Course 3 Capstone

Data Collection

Finding the Middle

Mean, Median, and Mode help you compare data. Below, list the mean, median, and mode of the clicks in the provided data.

Mean: 60.38

Median: 60.00

Mode: 78.00

Finding the Middle

Mean, Median, and Mode help you compare data. Below, list the mean, median, and mode of the conversions in the provided data.

Mean: 5.98

Median: 6.0

Mode: 5.0

Standard Deviation

Determining variance in data helps you discover how spread out the data is leading to better understanding and decisioning. Below, enter the standard deviation of the provided data.

Standard Deviation of Clicks: 14.37

Standard Deviation of Conversions: 1.63

Frequency and Contingency Tables

Understanding how often something happens is important to understanding trends and patterns in your data. Create and insert a contingency table generated from your data.

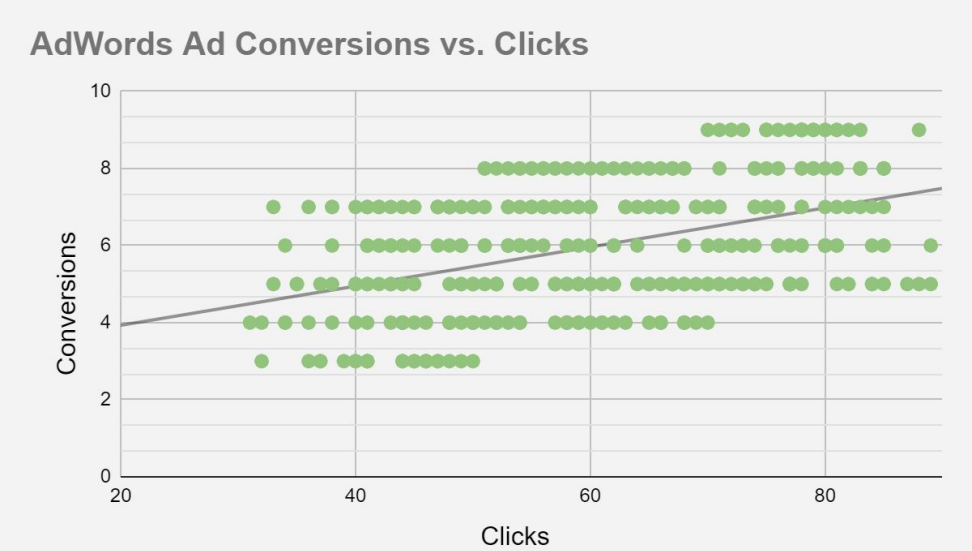
	Number of Adwords Ad Conversions			
Number of conversions	**1 to 5**	**6 to 10**	**11 to 15**	**16+**
Occurrences	156	209	0	0

Scatter Plot

Understanding the relationships between data is important to understanding trends and patterns. Create and insert a scatter plot generated from your data. Then, include the input the correlation coefficient as well.

Correlation coefficient: 0.45

Scatter Plot of your data:

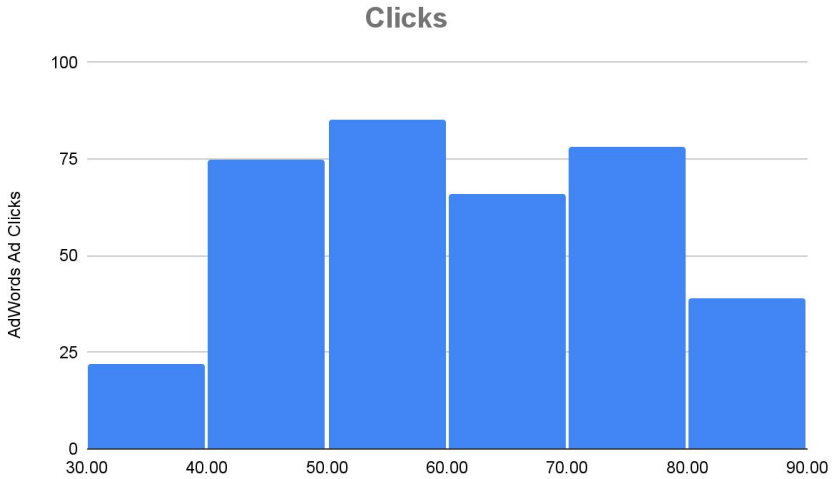


End of Section 1

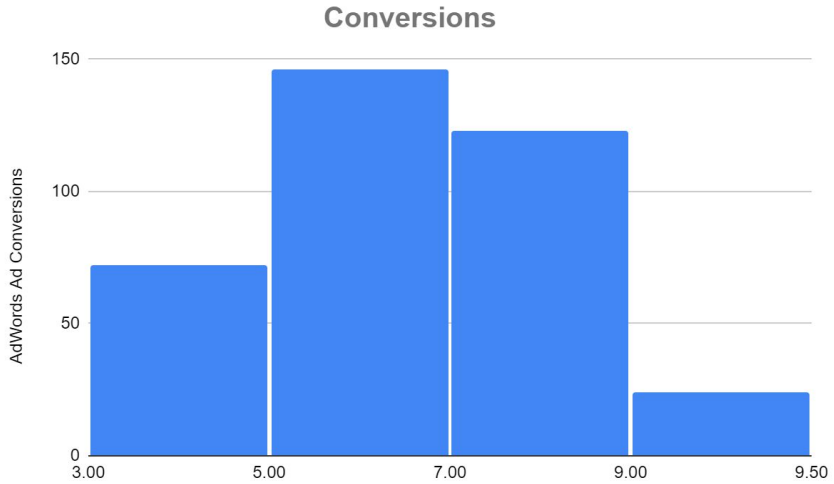
Sample Type

It's important to understand the sample you're using in your analysis. Fill in the information below about the sample you have received:

Histogram of your clicks data:



Histogram of conversions data:



Sample Type

It’s important to understand the sample you’re using in your analysis. Fill in the information below about the sample you have received:

Does the clicks data have a normal distribution? Yes

Does the conversions data have a normal distribution? Yes

Variable Types

Determining the types of variables your working with is an important skill. Below, list the variables from your data that are:

Quantitative:

Continuous: Cost per Adwords Ad, Adwords Click-Through Rate, AdWords conversion rate, AdWords cost per Click

Discrete: A Views, Ad Clicks, Ad Conversions

Qualitative:

Nominal: N/A

Ordinal: Ad Campaign

End of Section 2

Question and Hypothesis

The question you hope to answer and your hypothesized answer are necessary to complete an analysis. Answer the following questions

What is your hypothesis based off the evaluation question? We will see an increase in conversions when we focus our advertisement on the Facebook platform rather than the Adwords platform.

Question and Hypothesis

The question you hope to answer and your hypothesized answer are necessary to complete an analysis. Answer the following questions

What is your independent variable? Advertisement on the Facebook Platform

What is your dependent variable? Number of Conversions

Running a Test

With your question and hypothesis ready, run the test on the two sets of data. Fill in the information below.

Mean number of Facebook conversions: 11.74

Mean number of Adware conversions: 5.98

p-Value: 0.0

Hypothesis

After running the test, was your hypothesis proven correct?

Do your findings support a null or an alternative hypothesis?
Alternative

What's your conclusion about your main hypothesis? Is there a difference, and is it what your hypothesis predicted?

My conclusion is a confirmation of my hypothesis, There will be an increase in conversions when Ads are done on the Facebook platform. There is a statistically significant difference between the conversions on the Facebook Platform Vs the Adwords Platform.

