E-Commerce Analytics Dashboard Using IBM Cognos

Data Analytics:-SmartBridge

Submitted by:

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1. INTRODUCTION:-

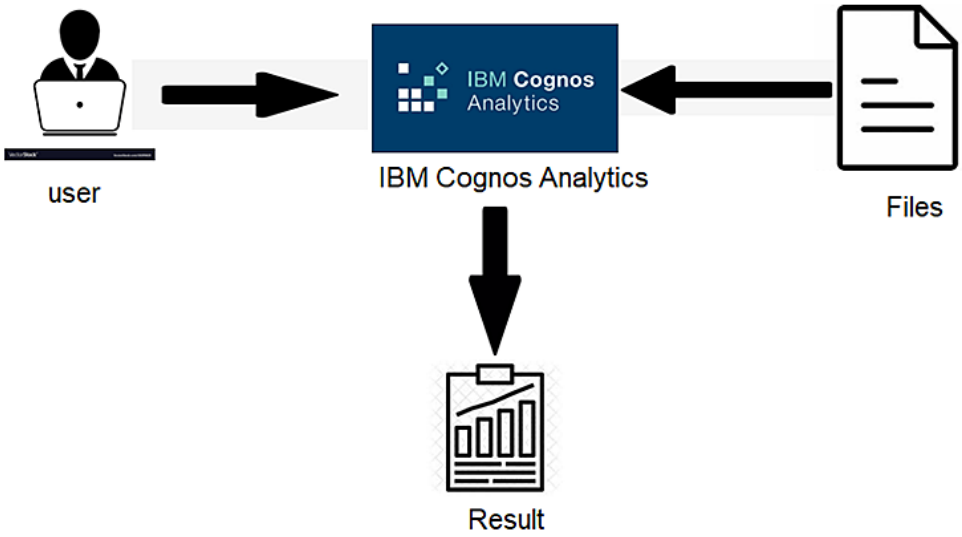
With the exponential growth in internet and online infrastructure in India, it was no surprise that the e-commerce market experienced a similar boost. Increasing rates of internet penetration, along with an increasing share of the organized sector within retail markets created the strong foundation that e-commerce needs. Policies from the government had strengthened the market further. This was propelled by government policies that allow 100 percent foreign direct investment in B2B e-commerce. 2019 frameworks expect FDIs for e-commerce in the marketplace model and ensured a level playing field for all companies.

2. OBJECTIVE:-

- Know fundamental concepts and can work on IBM Cognos Analytics.
- Gain a broad understanding of plotting different graphs.
- Able to create meaningful dashboards.

3. Theoretical Analysis:-

3.1Block diagram:



4. PROJECT:-

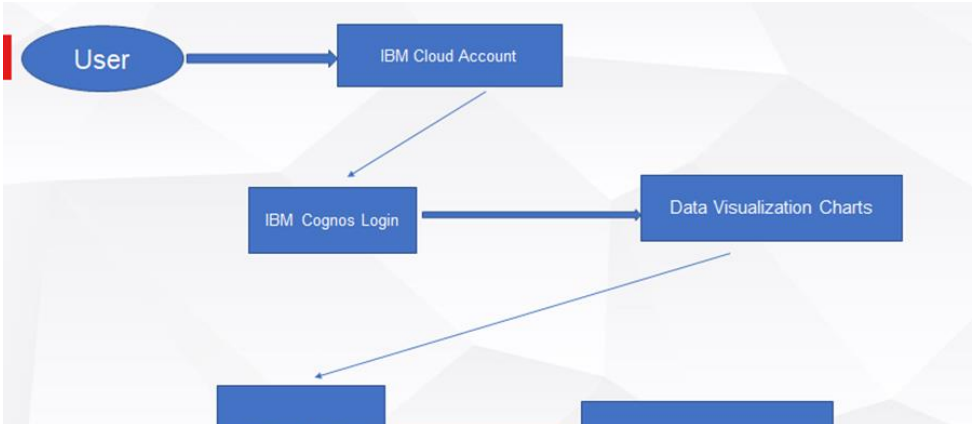
4.1 Project Flow:

- Users create multiple analysis graphs/charts.
- Using the analysed chart creation of Dashboard is done.
- Saving and Visualizing the final dashboard in the IBM Cognos Analytics.

