

Module Code: CS3DV20

Assignment report Title: **CS3DV20 – Written Assignment.**

Student Enrolment Number: 29003671

Date: 30/11/23

Actual hours spent on the assignment: 24 hours.

Introduction

Amazon, a leading e-commerce giant, has established a significant presence in India, experiencing rapid sales growth in recent years. This report delves into an analysis of Amazon's sales performance in India from March to June 2022, utilizing data from the Amazon Sale Report.csv dataset. The primary objective of this analysis is to enhance profitability by understanding the factors influencing sales performance across various states, sales channels, products, and pricing strategies.

Problem Domain

The problem domain encompasses e-commerce sales analysis and profit optimization. The goal is to leverage the insights derived from the Amazon Sale Report.csv dataset to comprehend the profitability associated with different states, sales channels, products, and pricing strategies. This information will be instrumental in making informed decisions regarding resource allocation and profitability improvement.

Visualization-Driven Data Analysis

By employing charts, graphs, and other visual representations of the data, it is possible to swiftly identify patterns, trends, and outliers. This valuable information can then be utilized to address essential questions such as:

- Which sales channels generate the highest profitability?
- Which products are experiencing robust sales?
- What constitutes the optimal pricing strategy for various products?

Tableau is a powerful tool for data visualization that helps me interpret various graphs with ease. I can use it to generate my own insights, forecasts and suggestions based on the data.

Analysis Methodology

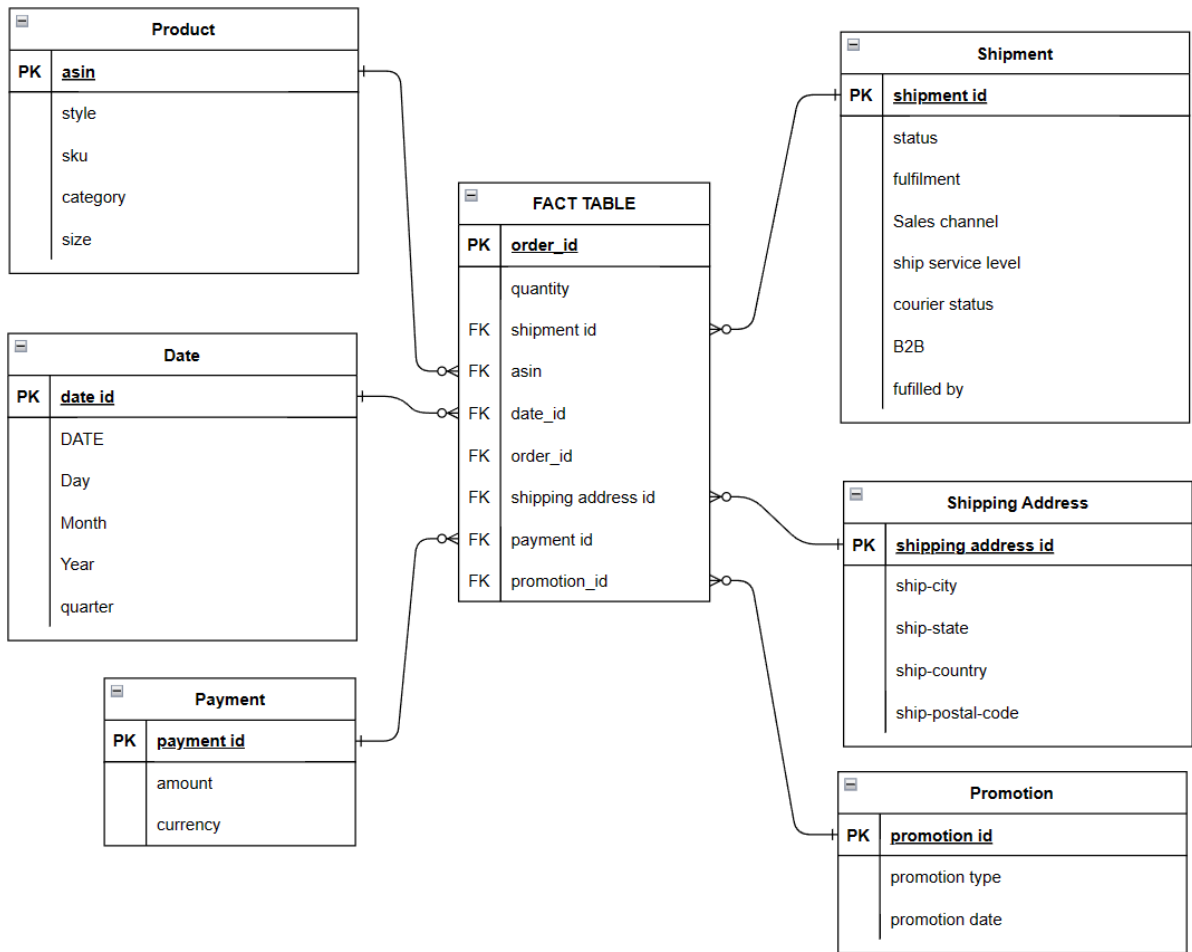
To gain a comprehensive understanding of the factors influencing sales performance and identify areas for improvement, using the historical sales data collected by Amazon. The dataset encompasses over 1,000 orders, providing detailed information on products, states, amounts, and shipping. This data was collected during the period from March to June 2022.