End of Section 3

Determining a Model

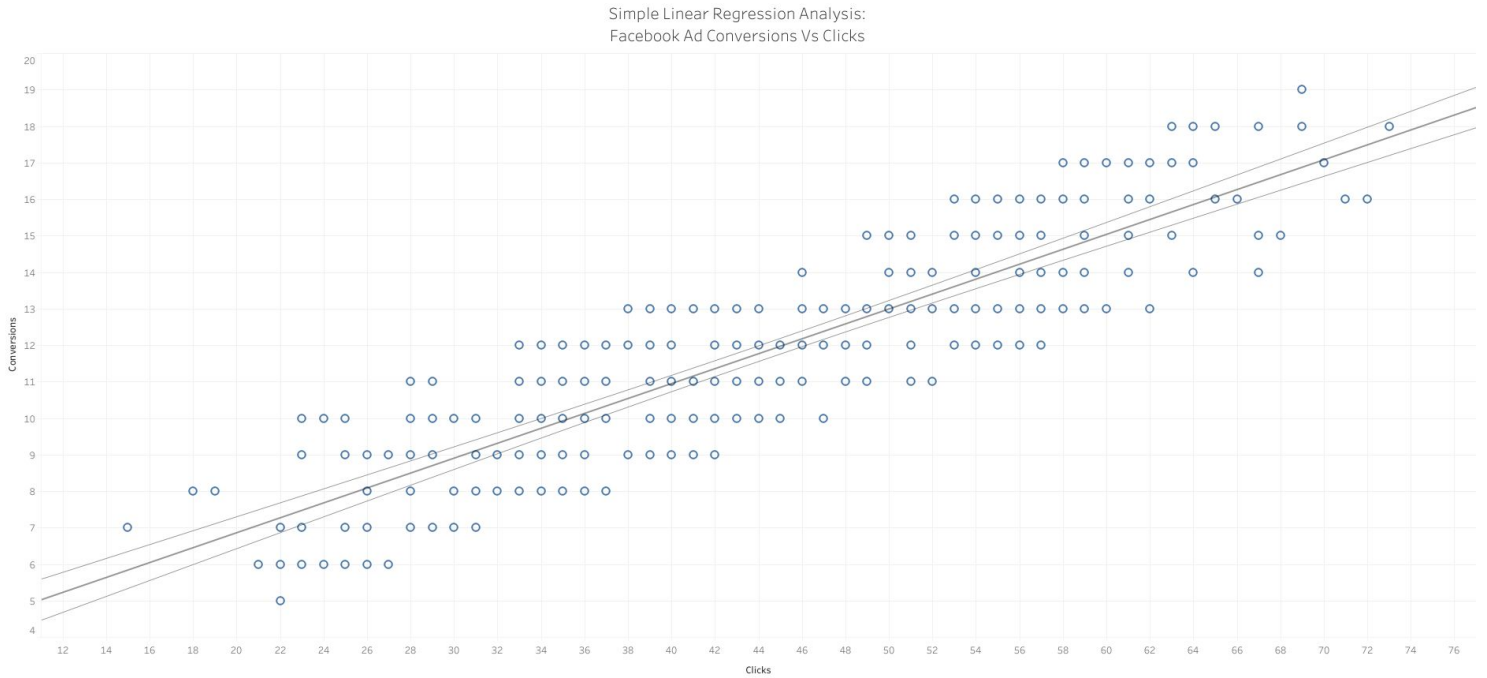
Based off what you know so far, you'll need to determine if your data meets the assumptions for a chosen model. Including:

Which model makes the most sense to use and why?

Simple Linear Regression. From the question, we are trying to predict the outcome of a variable using another variable.

Modeling

Finally, include a visualization of your complete model.



End of Section 4

Final Insights

Now, knowing what you do about the results of your test, what are the final insights that you would share with your client? What did you learn and what would you recommend? Is there anything you would do differently next time?

From the analysis performed on the data comparing the performance of the Facebook Ad Campaign and Adwords Ad campaign, we can see the Facebook platform generated better ROI for the marketing efforts. We discovered a 96.34% increase in the number of conversions for the marketing efforts on the Facebook platform while also spending $17,226 less than the marketing efforts on the Adwords platform.

The key takeaway from this analysis is that we will see more success when we focus our marketing efforts on our Facebook platform. My recommendation to you is to allocate more of the marketing budget to the Facebook platform.