

Analytics Tool For E-commerce Businesses

Overview

Development of an Analytical Dashboard where the user will understand the growth/potential of the business in the market. This project helps in analysing the statistics of e-commerce industry.

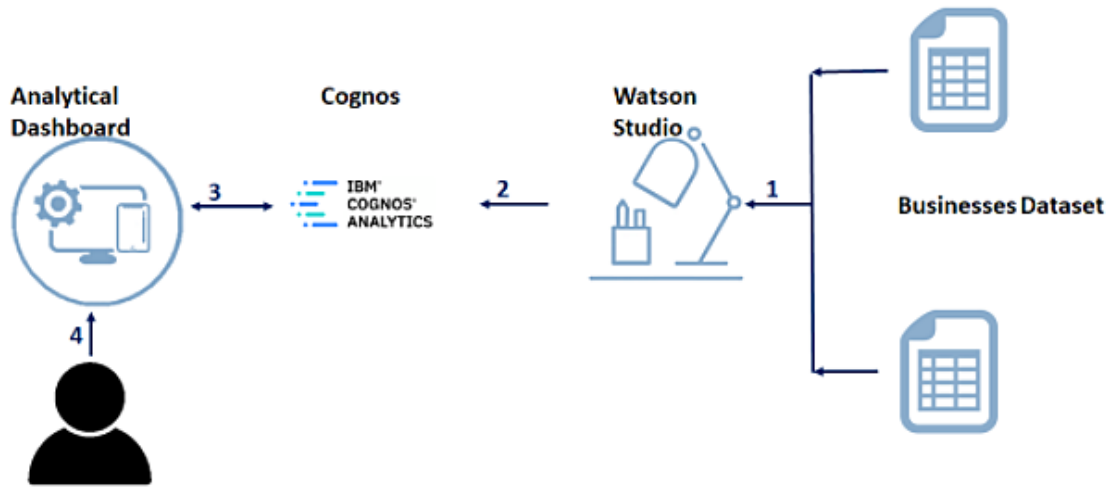
Purpose

The E-commerce space has boomed with the increase in consumer demand. This led to an increase in fierce competition in today's online marketplace. The analysis of such an industry is of great importance as it gives insights into the sales and profits of various products

Software Requirements of the project

IBM Cloud, IBM Watson Studio and Cognos Analytics in watson studio

Flowchart/ Technical Architecture



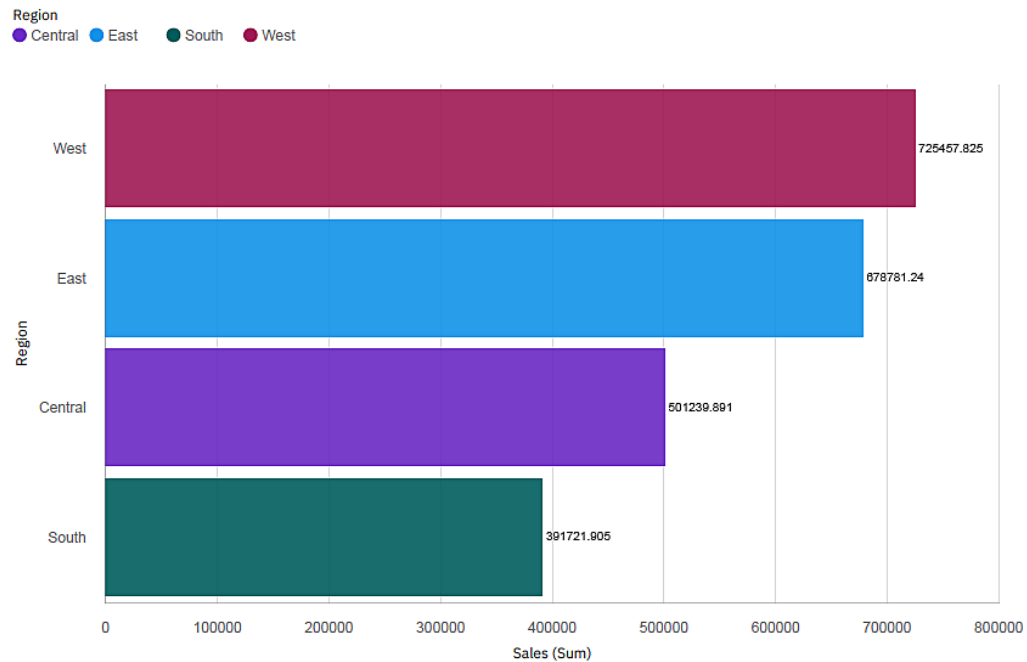
Expected Solution :

- A region that accounts for a greater number of orders
- Frequency distribution of quantity ordered
- Percentage sales by different product categories
- Profitable products or their sub-products in the last few years
- products that incurred losses
- Product type that was ordered greater times
- Yearly sales for various states
- Forecasting future sales according to shipping date.
- The trend in profit/sales over time (years/months/quarters).

