**University of San Diego**

**School of Business**

**MKTG 410W: Marketing Research**

**Hypothesis Testing**

**Correlation**

* **Correlation is a good test to use if you have data for two variables that are measured on either interval or ratio scales (they do not need to be measured on the same scale).**
* **This test will help you determine (1) the magnitude of linear relationship between the two variables in the sample data and (2) if you can be confident that what you observe about the sample is true for the overall population you’re studying.**

**Resources for working on these research problems**

1. Correlation video tutorial
2. Overview – Correlation pdf note
3. Apparel Retailer Data – EDITED SPSS data set

**Hypothesis testing procedure**

1. Identify the type of data
2. Specify the null and alternative hypotheses about the population
3. Specify the critical significance level (α) for making your conclusion
4. Choose the appropriate statistical test
5. Using the sample data, perform the statistical test in SPSS and review the output
6. Determine the significance of the test statistic (*p-*value, labeled as “Sig.” in your SPSS output)
7. Compare the significance of the test statistic (*p*-value) with the critical significance level (α)
8. Reject or do not reject the null hypothesis
9. State your conclusion about the population

**Research Problem 1: Is there a correlation between convenience of April Cornell store locations and satisfaction with the shopping experience?**

A sample of customers indicated the convenience of April Cornell store locations (CONVLOC, where 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree) and indicated their overall satisfaction with the shopping experience at April Cornell (SAT, where 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree).

1. For the customers in the **sample**, is there a correlation between the convenience of April Cornell store locations and satisfaction with the shopping experience?

b) Can we be 95% confident that there a correlation between the convenience of April Cornell store locations and satisfaction with the shopping experience among the **population** of April Cornell customers?

TYPE OF DATA:

NULL HYP:

ALT HYP:

SIGNIFICANCE LEVEL (α):

STATISTICAL TEST:

P-VALUE:

CONCLUSION:

**Research Problem 2: Is there a correlation between customer satisfaction and being likely to shop at April Cornell in the future?**

A sample of April Cornell customer indicated their overall satisfaction with the shopping experience at April Cornell (SAT, where 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree) and indicated how likely they are to shop at April Cornell in the future (CONTSHOP, 5-point scale where 1 = extremely unlikely, 2 = unlikely, 3 = neutral, 4 = likely, 5 = extremely likely).

1. For the customers in the **sample**, is there a correlation between customer satisfaction and being likely to shop at April Cornell in the future?

b) Can we be 95% confident that there is a correlation between customer satisfaction and being likely to shop at April Cornell in the future among the **population** of April Cornell customers?

TYPE OF DATA:

NULL HYP:

ALT HYP:

SIGNIFICANCE LEVEL (α):

STATISTICAL TEST:

P-VALUE:

CONCLUSION: