

SALES ANALYSIS ON SUPERSTORE DATASET

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ABSTRACT

The sales analysis on Superstore dataset is a comprehensive study that aims to analyze the sales performance of a fictional retail company called "Superstore". The dataset used in this analysis contains information about sales transactions, customers, products, and geographical locations. The analysis involves using Power BI, a data visualization and reporting tool, to create interactive dashboards and reports that provide insights into the sales performance of Superstore. The data is cleaned and transformed using Power Query, and a data model is created using Power BI's data modelling tools. The analysis includes several key metrics, such as sales revenue, profit, and margin, which are visualized using charts, tables, and graphs. The analysis also explores trends in sales over time, product categories, customer segments, and geographical regions. The results of the analysis provide valuable insights into Superstore's sales performance, highlighting areas of strength and weakness. The analysis reveals that Superstore's sales are strongest in the East and West regions of the United States, and that furniture is the most profitable product category. The analysis also identifies opportunities for improvement, such as increasing sales in the Central region and improving customer retention. Overall, the sales analysis on Superstore dataset provides a valuable tool for businesses to better understand their sales performance and make data-driven decisions to improve their sales processes.

Keywords: Sales Analysis, Research, SQL, Dashboard, Visualization.

I. INTRODUCTION

The sales analysis on Superstore dataset is a study aimed at analyzing the sales performance of a fictional retail company called "Superstore". The analysis utilizes a dataset containing information about sales transactions, customers, products, and geographical locations. The retail industry is highly competitive and dynamic, with businesses facing numerous challenges such as changing consumer behavior, increasing competition, and shifting market trends. In such an environment, it is crucial for businesses to have a deep understanding of their sales performance to remain competitive and drive growth. The Superstore dataset provides an opportunity to conduct an in-depth analysis of sales performance, enabling businesses to gain valuable insights into their sales performance, identify areas of strength and weakness, and make data-driven decisions to improve their sales processes. To conduct the sales analysis on the Superstore dataset, Power BI, a data visualization and reporting tool, is used to create interactive dashboards and reports. The data is cleaned and transformed using Power Query, and a data model is created using Power BI's data modeling tools. The analysis includes several key metrics, such as sales revenue, profit, and margin, which are visualized using charts, tables, and graphs. The analysis also explores trends in sales over time, product categories, customer segments, and geographical regions. The findings of the sales analysis on Superstore dataset can provide valuable insights into the sales performance of a retail business, helping them identify areas for improvement, develop more effective sales strategies, and ultimately drive growth and profitability.

II. METHODOLOGY

The methodology of sales analysis on Superstore dataset involves several steps, which include:

Data collection: The Superstore dataset is collected from a reliable source, such as Kaggle or a company's internal database.

Data cleaning and preparation: The data is cleaned and prepared using Power Query in Power BI. This involves removing duplicates, correcting errors, and filling in missing values.

Data modeling: A data model is created using Power BI's data modeling tools. The model includes tables, relationships, and calculated columns.

Metrics selection: The key metrics for sales analysis, such as sales revenue, profit, and margin, are identified and selected.

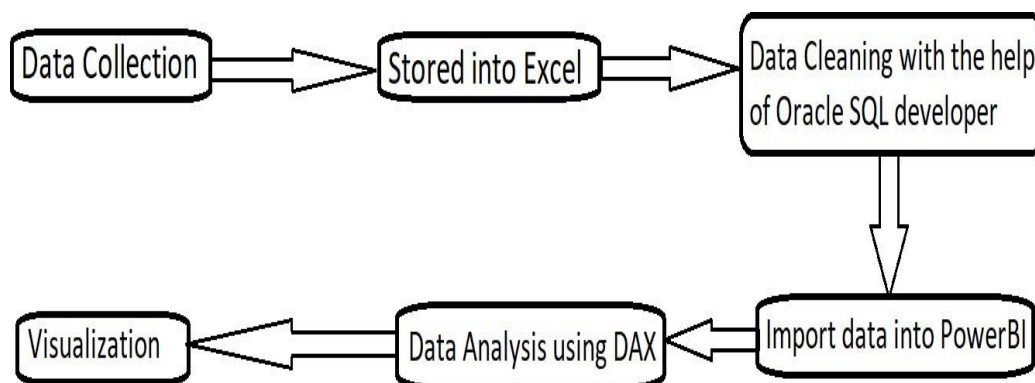
Data visualization: The selected metrics are visualized using charts, tables, and graphs. Power BI provides a variety of visualization options, including bar charts, line charts, and maps.

Analysis and interpretation: The visualizations are analyzed and interpreted to gain insights into the sales performance of Superstore. This includes identifying trends, patterns, and areas of strength and weakness.

Recommendations: Based on the analysis and interpretation, recommendations are made to improve sales performance. These recommendations could include changes to pricing strategies, product offerings, or marketing campaigns.

The methodology of sales analysis on Superstore dataset is iterative and involves refining the analysis based on the insights gained. Power BI provides a flexible and powerful platform for conducting sales analysis, enabling businesses to gain valuable insights into their sales performance and drive growth and profitability.

III. FLOW CHART



IV. RESULTS AND DISCUSSION



Fig 1: Sample output of sales analysis

In above dashboard we have three cards displaying the total unit sold, total profit and total revenue. They provide direct information to user. The next visualization tool used is stacked column chart which is useful to make a very quick comparison between two or more sets of measures. Here we used this chart to create combine visual of profit, revenue, and sales by month which gives us the idea about the profit, revenue, and sales variation by month. In month of October the company has increased its profit, revenue, and sales as compared to other months. To know the profit of particular country pie chart comes into picture. It is used to illustrate the contribution of different values to a total. It gives the clear view about the country wise profit of company. The next visual used here is Line Chart. It gives plan to understand the profit by month. It is used to show the information changes over time. It tells company head that in October company is valued and the line goes on decreasing from October to March. By one click on the any visual it gives the all information that dashboard contains.

V. CONCLUSION

In conclusion, the sales analysis on Superstore dataset provides valuable insights into the sales performance of a retail business. By analysing the data using Power BI, businesses can gain insights into their sales revenue, profit, and margin, as well as identifying trends in sales over time, product categories, customer segments, and geographical regions.

The analysis helps businesses identify areas for improvement, develop more effective sales strategies, and ultimately drive growth and profitability. The methodology of sales analysis on Superstore dataset involves data collection, cleaning and preparation, data modelling, metrics selection, data visualization, analysis and interpretation, and recommendations.

Power BI provides a flexible and powerful platform for conducting sales analysis, enabling businesses to gain valuable insights into their sales performance and make data-driven decisions. By continuously analysing and refining the analysis based on the insights gained, businesses can remain competitive and drive growth in the highly dynamic retail industry.

VI. REFERENCES

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