A region that accounts for a greater number of orders

Sales by Region colored by Region

(Region that accounts for a greater number of orders)

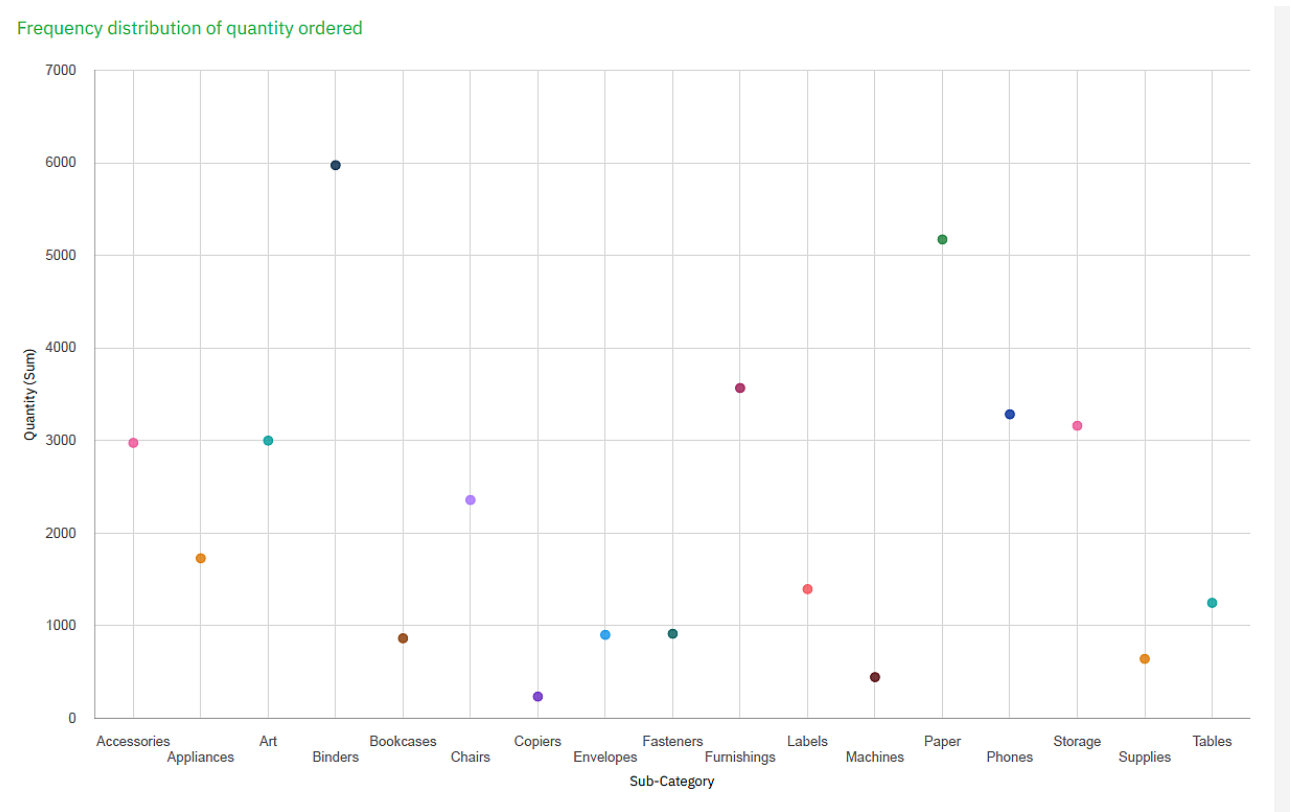


Sales for Region

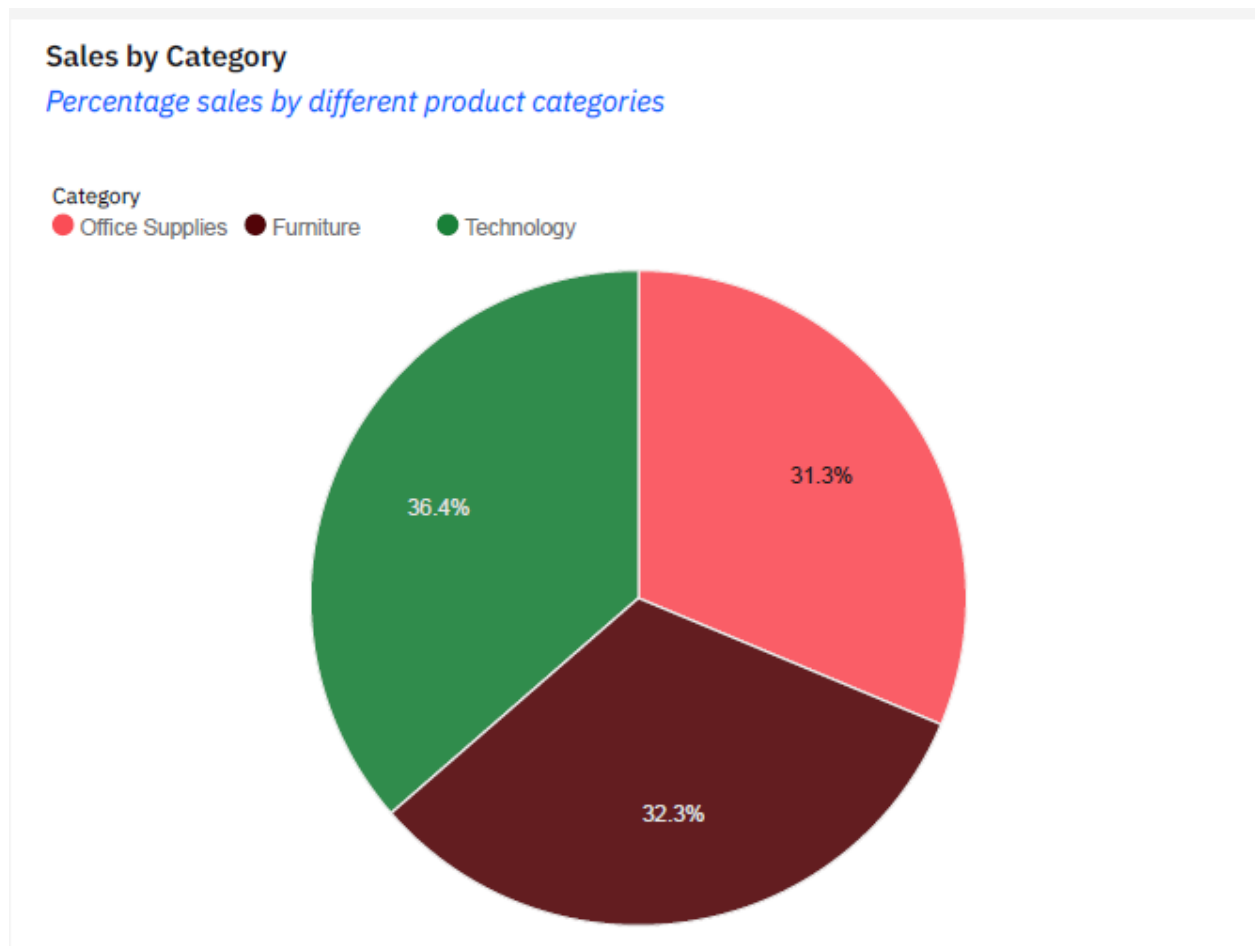
	Sales
Central	501239.891
East	678781.24
South	391721.905
West	725457.825
Summary	2297200.86

West is the Region that accounts for the greatest number of orders

Frequency distribution of quantity ordered



Percentage sales by different product categories (office supplies, Furniture, Technology)

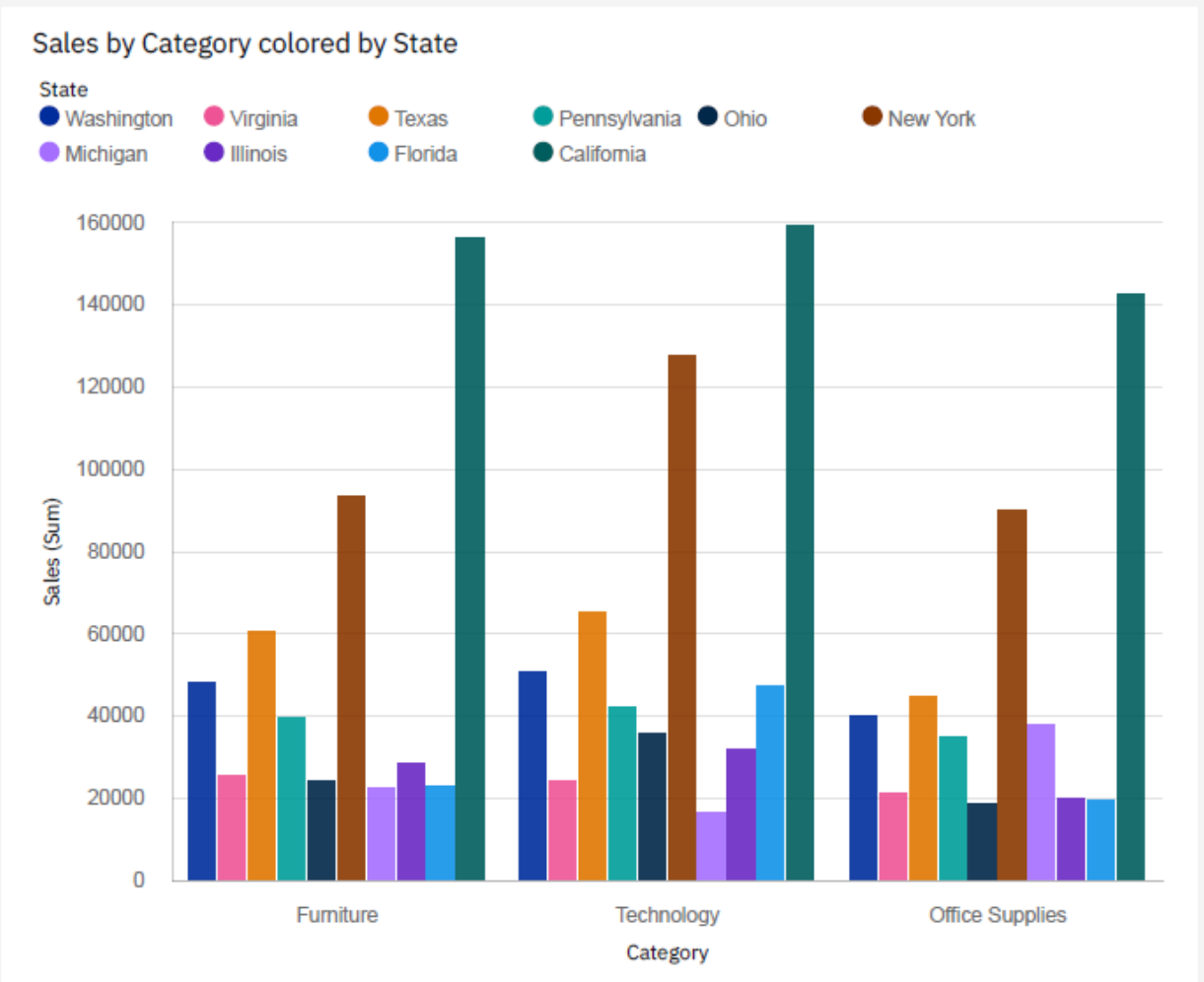