Objective

The objective of this analysis is to gain a deeper understanding of the factors influencing sales performance and identify areas for improvement. This will empower Amazon to make informed decisions regarding pricing, product selection, marketing strategies, and customer service, ultimately leading to enhanced profitability.

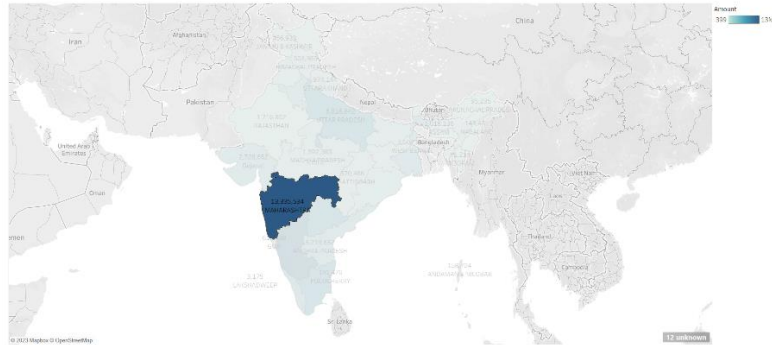
Analysing the sales data by adopting Exploratory Data Analysis (EDA)

Star Schema

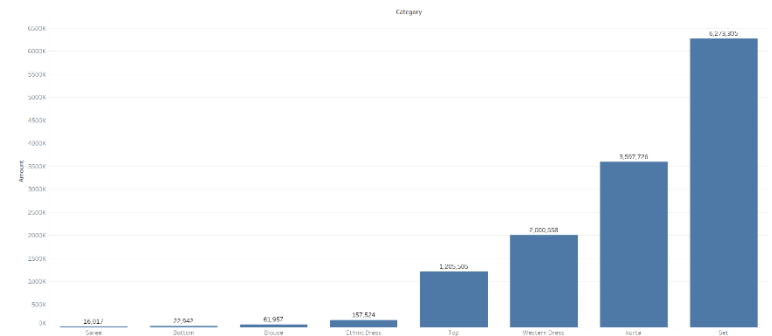
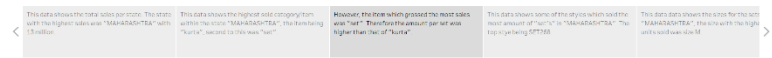


