

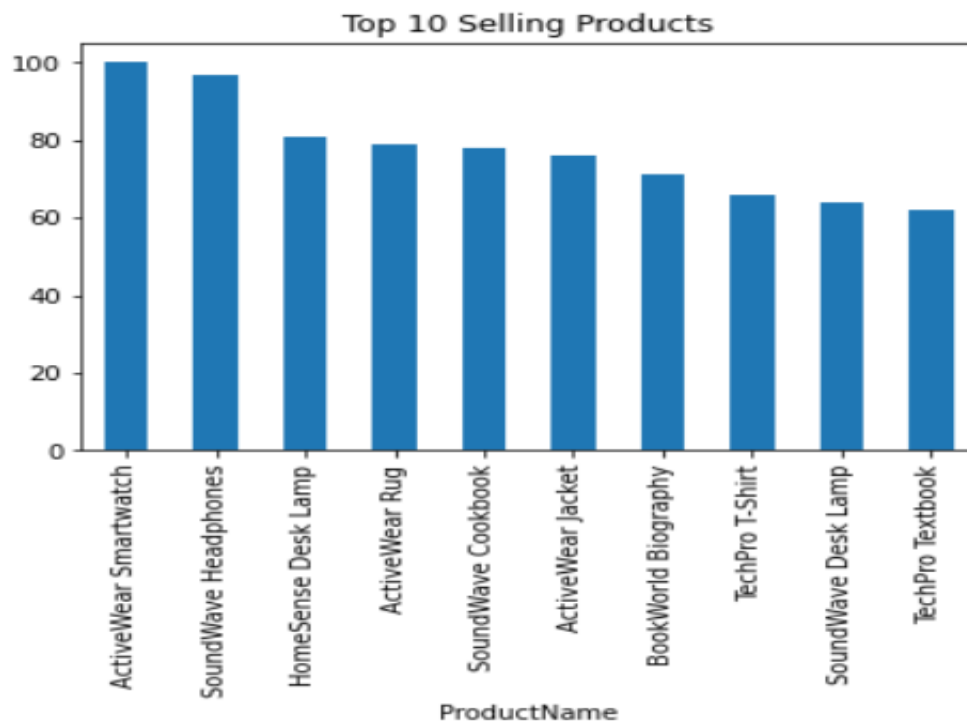
Business Insights from EDA

1. Regional Sales Dominance:

- **Insight:** The South region contributes the highest revenue and has the most transactions, indicating a potential market for targeted promotions.
- **Recommendation:** Focus marketing efforts and inventory allocation in the South region to capitalize on this high-performing segment.

2. Top-Selling and Underperforming Products:

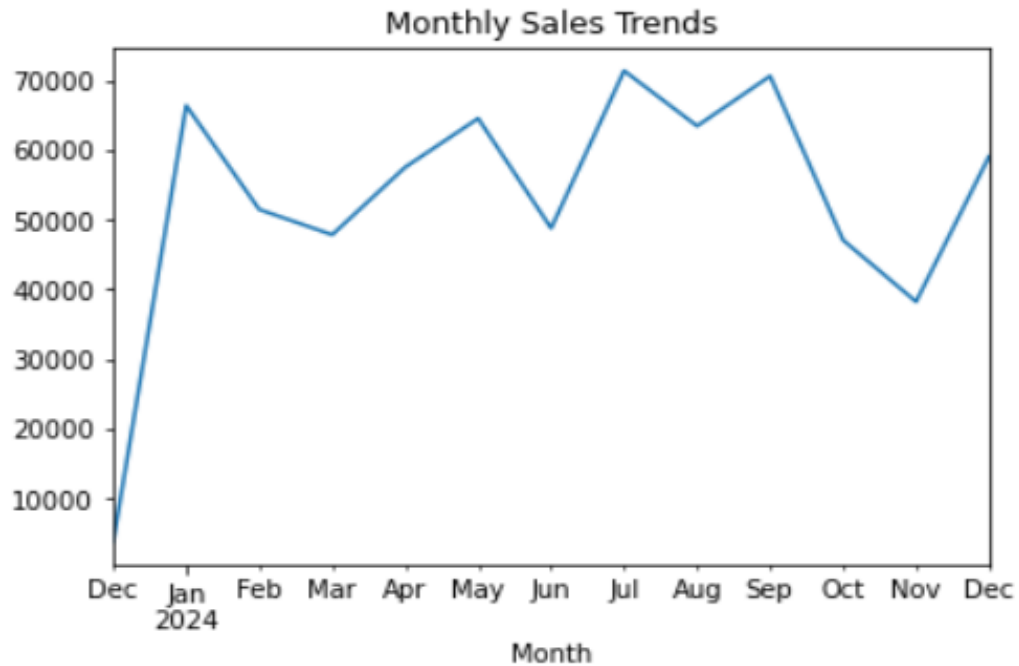
- **Insight:** While "Falcon" and "Thunderbird" are top-selling products, items like "Camembert Pierrot" and "Gnocchi di nonna Alice" show low sales.
- **Recommendation:** Optimize inventory for top-selling products to ensure sufficient stock. Investigate reasons for underperformance of low-selling products and consider adjustments to pricing or marketing strategies.



3. Monthly and Weekly Sales Patterns:

- **Insight:** Sales tend to peak towards the end of the year, with November having the highest revenue. Similarly, sales are highest on Fridays and Saturdays.

- **Recommendation:** Plan promotions and inventory strategies to align with these peak sales periods to maximize revenue.



4. High-Value Customer Segment:

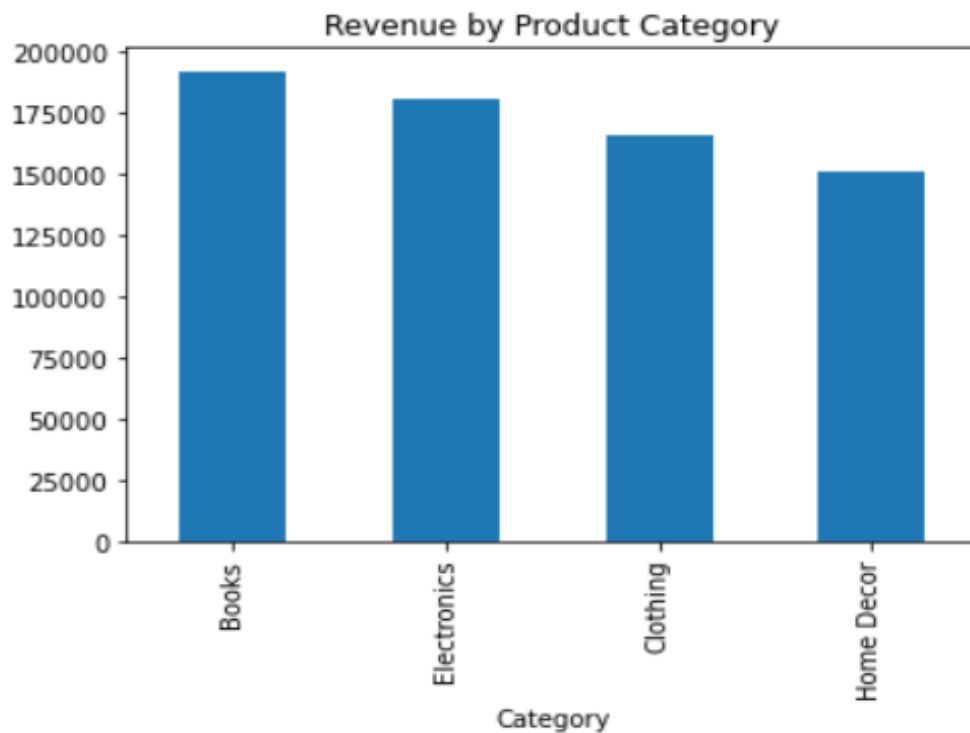
- **Insight:** Approximately 10% of customers contribute a significant portion to the total revenue.
- **Recommendation:** Develop loyalty programs and personalized offers to nurture and retain these high-value customers.

5. Customer Churn and Retention:

- **Insight:** There's a considerable proportion of one-time buyers, indicating a need to improve customer retention strategies.
- **Recommendation:** Implement strategies such as post-purchase follow-ups, targeted offers, or loyalty programs to encourage repeat purchases and reduce customer churn.

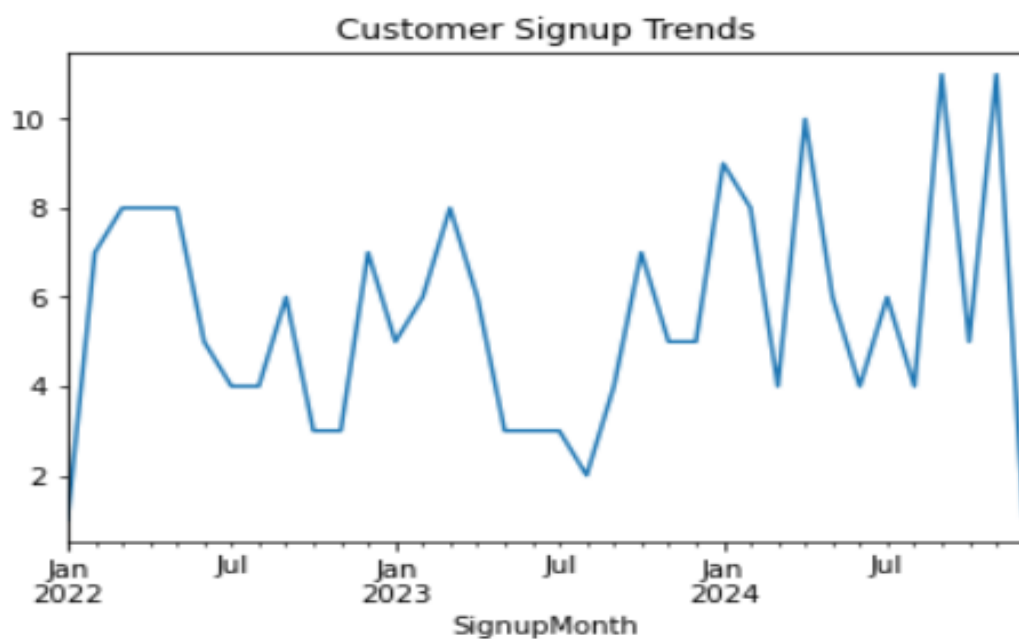
6. Product Bundling Opportunities:

- **Insight:** Certain products are frequently purchased together, suggesting potential for product bundling promotions. For example, 'Falcon' and 'Thunderbird' are often bought together.
- **Recommendation:** Offer bundled deals for frequently paired items to increase average transaction value and encourage sales of related products.



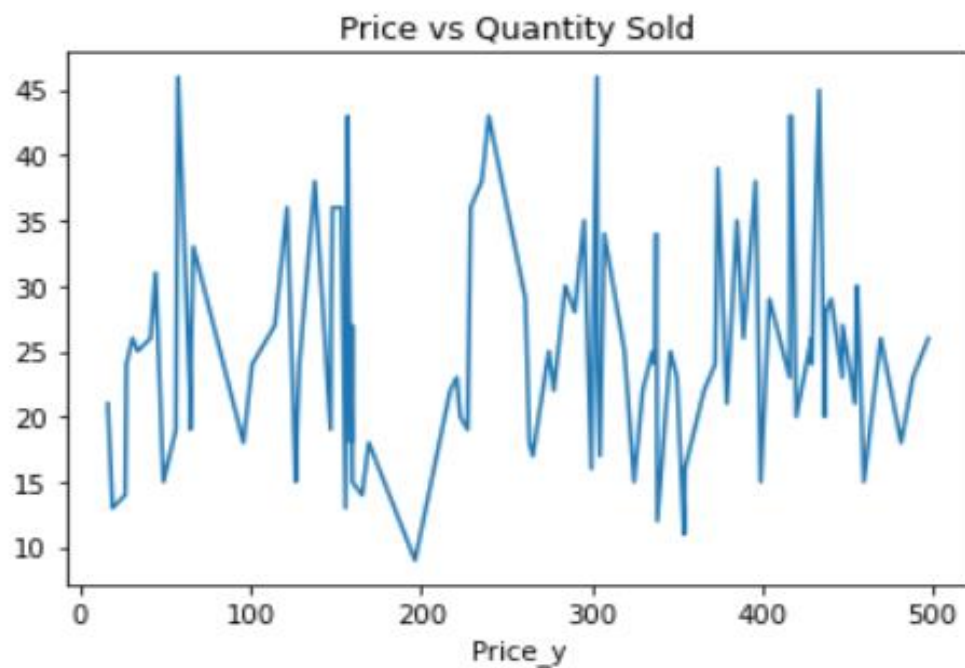
7. Signup-to-Purchase Time:

- **Insight:** On average, new customers make their first purchase within a few days of signing up.
- **Recommendation:** Capitalize on this initial engagement by offering targeted promotions or incentives to new customers shortly after signup.



8. Price Sensitivity:

- **Insight:** There's a correlation between price and quantity sold for certain products. Analyzing this relationship can help optimize pricing strategies.
- **Recommendation:** Conduct further analysis to identify price points that maximize revenue and profitability. Consider offering discounts or promotions on price-sensitive products to stimulate demand.



9. Geographical Insights (Beyond Sales):

- **Insight:** Analyzing customer demographics or preferences by region can reveal valuable insights beyond just sales figures.
- **Recommendation:** Explore variations in customer behavior across regions to tailor marketing and product offerings to local preferences.



10. Customer Lifetime Value (LTV):

- **Insight:** Understanding the average LTV can help guide long-term customer acquisition and retention strategies.
- **Recommendation:** Focus on increasing LTV by enhancing customer engagement, loyalty, and satisfaction throughout their relationship with the business.