Final report: Data Analysis and Recommendations for Retail Sales Data

Introduction:

The purpose of this report is to present the findings of our data analysis for a retail sales dataset and provide recommendations for improving sales performance. I analyzed data on sales, customers, and products, products Categories, and subcategories to identify trends and insights that can inform business decisions.

Data Analysis:

We began by exploring the sales data and identified the following trends:

- Yearly sales trends: Sales and profit showed a consistent trend of increasing from 2011 to 2012, and slow increase from 2012 to 2013 finally almost stable from 2013 to 2014, with the highest sales and profit in 2014.

- Monthly sales trends: Sales and profit are highest in Q2 (April to June), followed by Q4 (October to December), and lowest in Q3 (June to September).

- Product performance: The top-selling product categories were Bikes, Accessories was second but poor sole, and clothing (with the least sole). Bikes being the highest-selling category by far.

- Territory Sales: The top-selling territory was in Australia and theirs most sold product categories was Bikes. Among all territories, they had the best sales in Bikes categories.

- Customer behaviour: Most Occasional customers had made 3 to 4 purchases (Medium Order), while most one-time customers only made 1 to 2 purchases (Low Order) and the Loyal Customer made 5 others and above more purchase (High Order).

-Churn: We discovered that a small but not negligible amount of customer churned (about ¼ of Costumers). More than 1/3 of all the Order Segments churned (High Order, Medium Order and Low Order)

To visualize these trends, we created several charts and graphs using Power BI. These visualizations are included in the appendix.

Recommendations:

Based on our analysis, we recommend the following strategies to improve sales performance:

1. It is like after 2011, the Enterprise started relaxing due to the work done previously.

2. Increase advertising and promotions during Q2 and Q4, as these are the highest sales periods.

3. Expand the Bikes category by introducing new products and increasing marketing efforts.

4. Implement a loyalty program to increase repeat purchases from customers.

Presentation Practice:

To present our findings to stakeholders, we will practice presenting the project to our peers or instructors. The presentation will include a brief overview of our data analysis process, key findings and insights, and our recommendations for improving sales performance.

Conclusion:

In conclusion, this report has presented my analysis of retail sales data, including trends and insights identified from the data, and recommendations for improving sales performance. Implementation of these recommendations has the potential to increase sales and customer loyalty for the business.