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Group Project Proposal

Description of Topic

Business Question: The impact of Covid-19 pandemic on businesses and how it affected the economy.

Our project will discuss the impact of Covid-19 pandemic on businesses and how it affected the economy. We will focus on researching data for those companies that significantly affected by Covid-19, regardless of whether the impact is positive or negative. For example, companies such as Zoom, Amazon are doing well; Airline industry, restaurants, car sales are suffering due to Covid-19. In order to identify how well companies are doing, we will be collecting their revenue, gross profit, and stock prices. We will look at their monthly revenue and gross profit starting from right before the pandemic to current situations. Revenue and gross profit are relevant because they indicate how much sales and money the companies are generating, which allows us to evaluate their performances. We will also analyze their stock prices because stocks may have a strong correlation to the overall economy for better insights on how the economy is affected by businesses during this lockdown. Lastly, we will collect data on the monthly Dow Jones stocks and the unemployment rate of the U.S. These data points will represent the overall economic activities, which can be used to compare to the data of the business performances in order to identify how the changes in business performances during this pandemic affect the economy. The data that we will be collecting can be used to analyze and find statistical correlations between all the collected data and the actions that are taken by these companies. From there we can see specifically what actions these companies are taking that leads to their success and we can also see what actions by them lead to a decline in success.

Guiding questions for the project:

- How has the lockdown due to the coronavirus pandemic affected different industries?
- What industries or types of businesses are doing well and what is suffering?
- How has the success or downfalls of the businesses affected the overall economy?

Story and Theme

The outbreak of the Coronavirus started in a seafood market in southern China. The first official case reported by the Chinese authorities was on December 31, 2019, in the city of Wuhan, China. The virus has affected approximately 177 countries in the world, and about 205,000 persons have died because of the illness.

The United States reported the first death from the virus in Seattle, Washington, on February 29th, 2020. The deceased was about 50 years old. Since then, the virus has taken so much strength that the deaths from COVID-19 and contagions have increased exponentially. In the same month, “the Trump administration issued its highest-level warning, known as a ‘do not travel’ warning, for areas in Italy and South Korea most affected by the virus.” (Derrick Bryson Taylor) The United States of America is already the country with the most cases of the coronavirus worldwide. On March 13th, President Trump declared the country to be under a state of emergency and said that, approximately \$50 billion federal funds would be available to fight the virus. By March 15th, gatherings of 50 people and more were restricted, “The C.D.C. advised no gatherings of 50 or more people in the United States over the next eight weeks. The recommendation included weddings, festivals, parades, concerts, sporting events, and conferences.” In addition, President Trump argued that not even small gatherings of 10 people or more would be advised to gather. With the hope to limit people’s exposure to the virus, there was a call to close all entertainment establishments, bars, nightclubs, wineries, urging people of 65 years of age or older and people with chronic health conditions to stay at home in an effort to curb the spread of the virus. Nonessential businesses had to close their operations, leaving the essential ones open with many sanitation restrictions, like restaurants, food producers, banks, and gas stations. Many companies throughout the United States and around the globe have very uncertain prospects about their business’ profits, and don’t know what to expect if these conditions continue as they are or perhaps get worse in the coming months. “The unemployment numbers are staggering. In the U.S., 22 million jobless claims in four weeks is unprecedented in the postwar years” (Holly Ober).

The objective is to explore the economic landscape by following the global effects caused by the coronavirus. Starting from the first appearance of the virus until the present. Focusing largely on the effects of the economic downturn in regards to what businesses have experienced, and reduced their success as opposed to those that are noticing an uptick in importance. Through exploring the data available to narrow the scope and analyzing trends in consumer habits over time in relation to which industries are seeing an increase in users base.

Taylor, Derrick Bryson. “A Timeline of the Coronavirus Pandemic.” *The New York Times*, The New York Times, 13 Feb. 2020, www.nytimes.com/article/coronavirus-timeline.html.

<https://news.ucr.edu/articles/2020/04/22/how-our-economy-can-survive-pandemic>

Data Source

We will use the website Macrotrends and Nasdaq to collect company revenue, gross profit, and stock price. The websites show the companies' yearly financial statements, which are useful because it gives us insights into the business performances before the pandemic. We will use the website Market Insider to collect monthly revenue and gross profit data of the companies. Google Finance and Nasdaq will be used to obtain monthly stock price data of the companies and Dow Jones stocks. The U.S. Bureau of Labor Statistics websites contains unemployment rates data. Another good website is called Trading Economics, which provides information about index and stock prices.