Story Board

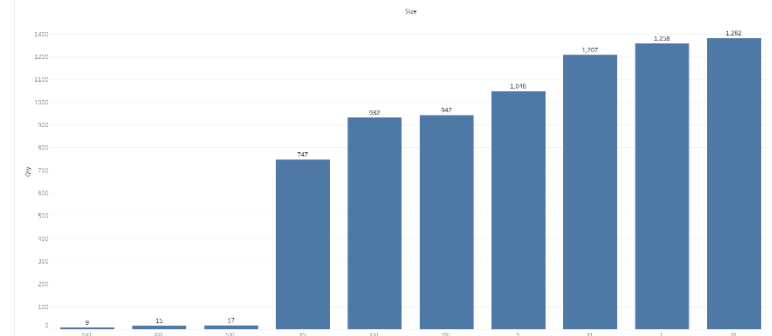
MAHARASHTRA



MAHARASHTRA



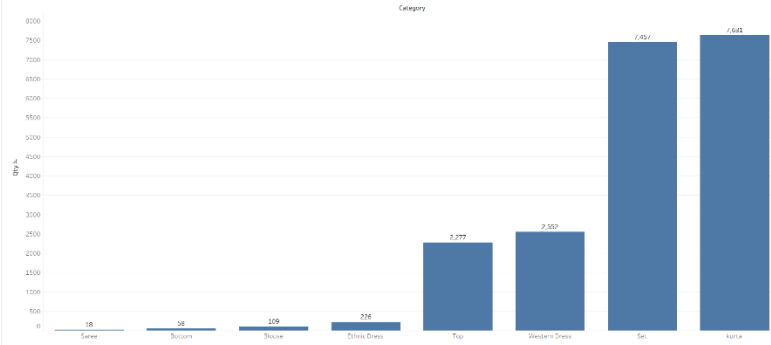
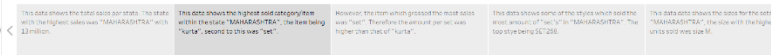
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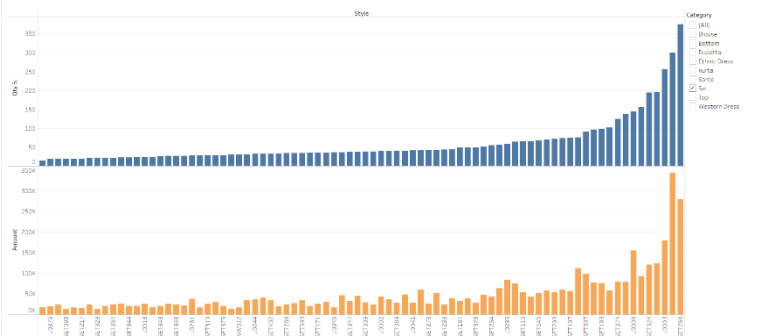
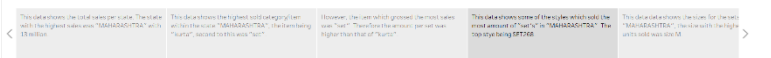
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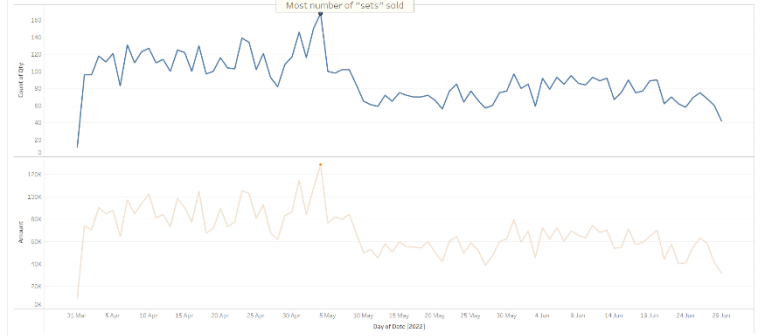
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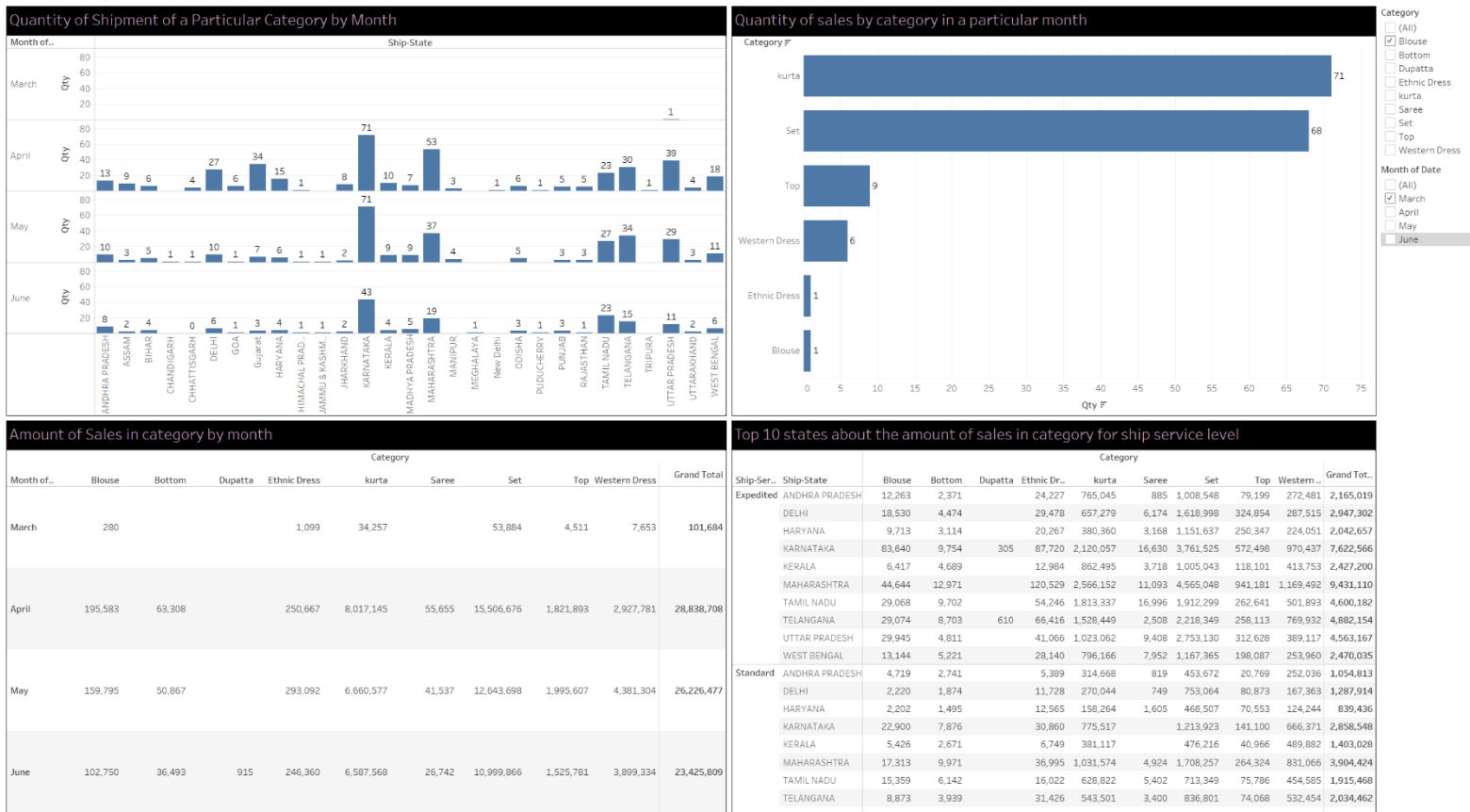
MAHARASHTRA



The following graphs is a summary of the “Amazon Sale Report” for the state of “MAHARASHTRA”, which had the highest number of sales in the country. The main products that were sold in this state were “set” and “kurta”, which are traditional Indian garments. The sales volume reached its peak in May, indicating a high demand for these products during that month. To increase the profits for the next year, the report suggests increasing the stock availability for this state, as well as offering promotional deals to encourage customers to buy more products in bulk.

