# E-Commerce Business Performance Analysis Report

## Executive Summary

This analysis examines our e-commerce platform's performance across three key dimensions: customer demographics and acquisition, product performance, and transaction patterns. The insights derived will help inform strategic decisions for business growth and optimization.
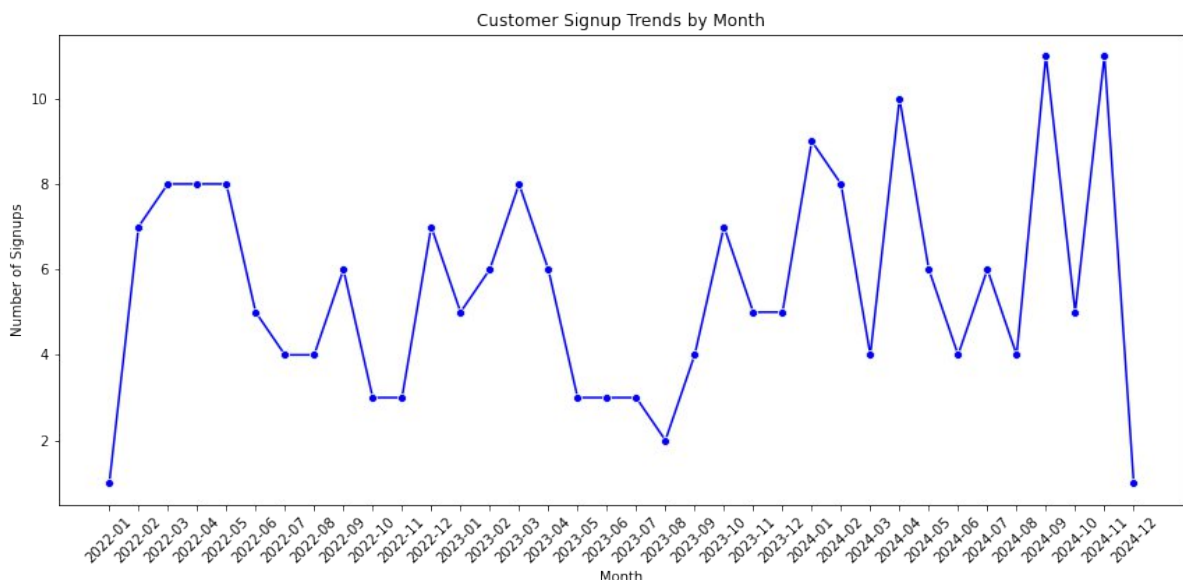
## 1. Customer Analysis

