**SUPERSTORE SALES AND RETURN ANALYSIS**

**EXEECUTIVE SUMMARY**

This report provides an in-depth analysis of Superstore’s sales, returns, and regional performance based on historical transaction data. The dataset consists of three primary tables: Orders, Returns, and People. Key insights include overall sales trends, profitability, high-return products, and the impact of regional sales strategies. The findings aim to help the company optimize inventory management, reduce losses, and improve customer satisfaction.

**OBJECTIVES**

* Sales Performance Trend: Identify key trends in sales and profitability across years, categories and customer segments.
* Profitability Analysis: Understand the profit distribution and the high profit vs low profit products in regards to their profit margin.
* Returns & Loss Analysis: Evaluate the return rate by category, financial impact of returns and the order return trends.
* Regional Sales Performance: Analyze to determine the top performing regions, the performance of the managers and the cities driving the highest sales and profitability.

**DATA OVERVIEW**

**Orders Table**

Contains sales transactions with the following key attributes:

* Order Details: Order ID, Order Date, Ship Date, Ship Mode
* Customer Details: Customer ID, Customer Name, Segment
* Geographic Information: Country, City, State, Postal Code, Region
* Product Information: Product ID, Category, Sub-Category, Product Name
* Sales Metrics: Sales, Quantity, Discount, Profit

**Returns Table**

Tracks returned orders with:

* Order ID
* Returned Status (Yes/No)

**People Table**

Maps regional managers to specific regions:

* Person (Manager)
* Region

**KEY INSIGHTS AND ANALYSIS**

**Key Metrics**

1. Total Revenue generated is $2,272,449.88
2. Total Profit generated is $282,857.754
3. Total Number of Orders is 4931
4. Tota Amount of Quantity Ordered is 36,749
5. Total Number of Returns made is 773

**Sales Performance Trend**

1. Sales Performance Trends;
2. Yearly Revenue Trend: In 2014, the total revenue was $481,763.798 which reduced in 2015 by 3.6% but increased in 2016 by 124.8% from 2014 and further increased to 150.49% in 2017.
3. Monthly Revenue Trend: In 2014, the highest revenue of $81,496.81 was generated in September and the lowest revenue of $4,119.816 was generated in February, while in 2015, the highest revenue of $74,699.034 was generated in November and the lowest revenue of $11,924.272 was generated in February as well. In 2016, the highest revenue of $96,075.067 was generated in December and the lowest revenue of $18,432.591 was generated in January and in 2017, the highest revenue of $117,383.381 was generated in November and the lowest revenue of $20,262.322 was generated in February.
4. Category Performance;
   * 1. Technology category generated the most profit of $145,387.097 and also the most revenue generated of $835,900.067.
     2. While Furniture had the second most generated revenue of $733,046.861, it generated the least profit of $16,980.771.
5. Customer Segment;
   * 1. Total Orders per Segment;

* Consumer Segment contributed 51.57% (2543 orders) to the total orders
* Corporate Segment contributed 30.65% (1494 orders) to the total orders
* Home Office Segment contributed 18.13% (894 orders) to the total orders.

ii Total Sales per Segment;

* Consumer generated $1,150,166.182 in sales which is 50.61% of the total sales
* Corporate generated $696,604.514 in sales which is 30.65% of the total sales
* Home Office generated $425,679.161 in sales which is 18.73% of the total sales

iii Total Profit per Segment;

* Consumer Segment generated $132,699.775 in profit
* Corporate Segment generated $90,366.301 in profit
* Home Office Segment generated $59,821.678 in profit

iv Total Quantity ordered per Segment;

* Consumer Segment had 18,954 quantities of products ordered
* Corporate Segment had 11,231 quantities of products ordered
* Home Office Segment had 6,564 quantities of products ordered

v Average Order Value per Segment;

* Home Office Segment had an average of $476.151 per order
* Corporate Segment had an average of $466.268 per order
* Consumer Segment had an average of $452.287 per order

vi Most Frequently Purchased Categories/Sub-Categories by Segment;

* Consumer Segment purchased more office supplies which is binder and it was purchased 738 times
* Corporate Segment also purchased binder most frequently 453 times which belongs also to the office supplies categories
* Home Office Segment like the other segments made more purchase from office supplies category which is binder and it was purchased 260 times

vii Preferred Ship-mode per Segment;

