COVID 19 Mobility Decrease in Turkey Report

MIS 376

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This project was aimed to reveal the effects of Coronavirus to the mobility of the inhabitants of Turkey. In order to achieve this goal, I found datasets that were relatable to this topic. I used two different datasets from different sources and with different attributes. First dataset was the COVID 19 Community Mobility dataset of Google. This dataset included the mobility data of many countries. Second dataset used in this project was the Apple Mobility dataset. Just like in Google's dataset many countries were included in this data. Obtaining these datasets were easy due to the datasets being open to public for research objectives.

The data that were used in this project was showing the percentage decrease of mobility from the baseline point (an average mobility on before covid period). Both of the data included many countries and also cities from these countries that's why I sliced the data by choosing only the Turkey region. I limited my research only to Turkey to find out what is the level of decrease and effect of coronavirus on mobility decrease in our country. Also, to clearly visualize the effect of Covid on the graphs, I chose the data approximately between February 2020 until June 2020. This timing period allowed me to show the before coronavirus period and the mobility before, during the coronavirus and how it dropped extremely at the beginning of the disease and also after the lockdowns and restrictions to show how the mobility changed during these different conditions.

I used different tools to both analyze and visualize the datasets I obtained. I used Python for one of the graphs that I did. The graph showed the scatter plot of correlation between two variables and in order to obtain this graph I needed to use Python and its data analysis capabilities. Other than Python, I used Tableau Public for the rest of my visualizations. Main reason I chose Tableau was because it offered many different functionalities with the graphing options and also it was a free and easy to use software.

In my visualization and presentation, I used an informative tone. Informative approach to this analysis was the best way to reflect the findings of the analysis and to describe it fully with the visualization. The main graph type used was time series graph because it is an easy-to-

understand graph with clear information on it. It is possible to see the trends, anomalies and point of changes to clearly see the effect of Coronavirus through the time of its reveal and spread.

The main audience group of this study is the people of Turkey. During these tough times while there is many false information, this study aims to reveal how the mobility of people decreased during the pandemic and what are the trend of the people for mobility. Thanks to easily understandable graphs that are provided, people can easily understand the decrease of movements to different places such as retails stores, parks, transit stations and can relate to them. It's not only a way to show the decrease but also showing the volume of the decrease with concrete numbers.

As we needed to stay home, don't go to work and work from home, don't go to classes and have online classes, our mobility as a society decreased significantly. The main reason on decreasing the mobility was to stop the spread of this virus and avoid further problems. Government announced restrictions and banned people from going out on certain periods which impacted the mobility of our people. Coronavirus is the main problem that caused the mobility in Turkey to decrease and let people stay home.