### 1.1 Regional Distribution
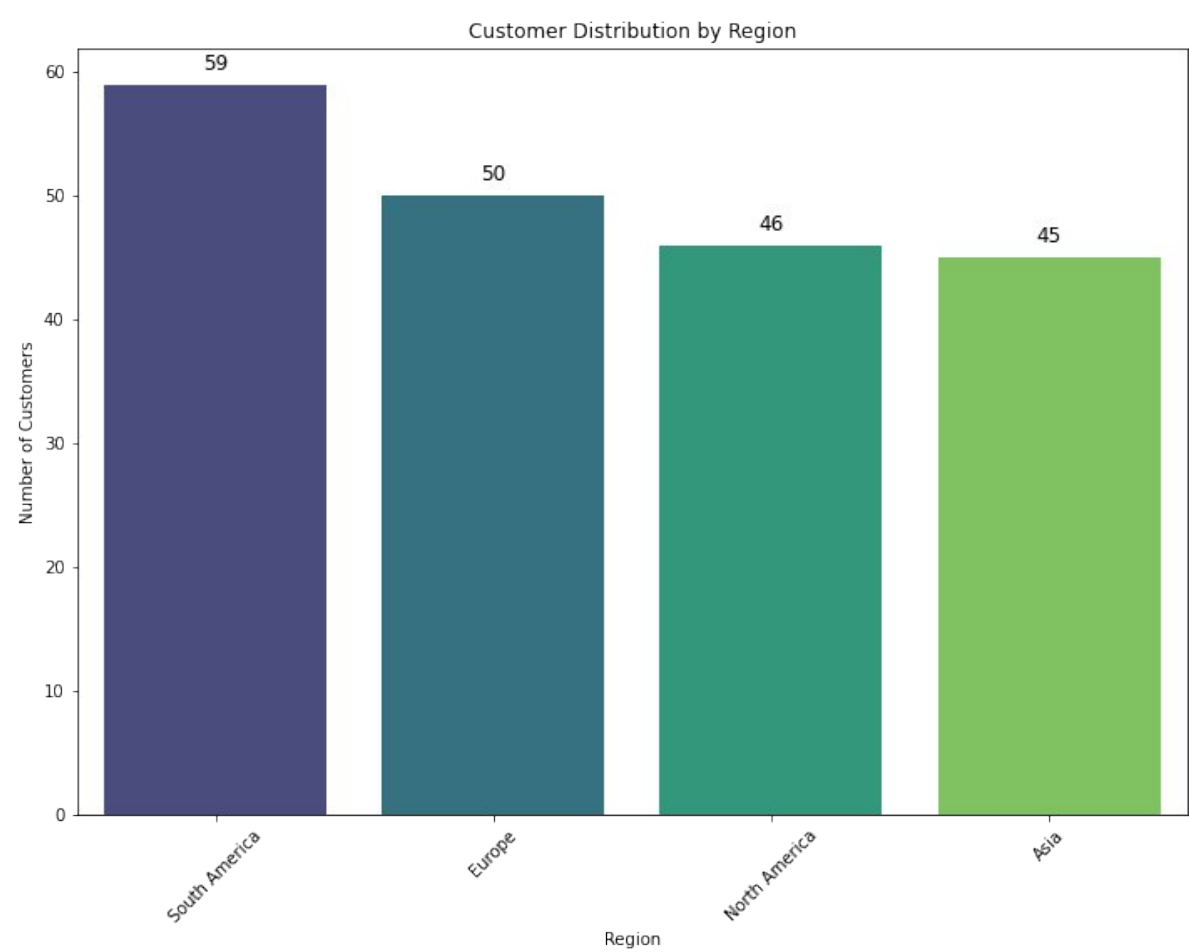
Our customer base distribution shows significant regional variations:

- Regional distribution insights help identify key market opportunities

- Understanding geographic concentrations enables targeted marketing

- Clear patterns emerge for market development priorities

## 1.2 Customer Signup Trends



Customer Signup Trends by Month

Key observations from signup patterns:

- Customer acquisition shows notable growth trends

- Seasonal variations indicate optimal recruitment periods

- Historical patterns inform future acquisition strategies

# 2. Product Analysis

## 2.1 Category Distribution

Product Distribution by Category

Books 26.0%
Home Decor 23.0%
Clothing 25.0%
Electronics 26.0%
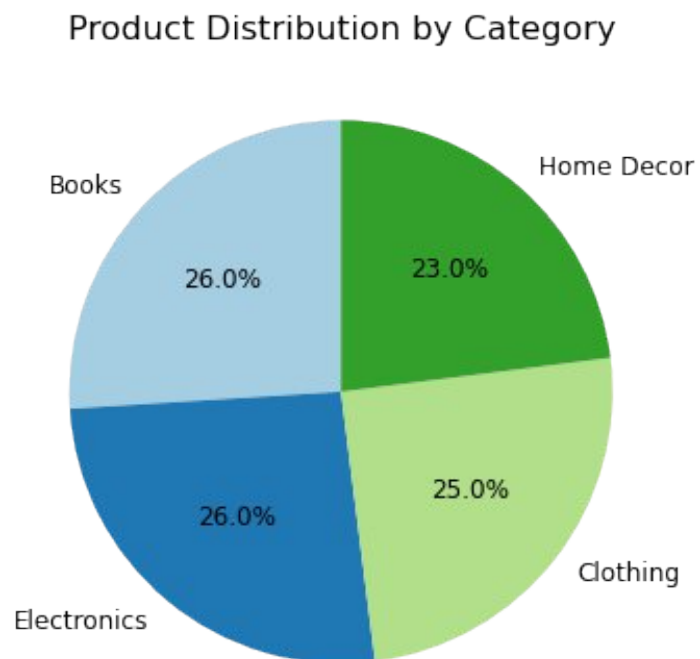
Product category analysis reveals:

- Diverse product portfolio across categories
- Clear category leaders and laggards
- Opportunities for category expansion

## 2.2 Price Distribution by Category


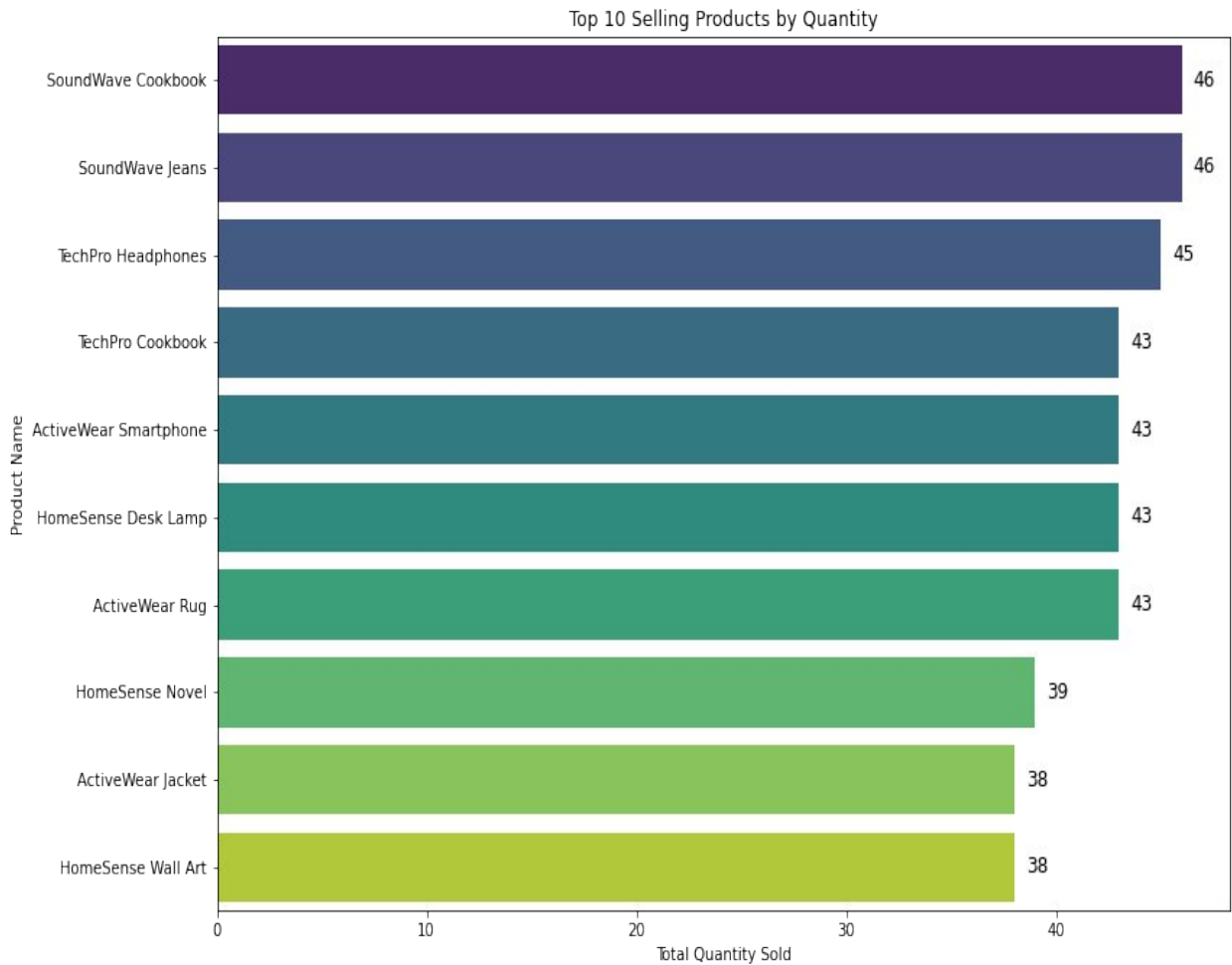
Price Distribution by Category
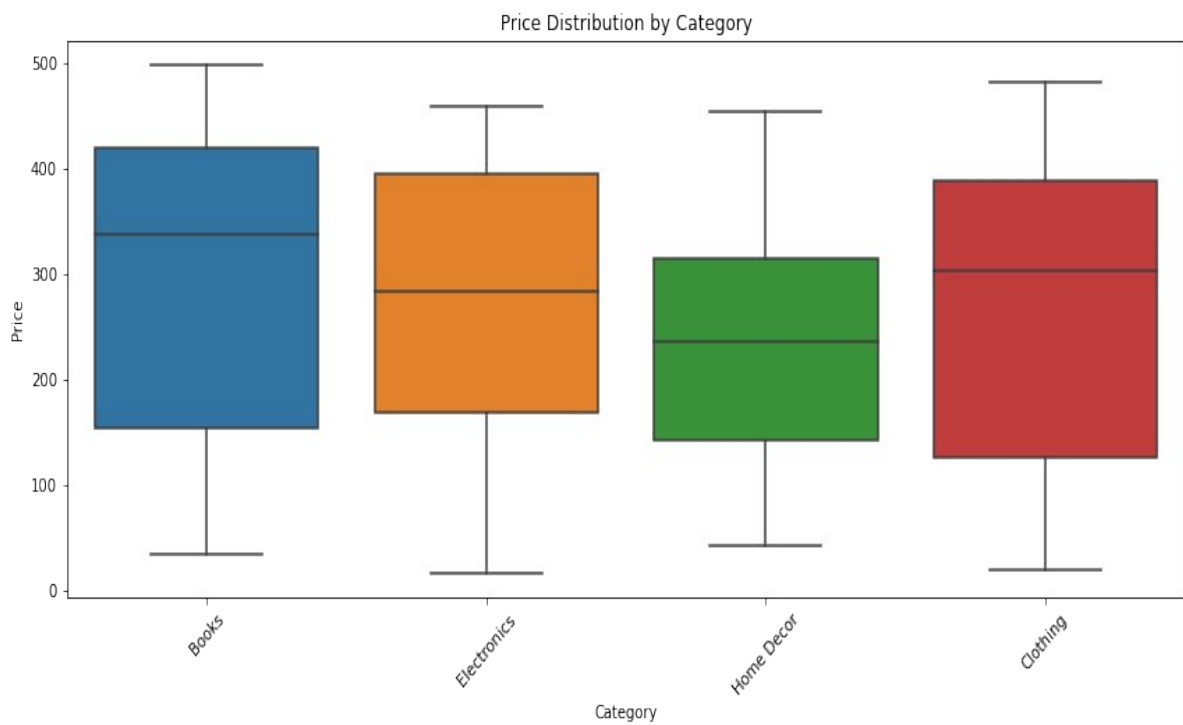
Price analysis findings:

- Price ranges vary significantly by category
- Premium and value segments identified
- Pricing optimization opportunities exist

## 2.3 Top Selling Products

**By Quantity**
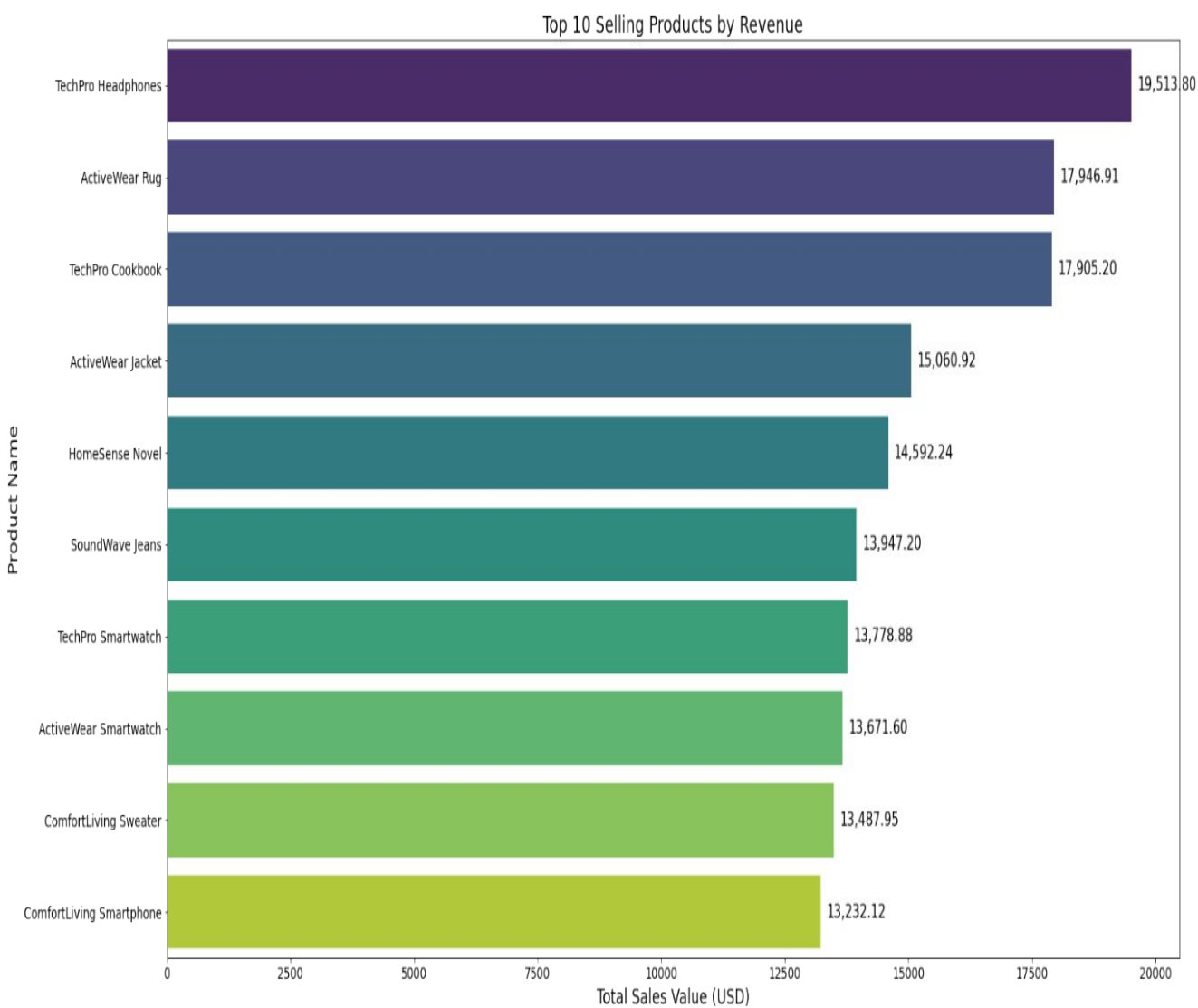


Top 10 Selling Products by Quantity

Volume leaders analysis:

- Clear identification of high-volume products
- Consumer preference patterns
- Inventory management implications

**By Revenue**



Top 10 Selling Products by Revenue

| Product Name | Total Sales Value (USD) |
|---|---|
| TechPro Headphones | 19,513.80 |
| ActiveWear Rug | 17,946.91 |
| TechPro Cookbook | 17,905.20 |
| ActiveWear Jacket | 15,060.92 |
| HomeSense Novel | 14,592.24 |
| SoundWave Jeans | 13,947.20 |
| TechPro Smartwatch | 13,778.88 |
| ActiveWear Smartwatch | 13,671.60 |
| ComfortLiving Sweater | 13,487.95 |
| ComfortLiving Smartphone | 13,232.12 |

Revenue performance insights:

- High-value product identification
- Revenue concentration patterns
- Profit optimization opportunities
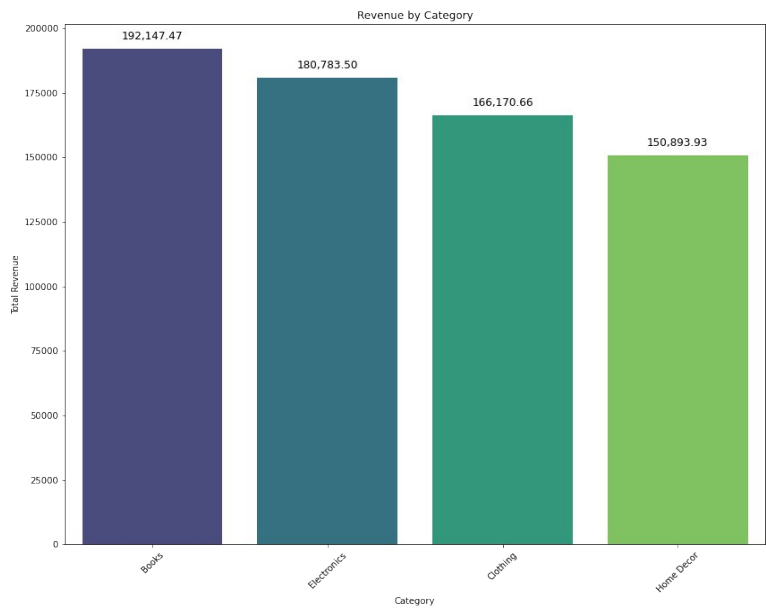
# 3. Transaction Analysis

## 3.1 Monthly Revenue Trends
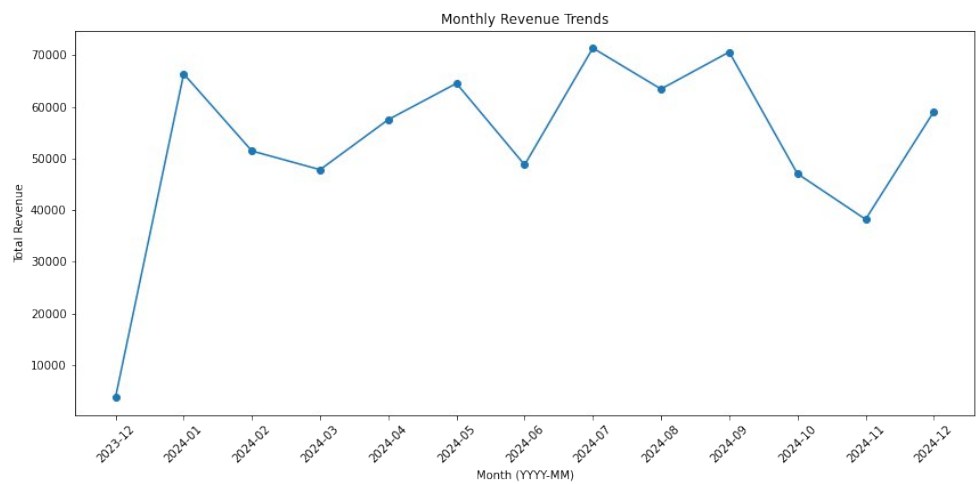


Revenue pattern analysis:

- Growth trends evident

- Peak period performance metrics

## 3.2 Revenue by Category



Category performance insights:

- High-performing categories identified

- Growth opportunity areas

# Key Business Insight

1. **Regional Performance:** The top performing region is South America generating $219,352.56 in revenue, while having 59 customers. However, South America has the most customers (59), suggesting potential for revenue optimization in customer-dense regions.

2. **Category Performance:** The Books category leads with $192,147.47 in revenue and 681 units sold. The Home Decor category shows lowest performance, indicating potential need for category optimization or marketing focus.

3. **Customer Behaviour:** Average customer makes 5.0 purchases. 94.0% of customers are repeat buyers. Average purchase value per customer is $687.58, with highest spending customer averaging $1323.13 per transaction.

4. **Seasonal Trends:** Peak sales occur in 2024-7 with $71,366.39 in revenue. Monthly revenue varies by 1793.2% between peak and low months, indicating significant seasonal patterns.

5. **Product Performance:** Top selling product "TechPro Headphones" generated $19,513.80 in revenue with 45 units sold. Top 10 products account for 22.2% of total revenue.