Sample Superstore Retail EDA Insights

1. Technology category has performed the highest sales with 50.79% profit among all categories. Subcategory Phones has performed the highest sales of $330.01K.

Recommendation: The Sample Store can focus on expanding its technology category by introducing new and innovative products, which can further increase sales and profits

2.The overall Return on Sales (ROS) is 12.47%. The highest ROS is in the Technology category at 17.40%, with the Copier subcategory having the highest profitable ROS at 37.20%.

Recommendation: The Sample Store can consider increasing the promotion of its products with higher ROS, like copiers, to further increase profitability.

3.The western region of the United States has performed the highest sales at $725.46K.

Recommendation: The Sample Store can focus on expanding its presence and promoting its products in the western region of the United States to increase sales.

4.Standard Class is the most preferable shipping mode, with $1.36M sales of 23K units.

Recommendation: The Sample Store can consider offering additional shipping options to customers to increase sales and customer satisfaction.

5.Consumer and corporate segments give high sales and profit, while the home office segment is the least sales generator.

Recommendation: The Sample Store can focus on targeting the consumer and corporate segments and expanding its offerings to these segments to increase sales and profitability.

6. California and New York generate high sales, while Delaware, Minnesota, and Kentucky are the least profitable states.

Based on the exploratory data analysis conducted, there are several business problems that can be derived, including:

1.**The lowest performing sub-categories:** The analysis showed that some sub-categories such as Tables, Bookcases, and Supplies had negative return on sales (ROS) and low sales, which indicates that these sub-categories may need further investigation to improve their performance.

2.**Shipping mode preferences:** The analysis revealed that the Standard Class shipping mode is the most preferred by customers. This information could be used to optimize the company's shipping strategy to meet customer preferences and increase sales.

3.**Regional sales performance:** The data showed that the Western region of the United States performed the highest sales. This insight could be used to target marketing and sales efforts in this region to further increase sales.

4.**Product preferences:** The analysis revealed that the Technology category was the most profitable and that the Phones sub-category had the highest sales. This information could be used to focus on these products and potentially expand the product line in this category to further increase profits.

5.**Profit margins:** The analysis showed that some sub-categories such as Paper, Copiers, and Accessories had high profit margins, while others such as Tables and Bookcases had negative margins. This insight could be used to adjust pricing strategies and product mix to improve overall profitability.

Conclusion

Based on the exploratory data analysis, we can conclude that the company should focus on improving the performance of the lowest-performing sub-categories such as Tables, Bookcases, and Supplies. Additionally, the company should optimize its shipping strategy to meet customer preferences by focusing on the most preferred shipping mode, which is the Standard Class.

The company should also target its marketing and sales efforts in the Western region of the United States, which has shown the highest sales performance. Furthermore, the company should focus on the Technology category and expand the product line in the Phones sub-category, which has shown the highest sales.

Lastly, the company should adjust its pricing strategies and product mix to improve overall profitability, based on the insights obtained from the analysis, such as high-profit margins in sub-categories like Paper, Copiers, and Accessories, and negative margins in sub-categories like Tables and Bookcases.