

Data Science Internship Assignment

Task 1: EDA and Business Insights

Rushikesh Borade

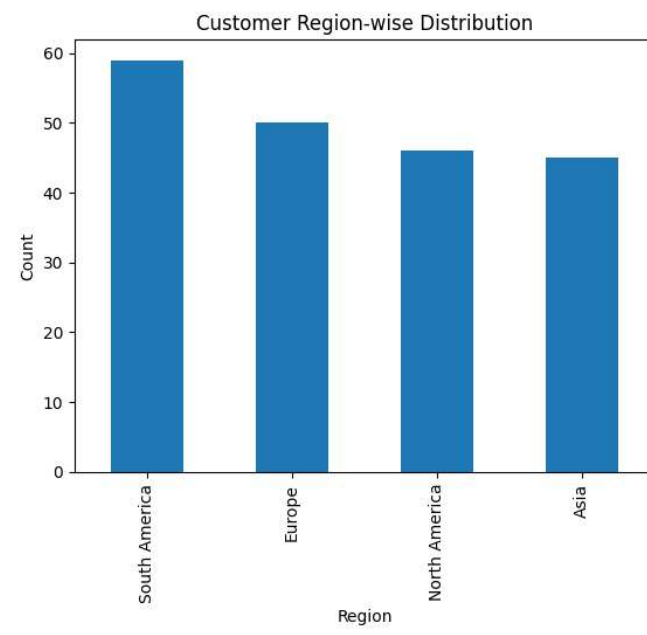
rishipb19@gmail.com

+91 7038235686

During the conduction of the task, following business insights were obtained:

1. Region based customer distribution.
2. Product performance (Top 10 most selling products and category wise sales).
3. Total sales over time.
4. Seasonal Trends.
5. Identification of high value customers.

Insight 1: Region based customer distribution



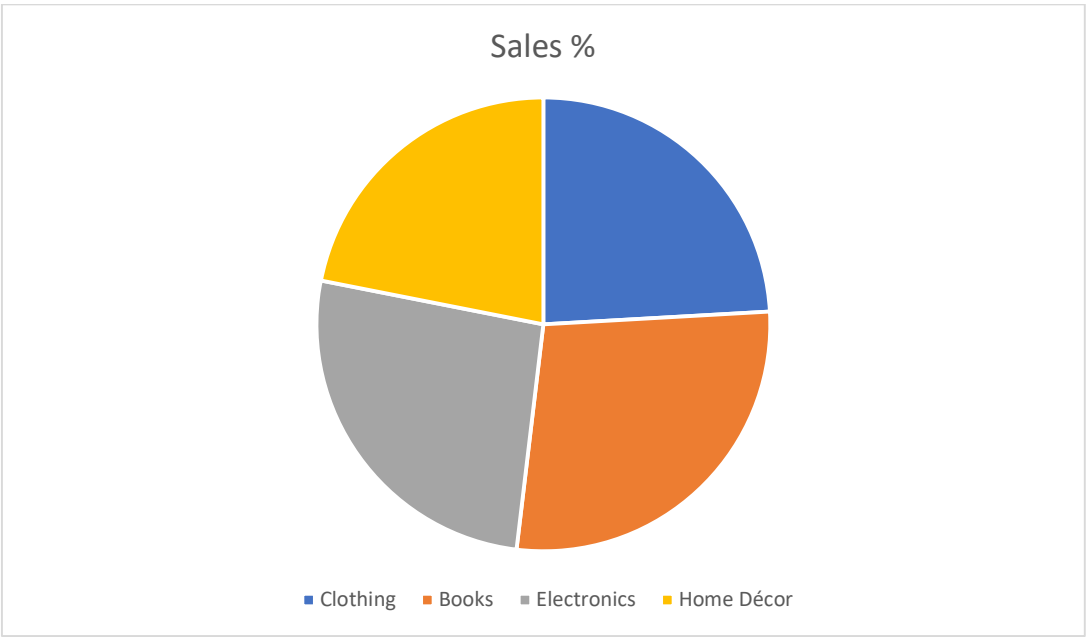
- South America stands out as the region with the highest number of customers, clearly leading over other regions.
- While Europe, North America, and Asia also have comparable customer distributions, they fall behind South America.
- The high customer density in South America presents a valuable opportunity for targeted marketing and business expansion strategies.
- At the same time, efforts can be focused on growing customer bases in other regions to balance the distribution and capture untapped market potential.