To accomplish this, we have to complete all the activities and tasks listed below

- IBM Cloud Account
- Login to Cognos Analytics
- Working with the Dataset
    - Understand the Dataset
    - Loading the Dataset
- Data visualization charts
- E-commerce in india
- Percentage of E-commerce Data of Top 10 profitable States
- Top 10 Profitable State Wise No of E-commerce data
- Statistics of Chosen State
- Monthly Analysis
- Dashboard Creation
- Exporting the Analytics

4.2 Flow Chart:-



4.3 Project Dataset:

This project is based on understanding E-commerce Data in different region in India.

It has 1,025 data points (rows) and 8 features (columns) describing the results of E-commerce related details

Let's understand the E-commerce data we're working with and give a brief overview of what each feature represents or should represent

1. Date- gives us the dates on which Data analysis(Accurate Data) are seen in every state
2. Time- represents at which time the information is updated
3. State/ Union Territory- the states in India
4. Confirmed Indian National- Total Data in India

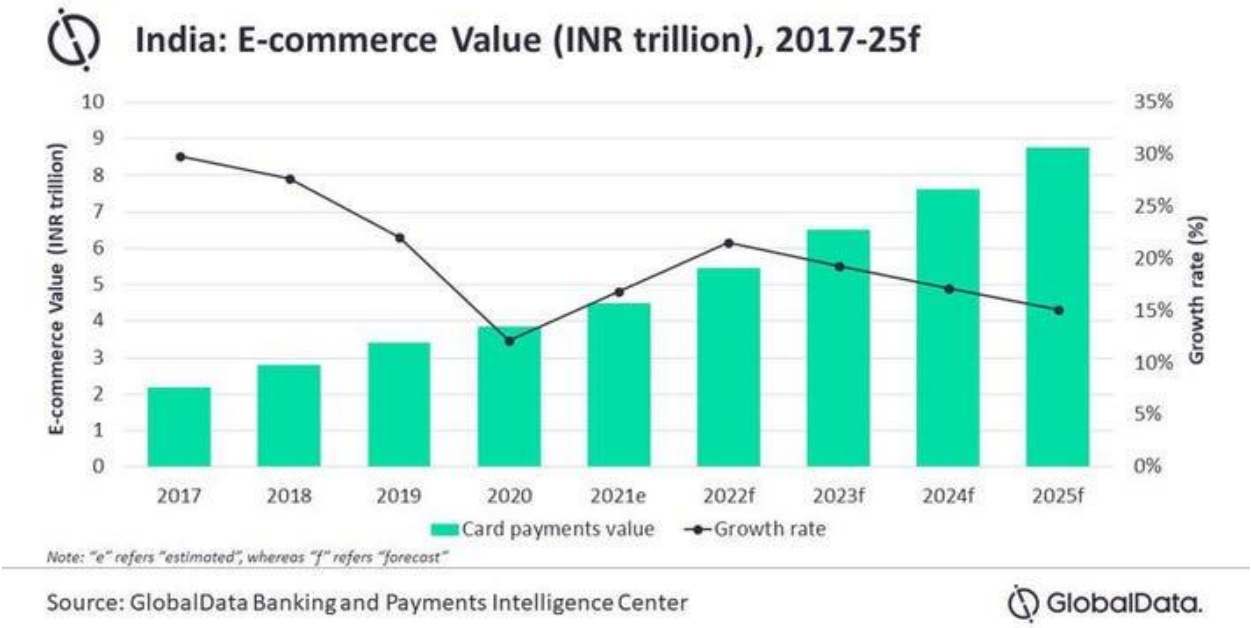
5. Confirmed Foreign National- Confirmed Data Apart From India(Foreign)

4.4 Data Visualization:

Using the E-commerce dataset, we plan to create various graphs and charts to highlight the insights and visualizations.

4.4.1 E-commerce INDIA STATISTICS:

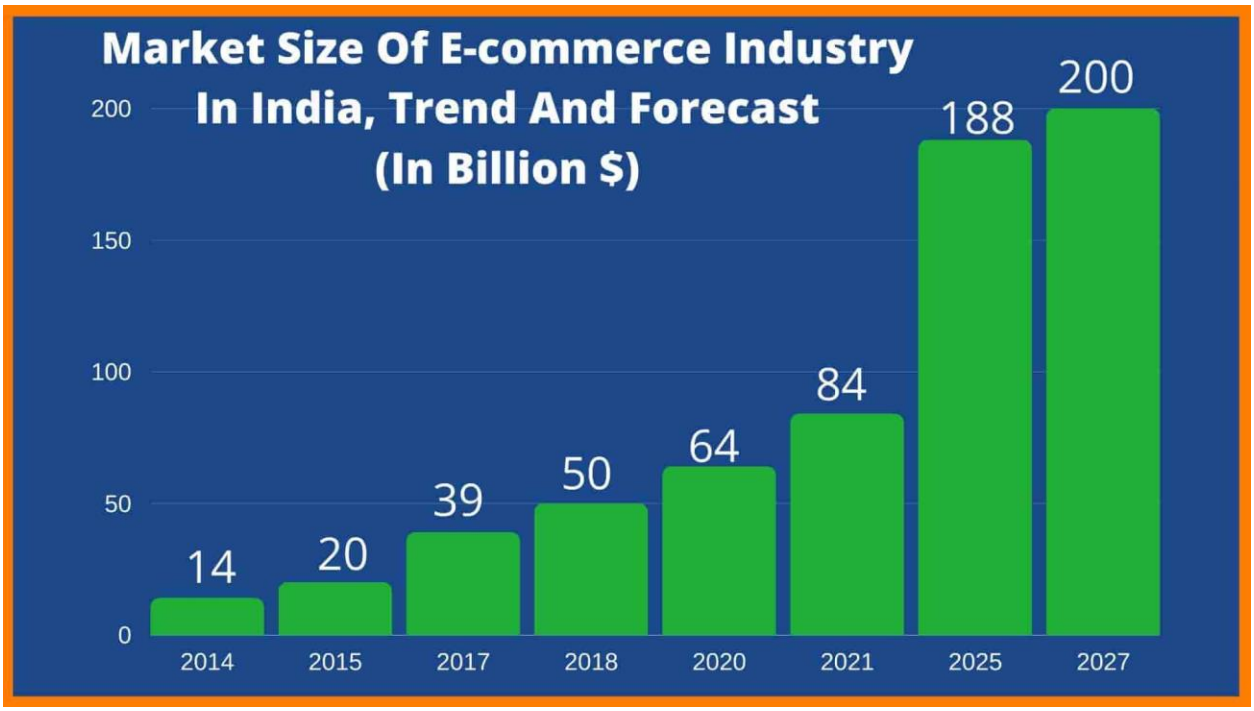
In this visualization we will be concentrating on the number of Total data in each state in India.



e-commerce growth in India fell back sharply in 2020. But estimates for this year, and forecasts to 2022 show a sharp pick-up, before moderating again out to 2025.

4.4.2 Percentage of Ecommerce Data of Top 10 profitable States:

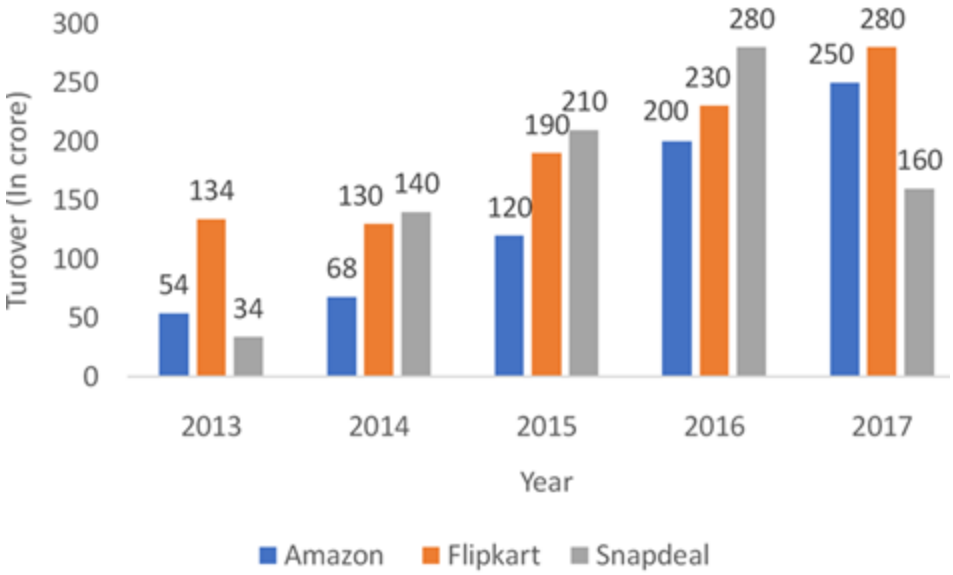
In this visualization we will be concentrating on the percentage of Data in profitable states.



