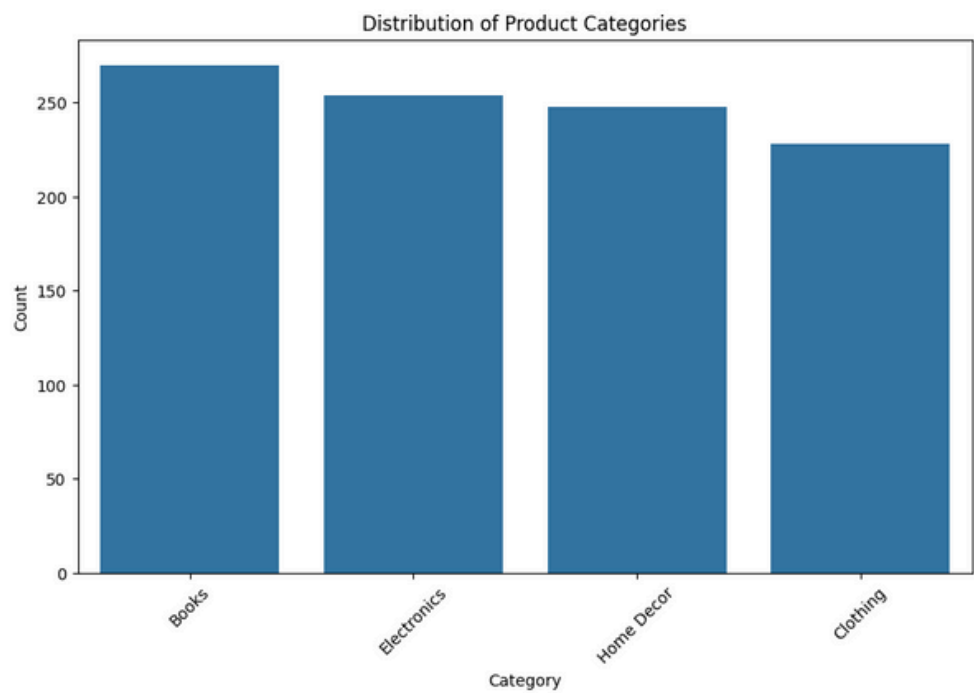


Bussiness Insight Report

This report analyzes an eCommerce Transactions dataset, which includes customer, product, and transaction information. The goal is to uncover insights into customer behavior, identify trends, and build predictive models to drive future sales and marketing strategies. By performing Exploratory Data Analysis (EDA), we aim to provide actionable business insights to inform decisions, improve customer targeting, and optimize product offerings.

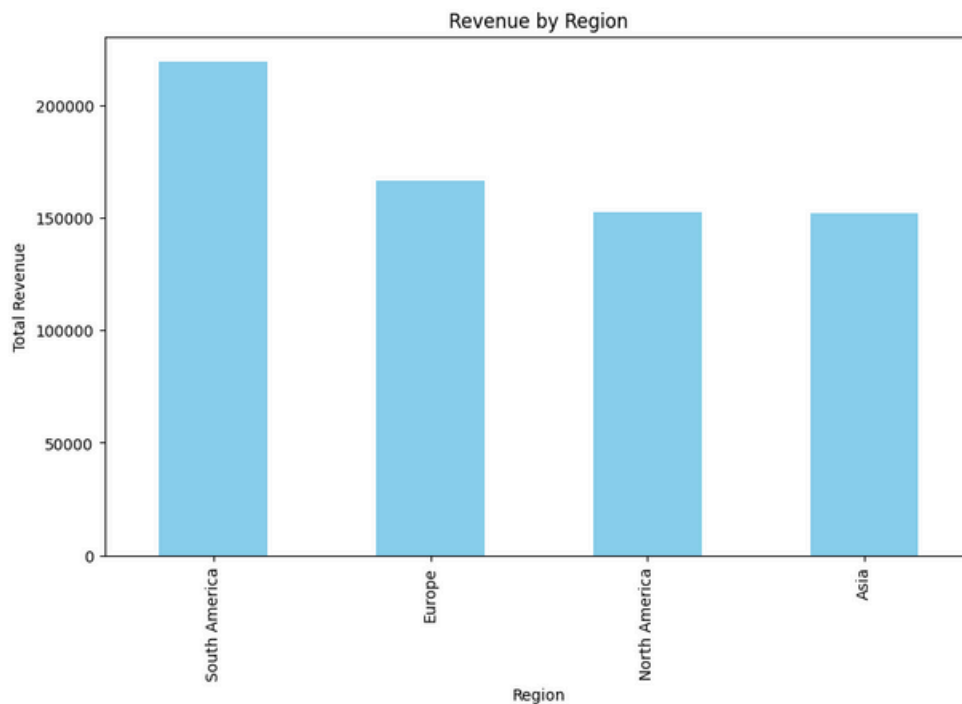
a. Distribution of Product



Product Category Insights

- 1. **Books:** High demand, expand range and promotions.
- 2. **Clothing:** Low demand, revisit pricing and marketing.
- 3. **Electronics & Home Decor:** Similar demand, consider cross-promotions.
- 4. **Marketing:** Focus on Books for variety and Clothing for deals.
- 5. **Inventory:** Stock Books well, balance Clothing inventory, and optimize Electronics/Home Decor.

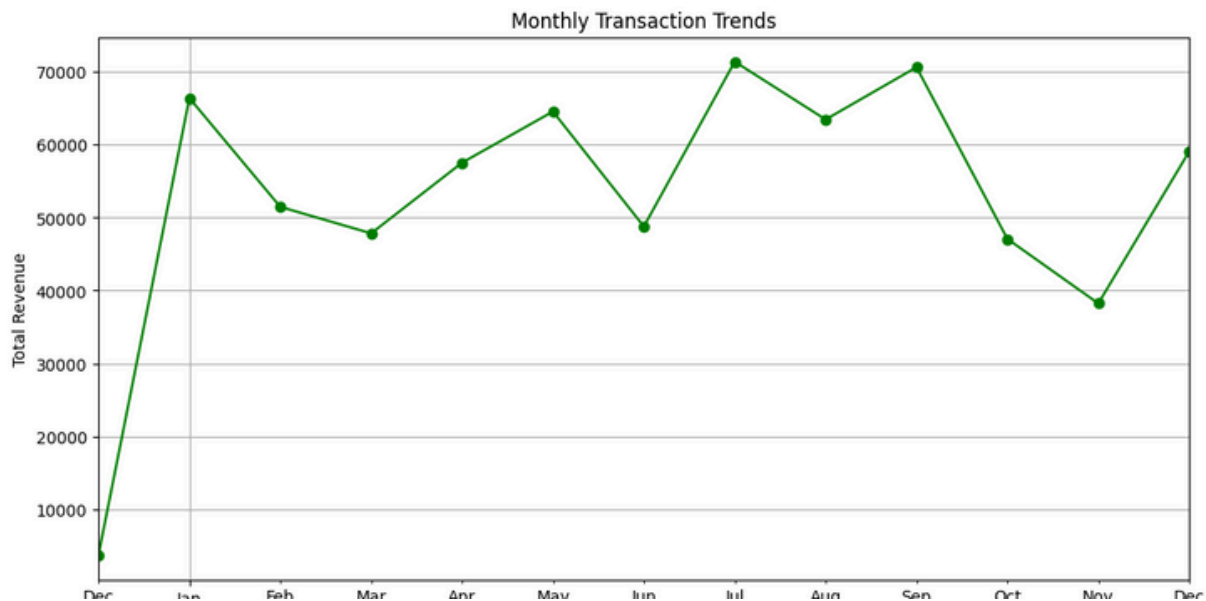
b. Revenue by Region



Regional Revenue Insights

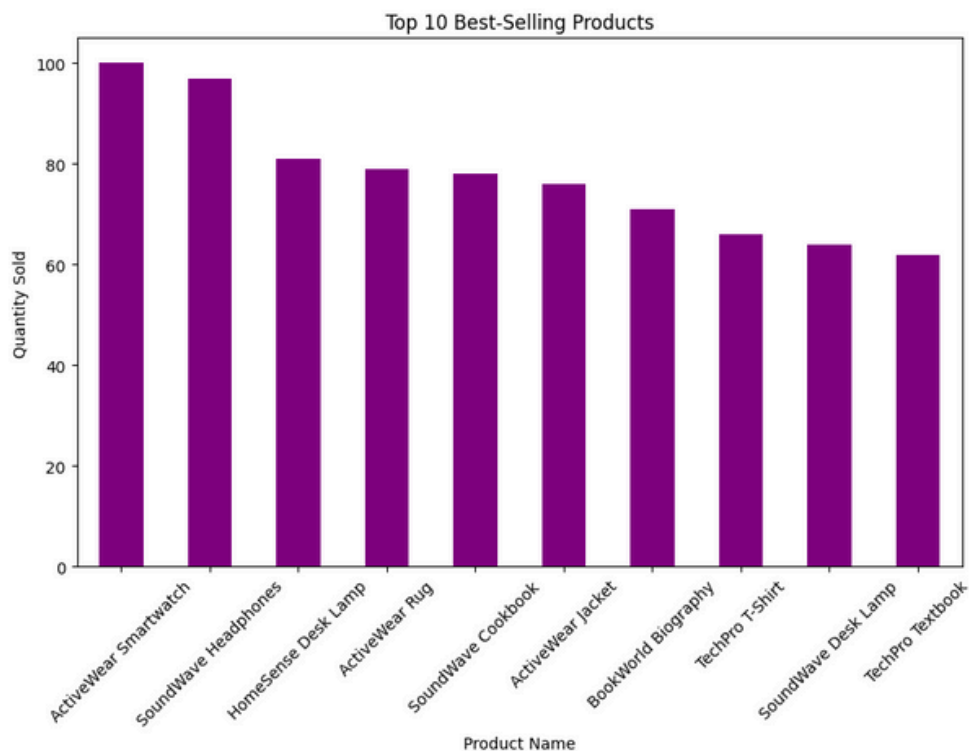
1. **South America:** Generates the highest revenue, indicating strong market performance.
2. **Europe:** Ranks second in revenue, showing a solid customer base.
3. **North America:** Third-highest revenue, with potential for further growth.
4. **Asia:** Lowest revenue, highlighting an opportunity for expansion and improved strategies.

