

Business Insights from EDA

Objective:

The objective of this analysis is to uncover actionable insights from the eCommerce transaction dataset that guide strategic business decisions to improve sales, customer engagement, and inventory management.

Key Insights:

1. Regional Sales Distribution:

- The analysis suggests that South America leads in terms of overall sales compared to the other regions by a noticeable gap. On the other hand, regions like Asia and North America are performing below expectations.
- **Actionable Suggestion:** Highlight South America markets in marketing strategy and customer acquisition to ensure hold, and, meanwhile, assess and correct low sales in Asian and North America markets.

2. Product Categories and Performance:

- Books and Electronics had the highest contributions to total sale. These have the highest domination of customer preferential choices and preferences.
- **Actionable Suggestion:** Raise the inventory levels and promote more Books and Electronics. It should also consider packaging other complementary products of these categories for cross-selling.

3. Customer Signup Trends:

- The number of customer signups has seen a high increase in 2024. Compared to the previous years, there is a huge rise. This could be because of good marketing strategies, new product releases, or seasonal campaigns.
- **Actionable Suggestion:** Analyze and replicate the strategies or campaigns that worked well in 2024 to maintain and increase customer acquisition in subsequent years.

4. Top-Selling Products:

- A few standout products, such as the ActiveWear Smartwatch, SoundWave Headphones, and HomeSense Desk Lamp, are contributing to a significant proportion of sales volume. The items are probably the best sellers or trendy products in the market.
- **Actionable Suggestion:** Maintain a steady stock of these best-sellers. Run specific promotions or offers to increase the sales of these products further and consider promoting other complementary products.

5. Seasonal and Mid-Year Sales Peaks:

- The sales graph indicates that there are major peaks in December, as it is the holiday season. However, the mid-year months of May, July, and August also show increased sales, which might be because of summer sales or back-to-school sales.
- **Actionable Suggestion:** Offer promotions for both the holiday and mid-year months. Stock the inventory and undertake event-based promotions to increase the revenue generated from these peak months.

Conclusion:

The findings from this analysis emphasize the importance of focusing on high-performing regions, optimizing inventory for top-selling products, and capitalizing on both seasonal and mid-year sales spikes. By aligning marketing, inventory, and promotional efforts with these insights, the business can enhance revenue growth and customer satisfaction.