Technology has the highest percentage of sales (36.4 %)

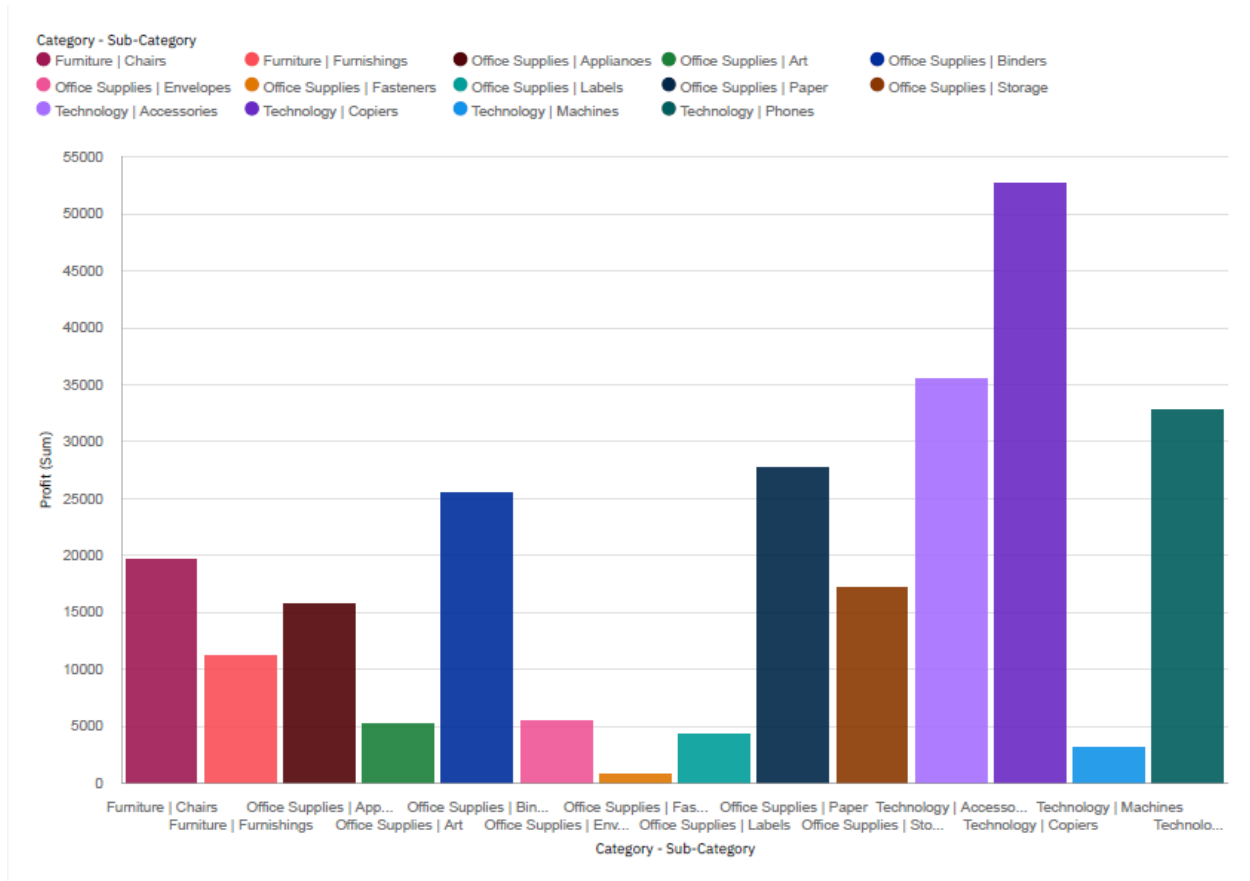
Sales for Category

	Sales
Furniture	741999.795
Office Supplies	719047.032
Technology	836154.033
Summary	2297200.86

