

### BHARATIYA VIDYA BHAVAN'S SARDAR PATEL INSTITUTE OF TECHNOLOGY

(Empowered Autonomous Institute Affiliated to University of Mumbai)

[Knowledge is Nectar]

# **Advanced Data Visualization**

# **Experiment 1**

Palaash Jain 2021300050 Batch J

### Data Source:

https://www.kaggle.com/datasets/mdsazzatsardar/amazonsalesreport/data

# Power BI File:

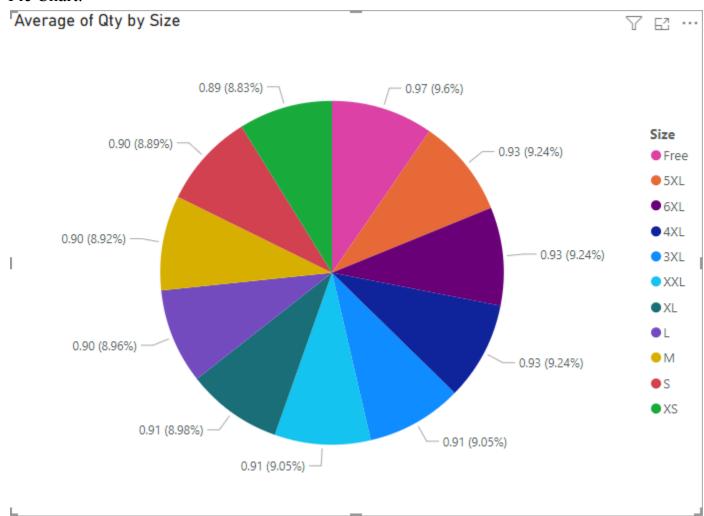
https://drive.google.com/file/d/1yTTyAE8XP-4r1qknUUV69iopgHPXjfW y/view?usp=sharing

# Power BI PDF:

https://drive.google.com/file/d/1uixzzsh0KHYR6o3n3OhxarbNmE02yDZ n/view?usp=sharing **DESCRIPTION OF DATASET:** The given dataset logs the city-wise statistics grouped by their respective states of various categories of clothing and various order details such as the date of order placed, amount, order ID and shipping/courier status at the time of scraping the particular data. Some of the columns important for the analysis from the table are date of the order placed, the shipped status, the source city, source state, category of the item, amount of the order and the size of the item in that particular category.

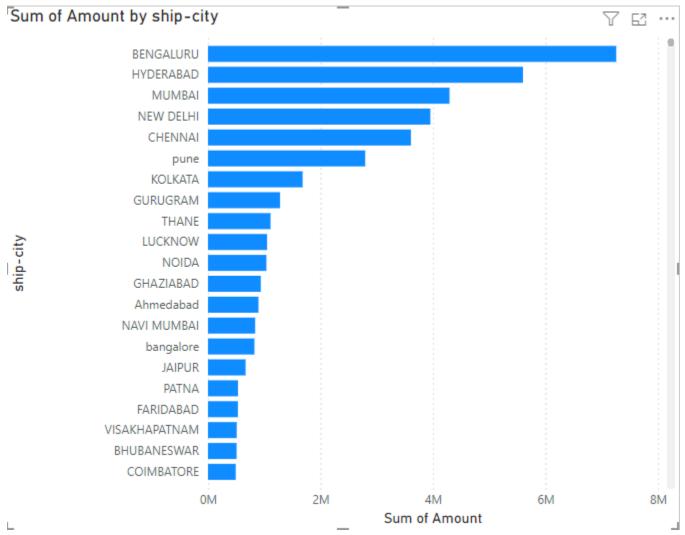
### **VISUALIZATIONS:**

1) Pie Chart:

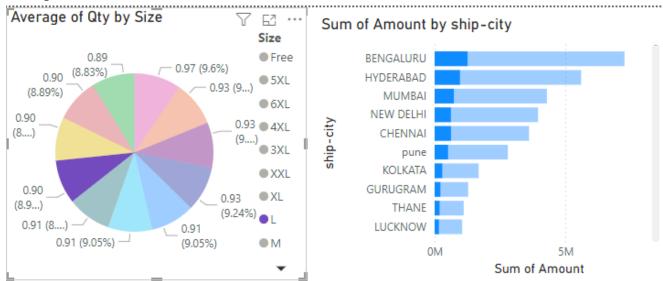


**Observations:** This chart shows the distribution of the size of a particular clothing item in a category and the average of quantity placed. This can help companies get an overview of the average size of demographics and accordingly decide the sizes they want to manufacture or withdraw (if necessary). From the above data, each size has an almost equal proportion as others.

### 2) Bar Chart:



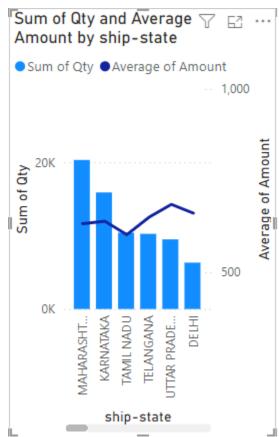
**Observations:** This chart displays the total number of sales Amazon gets from a particular city. We can further select a particular category from another chart and this chart will show the distribution of sales of that particular item in the above cities. For example, if we select size XL/state Maharashtra:



# Sum of Amount by ship-city BENGALURU HYDERABAD MUMBAI NEW DELHI CHENNAI pune KOLKATA GURUGRAM THANE LUCKNOW OM Sum of Amount

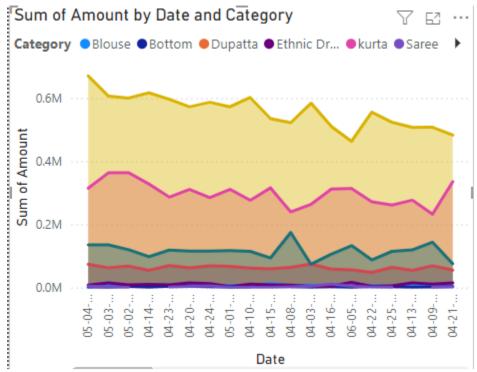
When we select the city Maharashtra.

### 3) Line and Clustered Column Chart:



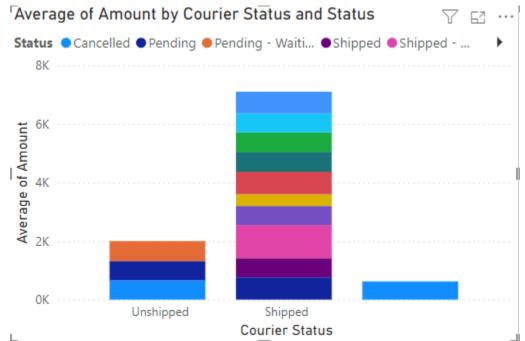
**Observations:** This shows the net average sales from a particular state and the total number of items ordered from that particular state in a year.

## 4) Area Chart:



**Observations:** This chart shows the variation of the net sales of a particular category over the months of the year. Users can compare the most sold item i.e., with maximum sales and how has its growth been over the months in the year 2022.

### 5) Stacked Column Chart:



**Observations:** This chart gives a segregation on the status of orders - canceled/unshipped/shipped. Further in each category, how many of them are in-transit, out-for-delivery, damaged, etc. We can select a particular state/city/category and view the distribution of the status of the orders.

**CONCLUSION:** After performing the above experiment in Power BI, I was able to plot various charts which help us in deriving useful conclusions from the dataset selected. I learnt how to plot various charts in Power BI and create a dashboard which gives us an overall view and help us easily analyze the data.

