Summer 2022

MBA 562

Introduction to Business Analytics:

Communicating with Data

Module 3 Individual Assignment:

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Table of Contents

[Step 1:  3](#_Toc104813382)

[Step 2: 4](#_Toc104813383)

[Statement A: 5](#_Toc104813384)

[Statement B: 8](#_Toc104813385)

[Statement C: 9](#_Toc104813386)

[Step 3:  11](#_Toc104813387)

[References: 12](#_Toc104813388)

# Step 1:

Choose the data - You are free to use any portion (or all of) the datasets chosen in Module 2. The Minto Pyramid you produced in that assignment featured at least 3 factual statements (i.e., insights) and a number of supporting data points and sources for those data. It would be a good idea to base your visualizations on one (or more) of these datasets. (3 points)

Module 2 Minto Pyramid:

Diagram

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After careful consideration of the above Minto Pyramid, I decided to explore the datasets for the 3 factual statements and several supporting data points and sources for those data below:

Key Question A:

What ways do members and casual riders use Divvy bikes differently?

Datasets for Question A:

Divvy System Data Study using Historical Trip Data & Station Data

Statement A:

Members of the Divvy use the bike-share system more regularly than casual users throughout the day and time during both week and weekend.

Supporting Data Points and Sources for Statement A:

Divvy System Trip Data (April 1st, 2022 – May 1st, 2022).

Divvy Bicycle System: Stations.

Please see Step two for visuals.

Key Question B:

Why would casual riders want to be members of Divvy Bike?

Datasets for Question B:

Chicago Transit Authority Data Study: Ridership and Station Location Data & Daily Totals/Average.

Statement B:

Total boardings are decreasing for Bus and increasing for Rail. People need to travel greater distance by foot to get to their destination using Rail transportation than Bus. People need other form of transportation with greater flexibility like Divvy bike-share system.

Supporting Data Points and Sources for Statement B:

CTA - Ridership - Annual Boarding Totals.

Please see Step two for visuals.

Key Question C:

How can Divvy convert casual riders to become members of Divvy?

Datasets for Question C:

Social Bearing Case Studies or comparison of public company with successful record of usage for social media campaign.

Statement C:

Divvy needs to increase its presence in social media such as Twitter.

Supporting Data Points and Sources for Statement C:

Comparison Social Bearing Profile of Divvy vs Dove.

Please see Step two for visuals.

# Step 2:

Create two (2) data visualizations using a dataviz tool (or tools) - Select a tool (or tools) that can create data visualizations. Tools could exist on the web or on your computer (e.g., commercially available software that you have installed on your PC). Produce two (2) data visualizations using the tool or tools you selected and the data you chose in Step 1. (4 points)

## Statement A:

Chart, bubble chart

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Chart, treemap chart

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Note: Bubble and Treemaps to visualize the total usages between members and casual among different ride types.

Chart, line chart

Description automatically generated

Note: Line chart visualizes the usage of the ride types by time and day between casual and members.

Graphical user interface, map

Description automatically generated with medium confidenceGraphical user interface, map, scatter chart

Description automatically generated with medium confidence

Note: Type of ride based on ride type and membership status based on hour and date to visualize the line chart above better.

## Statement B:

Chart, bar chart

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Note: Bar Chart to visualize the trend of the total boarding numbers over the years of 1980 to 2018 for Bus, Rail and Paratransit.

## Statement C:

Chart, application, pie chart

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Chart, pie chart

Description automatically generated

Note: Social Bearing Comparison between Dove and Divvy. Dove’s outstanding #SpeakBeautiful Effect and other social media campaign made Dove relevant in the digital space. Divvy can work on its current presence on Twitter for the better.

# Step 3:

Evaluate the use of contrast in your data visualization - Explain how you used contrast in your visualizations to reveal patterns found in your data. Be sure to identify which contrast technique you are using – size, color, shape, or contrived. Review Part 5, Lesson 3 of Digital marketing analytics: In theory and in practice for an explanation of various contrast techniques available to analysts. (10 points)

To a limited extent to my own ability, I tried to visualize the data based on the David McCandless who was mentioned in the book of Digital marketing analytics and the Coursera Lectures because the data stories can have as much effect on people viewing the presentation to understand the content. I followed McCandless’s five step process and clear contrast in size, color, shape, or contrived such as pie chart, bar chart, map, line chart, bubble chart, and tree maps. All of which I tried to convey the concise message behind the data via correct labels, legends, and notes after the graphics.

# References:

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MBA 562 Module 1-3

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