Insight 2: Product Performance (Top 10 most selling products and category wise sales):

The Top 10 products by sales are as follows:

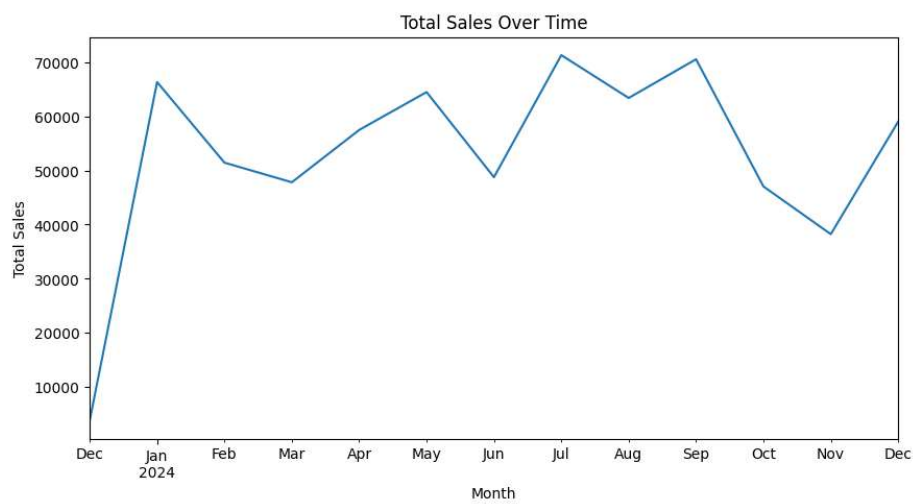
Product	Sales
ActiveWear Smartwatch	40,000
SoundWave Headphones	30,000
SoundWave Novel	28,000
ActiveWear Jacket	25,000
ActiveWear Rug	20,000
TechPro Headphones	18,000
BookWorld Cookbook	16,000
BookWorld Sweater	15,000
TechPro Textbook	14,000
ActiveWear Cookware Set	12,000

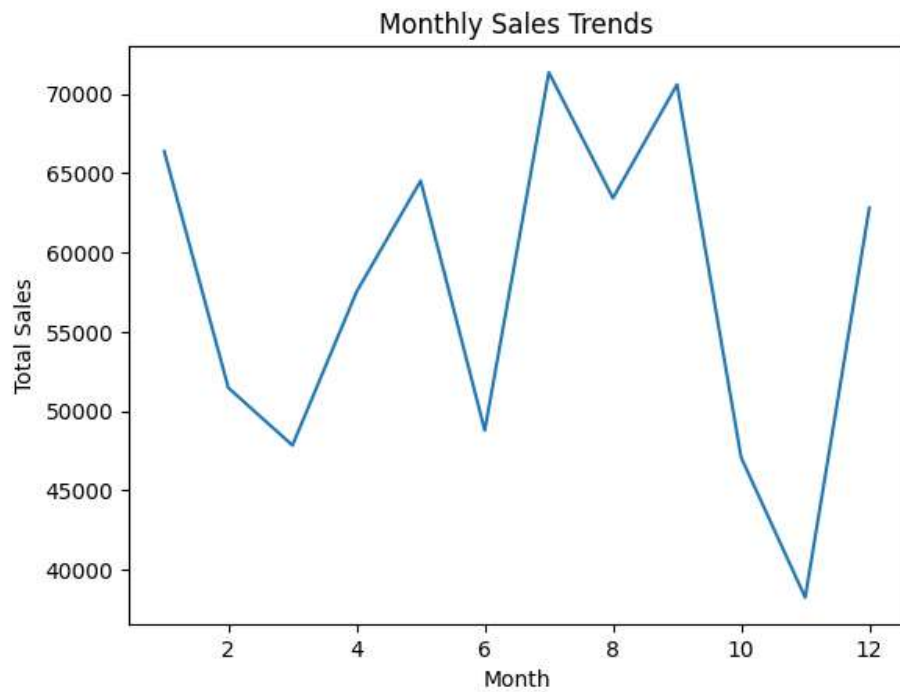
Category-wise Sales Distribution (%):



To summarise:

- Books lead with 27.8% of the total sales, suggesting they are the most purchased category.
- Electronics follow closely with 26.2%, indicating a strong demand for gadgets and tech products.
- Clothing contributes 24.1%, showing consistent customer interest in apparel.
- Home Decor accounts for the smallest share at 21.9%.

Insight 3: Sales over time



- There is a trend of increasing sales from the start of the year (January) to the peak in July, followed by declining sales towards the end of the year.
- The highest sales occur in July, reaching around 70,000 units.
- The lowest sales occur in December, dropping to around 40,000 units.

Insight 4: Average order value

Based on the observations, the average order value was calculated to be **\$690**

Insight 5: Top 20% Customers by Revenue

High-Value Customers Contribution: 35.14%

The results indicate the following:

- High-value customers (top 20% by revenue) account for a significant portion of total revenue at over 35%.
- The remaining 80% of customers contribute less than 65% of total revenue.