

Business Insights from EDA

Summary:

This report highlights insights derived from exploratory data analysis (EDA) on sales, customer, and product data. It identifies key areas for growth, including regional sales, product category performance, seasonal trends, flagship products, and customer retention strategies. By implementing the suggested strategies, the company can increase revenue, improve customer satisfaction, and drive long-term growth.

1. Regional Sales Potential

- **Top regions:** South America (59 customers), Europe (50 customers).
- **Underperforming region:** Asia (45 customers).
- **Key insight:** South America and Europe are the highest performing regions for sales and customer engagement.
- **Actionable strategy:** Increase marketing promotions for these regions. Introduce regional-specific offers that will be further driving the sales.
- **Asia:** Requires regional-based campaigns, potentially localized product variants and improved marketing to push up sales.

2. Product Category Performance

- **Categories by product count:** Books 26, Electronics 26, Clothing 25.
- **Revenue contribution:** Electronics and Clothing have a greater revenue contribution as compared to Books.
- **Key insight:** Though the Books category has a high product count, in terms of revenue, it trails Electronics and Clothing.
- **Actionable strategy:** Concentrate on those categories that have done well such as Electronics and Clothing. As for Books, develop bundling strategies, subscriptionbased discounting, or cross-selling related items to make the category more profitable.

3. Seasonal Sales Trends

- **Peak Sales:** Peaks observed in January, July, and December; the sales could probably be linked with holiday shopping and seasonal offers.
- **Essential Learning:** Business witnesses periodic and regular spikes during certain months of the year.
- **Actionable Plan:** Leverage on the months by implementing flash sales, seasonal offers, and advertising specifically. Sustain the same volume of sales on the slower months in order to make revenue levels stabilize.

4. Flagship Product Opportunity

- Flagship product is ActiveWear Smartwatch. The product was worth \$39,097 in revenue.
- **Key takeaway:** ActiveWear Smartwatch is a high-margin offering with great revenue potential.
- **Actionable strategy :** It should be pitched as a flagship offering by bundling the same with accessories. The product can be marketed through promotions with influencers and various events. Related Electronics or ActiveWear products can be cross-sold to maximize sales.

5. Customer Retention and Loyalty

- **Repeat customers:** Most of the transactions are from repeat customers.
- **Key takeaway:** Repeat customers are critical for a business.
- **Actionable Strategy:** Reward program implementation, first sale access and tailored offers with a view to boosting loyalty. Segment repeating customers and offer only those discounts offered on their desired products to hike the customer lifetime value.

Conclusion:

Regional Marketing Strategy, selection of high-growth products and building customer loyalty would help grow revenues and improve customers' long term satisfaction.

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