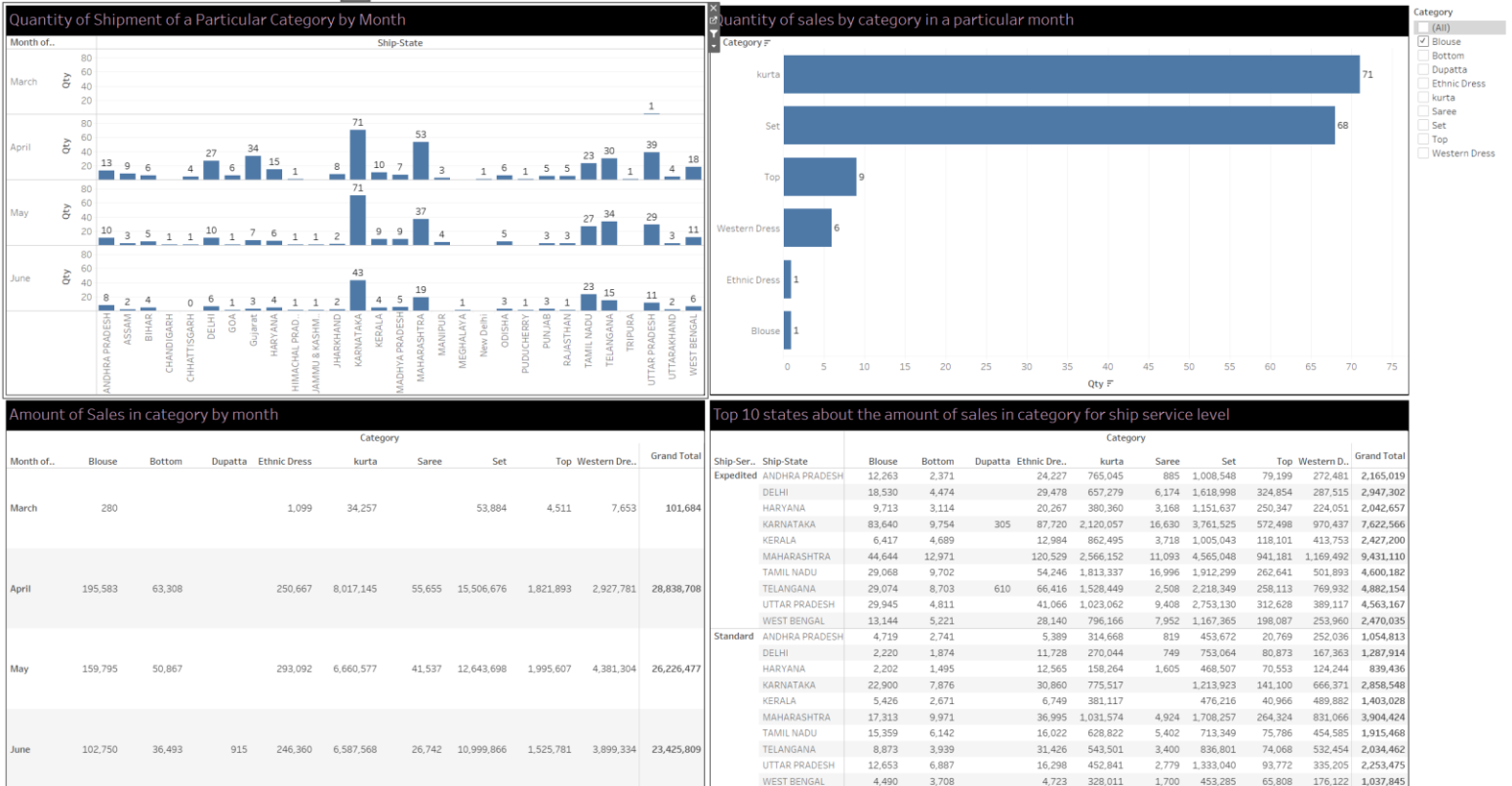
Dashboard using Amazon Sale Report

Task 3 - Original



Task 3

User can select fields of the same type in the first sheet which will change the other sheets.
- Such as selecting the Month in the first sheet