Insight of sales of each category in each state

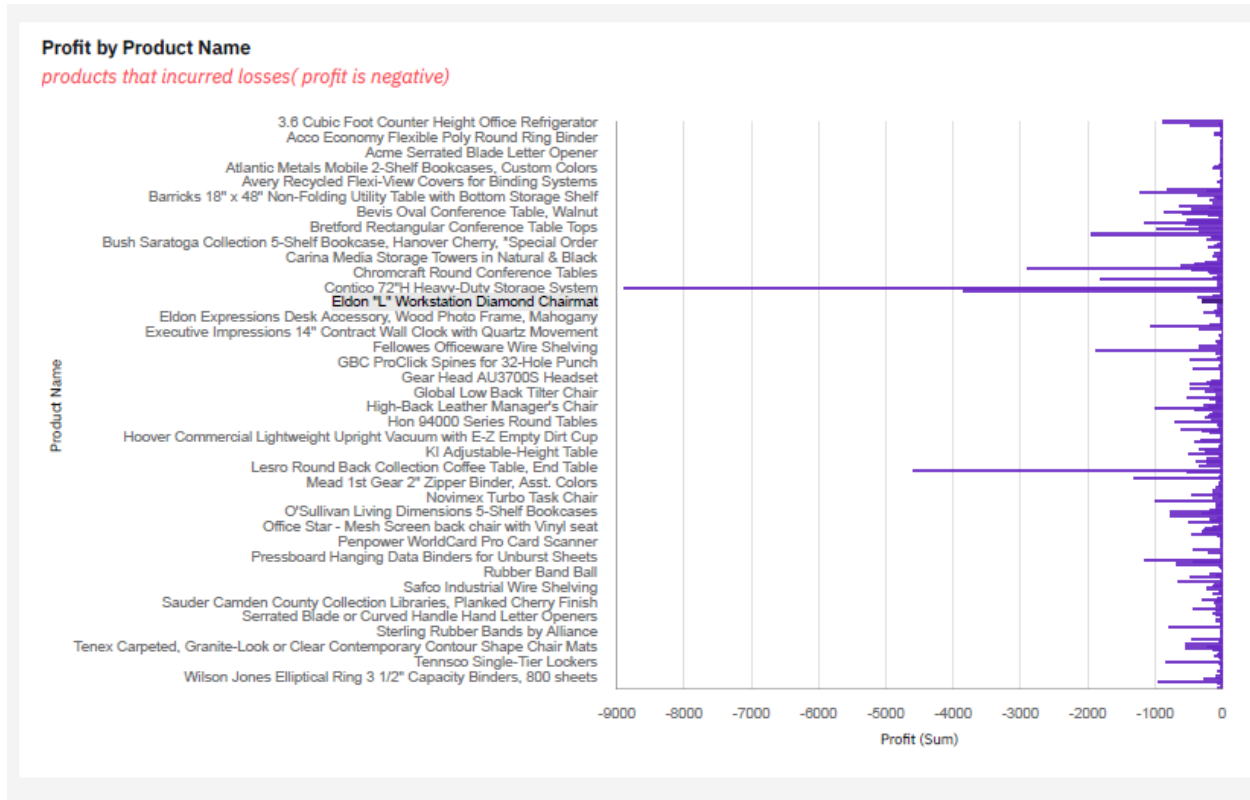


Profitable products or their sub-products in the last few years-
 Considered the years(2015-2017)