* Consumer Segment prefers standard class ship-mode having used it 2996 times
* Corporate Segment prefers also standard class ship-mode having used it 1745 times
* Home Office Segment prefers standard class ship-mode also having used it 1039 times

**Profitability Analysis**

1. Profit Distribution by Region;

* The West contributed most to the profit by contributing 37.48% ($106,021.15) of the total profit
* The East contributed 32.06% ($90,672.013) to the total profit
* The South contributed 16.28% ($46,035.689) to the total profit
* The Central contributed 14.19% ($40,128.903) to the total profit

1. High Profit Product (Profit Margin);

* Labels has a profit margin of 44.42%
* Paper has a profit margin of 43.41%
* Envelopes has a profit margin of 42.12%
* Copiers has a profit margin of 37.20%
* Fasteners has a profit margin of 31.32%

1. Low Profit Product (Profit Margin);

* Tables has a profit margin of -8.56%
* Bookcases has a profit margin of -3.02%
* Suppliers has a profit margin of -2.93%
* Machines has a profit margin of 1.79%
* Chairs has a profit margin of 8.1%

**Returns & Loss Analysis**

1. Return Rate by Category;

* Office Supplies has a return rate 58.21% which equates to 450 returns from the total return
* Furniture has a return rate of 21.74% which is equivalent to 168 returns from the total return
* Technology has a return rate of 20.05% which is equivalent to 155 returns from the total return

1. Financial Impact of Returns;

* The superstore lost a total of $177,168.677 revenue due to the returns

1. Order Return Trends;

* In 2014, the superstore had a total of 145 returns with the highest returns occurring in September with a total of 28 returns while having the lowest returns in February with a total of 2 returns.
* In 2015, the superstore had a total of 159 returns with the highest returns occurring in December with a total of 35 returns while having the lowest returns in July with a total of 1 return.
* In 2016, the superstore had a total of 194 returns with the highest returns occurring in December with a total of 32 returns while having the lowest returns in February with a total of 1 return.
* In 2017, the superstore had a total of 275 returns with the highest returns occurring in September with a total of 50 returns while having the lowest returns in May with a total of 4 returns.

**Regional Sales Performance**

1. Top-Performing Regions;

* The west has a profit margin of 14.86% and also generated $713,471.345 to the total revenue
* The East has a profit margin of 13.49% and also generated $672,194.054 to the total revenue
* The South has a profit margin of 11.83% and also generated $388,983.585 to the total revenue
* The Central has a profit margin of 8.06% and also generated $497,800.873 to the total revenue

1. Manager Performance;

* Anna Andrendi, the manager of the west contributed 31.40% to the revenue and also had a return rate of 61.32% from the total returns
* Chuck Magee, the manager of the east contributed 29.58% to the revenue and also had a return rate of 18.63% from the total returns
* Kelly Williams, the manager of the central region contributed 21.91% to the revenue and also had a return rate of 11.64% from the total returns
* Cassandra Brandow, the manager of the south contributed 17.11% to the revenue and also had a return rate of 8.41% from the total returns

1. City Level Insights;

i Top three profitable states;

* California contributed $74,669.204 to the total profit and $450,567.592 to the total revenue generated
* New York contributed $73,507.125 to the total profit and $309,453.633 to the total revenue
* Washington contributed $32,976.615 to the total profit and $136,590.172 to the total revenue

ii Least profitable states;

* Texas, Ohio, Pennsylvania, Illinois, North Carolina, Colorado, Tennessee, Arizona, Florida, Oregon collectively contributed a loss of $97,368.42 to the company’s profit.

**Recommendations**

1. Seasonal Strategy: Capitalize on high sales in Q4 (October – December) with focused promotions, while addressing the weaker revenue in January and February. Also, target high-growth regions with additional marketing to boost overall performance.
2. Product Mix Optimization: Investigate the furniture category’s low profit despite high revenue and evaluate product pricing strategies, balancing high margin but low volume items against low margin, high profit ones.
3. Customer Focus: Leverage the consumer segment (over 50% of orders) by investing in frequently purchased items like binders and maintaining standard class shipping, which all segments prefer.
4. Return Rate Review: Analyze the link between strong managerial performance and higher return rates especially in December to develop strategies that reduce post sale return.

**Conclusion**

This analysis provides valuable insights into the Superstore’s sales and return trends, highlighting areas for improvement and growth opportunities. Strategic actions based on this data can enhance profitability and operational efficiency.