

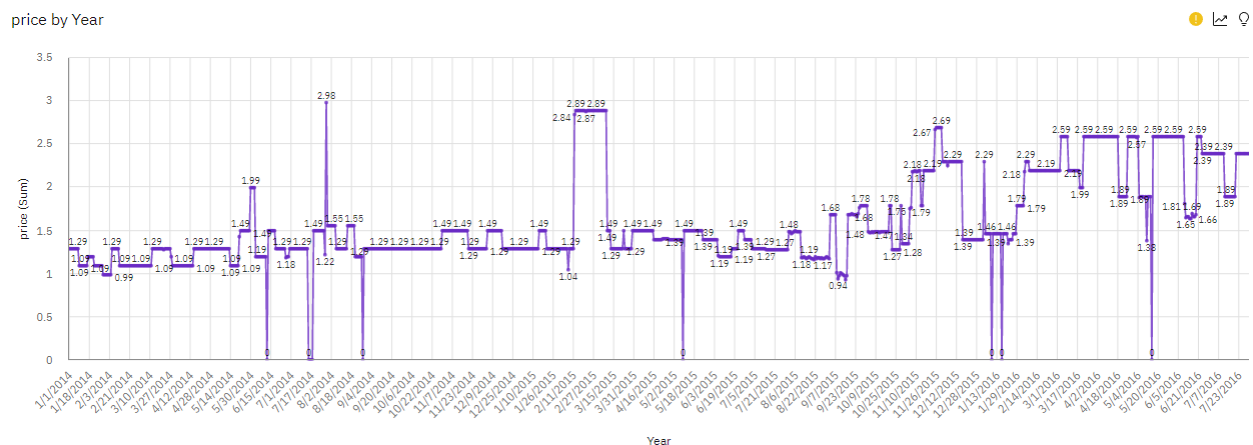
# VISUALIZATION SCREENSHOTS

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The upcoming screenshots relates to the various visualizations constructed from the different aspect combinations.



**Figure 1: Year wise Price using Line Graph**

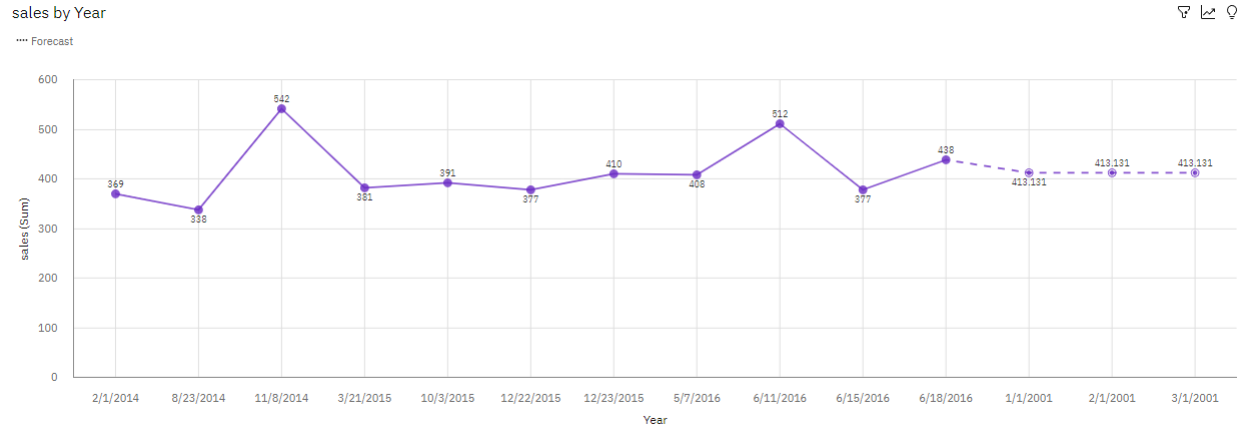
- A line graph is constructed between the Year and Price factors. The year being the independent factor is taken on the X axis while the Price being the dependent factor is taken on the Y axis.
- The properties of the constructed graph are then tweaked by performing some operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.



The chart displays the stock price of the company over a 30-year period. The y-axis, labeled 'stock (sum)', ranges from 0 to 8,000. The x-axis, labeled 'Year', shows dates from 1/1/94 to 12/31/23. The stock price starts at approximately 4,900 in 1994, peaks at 7,228 in early 1994, and then declines to around 2,000 by mid-1994. It then fluctuates between 1,000 and 3,000 until around 2017, when it reaches a peak of 5,946. Following this, the stock price drops sharply to around 1,000 and remains low through 2023.

