

Business Insights from EDA

Product Pricing Strategy

The analysis of product price distribution shows a wide range of prices, suggesting that the business caters to different customer segments. This presents an opportunity to introduce budget-friendly options for price-sensitive customers while also offering premium products for those who prioritize quality. By strategically diversifying the product range, the business can effectively capture a broader market, enhance customer satisfaction, and potentially increase overall sales revenue.

Sales Trends Over Time

The total sales trend over time reveals significant fluctuations, with clear peaks in certain months. These peaks indicate periods of high demand, possibly influenced by seasonal trends, promotional events, or holidays. Understanding these patterns enables the business to optimize its inventory, plan targeted marketing campaigns, and launch promotional offers at the right times. Aligning business strategies with these sales trends can help maximize revenue and improve customer engagement.

Regional Sales Distribution

The analysis of sales distribution by region highlights that South America contributes the highest revenue, followed by Europe and North America. This suggests that customers in South America exhibit a higher purchasing power or stronger engagement with the platform. To capitalize on this, the business can further strengthen its presence in high-sales regions through localized marketing campaigns and tailored promotions. Additionally, expanding marketing efforts in underperforming regions may help balance revenue distribution and unlock new growth opportunities.

Most Popular Products

The identification of top-selling products provides valuable insights into customer preferences. The most frequently purchased products, such as TechPro Headphones and ActiveWear Smartwatch, indicate high demand in specific categories. By leveraging this information, the business can focus on stocking these popular products, bundling them with complementary items, and running targeted promotional campaigns. Highlighting best-sellers in advertisements and recommending them to potential customers can significantly drive up sales and conversion rates.

Customer Segmentation for Targeted Marketing

The transaction data shows that a small percentage of customers contribute to a large portion of overall sales. This suggests that certain high-value customers are making repeat purchases, while others remain

less engaged. To improve customer retention, the business can introduce loyalty programs, personalized discounts, and targeted email campaigns to incentivize repeat purchases. Understanding the spending behavior of different customer segments enables the company to enhance its marketing efforts and improve long-term customer relationships.

Market Basket Analysis & Cross-Selling

By analyzing product co-purchase trends, the business can identify items frequently bought together, allowing for effective cross-selling and bundling strategies. For example, if customers often purchase Smartwatches along with Wireless Earbuds, creating bundle deals can encourage larger transactions. Implementing a recommendation engine based on these insights can enhance customer experience and increase the average order value. By strategically promoting complementary products, the business can drive additional sales and improve customer satisfaction.

Seasonal Demand and Promotions

The presence of sales spikes at specific times of the year suggests that customer demand follows a seasonal pattern. These peaks may coincide with major shopping events, holidays, or promotional campaigns. Understanding these seasonal trends enables the business to plan ahead by ensuring sufficient stock availability and running timely marketing initiatives. Offering early-bird discounts or pre-holiday promotions can further boost sales during peak seasons and help the business stay ahead of competitors.