Websites for Revenue, Gross Profit, Stock Price:

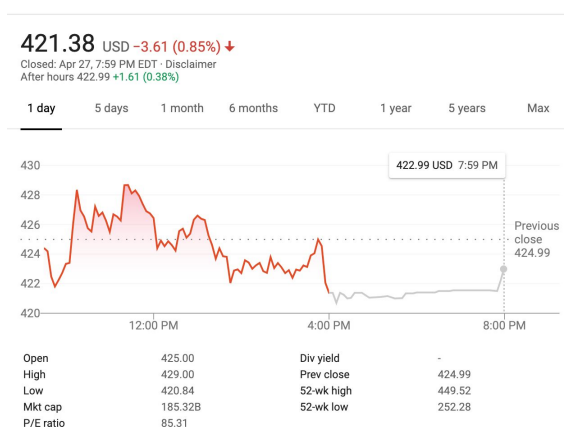
- Trading Economics
- <https://www.macrotrends.net/>
- <https://www.nasdaq.com/>
- <https://markets.businessinsider.com/>
- https://www.google.com/finance?sxsrf=ALeKk02fr5njthX16xfdvVJmXhh2lByA4g:1588034235686&source=hp&ei=u3qnXt-BJ5iw0PEPy8a62A8&oq=Dow&gs_lcp=CgZwc3ktYWlQARgAMgQIlxAnMgQIlxAnMgQIlxAnMgcIABCDARBDMgcIABCDARBDMgQIABBDMgQIABBDMDmgQIABBDMgQIABBDMgQIABBDOgcIIxDqAhAnOgUIABCDAToCCABQpTRYiDZg2ENoA3AAeACA AWilAaACKgEDMi4xmAEAoAEBqgEHZ3dzLXdperABCg&sclient=psy-ab&sa=X&ved=2ahUKEwjP1L_I8lnpAhVKITQIHcg2BVgQ6M8CMAB6BAgaEAI

Website for Unemployment Rate:

- https://www.bls.gov/cps/cps_hetgm.htm

Examples of Data:

Netflix Stock Price



Netflix Monthly Revenue

Revenue Estimates In Million

	PREVIOUS QUARTER ENDING 03/31/20	CURRENT QUARTER ENDING 06/30/20	NEXT QUARTER ENDING 09/30/20	CURRENT YEAR ENDING 12/31/20	NEXT YEAR ENDING 12/31/21
No. of Analysts	23	23	23	37	31
Average Estimate	5,755 USD	6,033 USD	6,300 USD	24,540 USD	29,088 USD
Year Ago	4,521 USD	4,923 USD	5,245 USD	20,156 USD	24,540 USD
Date	4/21/2020	7/20/2020	10/14/2020	1/26/2021	-

Netflix Income Statement

PERIOD ENDING:	12/31/2019	12/31/2018	12/31/2017
Total Revenue	\$20,156,447	\$15,794,341	\$11,692,713
Cost of Revenue	\$12,440,213	\$9,967,538	\$8,033,000
Gross Profit	\$7,716,234	\$5,826,803	\$3,659,713

Dow Jones Stocks



Business Intelligence Tool

The main focus of our studies will involve quantitative data. The data we have available for the post-pandemic economic effects within the past few months will be used to construct a descriptive analysis. We will establish an idea of the data distribution, detect outliers, and data points that are not relevant or may have factors outside the pandemic involved, and create associations among the variables. Due to the availability of a multitude of graphical and summary approaches, it will be important to keep the data relevant in order to avoid making erroneous decisions and theories. When we use descriptive statistics, it is useful to summarize our relevant economic data using a combination of tabulated description (i.e., tables), graphical description (i.e., graphs and charts) and statistical commentary (i.e., a discussion of the results). We will be looking at the records on a large scale, evaluating the Coronavirus event and its effect on the U.S. economy. Use of Tableau, Excel, and other data analysis tools can be effective for data analytics.

For Tableau, we plan to use the region chart to present our data. The region chart uses a map of the United States. We can divide the map into states, so we can see the percentage of sales in each of the companies. The region chart would just be an overview of what we have collected in all sections. Each state would show how much sales have gone up and down for each company that we are comparing. We would use more specific charts to represent the data. Tableau has many comparative line charts that we can use by adding all the companies that we plan to compare. This chart can be broken down to specific dates, and we will divide them depending on the data that we have collected. We plan to start when the virus starts up until now. We also plan to use the story feature that Tableau offers. We will be able to present our charts and add captions that will help us tell the story that we have planned. We use tableau mostly for comparative charts. As for excel, we plan to use it for simpler charts and tables that we will need. We can create bar, line, and pie charts to show our data. For example, we can create the unemployment chart, in a line chart, to show us how the rates have gone up because of the virus. We will also use sliders to show how much the unemployment rate has gone up depending on certain dates. We will divide the sliders into certain dates such as weeks or months depending on the data available. Excel for us will mostly be for simple charts that we will not use for comparison. We plan to mostly focus on Tableau because it has a lot of comparative charts as well as the story feature.