Monthly Transaction Trends



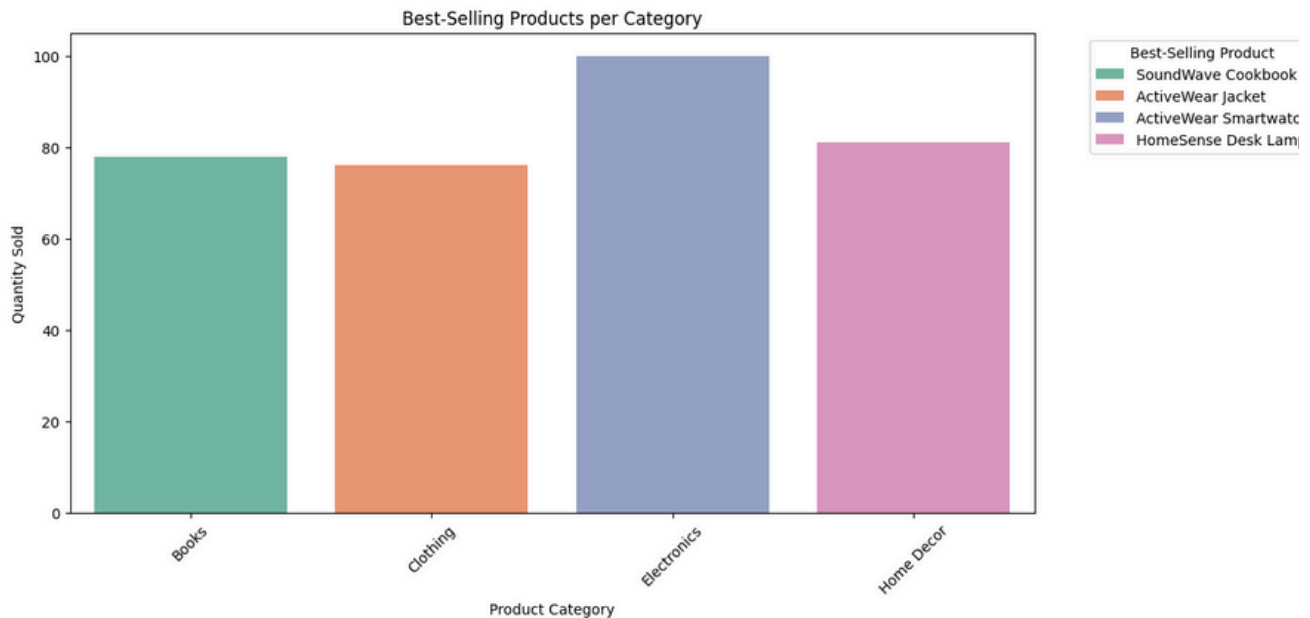
- Highest Revenue: July and September recorded the highest revenue, reaching approximately 70,000.
- Lowest Revenue: December 2023 saw the lowest revenue, at around 4,000.
- Initial Growth: Revenue significantly increased from December 2023 to January 2024.
- Upward Trend: Revenue trended upwards from January to May 2024, despite a small dip in February.
- Mid-Year Decline: Revenue decreased steadily from May to November 2024.
- Recovery in December: Revenue rebounded in December 2024, reaching around 60,000.
- Overall Trend: Despite fluctuations, the general trend shows business growth over the year.

Best Selling Product



- 1.Highest-Selling Product: ActiveWear Smartwatch leads sales, followed by SoundWave Headphones.
- 2.Popular Products: Other top products include HomeSense Desk Lamp, ActiveWear Rug, and SoundWave Cookbook.
- 3.Brand Dominance: ActiveWear and SoundWave dominate the market with multiple products in the top 10.
- 4.Business Insight: Highlights consumer preferences, guiding resource allocation for top-performing brands.

Correlation graph between product category and selling product



This graph shows the number of different product types sold.

- **Books:** The best-selling product in this category is the SoundWave Cookbook.
- **Clothing:** The best-selling product in this category is the ActiveWear Jacket.
- **Electronics:** The best-selling product in this category is the ActiveWear Smartwatch.
- **Home Decor:** The best-selling product in this category is the HomeSense Desk Lamp.

Conclusion

The analysis highlights significant trends in product performance, regional revenue, and customer preferences. Books and ActiveWear Smartwatch dominate sales, while South America leads in revenue generation. Revenue trends over the year show fluctuations but indicate overall growth. These insights provide a roadmap for optimizing inventory, tailoring marketing strategies, and focusing on high-performing regions and products to drive business growth.

Key Business Insights

1. **Product Trends:** Books are in high demand; Clothing needs improved pricing and marketing.
2. **Top Products:** ActiveWear Smartwatch and SoundWave Cookbook lead sales; focus on these for promotions.
3. **Regional Revenue:** South America generates the highest revenue; Asia offers potential for expansion.
4. **Revenue Trends:** Peak sales in July and September; December shows seasonal recovery potential.
5. **Marketing & Inventory:** Prioritize best-sellers and balance stock to meet demand across all categories.