Case Study: Consumer Behavior and Sales Performance Analysis

Objective

The objective of this analysis was to gain a deeper understanding of consumer purchasing behaviour, identify high-performing products and categories, and evaluate customer engagement and satisfaction. By examining key metrics such as revenue, average purchase amounts, retention rates, and discount utilisation, this analysis provides insights into customer preferences and spending habits. This information is invaluable for enhancing product offerings, refining marketing strategies, and driving customer loyalty.

Methodology

Data was analysed using SQL to query key metrics and aggregated insights, while Power BI was utilised to visually represent trends and relationships within the data. The focus was on extracting KPIs and creating visual dashboards to facilitate data-driven decision-making.

Key Findings

1. **Total Revenue and Sales Trends**
   - **Total Revenue**: $233,000 in total revenue was generated, reflecting strong sales across various product categories.
   - **Average Purchase Amount**: The average purchase value was $59.76, suggesting a moderate spending level per transaction.
2. **Customer Retention and Engagement**
   - **Retention Rate**: A retention rate of 100% suggests that all customers made repeat purchases, indicating a loyal customer base.
   - **Discount Utilisation Rate**: At 43%, the discount utilisation rate shows that nearly half of transactions included discounts, which may highlight a level of price sensitivity.
3. **Category Performance**
   - **Total Sales by Category**: Clothing led sales at $104,000, followed by Accessories ($74,000), Footwear ($36,000), and Outerwear ($19,000). This data can guide product focus and inventory allocation.
   - **Top Revenue-Generating Items**: High-selling items such as Blouses, Shirts, and Dresses generated revenue upwards of $10,000 each, emphasising their importance as core products.
4. **Seasonal Purchase Behavior**
   - **Average Purchase Amount by Season**: The highest average purchase amounts occurred in the fall ($61.6) and winter ($60.4), which may indicate increased spending during these seasons.

5. **Customer Satisfaction**
   ○ **Average Review Rating**: The overall rating was 3.75, suggesting moderate satisfaction. Footwear received the highest ratings (3.79), indicating stronger customer satisfaction compared to other categories.

Insights and Learnings

From this analysis, it is evident that:

- **Clothing and Accessories** dominate total sales, indicating strong demand. This suggests these categories should be prioritised in promotions and inventory management.
- **Discount usage** is relatively high, suggesting that discounts effectively drive sales, though it may also imply price sensitivity among customers.
- **Seasonal variations** in average purchase amounts indicate that consumer spending increases during the fall and winter, which can inform seasonal marketing strategies.

Recommendations for Data Improvement

1. **Enhance Customer Demographic Data**: Adding more demographic fields (e.g., income level, shopping frequency) could improve segmentation and allow for more targeted marketing strategies.
2. **Track Sales Channels**: Separating online and offline purchases would provide insights into channel performance, helping to tailor strategies for each platform.
3. **Capture More Product Attributes**: Expanding product data (such as brand or material) would allow for more nuanced analysis of customer preferences and product performance.
4. **Collect Data on Non-Purchasing Visitors**: Gathering data on customers who browse but do not buy could help identify opportunities to convert more site visitors into customers.

Conclusion

This analysis highlighted key areas where sales strategies and customer engagement can be enhanced. By focusing on popular product categories, leveraging seasonal insights, and addressing customer satisfaction, this data can support more targeted, data-driven business decisions. Improving data granularity and tracking additional customer behaviours will further refine future analyses, creating a clearer picture of customer preferences and optimising business outcomes.