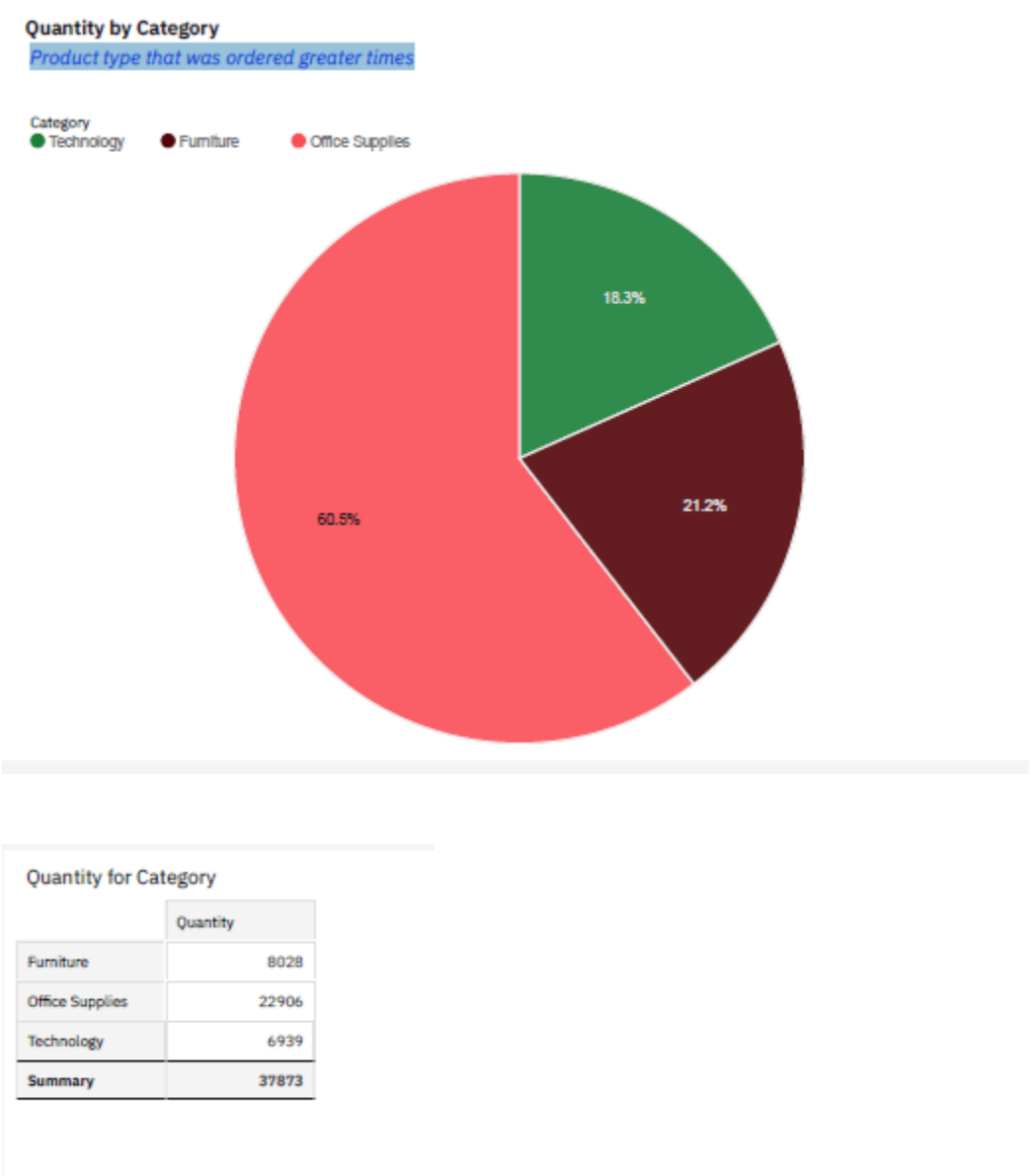


Products that incurred losses

When the profit is negative, it is considered to be a loss.



Product type that was ordered greater times



Office supplies were ordered greatest number of times

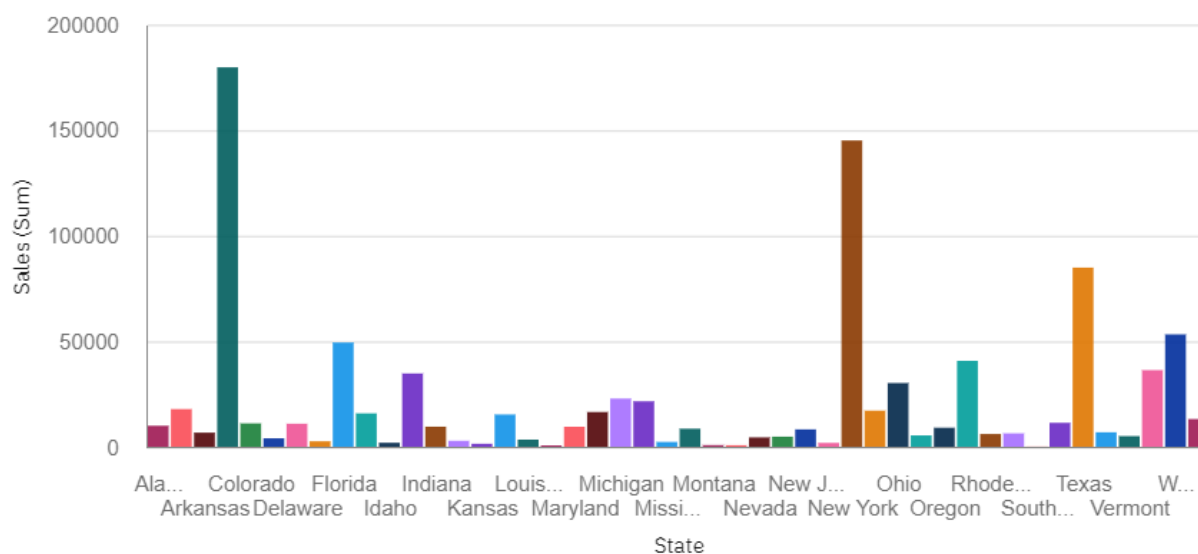
Yearly sales for various states

1. 2014 to 2015

Sales by State colored by State



Yearly sales for various states(2014-2015)

