



ADSI ASSIGNMENT



Name: ASWINI SIVAKUMAR

Student ID: 22027143

Submission data: 9/11/2023

Dataset link:

[https://databank.worldbank.org/indicator/NE.EXP.GNFS.ZS/1ff4a498/
Popular-Indicators](https://databank.worldbank.org/indicator/NE.EXP.GNFS.ZS/1ff4a498/Popular-Indicators)

Github link:

Fuel Exports of Middle East Countries

VISUALISATION-1

LINE PLOT:

The provided function generates a line plot representing the export rates of the following countries: Bahrain, Kuwait, Malta, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The line plot provides a clear visualization of how export rates have evolved over time for each country.

The X-axis represents the years, while the Y-axis denotes the export rate percentage. By employing a line plot, we aim to provide a visual representation of export rate trends over the years. The data set contains information from year 2013 to 2021.

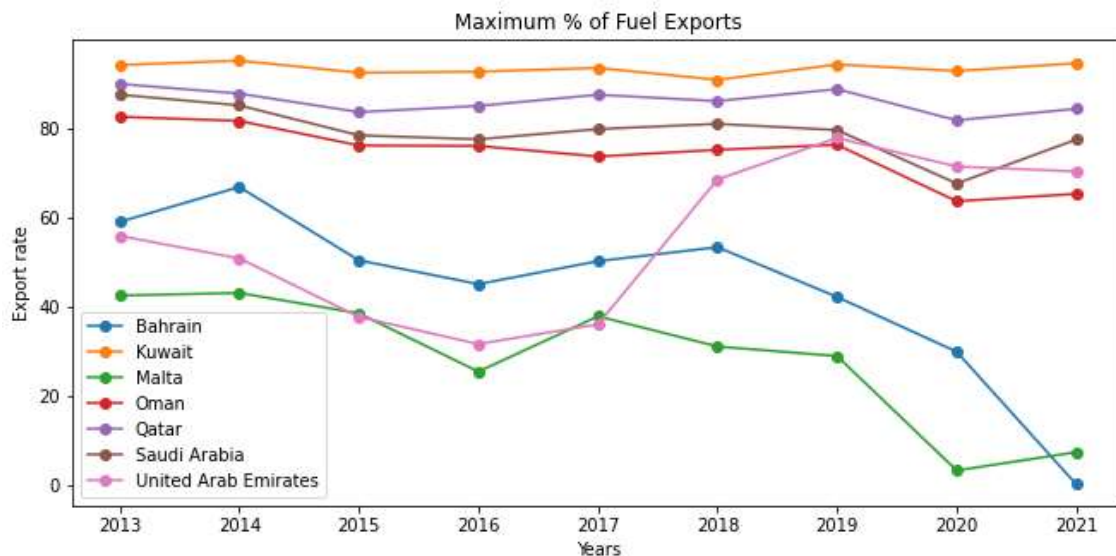


Figure I - Fuel export rate of 7 countries

ANALYSIS

- The graph is perfect for showing the changes over year from 2013 to 2021.
- The line plot reveals a consistent upward trend in Kuwait, fuel exports over the analysed years. This suggests that Kuwait has experienced a steady increase in its export rates.
- Bahrain's and Malta's fuel exports exhibit a downward trend over the years.
- United Arab Emirates export rate trend reveals more variable growth. While there are periods of export rate with high increases in recent years from 2017 to 2021, there are also years with declines, indicating fluctuations in export performance.

- Oman, Qatar and Saudi Arabia's export rate exhibit both downward and upward trend over the years.

VISUALISATION- 2

BAR PLOT:

This report focuses on comparing the export rates of Fuel between United Arab Emirates and Kuwait over the years 2013 to 2021. The bar plot visually assesses and contrast their export performance. Each bar is represented by a different colour to clearly differentiate between the two countries.

The X-axis represents the years from 2016 to 2020 and the Y-axis represents the average annual fuel export rate.

