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: 60.3856

Median: 60

Mode: 78

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

Mode: 5

Standard Deviation

Determining variance in data helps you [to find how the data is spread in a datasheet]. 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

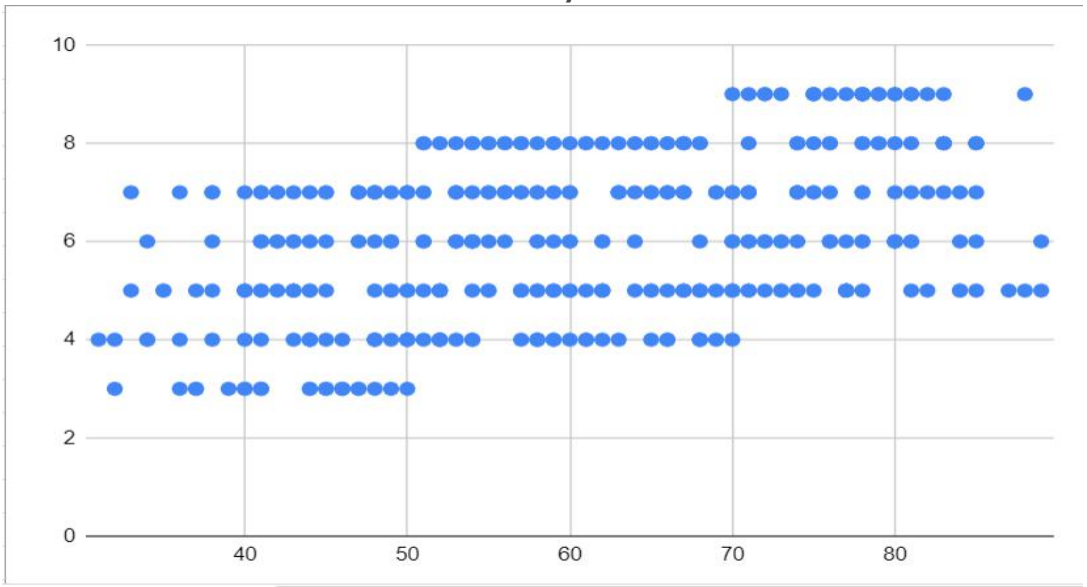
	Frequency Table For The Cor Of Conversions & Clicks			
Relations	<6	<10	<15	>15
Number Of Conversion:	156	365	365	0

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:
0.447993

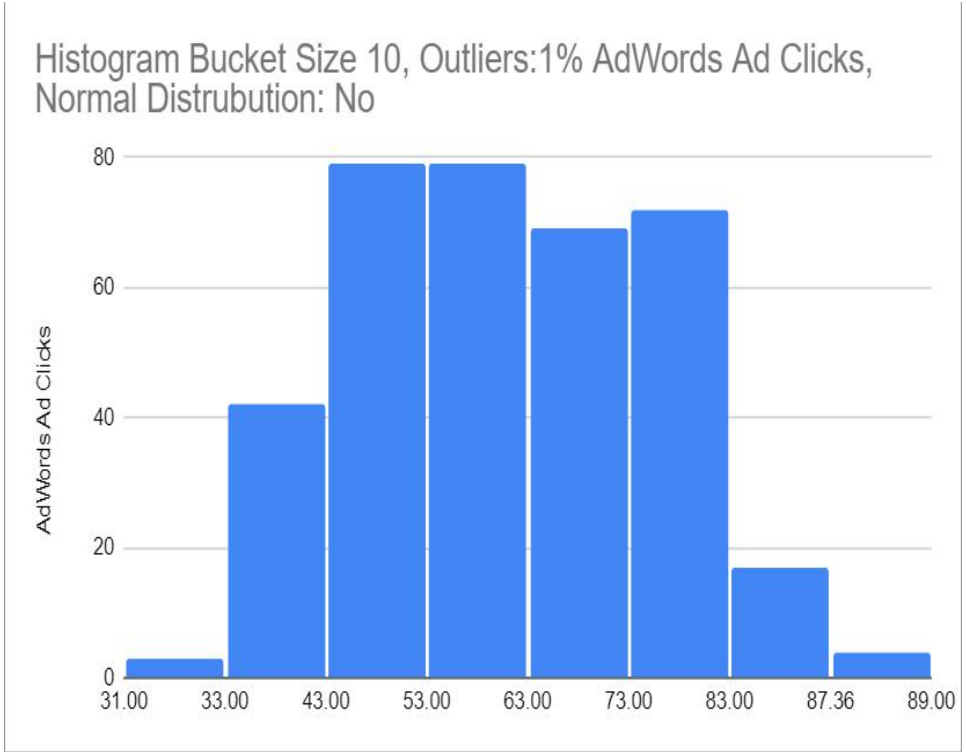
Scatter Plot of your data:



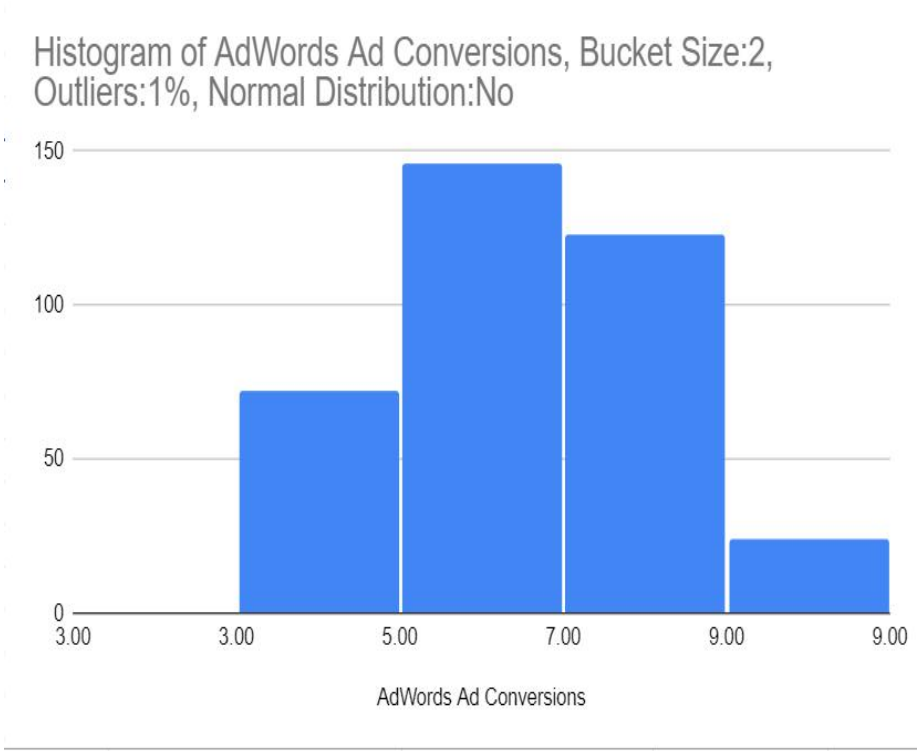
End of Section 1

Sample Type

Histogram of your clicks data:



Histogram of conversions data:



Sample Type

Does the clicks data have a normal distribution? No

Does the conversions data have a normal distribution? No

Variable Types

Quantitative:

Continuous: AdWords Click-Through Rate, AdWords Conversion Rate, AdWords Cost per Click

Discrete: AdWords Ad Views, AdWords Ad Clicks, AdWords Ad Conversions,Cost Per Ad Words Ad,

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?

If the business utilizes Facebook Ads instead of AdWords, it will get more conversions.

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? Facebook Ad Conversions

What is your dependent variable? AdWords Ad 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: 5.96

p-Value: 0

Hypothesis

After running the test, was your hypothesis proven correct?

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

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

Because my P-Value is under 0.05 there is a Significant difference, my Hypothesis predicted that there will be a difference if we advertise on Facebook instead of Google Ads.