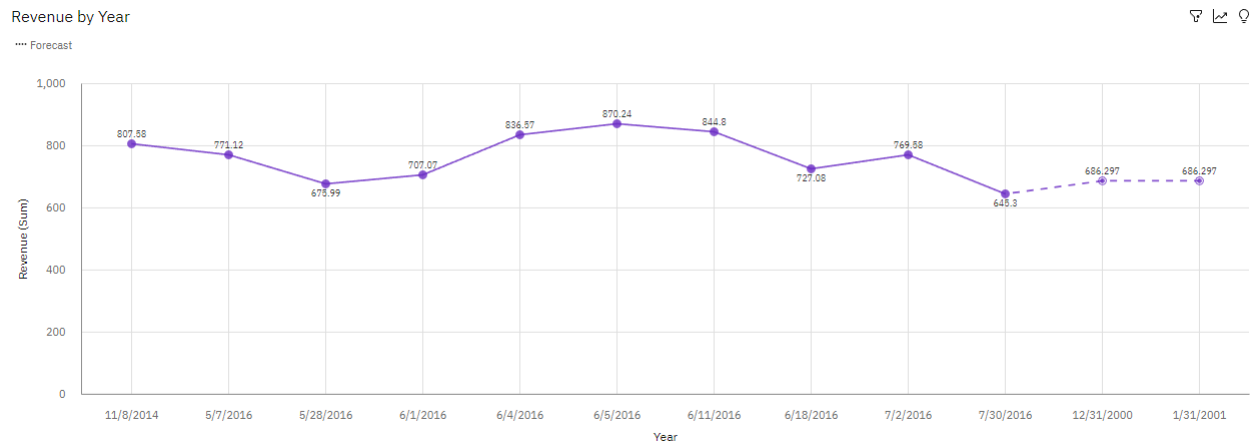
### Figure 2: Year wise Stock using Line Graph

- A line graph is constructed between the Year and Stock factors. The year being the independent factor is taken on the X axis while the Stock being the dependent factor is taken on the Y axis.
- The properties of the constructed graph are then tweaked by performing some operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.



**Figure 3: Top 10 Sales by Year using Line Graph**

- A line graph is constructed between the Year and Sales factors. The year being the independent factor is taken on the X axis while the Sale being the dependent factor is taken on the Y axis.
- The obtained line graph is then subjected to filtering operations. The graph is modified to display only the top 10 sales (along with the values) that happened in the past.
- The properties of the constructed graph are then tweaked further by performing some more operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.



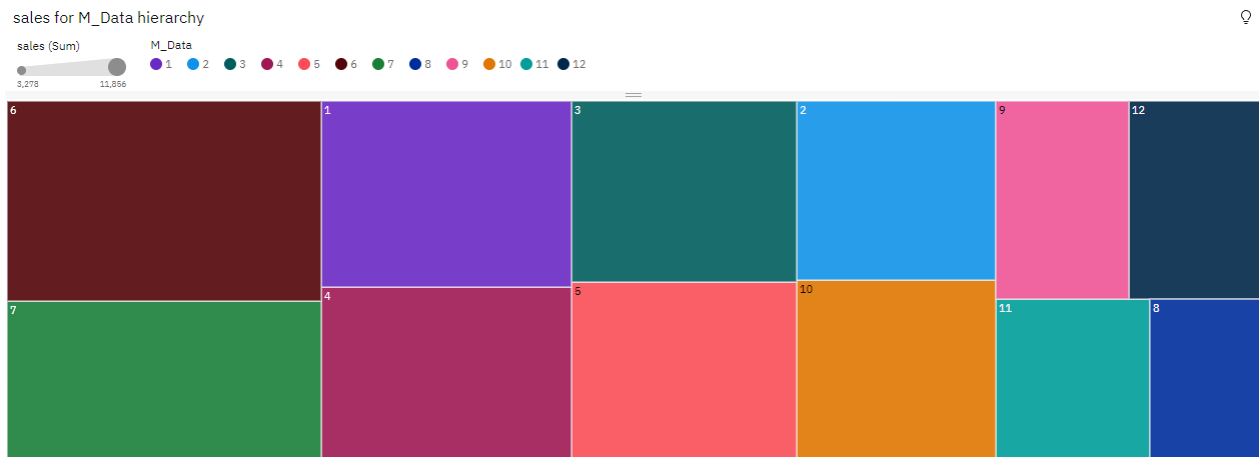
**Figure 4: Top 10 Revenue by Year using Line Graph**

- A line graph is constructed between the Year and Revenue factors. The year being the independent factor is taken on the X axis while the Revenue being the dependent factor is taken on the Y axis.
- The obtained line graph is then subjected to filtering operations. The graph is modified to display only the top 10 revenues (along with the values) generated in the past.
- The properties of the constructed graph are then tweaked further by performing some more operations on it. This tweaking led to better representation of the data.
- The past data was also interpolated (forecasting) to enable the higher authorities have a better grasp on the possible future trends.