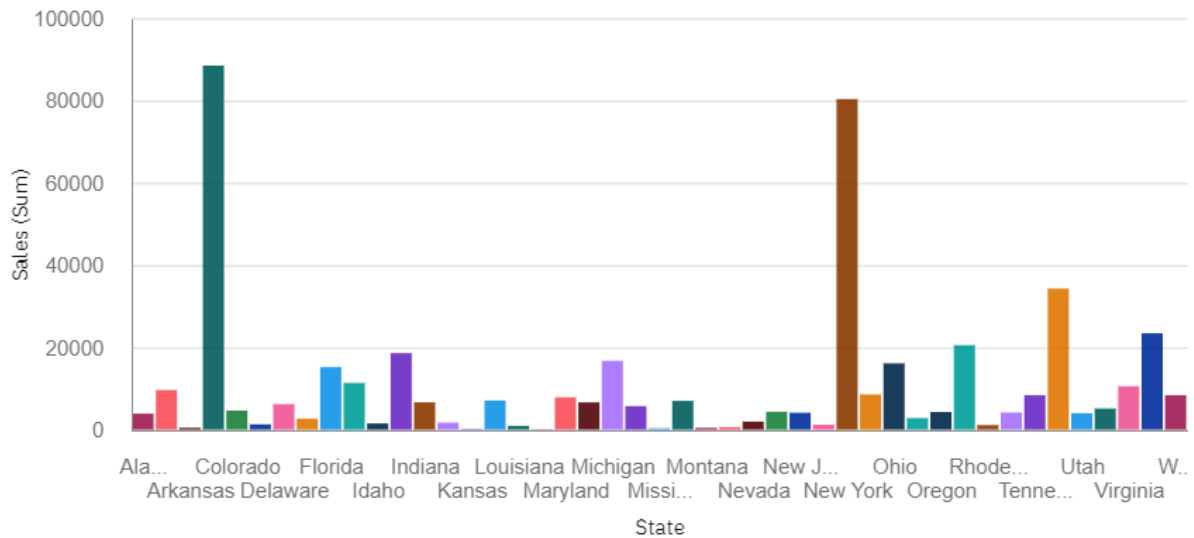


2. 2015 to 2016

Sales by State colored by State



Yearly sales for various states(2015-2016)

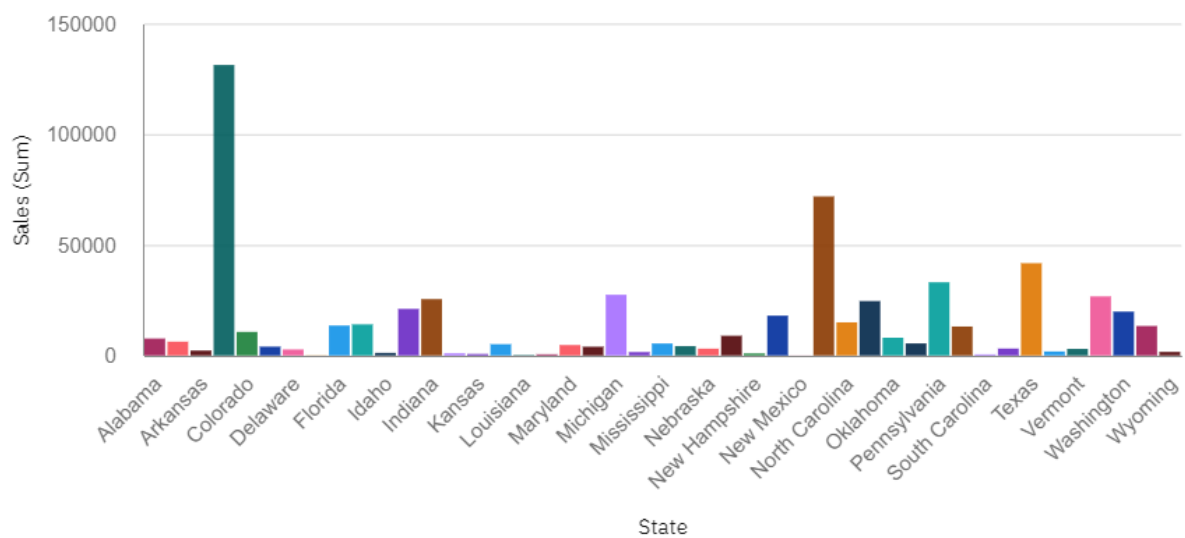


3. 2016 to 2017

Sales by State colored by State



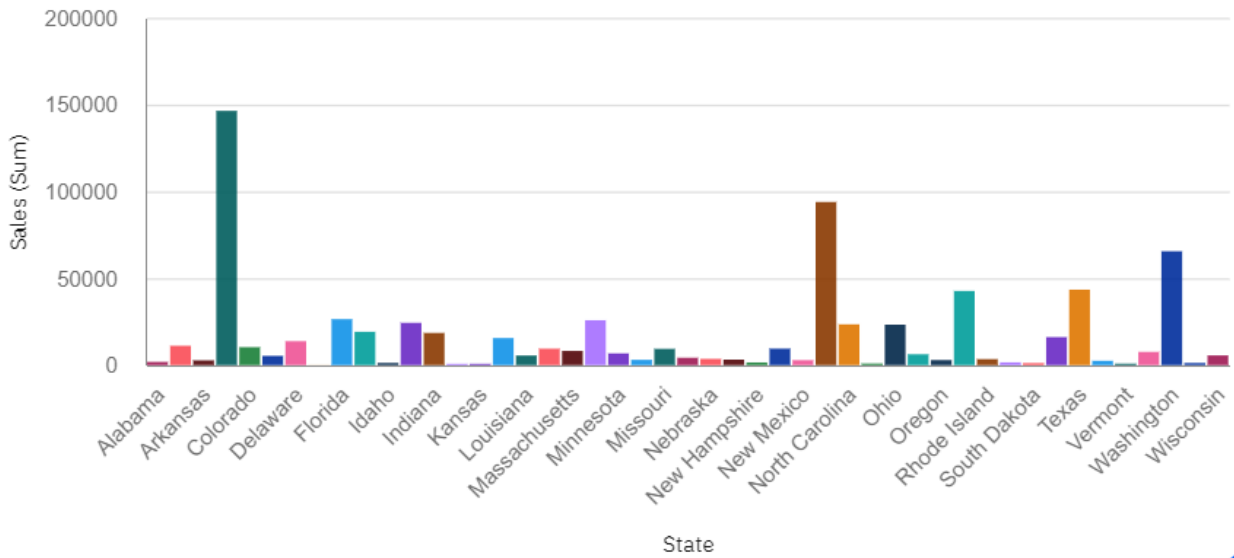
Yearly sales for various states(2016-2017)



