SUPERSTORE PERFORMANCE ANALYSIS REPORT

Sales, Profitability, Return, and Shipping Performance (2014–2017)

1. **Report Objectives**

   This report evaluates Superstore's business performance by analyzing sales, profitability, shipping efficiency, return behavior, and geographic patterns. The objective is to support data-driven decision-making related to pricing, discount strategy, logistics, and regional performance optimization.

2. **Dataset Overview**
   - Dataset: Superstore
   - Source: Kaggle
   - Time period: January 2014–December 2017
   - Key tables: Orders and Return

3. **Sales Overview**

   Key Insights
   - Sales are primarily driven by the consumer segment followed by corporate and home office.
   - Monthly sales show an overall upward trend with visible seasonal fluctuations.
   - Sales are concentrated in medium- and low-profit segments, while high-profit sales contribute the least.
   - New York City records the highest sales volume among all cities.

   Interpretation

   Sales performance is largely driven by volume rather than profitability. A significant portion of revenue comes from medium- and low-profit sales, indicating that strong sales figures do not necessarily reflect strong margins. This suggests that sales growth strategies should be evaluated alongside profit quality, particularly in high-volume markets such as New York City.

4. **Profit Overview**

   Key Insights
   - The overall profit margin is 12.5%, indicating moderate profitability.
   - 26.31% of orders generate negative profit, highlighting a significant efficiency issue.
   - The Consumer segment contributes the highest profit, followed by Corporate and Home Office.
   - Monthly profit trends are highly volatile, with frequent increases followed by sudden declines.
   - Higher discount levels are strongly associated with declining profit, often resulting in negative margins.
   - Some sub-categories generate high sales but low or negative profit (e.g., *Tables, Machines*), while others generate high profit despite lower sales volume (e.g., *Copiers, Accessories, Paper*).

- New York City is also the most profitable city overall.

Interpretation

Despite positive overall profit, profitability is uneven and unstable across orders, products, and time periods. Aggressive discounting plays a major role in margin erosion and explains the high proportion of loss-making orders. In addition, product-level analysis shows that sales volume does not reliably translate into profitability, indicating the need for tighter margin control and more selective growth strategies.

5. **Return Analysis and Shipping Performance**

Key Insights

- The average shipping time is 4 days, with an on-time delivery rate of 54%.
- The overall return rate is 5.91%.
- Standard Class is the most frequently used shipping mode and generates the highest profit, followed by Second Class, First Class, and Same Day.
- Average shipping time by mode:
  Standard Class: ~5 days
  Second Class: ~3 days
  First Class: ~2 days
  Same Day: ~0 day
- Same Day shipping has the highest return rate, followed by First Class, Second Class, and Standard Class.

Interpretation

Shipping performance reveals a clear trade-off between delivery speed, profitability, and return risk. While faster shipping options reduce delivery time, they are associated with higher return rates, particularly for Same Day shipments. Standard Class offers the most balanced performance, combining high order volume, strong profit contribution, and lower return risk, despite longer delivery times.

6. **Key Findings**

- Sales growth does not consistently translate into profit growth.
- Discounts have a significant negative impact on profitability.
- More than one-quarter of orders generate negative profit.
- Faster shipping options increase return risk.
- Business performance varies notably by product category, region, and city.

7. **Business Recommendation**

- Control discount levels to prevent margin erosion, especially for products and orders with historically negative profit.
- Prioritize profit quality over sales volume by tracking profit-based KPIs alongside revenue metrics.
- Rebalance the product portfolio by reducing exposure to consistently unprofitable sub-categories and scaling high-margin products.

- Apply Same Day shipping selectively, limiting it to high-margin products and high-value orders to reduce return risk.
- Optimize Standard Class shipping, as it delivers the most stable balance between volume, profitability, and returns.
- Monitor profitability at the city and regional levels, particularly in high-sales cities such as New York City.

8. Conclusion

Superstore achieves strong sales growth, but profitability remains inconsistent due to aggressive discounting and uneven product-level performance. Faster shipping options, particularly Same Day delivery, increase return risk without delivering proportional profit benefits. Sustainable performance will require a shift from volume-driven growth to margin-focused strategies across pricing, shipping, and regional operations.