MARKET RESEARCH AND DATA VISUALIZATION TOOLS AND ECONOMIC IMPACT ANALYSIS SOFTWARE

Congyu Song, University of Jeddah

ABSTRACT

There are several market research and data visualization tools available in the market that can help you analyze market trends, consumer behavior, and visualize data effectively. Similarly, economic impact analysis software can assist in assessing the economic effects of various factors such as policy changes, investments, or events. Here are some popular tools in each category.

Keywords: Market Research, Data Visualization Tools, Economic Impact.

INTRODUCTION

Market Research and Data Visualization Tools

Tableau is a widely used data visualization tool that helps you create interactive charts, graphs, and dashboards. It offers a user-friendly interface and supports various data sources. Qlik View is a business intelligence and data visualization tool that enables you to explore and analyze data from different angles. It offers interactive dashboards and reports for effective decision-making (Karakus & Durresi, 2018).

Google Data Studio is a free data visualization tool that allows you to create interactive reports and dashboards. It integrates seamlessly with other Google products and supports multiple data sources (Magennis, 2015). Power BI is a business analytics tool by Microsoft that offers interactive visualizations, business intelligence capabilities, and self-service analytics. It can connect to a wide range of data sources and provides real-time insights. IBM SPSS is a comprehensive statistical analysis software that allows you to analyze data, generate reports, and create predictive models. It provides advanced analytics capabilities for market research and data analysis.

Economic Impact Analysis Software

IMPLAN is an economic impact modeling software that helps in assessing the economic effects of different events, investments, or policy changes. It provides regional economic data and allows you to estimate direct and indirect economic impacts. REMI (Regional Economic Models, Inc.) is an economic modeling and forecasting software used to analyze the economic impacts of various factors. It offers dynamic modeling capabilities and helps in policy analysis and decision-making. EViews is a statistical software package that specializes in time-series data

Citation Information: Song, C. (2023). Market research and data visualization tools and economic impact analysis software. *Journal of Economics and Economic Education Research, 24(3*), 1-3.

analysis and forecasting. It provides economic modeling and simulation capabilities for economic impact analysis.

RIMS II (Regional Input-Output Modeling System) is an economic modeling software developed by the U.S. Bureau of Economic Analysis. It allows you to estimate the regional economic impacts of changes in industry output or employment. Impact ECON is an economic modeling and analysis software that enables you to assess the economic impacts of policy changes, investments, and other factors. It provides a wide range of economic models and data sets for analysis. These tools can help you with market research, data visualization, and economic impact analysis, depending on your specific requirements. It's important to evaluate each tool's features, pricing, and compatibility with your data sources before making a decision.

Economic data visualization is a powerful tool for understanding and interpreting complex economic trends and patterns (Majeed & Ainin, 2021). It allows analysts, researchers, and policymakers to explore and communicate economic data in a more accessible and intuitive way. Here are some commonly used techniques and tools for visualizing economic data:

- **Line Charts:** Line charts are a basic yet effective way to visualize trends over time. They are commonly used to show the movement of economic indicators such as GDP growth, stock prices, or unemployment rates over a specific period.
- **Bar Charts:** Bar charts are useful for comparing different categories or groups. They can be used to display data such as market shares of different industries, government expenditure by sector, or population distribution by age group.
- **Scatter Plots:** Scatter plots are used to explore the relationship between two variables. In economic analysis, scatter plots can be used to study the correlation between variables like income and education levels, inflation and interest rates, or trade volume and GDP growth (Rodrigues et al., 2019).
- **Heat Maps:** Heat maps use color-coding to represent data values across a two-dimensional grid. They are helpful for visualizing data with geographical or time dimensions. For example, a heat map can illustrate regional economic disparities or changes in unemployment rates across different states or countries (Sonawane et al., 2022).

Bubble charts are similar to scatter plots but incorporate a third variable as the size of the bubbles. This allows for the visualization of three dimensions of data. Bubble charts can be useful for comparing variables such as population, GDP, and carbon emissions across countries.

Choropleth maps represent data values by color-coding regions, such as countries, states, or provinces. They are commonly used to display economic indicators at a regional level, such as GDP per capita, poverty rates, or export/import values are often used to visualize trade flows, budget allocations, or supply chain networks.

To create visualizations, there are various software and programming tools available, such as: Excel offers basic charting capabilities suitable for simple visualizations.

Tableau: Tableau is a powerful data visualization tool that provides a range of options for creating interactive and dynamic economic visualizations.

CONCLUSION

Python has libraries like Matplotlib, Seaborn, and Plotly, which provide extensive functionality for data visualization. R is a statistical programming language that offers packages

Citation Information: Song, C. (2023). Market research and data visualization tools and economic impact analysis software. *Journal of Economics and Economic Education Research, 24(3*), 1-3.

like ggplot2 and plotly for creating high-quality economic visualizations. js is a JavaScript library that provides advanced data visualization capabilities and is often used for creating interactive and dynamic visualizations on the web. These are just a few examples, and there are many other tools and techniques available. The choice of tool depends on the complexity of the data, the desired interactivity, and the specific requirements of the analysis or presentation.

REFERENCES

Karakus, M., & Durresi, A. (2018). Economic impact analysis of control plane architectures in software defined networking (SDN). In *2018 IEEE International Conference on Communications (ICC)*, 1-6.

Magennis, T. (2015). The economic impact of software development process choice--cycle-time analysis and monte carlo simulation results. In *2015 48th Hawaii International Conference on System Sciences*, 5055-5064.

Majeed, N., & Ainin, S. (2021). Visualizing the evolution and landscape of socio-economic impact research. *Quality & Quantity*, *55*(2), 637-659.

Rodrigues Gurgel da Silva, A., Giuliano, A., Errico, M., Rong, B. G., & Barletta, D. (2019). Economic value and environmental impact analysis of lignocellulosic ethanol production: assessment of different pretreatment processes. *Clean Technologies and Environmental Policy*, *21*, 637-654.

Sonawane, C., Alrubaie, A. J., Panchal, H., Chamkha, A. J., Jaber, M. M., Oza, A. D., ... & Burduhos-Nergis, D. P. (2022). Investigation on the impact of different absorber materials in solar still using CFD simulation—economic and environmental analysis. *Water*, *14*(19), 3031.

Received: 04-May-2023, Manuscript No. JEEER-23-13606; **Editor assigned:** 06-May-2023, Pre QC No. JEEER-23-13606(PQ); **Reviewed:** 20-May-2023, QC No.JEEER-23-13606; **Revised:** 23-May-2023, Manuscript No. JEEER-23-13606(R); **Published:** 30-May-2023

Citation Information: Song, C. (2023). Market research and data visualization tools and economic impact analysis software. *Journal of Economics and Economic Education Research, 24(3*), 1-3.