Term Project Milestone 2: Executive Summary

David D Berberena

Bellevue University

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Catherine Williams

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After accomplishing the dashboard milestone and incorporating the feedback given, I was able to strengthen the meaning derived from the visualizations within the dashboard. I have retained the traffic light colors from the dashboard headings, yet I made the charts correspond in color to the headings to drive home the idea of safety regarding the data within. The visualizations themselves are all the same as before except for the scatter plot, which I amended to send a clearer message to the viewer of what the chart was displaying. As I look at the output, I am confident that the executive committee will have relevant and positive information to work with regarding overall airline industry safety.

**Visualization Breakdown**

The dashboard that has been created contains six visualizations: a clustered column chart, a clustered bar chart, a scatter chart, a line chart, a table, and a line and stacked column chart. I have used all six of these visual aids in my executive summary to approach the committee and tell them the story of the data. The clustered column chart highlights the airlines by ranking the kilometers flown per week adjusted for the number of seats in the airplanes flown. This provides an idea of which airlines travel the largest distance in a given time, as longer airtime contributes to an increased chance for a safety incident to occur. The clustered bar chart shows the number of incidents per airline within two fifteen-year periods, the first from 1985 to 1999, and the second from 2000 to 2014. Seeing this chart after the first can help to identify the airlines with the most incidents relative to their kilometers flown. The scatter chart then showcased the number of weekly seat kilometers relating to the number of incidents each airline had during the most recent fifteen-year period of 2000 to 2014. The line chart explains the relationship between total accidents and fatal accidents over the course of the increased twenty-two-year stretch with the inclusion of a supplemental dataset, showcasing the airline industry’s decreased number of fatal accidents as seen against the accident totals over time. The table takes the number of fatal accidents from 2000 to 2021 and breaks it down even further to tell us the number of fatal accidents per one hundred thousand departures across all airlines. This shows the reduced chance of a fatal accident involving an airline’s vessels and coincides well with the previous visualization. The final visual aid is a line and stacked column chart simultaneously plotting the number of fatal accidents and the number of fatalities stemming from those accidents over the 2000 to 2021 timeframe. This chart shows a strong declining trend in both fatal accidents and actual fatalities, which drives home that the airline industry has been improving on its ability to keep its customers safe, not the opposite as the media would have it seem.

**Implications of the Data**

I have chosen to present the visualizations to the executive committee by following the color scheme of the traffic light. I will be showcasing the green-colored visualizations first, providing an introduction to the airline industry’s most recent standing up to 2014. The yellow-colored visuals would be next to be presented, which would allow for the identification of key performance indicators. The final section of visualizations would be the red-colored ones, which can show how the industry has reduced the need for concern with their minimization of fatalities and fatal accidents through 2021.

Looking at the data and the resulting visualizations, there are ethical implications that need to be considered. The data takes all causes of an aircraft crash into consideration, even those that may not necessarily be the airline industry’s fault, such as an act of God or natural disaster. This generalization may skew the data to make the airline industry more inept when in reality, nothing could have prevented these unforeseen circumstances. Something else to keep in mind is that the available seat kilometers variable in the primary dataset is derived from figures acquired at the end of 2012, which is over a decade in the past, and assumes that airline seat kilometers do not change. This is an untrue assumption as airlines are not stagnant in their growth and are either overstated or understated by using a static number (Silver, 2014).

After outlining the findings from the charts, I would provide a few suggestions of what the shareholders can be told by the airline companies to directly calm the media buzz on airline safety. Once the shareholders receive the news and data related to the truth concerning airline safety, the industry may begin to prosper once again while the malicious media attacks lay forgotten in the face of data storytelling that does not lie.

**Conclusion**

The trends that will be shown to the executive committee do not mirror the media’s poor portrayal of the airline industry’s safety. As it stands with the data acquired, the public should be put at ease with the visualizations and story behind the data so that they do not need to shy away from taking a plane to their next dream destination, business meeting, family reunion, or holiday gathering.

**References**

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