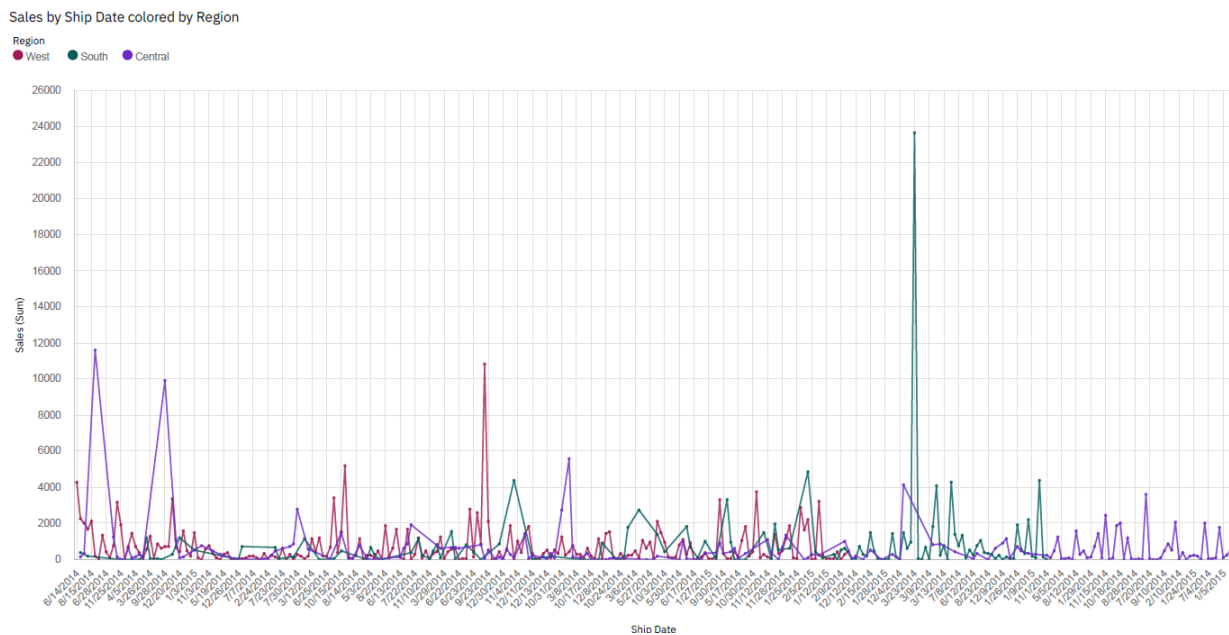
4. 2017-2018

Sales by State colored by State

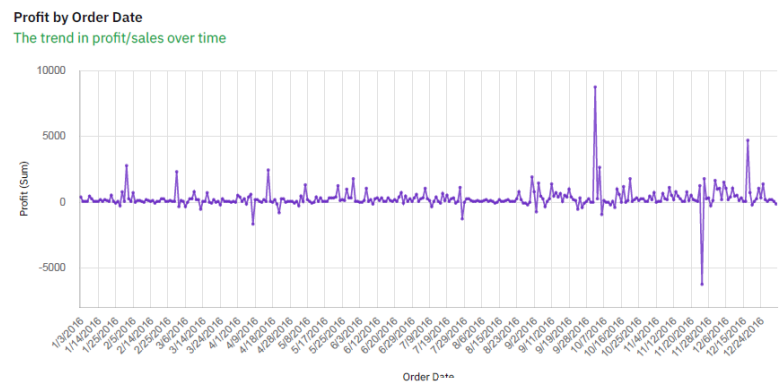
Yearly sales for various states(2017-2018)



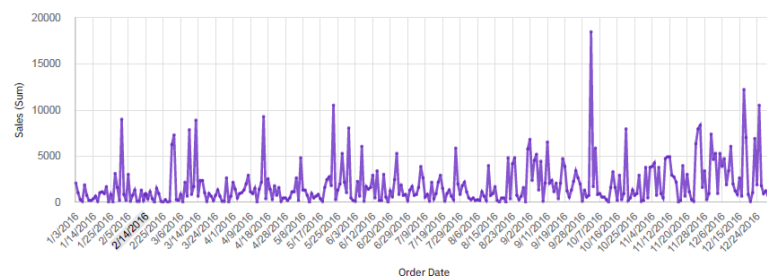
Forecasting future sales according to shipping date.



The trend in profit/sales over time



Sales by Order Date



Advantages:

- a. Personalize recommendations for your customers
- b. Measure your marketing
- c. Optimize pricing of the products
- d. Helps to build a robust supply chain

Disadvantages:

Privacy and Data Security

Applications:

This tool can be used for e-commerce industries like Flipkart and Amazon

Conclusion:

The analysis of e-commerce industry gives insights into the sales and profits of various products in the booming industry. The e-commerce business can now identify various aspects of the shopping pattern and improve customer experience.

Future Scope:

E-commerce will be confirmed as the major tool of sale for the goods and services and thus improving the tools for the analysis makes it more efficient.

Bibliography:

<https://www.kaggle.com/juhi1994/superstore-analysis>