

Business Insights from EDA

1. Sales Trend Over Time

- Sales **increased significantly from December 2023 to January 2025**, with slight fluctuations afterward.
- July 2024 recorded the highest sales of **\$71,366.39**, while December 2023 saw the lowest sales of **\$3,769.52**.
- The trend suggests periodic peaks and drops.

2. Top 5 Products by Total Sales

- A total of **66 products** were sold during the period.
- The **ActiveWear Smartwatch** generated the highest revenue of **\$39,096.97**, while the **ComfortLiving Laptop** had the lowest revenue of **\$647.76**.
- The top 5 products by revenue were:
 1. ActiveWear Smartwatch
 2. SoundWave Headphones
 3. Soundwave Novel
 4. ActiveWear Jacket
 5. ActiveWear Rug
- We have to expand offerings in the Smartwatch and Headphones categories, as these are high performers.

3. Sales by Region

- Among the four regions, **South America** contributed the most to total sales of **\$2,19,352.56**, while **Asia** had the least sales of **\$1,52,074.97**.
- This indicates a higher customer demand and potential market opportunities in South America.
- We have to strengthen marketing efforts in Asia and maintain leadership in South America.

4. Sales by Product Category

- **Books** were the most sold product category raising value of **\$1,92,147.47**, outperforming all others.
- **Home Decor** accounted for the least sales raising value of **\$1,50,893.93** signaling potential gaps in customer interest or product variety.
- We have to explore customer preferences in Home Decor to drive its sales while sustaining growth in Books.

5. Quantity by Price Range

- The maximum price of a product observed was **\$497.76**, highlighting the premium pricing range of some products.
- Products priced between **\$200–\$400** had the highest sales volume, while those priced between **\$0–\$50** sold the least.
- **1019** products of price range **\$200–\$400** were sold and **183** products of price range **\$0–\$50** were sold.
- We have to focus on products priced between \$200–\$400, as this range resonates most with customers