TSLA Stock Analysis

1. **What is the URL for the submitted dashboard?**

<https://public.tableau.com/app/profile/karan.gulati3064/viz/TSLAWorkbook/TSLADashboard>

1. **Below:**

* **What is one question that the dashboard can answer by utilizing two or more simultaneously displayed charts?**
* **What is the answer?**
* **How do these two charts indicate the answer?**

How have the stocks of an in-person customer based company (American Airlines, AAL) faired against one that does not need in person customers (Tesla, TSLA)?

During the COVID-19 Pandemic, any and all in person customer-based companies took a major hit in their stocks. This is due to the fact that there was a government wide mandate to stay indoors, meaning that any travel based businesses would take a huge loss. This is seen in our dashboards TSLA vs. American Airlines graph as February 2020 had AAL at 27.28 open price, while in March 2020 the average open price was 14.88. AAL continued to go down for the next few months and fluctuate in the next year.

Tesla on the other hand was an emerging technology company, leading the frontier with their top-of-the-line EV technology. Their stocks had a 113 open price in March 2020, and steadily grew to 827 by January 2021. Furthermore, we can look at our other zoomed in charts, ‘TSLA Volume Trading During Pandemic’ and ‘TSLA Highest Trades During Pandemic’ to look deeper into the COVID-19 timeline. The data shows a negative correlation between volume trades and highest trades during the pandemic, meaning the higher the prices of the stocks got the less people were trading, which is a healthy relation for a growing company with emerging technology. During the pandemic, a very unsure time, people were still willing to invest in a newer technology company in the EV sector.

This data clearly indicates that although the market was devastated by the COVID-19 pandemic, Tesla was able to emerge out of it as a top technology company.

1. **Upload a screenshot of your dashboard answering that question by showing two or more simultaneously displayed charts. Make sure the screenshot contains the entire contents of both charts, as demonstated in the example image of the problem specification.**

A picture containing text, line, plot, diagram

Description automatically generated

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Description automatically generated

1. **How does the layout of these charts promote visual understanding of the data across multiple charts? Make sure your explanation describes color consistentcy, alignment and any other ways the layout improves visual understanding.**

Tesla is consistently the color red across all charts, making it easier for anyone looking at this visual to tell what company the red. American Airlines is the color Blue, which coincides with their Blue & Red Logo. The two charts which show data along the COVID-19 timeline for TSLA are smaller and next to one another, which allow for easy comparison when cross filtering.

1. **Indicate which chart is the "first" chart. Then justify the choice of this chart type, its axes and marks based on the data variables it shows.**

‘TSLA vs. American Airlines’ is the first chart. I chose this to be the first chart as it is on a longer timeline, gives a solid overview of how each company is doing over a span of 10 years, and has details on demand for any of the months’ stock prices.

1. **Indicate which chart is the "second" chart. Then justify the choice of this chart type, its axes and marks based on the data variables it shows**.

I have two charts as my second chart, the ‘TSLA Volume Trading During Pandemic’ & ‘TSLA Highest Trades During Pandemic’. These show a more zoomed in look on Tesla’s rise during the pandemic, and for a couple different metrics that are not in the first chart.

1. **How does your dashboard provide details on demand?**

If you hover over the values in the first chart, you can get details on demand for each Months average data. This includes the month/year, average high, low, open, and closing.

This is available for both Tesla & American Airline Stocks.

1. **How does your dashboard support cross-filtering between these two charts?**

Cross filtering is available for the second two charts. If you select a range of bars on either chart, it will filter to that same date range in the other chart. If you wanted to reset all the filters on the chart, simply click the button next to reset filters to get the original view back.