Myntra Sales and Customer Analysis Report

1. Introduction

This report provides a data-driven analysis of Myntra's sales performance, customer purchasing behavior, and the impact of discounts on revenue generation. By leveraging key insights from product, customer, and order data, this report aims to support strategic decision-making for improved business growth and operational efficiency.

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2. Data Overview

The analysis is based on three key datasets:

- Product Dataset: Contains details about product categories, subcategories, brands, sizes, colors, and customer ratings.
- Customer Dataset: Provides demographic information, including customer age, city, and state.
- Order Dataset: Records transaction details such as order dates, original prices, and applied discounts.

Data Validation and Cleaning

- No missing values were found in the product dataset.
- The date column in the orders dataset was converted to a proper datetime format for accurate time-series analysis.
- Additional columns, such as "Selling Price" (calculated after discount), were derived for deeper insights.

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3. Sales Performance Analysis

3.1 Monthly Sales Trends

- A time-series analysis of monthly sales revealed fluctuations in revenue, indicating seasonal demand patterns.
- A line chart was used to visualize sales trends, helping to identify peak and off-peak periods.
- These insights can support inventory planning and marketing campaign scheduling.

3.2 Sales by Product Category

- A categorical analysis was performed to determine which product categories generate the highest revenue.
- A bar chart was utilized to highlight top-performing categories.
- This information can assist in optimizing product offerings and marketing strategies.

3.3 High-Value Customers

- The top 10 customers with the highest spending were identified and ranked.
- A bar graph was used to illustrate their contribution to overall revenue.
- Understanding high-value customers enables targeted loyalty programs and personalized promotions.

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4. Customer Purchasing Behavior

- A distribution analysis of customer spending patterns was conducted to classify different segments of buyers.
- A histogram was plotted to visualize how spending is distributed across the customer base.
- Identifying customer segments can help tailor marketing strategies and enhance customer engagement initiatives.

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5. Impact of Discounts on Sales

- A correlation analysis between discount percentages and total sales was performed to assess the effectiveness of pricing strategies.
- A line chart was used to illustrate the relationship between discount levels and revenue generation.
- The analysis provides insights into optimizing discount strategies to maximize both sales volume and profitability.

6. Key Findings and Strategic Recommendations

6.1 Key Insights

- **Sales trends exhibit seasonal variations, highlighting the need for demand forecasting.**
- **Certain product categories significantly outperform others, emphasizing the importance of category-specific marketing.**
- **A small segment of customers contributes a large share of revenue, reinforcing the value of customer retention strategies.**
- **Discounts influence sales, but an optimal discount threshold must be determined to balance revenue growth and profitability.**

6.2 Recommended Actions

1. **Enhance Inventory Management: Leverage sales trends to forecast demand and maintain optimal stock levels.**
2. **Strengthen Customer Retention Strategies: Develop personalized offers and loyalty programs to retain high-value customers.**
3. **Refine Pricing and Discount Strategies: Experiment with different discount levels to maximize revenue while protecting profit margins.**
4. **Leverage Seasonal Demand: Align marketing campaigns with peak sales periods to maximize conversions.**

7. Conclusion

This report provides a comprehensive analysis of Myntra's sales and customer behavior. By implementing data-driven strategies based on these insights, Myntra can enhance operational efficiency, improve customer engagement, and drive sustainable business growth.