**Figure 5: Monthly Stock using Heat Map**

- Heat Map visualization is constructed for Monthly Stocks using the IBM Cognos Analytics tool.
- The properties of the developed visualization are then tweaked further by performing some operations on it. This tweaking led to better representation of the data.



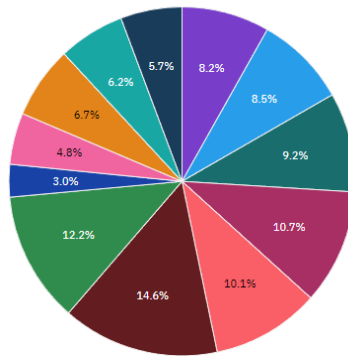
**Figure 6: Monthly Sales using Tree Map**

- Tree Map visualization is constructed for Monthly Sales using the IBM Cognos Analytics tool.
- The properties of the developed visualization are then tweaked further by performing some operations on it. This tweaking led to better representation of the data.

Revenue by M\_Data

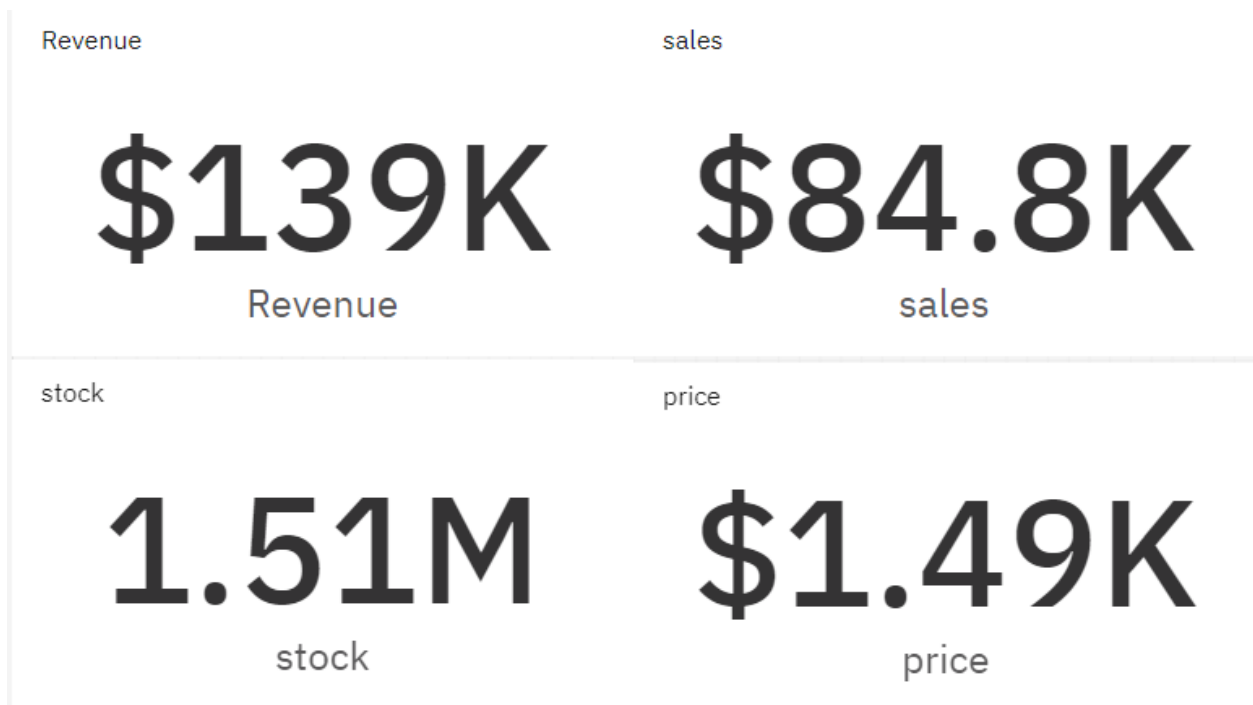
M\_Data

1 2 3 4 5 6 7 8 9 10 11 12



**Figure 7: Monthly Revenue using Pie Chart**

- A Pie Chart was developed for the Monthly Revenue data using the IBM Cognos Analytics tool.
- The properties of the developed visualization are then tweaked further by performing some operations on it. This tweaking led to better representation of the data.



**Figure 8: Summary Cards of Total Revenue, Sales, Stock, Price**

- Summary Cards was developed for Total Revenue, Sales, Stock and Price data using the IBM Cognos Analytics tool.
- These Cards display the exact values in the form of cards. Modifications to the way of representing certain values were made in order to make it a better way of presenting the data.





**Figure 9: Dashboard**

We finally combine all the visualizations into a single dashboard for better viewing. The dashboard is arranged in such a way, that it can provide all the necessary information in a single glance.