer ratings, while Home and Lifestyle have the worst.
- Health and Beauty has average sales lower than the general average.

- Food and Beverages, Sports and Travel, Electronic Accessories, Home and Lifestyle, and Fashion Accessories have sales close to the general average.

Sales Trends

- The highest sales in the last three months were made in January, followed by March and then February.
- Total sales in the last three months amounted to \$312.8k, with January having the highest sales of \$113k.
- Sales of Food and Beverages peak at 11 AM, 3 PM, and 7 PM (breakfast, lunch, and dinner times).
- Health and Beauty and Sports and Travel products make the best sales at 2 PM.

Customer Type

- The number of members is almost equal to the number of non-member customers.
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Recommendations:

Targeted Marketing for Low-Performing Categories:

- Home and Lifestyle has the worst rating and low sales. Consider offering promotions or discounts on these products or bundling them with more popular items like Fashion Accessories or Sports and Travel to increase interest.

- For Health and Beauty, focus marketing on males, since they show higher interest, but find ways to attract more female customers by offering personalized beauty consultations, samples, or events.

Optimizing Timing of Promotions:

- Leverage popular purchase times: Lunch, dinner, and breakfast hours (11 AM, 3 PM, 7 PM) are crowded for Food and Beverages, while 2 PM is peak for Health and Beauty and Sports and Travel. Offering flash sales or discounts during these peak times can drive more sales.
- Morning promotions in Yangon, afternoon deals in Naypyidaw, and evening offers in Mandalay can increase customer engagement by aligning with their preferred shopping times.

City-Specific Campaigns:

- In Naypyidaw, focus on Sports and Travel, the most popular category, while also promoting Home and Electronic Accessories, which have low spending. Highlight the unique features of these products to boost interest.
- In Mandalay, where customers spend the least on Fashion Accessories, create attractive offers targeting females, such as seasonal fashion trends or limited-time collections.
- In Yangon, push sales for Health and Beauty, which is the least popular category, through influencer marketing or loyalty rewards for repeat purchases.

Gender-Specific Strategies:

- Females are more interested in Fashion Accessories and Sports and Travel. Create female-centric campaigns for these categories, such as fashion guides or travel-related experiences.
- Males are more inclined to purchase Health and Beauty and Electronic Accessories. Increase product visibility through targeted ads and emphasize product features tailored to male customers, such as grooming kits or tech bundles.

Membership Benefits to Drive Loyalty:

- The number of members and non-members is almost equal. Increase the value of becoming a member by offering exclusive member-only discounts, faster delivery options, or access to premium products. This will encourage more customers to join the membership program and boost loyalty.

City-Specific Loyalty Programs:

- In Naypyidaw, since females spend less overall compared to males, consider launching a loyalty program for female shoppers that rewards them for repeat purchases, particularly in Home and Lifestyle or Fashion Accessories.
- In Mandalay, where Health and Beauty is most popular, introduce a rewards system focused on this category to encourage repeat purchases, potentially increasing customer lifetime value.

Product Pairing and Bundling:

- Pair Food and Beverages with complementary items such as Fashion Accessories or Health and Beauty to boost overall sales.
- Offer bundled promotions in cities where specific categories are less popular, like Fashion Accessories in Mandalay or Health and Beauty in Yangon, to increase product visibility and attract more buyers.

Conclusion:

- In conclusion, the analysis of supermarket sales data reveals critical insights into customer behavior, product performance, and regional purchasing patterns. Categories such as **Fashion Accessories** and **Sports and Travel** have shown strong sales performance, while **Home and Lifestyle** and **Health and Beauty** present opportunities for growth. Gender-specific preferences and time-of-day purchasing trends further highlight the importance of targeted marketing strategies.
- City-specific insights, such as higher purchases of **Sports and Travel** in **Naypyidaw** and the popularity of **Health and Beauty** in **Mandalay**, demonstrate the need for regionally tailored promotions. By implementing the recommendations outlined in this report, the supermarket can boost overall sales, improve customer engagement, and strengthen brand loyalty across different customer segments.
- Optimizing product offerings, refining marketing efforts, and enhancing customer experience based on these findings will contribute to sustained growth and long-term success in the highly competitive retail market.