

# Results from EDA of the data:

## Customer Distribution by Region

- **South America:** Holds the largest share with **29.5% (59 customers)**, indicating a strong market presence or demand in the region.
  - **Europe:** Accounts for **25.0% (50 customers)**, showing a significant customer base.
  - **North America:** Represents **23.0% (46 customers)**, reflecting a balanced distribution.
  - **Asia:** Has the smallest share at **22.5% (45 customers)**, suggesting potential for growth or the need for increased marketing efforts.
- 

## Top 10 Most Purchased Products

- **ActiveWear Smartwatch** and **SoundWave Headphones:** Most popular products, each contributing **3.8% of total purchases**, indicating strong consumer interest in wearable technology and audio products.
  - **HomeScent Desk Lamp** and **ActiveWear Rug:** Also show high purchase rates, highlighting demand for home and lifestyle products.
  - **TechPro Textbook** and **SoundWave Desk Lamp:** Least purchased among the top 10, each capturing **2.8%**, suggesting a niche market or the need for promotional strategies.
- 

## Total Sales by Product Category

- **Books:** Lead with **27.8% (\$192,147)**, indicating a strong interest in reading materials.
  - **Electronics:** Follow closely with **26.2% (\$180,784)**, reflecting a high demand for tech products.
  - **Clothing:** Accounts for **24.1% (\$166,171)**, showing a steady market for apparel.
  - **Home Decor:** Contributes **21.9% (\$150,894)**, suggesting room for expansion or targeted marketing to boost sales.
-

## Monthly Sales Trend

- **Peak Sales:** Observed in **December 2024**, exceeding **\$70,000**, likely due to holiday shopping.
  - **Additional Peaks:** May and September, possibly driven by seasonal promotions or product launches.
  - **Lowest Sales:** February and November, indicating potential for improvement through targeted campaigns during these months.
- 

## Top 10 Customers by Total Spend

1. **Paul Parsons:** Top spender contributing **14.0% (\$10,674)**, highlighting his importance as a key customer.
2. **Bruce Rhodes:** Follows with **10.6% (\$8,040)**.
3. **Gerald Hines:** Contributes **10.1% (\$7,664)**.
4. **Rodney Eaton** and **Juan McDaniel:** Lowest spenders within the top 10, each accounting for **8.8% (\$6,700)**, suggesting potential for increased engagement or personalized marketing to enhance their spending.