Driving Insights: Power BI Dashboard for Car Data Visualization

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Objective:

Build a Power BI dashboard to understand customer demographics, preferences, and purchase behavior for cars, enabling better marketing strategies and targeted campaigns.

Summary:

This project focuses on clear visualization of car sales, utilizing Power BI as its backend. Power BI is renowned for its data visualization capabilities owing to its user-friendly interface, seamless integration with diverse data sources, and robust analytical functionalities. It enables users to generate interactive and visually appealing reports and dashboards, facilitating improved data-driven decision-making in businesses.

This project is entirely data-driven. We acquired the data from the online site, filtered it, handled missing values as per our requirements, and subsequently visualized the data based on our queries.

Software Requirement:

The software used in this project: **Power Bi** **Queries**

visualize on this experiment:

1. Display the units sold for each car brand.
2. How much revenue was generated for each car model?
3. Display no of variants available for each car model.
4. Market value for each car brand. show with the help of BAR chart.
5. Display models(variants) for each brand based on revenue generated.
6. Show the market share percentage of brands.

Power BI Dashboard:

In this dashboard image, we can observe all the logos of car models positioned at the top section.

Below them, there is a "Units Sold" box representing the total sum of units sold across all car models. Additionally, there are boxes for "Total Revenue" and "Number of Variants," indicating the overall revenue and the number of variants each brand has.

In the "Brand Market Value" section, each bar of the plot represents the market value of each brand, arranged in ascending order. Following this, we encounter a donut chart aiming to depict the market value for each car brand.

In the donate chart we use to represent the Market value for each car brand.
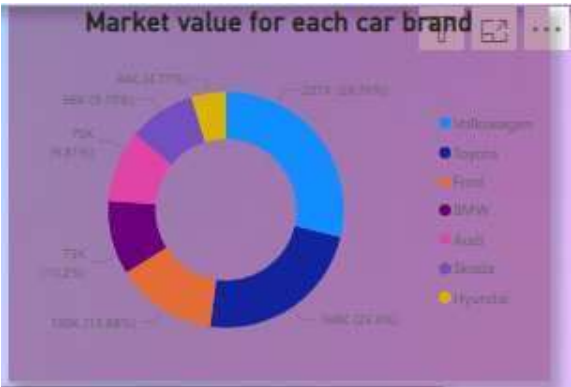
Finally, in the stacked bar chart, we utilize it to illustrate the market share percentage of different brands and we named it as a "Market share percentage".

By clicking on the logo of a specific car brand, users can access detailed information about that particular brand. This feature allows users to obtain comprehensive insights into the selected brand, including sales figures, revenue, market value, and other relevant metrics associated with it. Here are some examples,

Conclusion:

In conclusion, the implementation of the Power BI dashboard for visualizing car sales data has proven to be highly effective in providing actionable insights for decision-makers in the automotive industry. Through intuitive visualizations such as logo representations, unit sales summaries, revenue analysis, and market value comparisons, stakeholders can swiftly grasp key performance indicators and trends. The interactive nature of the dashboard, including the ability to drill down into specific brand details by clicking on logos, enhances user engagement and facilitates informed decision-making. This underscores the significance of leveraging data visualization tools like Power BI to unlock valuable insights and drive strategic business outcomes in the competitive automotive market.

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