H0 accepteed
H1 rejected

End of Section 3

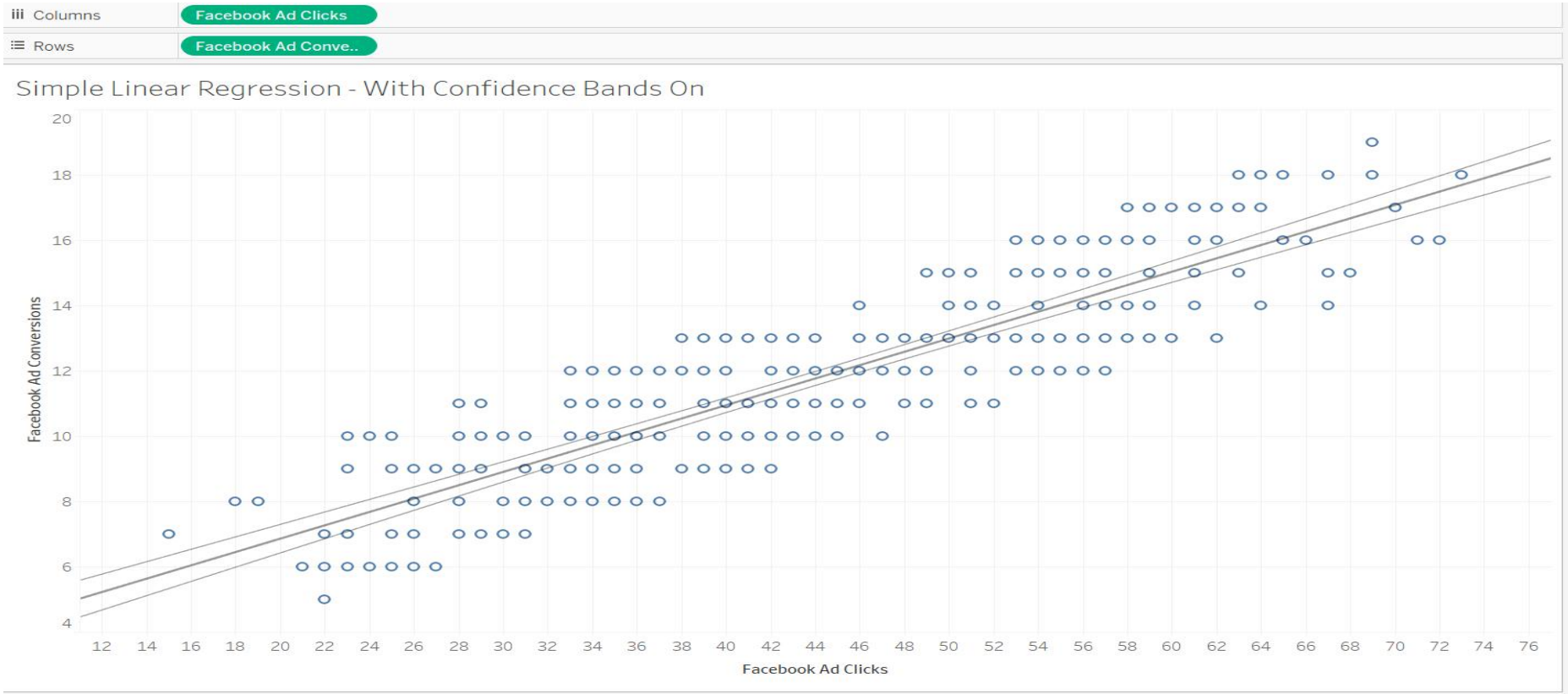
Determining a Model

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?

I believe a good model will be the Simple Linear Regression Model because I have both quantitative values for my Dependent and Independent variables. Also I want to use a prediction for my Dependent variable based on my Independend variable.

Modeling


Columns
Facebook Ad Clicks
Rows
Facebook Ad Conve..
Simple Linear Regression - With Confidence Bands On
Facebook Ad Conversions
Facebook Ad Clicks
20
18
16
14
12
10
8
6
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12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76

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?

Enter your insights here:

First and foremost, I would urge my customer to boost their Facebook ad spend because they have a higher conversion rate. Furthermore, I would advise him to examine the AdWords Advertising to determine why they react to this behavior and to utilize A/B testing to test other ads in order to boost the conversion rate.