

### Exploratory Data Analysis Insights

- 1) The graph represents revenue ("Total Value") across various regions of the world, such as Asia, Europe, North America, and South America. It is clear that South America produces significantly greater revenue than Asia, Europe, and North America, which show relatively lower revenue values. This suggests strong market penetration or favorable conditions in the region of South America.
- 2) The organization's revenue is fairly well-diversified across four main categories: Books, Clothing, Home Decor, and Electronics. The pie chart allows analysis of the percentage share of the various product categories to the total revenue of the organization. With 27.8% of the revenue share, Books represent the strongest category while Clothing (24.1%) and Electronics (26.2%) also contribute substantial revenue shares. At 21.9%, Home Decor has the least revenue among the four categories. This suggests a well-balanced business with a strong market presence and a loyal customer base in each category. A detailed assessment of the Home Decor segment may help identify opportunities to enhance its revenue contribution.
- 3) The bar chart highlights the top 10 best-selling products across four categories: Electronics, Home Decor, Books, and Clothing. Electronics, which has third ranking in overall revenue share, leads the sales rankings, with "ActiveWear Smartwatch" and "SoundWave Headphones" taking the top two spots. Home Decor products, such as "HomeSense Desk Lamp" and "ActiveWear Rug," also perform strongly. The Books and Clothing categories perform well with popular items like "SoundWave Cookbook" and "ActiveWear Jacket." The organization might focus further on high-demand segments like Electronics while leveraging marketing strategies to boost book and clothing sales further.
- 4) From the graph it is evident that South America leads in total sales with Books contributing the highest share (31.8%). Asia sees the highest percentage from Clothing (32.5%), while North America exhibits a balanced distribution, with Electronics at 29.4%. Home Decor has a moderate presence across all regions, peaking in Europe at 24.6%. These insights highlight Books' dominance in South America and Europe, while Clothing thrives in Asia. The organization should tailor marketing strategies accordingly to maximize regional strengths.
- 5) The monthly revenue trend graph is plotted to highlight significant fluctuations in revenue over time. A sharp initial spike at the beginning of the year is followed by alternating peaks and dips, indicating inconsistent sales trends. The highest revenue point is during the months of July and September, while notable declines suggest seasonal demand shifts. The final rise signals potential recovery or seasonal influence. The organization needs to analyze the causes of these fluctuations such as marketing campaigns, seasonal demand, or external factors and aim for a stable revenue flow.