E-Commerce in India is expected to touch $200 billion by 2025 from the figure of around $40 billion in 2017. The internet economy, on the other hand, is expected to double by 2021 to $250 billion, majorly riding on the E-Commerce wave. Seeing this potential, Amazon, Walmart, and Alibaba are heavily investing in India and building a strong presence. Various domestic players like Snapdeal, Shopclues, Infibeam, etc. are also a part of this organized and exponentially growing E-Commerce segment in India.

4.4.3 Top 10 State Wise No of Total Data:

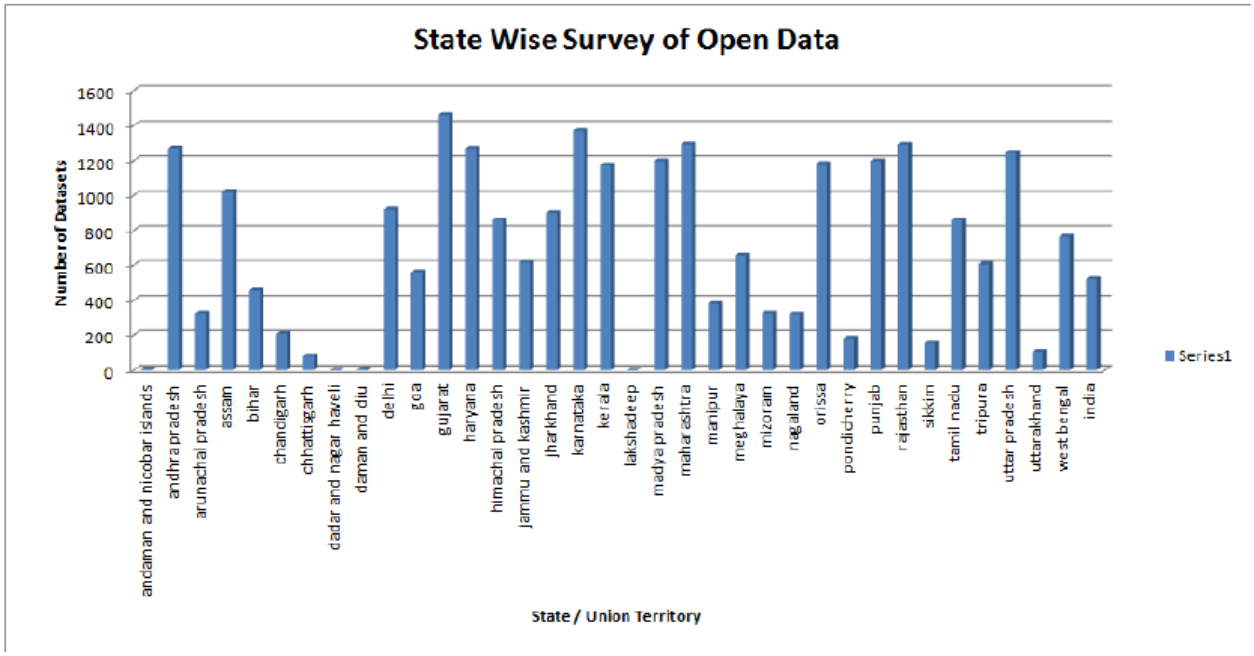
In this visualization we will be concentrating on no.of Total data in top most states but.We will be using the graph type- Bar.



Here we are showing how much the top 10 state-wise number of Total Data in India so for that; we have plotted a graph as Bar graph.

4.5.4 Statistics of Chosen State:

In this visualization we will be concentrating on no.of Data in a particular state by applying filters. We will be using the graph type- Bar.



Here we are showing Statistics of total data by choosing different states by the user so for that; we have plotted a graph as Bar graph.

4.6.5 Monthly Analysis:

In this visualization we will be concentrating on Data in a particular time period. This can be done by putting the DATE column in the filter and then selecting the time period of our choice. We will be using the graph type- Line.

