

Deliverable 2: PDF Report with Business Insights

Business Insights from EDA

1. **Total Revenue:** The total revenue generated from all transactions is **\$689,995.56**. This provides a baseline for understanding the overall financial performance of the business and highlights the effectiveness of sales and marketing strategies.
2. **Top Products by Revenue:** The top 5 products by revenue are:
 - **ActiveWear Smartwatch:** \$39,096.97
 - **SoundWave Headphones:** \$25,211.64
 - **SoundWave Novel:** \$24,507.90
 - **ActiveWear Jacket:** \$22,712.56
 - **ActiveWear Rug:** \$22,314.43

These products contribute significantly to overall revenue and should be prioritized in inventory management, promotions, and strategic marketing initiatives.
3. **Top Customers by Spending:** The top 5 customers by spending are:
 - **Paul Parsons:** \$10,673.87
 - **Bruce Rhodes:** \$8,040.39
 - **Gerald Hines:** \$7,663.70
 - **William Adams:** \$7,634.45
 - **Aimee Taylor:** \$7,572.91

These high-value customers represent an important segment of the customer base and should be targeted with loyalty programs, personalized offers, and premium customer experiences to enhance retention and lifetime value.
4. **Sales Distribution by Region:** Sales distribution across regions is as follows:
 - **South America:** \$219,352.56
 - **Europe:** \$166,254.63
 - **North America:** \$152,313.40
 - **Asia:** \$152,074.97

South America shows the highest sales figures, suggesting a

strong market presence. Strategic investments in logistics and regional marketing campaigns can further capitalize on this growth.

5. **Most Popular Product Categories:** The most popular product categories based on sales volume are:

- **Books:** 681 units
- **Home Decor:** 639 units
- **Electronics:** 627 units
- **Clothing:** 590 units

The demand for books and home decor is notable, which highlights potential opportunities for cross-selling or bundling strategies to increase average order value.

6. **Customer Acquisition Over Time:** Customer acquisition has grown steadily over time, with significant spikes in:

- **April 2024:** 10 new customers
- **September 2024:** 11 new customers
- **November 2024:** 11 new customers

These peaks suggest the success of seasonal promotions or marketing campaigns. Replicating these strategies during similar timeframes could sustain or boost growth further.

Recommendations:

- **Product Prioritization:** Focus marketing efforts on high-revenue products like "ActiveWear Smartwatch" and "SoundWave Headphones."
- **Customer Retention:** Implement loyalty programs targeting top spenders like Paul Parsons and Bruce Rhodes to ensure continued engagement.
- **Regional Strategies:** Allocate resources to high-performing regions, particularly South America, while identifying growth opportunities in underperforming areas.
- **Category-Specific Promotions:** Explore promotions and bundles for popular categories like Books and Home Decor to capitalize on consumer interest.

- **Campaign Timing:** Leverage insights from customer acquisition spikes to plan future campaigns around similar periods for maximum impact.