Recommendation to Improvement of sales performance

The dashboard shows that the overall sales performance of Amazon in India from March to June 2022 was positive, with both the quantity of shipments and the amount of sales increasing month-over-month. However, there are some areas of concern, such as the relatively low sales performance in certain categories and states.

Recommendations to Improve Sales Performance

Category

- By Promoting and selling high-margin categories. The dashboard shows that the top-selling categories in terms of amount of sales such as Sarees and Kurta. Amazon should focus on promoting and selling these categories more prominently on its website and app. Additionally, Amazon could consider offering discounts and promotions on these items to further boost sales.
- Expand the selection of products in low-selling categories. The dashboard shows that the sales performance of certain categories, such as Ethnic Dress and Blouse, was relatively low. Amazon could consider expanding its selection of products in these categories to make them more appealing to customers. Additionally, Amazon could work with its suppliers to get better deals on these products so that it can offer them to customers at competitive prices.
- Amazon could enhance its marketing and advertising strategies to reach a wider audience and increase sales. Such as conduct market research to better understand the target audience, develop targeted marketing and advertising campaigns that resonate with the target audience, use a variety of marketing channels, such as social media, search engine optimization, and email marketing.

State

- Improve marketing and sales efforts in states with low sales performance. The dashboard shows that the sales performance of Amazon in certain states, such as “Andhra Pradesh” and Uttarakhand, was relatively low. Amazon should focus its marketing and sales efforts on these states to increase brand awareness and drive sales. For example, Amazon could run targeted ads on social media and search engines in these states. Additionally, Amazon could offer special discounts and promotions to customers in these states.
- Partner with local businesses to reach more customers. Amazon could partner with local businesses in states with low sales performance. For example, Amazon could partner with local retailers to sell its products in their stores. Additionally, Amazon could partner with local logistics companies to improve the delivery of its products in these states.

Shipment

- Amazon can improve shipping performance by reducing shipping costs for customers through promotional deals, which in turn will incentivise customers order more which in turn improves sales, as well as using a different shipping carrier which is more reliable and has adequate success of receiving parcels to the customers, this in turn will improve customer satisfaction and retaining customers for future endeavours. Andhra Pradesh is a key market for the business, but ship service levels are below 90%. The business should invest in logistics and fulfilment infrastructure in Andhra Pradesh to improve ship service levels and customer satisfaction.

Conclusion and Future Improvement

The overall sales performance of Amazon in India from March to June 2022 was positive, with both the quantity of shipments and the amount of sales increasing month-over-month. The top-selling categories in terms of amount of sales were "Saree" and "kurta". Amazon should focus on promoting and selling these categories more prominently. The sales performance of certain categories, such as "Ethnic Dress" and "Blouse", was relatively low. Amazon could consider expanding its selection of products in these categories to make them more appealing to customers. The sales performance of Amazon in certain states, such as "Andhra Pradesh" and "Uttarakhand", was relatively low. Amazon should focus its marketing and sales efforts on these states to increase brand awareness and drive sales. Future improvements for Amazon collect data on customer demographics, such as age, gender, and location. This will allow Amazon to better understand its customer base and target its marketing efforts more effectively. This would allow myself to create more analysis on the customer base and the relationship to order which can relate to profits more precisely, therefore advertising can be targeted for age group not just generalised advertising which may not adhere to everyone. The data suggests that Amazon has the potential to grow its sales in India by focusing on the right categories, states, and marketing strategies.