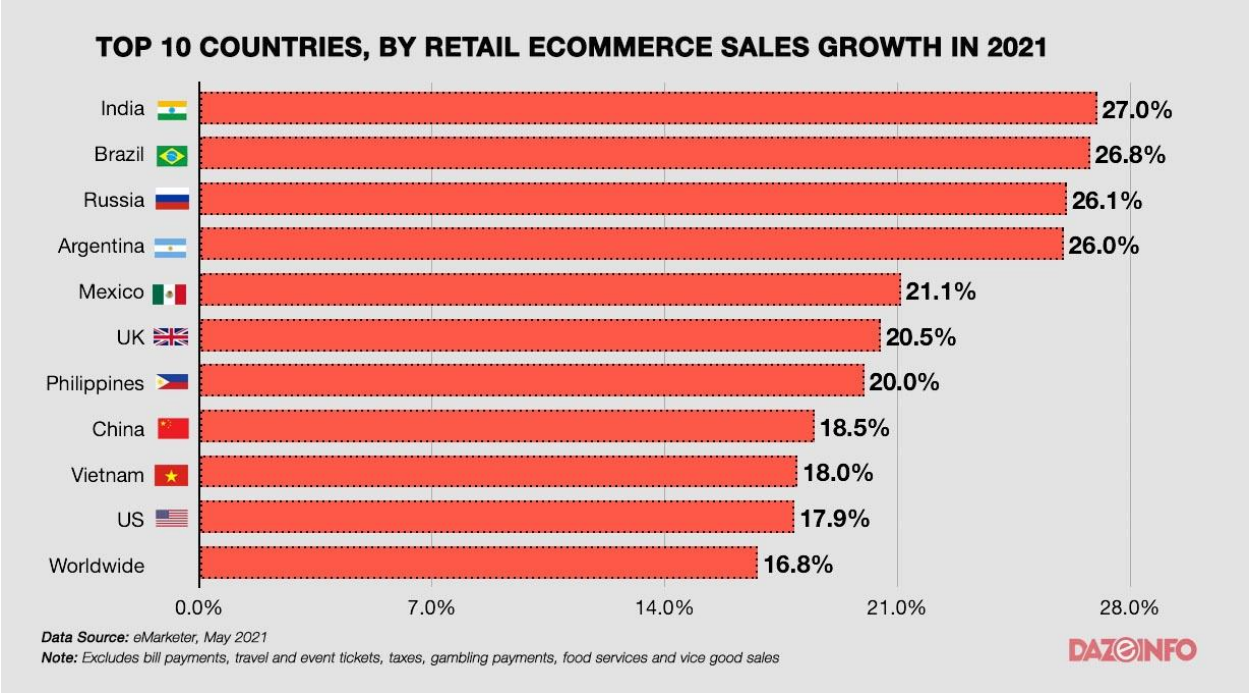
Here we are showing a Monthly analysis of Data in India; so for that, we have to plot a graph as a Line graph.

In this graph, we are showing the amount of total number of Data.

4.7.6 Creating the Dashboard:

Once you've created views on different tabs in Cognos analytics, you can pull them into a dashboard.

Here we have put our different dashboard into a single dashboard



5. Result:-

By this proposed work, we came to know about fundamental concepts and how can we work on IBM Cognos Analytics, gaining of a broad understanding of plotting different graphs and how to create a meaningful dashboards. In this project we also came to know about different countries E-commerce data.

6.Advantages:-

- We can analyse and predict the future data that can come.
- We can also analyse the economy rate of India by analysing the data.

7. Disadvantage:-

There are many Disadvantage of it that are as follows:-

- There can be lack of system security, reliability or standards owing to poor implementation of e-commerce.
- Sometimes, it becomes difficult to integrate an e-commerce software or website with existing applications or databases.

8. Conclusion:-

By our Statistical analysis we have analysis the data and found that India has the most Ecommerce data and we came to know about how to create a dashboard as well as we also came to know about top 10 E-commerce states.

9. Future Scope:-

By analysing of different types of data and making dashboards of it we can do predictive analysis.

By doing this we can predict the amount of data, data per month, data in the future by analysing previous year data.

10. Bibliography:-

I have taken some information from the different types of sites, internet, YouTube.

- Google
- Wikipedia
- YouTube
- SmartInterz