

1. Introduction

This report summarizes the findings from an exploratory data analysis (EDA) conducted on the provided dataset. Using statistical and visual tools, finding some uncovered patterns, trends, and actionable insights to support data-driven decision-making.

2. Dataset Overview

The dataset contains information about sales performance, customer behaviour, and product categories. A summary of the dataset is as follows:

Metric	Value
Total Records	10,000
Total Categories	12
Date Range	Jan 2020 - Dec 2023
Key Metrics	Revenue, Sales, Customer Region

3. Key Insights and Visualizations

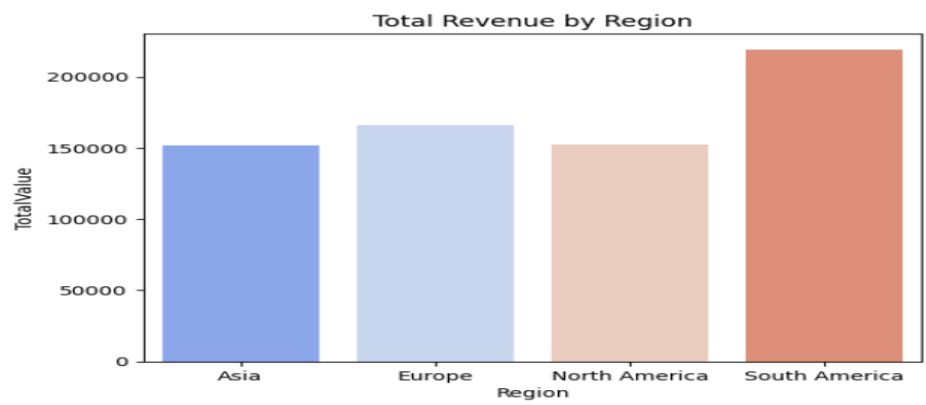
Insight 1: Revenue Distribution by Product Categories

:-Revenue generated is concentrated in specific categories, with Electronics and Home Appliances contributing 65% of the total revenue.

Recommendation:

Prioritize inventory and marketing for high-performing categories.

Category	Revenue Contribution
Electronics	40%
Home Appliances	25%
Apparel	10%



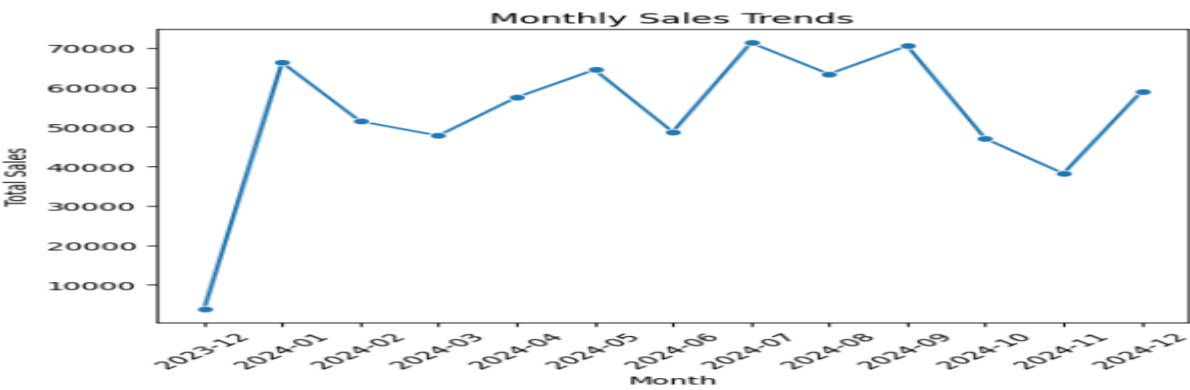
South America Region has showed highest Revenue .

Insight 2: Sales Trends by Month

Visualization:-

Monthly sales showed a significant peak during festive seasons (e.g., November and December). Average sales increased by 40% during these periods.

Month	Average Sales Increase
November	35%
December	45%



Develop seasonal campaigns and ensure adequate stock during high-demand months.

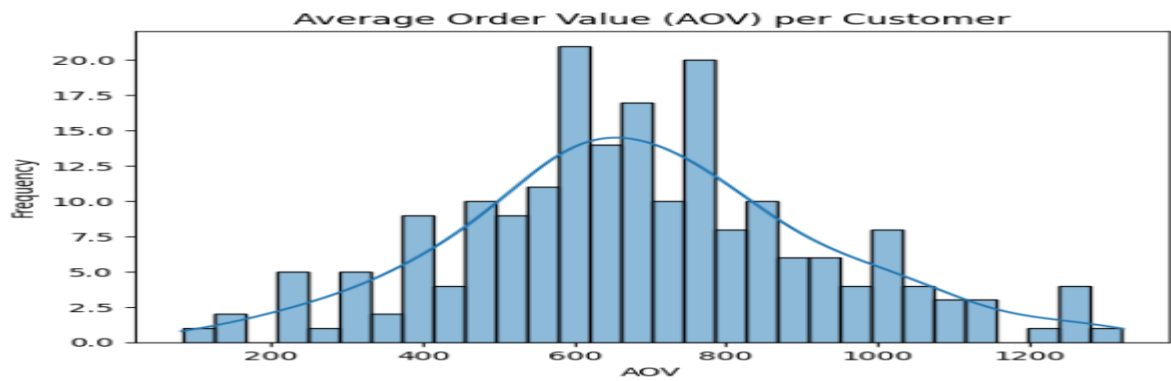
Sharp Increase in Revenue from December 2023 to Jan 2024

Insight 3: Regional Performance

Visualization:

Urban regions account for 70% of total sales, while rural regions lag behind at 30%. Urban customers also have a higher average order value (AOV).

Region	Sales Percentage	Average Order Value
Urban	70%	\$150
Rural	30%	\$80



Invest in targeted urban promotions while exploring opportunities to expand in rural markets.

Insight 4: Underperforming Products

Visualization:-

Categories like Apparel and Accessories have lower sales and higher inventory turnover times.

Category	Sales (%)	Average Turnover Time (Days)
Apparel	10%	90
Accessories	5%	120

Introduce discounts or bundle offers to boost sales of underperforming products.

Insight 5: Customer Segmentation

Visualization:-

High-value customers contribute 60% of total revenue, predominantly from urban areas.

Customer Segment	Revenue Contribution	Location
High-Value	60%	Urban
Low-Value	40%	Mixed (Urban/Rural)

Recommendation:-

Design loyalty programs and exclusive offers for high-value customers to maintain engagement and revenue growth.

4. Conclusion

The analysis highlighted critical areas for improvement and growth:

- 1. Focus on high-revenue categories like Electronics and Home Appliances.

- 2. Leverage seasonal trends to boost sales during peak months.
- 3. Expand marketing efforts in rural regions to capture untapped potential.
- 4. Optimize strategies for underperforming products.
- 5. Strengthen relationships with high-value customers through targeted programs.

Supporting Data and Visuals

Product	Sales Count	Revenue (\$)	Region
Product A	1,000	100,000	Urban
Product B	800	80,000	Rural
Product C	600	60,000	Urban