

5 Business Insights from the EDA

1. Revenue Insights:

- **Total Revenue:** The business generated a total revenue of \$689,995.56, with significant contributions from high-performing products.
- **Top 10 Products by Revenue:**
 1. TechPro Headphones: \$19,513.80
 2. ActiveWear Rug: \$17,946.91
 3. TechPro Cookbook: \$17,905.20
 4. ActiveWear Jacket: \$15,060.92
 5. HomeSense Novel: \$14,592.24
 6. SoundWave Jeans: \$13,947.20
 7. TechPro Smartwatch: \$13,778.88
 8. ActiveWear Smartwatch: \$13,671.60
 9. ComfortLiving Sweater: \$13,487.95
 10. ComfortLiving Smartphone: \$13,232.12

These products indicate a strong demand for electronics and wearable devices, suggesting further marketing in these categories.

2. Customer Behavior:

- **Repeat Customers:** Out of 200 customers, 187 (93.5%) are repeat customers, while 12 (6.0%) are one-time buyers. High repeat customer rates highlight strong customer loyalty.
- **Customer Lifetime Value (CLV):** The average CLV is \$3,467.31, indicating a high spending capacity per customer, which aligns with the revenue performance.
- Retaining repeat customers and converting one-time buyers into loyal customers presents a growth opportunity.

3. Product Performance:

- **Revenue by Category:**
 - Books: \$192,147.47
 - Electronics: \$180,783.50
 - Clothing: \$166,170.66
 - Home Decor: \$150,893.93

Books lead in revenue, but Electronics and Clothing show a close second and third. Investment in these categories can maximize profitability.

4. Customer Insights:

- Highest Number of Orders: Customer C0109 placed the highest number of orders (11).
- Highest Money Spent: Customer C0141 spent the most with a total of \$10,673.87.

Both customers highlight the importance of understanding and targeting high-value buyers with personalized promotions to boost retention and spending.

5. Regional Insights:

- **Customer Distribution by Region:** Customers are distributed across South America, Europe, North America, and Asia. With South America being the most important region for the business.
- Average Customer Spending by Region:
 - South America: Highest average spending.
 - Europe: Moderate spending.
 - Asia and North America: Lower average spending.

Region-specific marketing strategies, such as targeting South America for premium products and North America for budget-friendly options, could enhance revenue growth.