

Business Insights Derived from Exploratory Data Analysis (EDA)

1. Top Customers by Transaction Value

The top 5 customers account for a large portion of the company's revenue. Targeting these high-value customers with personalized offers or loyalty programs could improve retention and increase sales.

Understanding their common traits (e.g., location, preferences) enables tailored marketing strategies.

2. Product Category Popularity

Certain product categories exhibit higher total sales. By focusing on these high-performing categories, the company can optimize inventory and marketing efforts. Promotions targeting popular products could drive increased sales, and bundling strategies can further enhance cross-selling opportunities.

3. Regional Sales Distribution

Sales show regional disparities, with some areas contributing significantly more to total revenue. This suggests the need for targeted marketing in underperforming regions. Additionally, localized product offerings and strategic partnerships can help boost sales where necessary.

4. Transaction Frequency vs. Total Spend

Customers who make frequent purchases tend to spend more overall. This insight suggests that incentivizing customers to increase transaction

frequency (e.g., through loyalty programs) could lead to higher lifetime value per customer and stronger revenue growth.

5. Impact of Quantity Purchased on Sales

Customers who purchase in larger quantities often have higher transaction values. Introducing bulk purchase discounts or offers could help increase average transaction value and drive sales growth, particularly for high-demand products or categories.

Conclusion

These insights highlight key areas for business growth, such as focusing on high-value customers, optimizing product offerings, and targeting specific regions for better performance. Utilizing this data effectively can guide marketing strategies, improve customer engagement, and ultimately drive increased revenue.