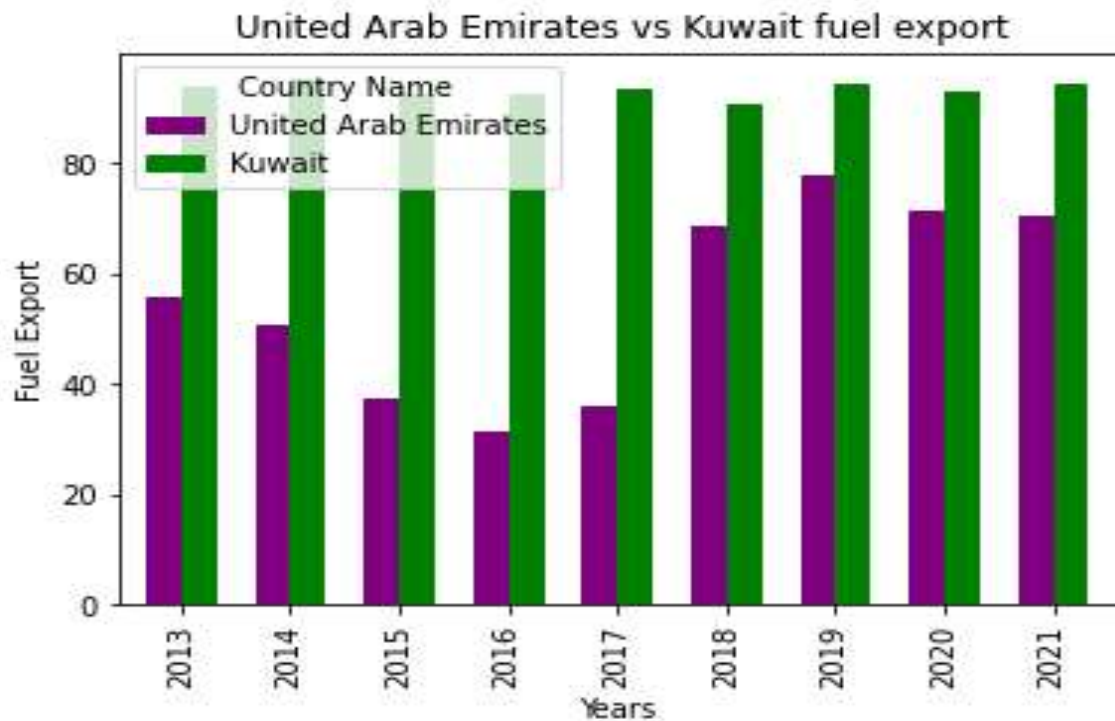


Figure II – Comparison of Export rate between UAE and Kuwait

ANALYSIS

- Analysis of individual bars for each year can reveal patterns of yearly variations in fuel exports. Observing the relative heights of the bars provides insights into the comparative performance of the two countries.
- Based on the data analysis and visualization provided in this report, it can be concluded that the Kuwait has a higher average annual fuel export rate than UAE from 2013 to 2021.

- Considering United Arab Emirates, the yearly fluctuations in the export rates can also be observed, with certain years having higher and lower export rates.

VISUALISATION- 3

SCATTER PLOT:

This report focuses on comparing the export rates of Fuel between Malta and Bahrain over the years 2013 to 2021. The bar plot visually assesses and contrast their export performance. Each bar is represented by a different colour to clearly differentiate between the two countries.

The X-axis represents the years from 2016 to 2020 and the Y-axis represents the average annual fuel export rate.

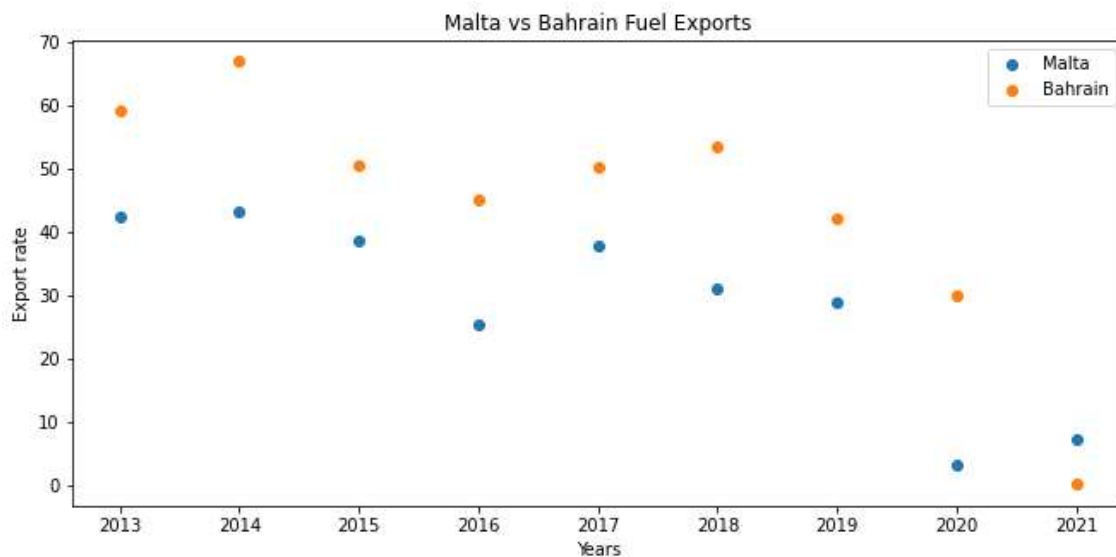


Figure II – Comparison of Export rate between Malta and Bahrain

ANALYSIS

- This function provides a clear and concise way to visualize the fuel export rates of Malta and Bahrain over time, enabling easy comparison between the two countries.
- Each data point on the scatter plot represents the fuel export rate for a specific year. The relative positioning of Malta and Bahrain data points illustrates the comparative performance of the two countries.
- Considering Malta and Bahrain highlights the similar nature of the downward trends, the yearly fluctuations in the export rates can also be observed, with certain years having higher and lower export rates.

CONCLUSION

Overall, these visualisations help in understanding the Fuel export % of Middle east countries like Bahrain, Kuwait, Malta, Oman, Qatar, Saudi Arabia, and the United Arab Emirates from 2013 to 2021 and enables a comprehensive analysis of fuel export trends. The line plot displays the maximum percentage of fuel exports for countries over the years. The bar plot compares the fuel export of the United Arab Emirates and Kuwait over the years. The scatter plot allows a visual comparison of the fuel export of Malta and Bahrain over the years. These plots offer insights into the dynamics of fuel exports for the specified countries over time, facilitating further exploration and informed decision-making. Further in-depth analysis and insights can be derived from these visualizations, depending on specific research or business objectives.