Tutorial 6

MARK 203

kiriana.welsh-phillips@vuw.ac.nz

marketingatvic.rocketspark.co.nz

Todays Tutorial

- Assignment Overview

- Multiple Regression Analysis

OPTIONAL

- Cross Tab
- Chi-square

Assignment 2 Brief

- Weighting: 35%
- Deadline: Friday 13th October, 4pm
- Word limit: 2000± 10% excluding references, appendices, tables/graphs, and title/content page).

Assignment 2 Brief

- Sz 12, Times New Roman
- 1.5 spacing
- 2.5cm margins
- Professional business report (not essay style); use headings, tables, bullet points, etc.
- You should provide your name, ID, word count and the tutor's name in the first page of your report (this will be excluded from the wordcount).

Instructions

Your statistical analysis must include:

- Frequency counts for relevant variables.
- Descriptive statistics for relevant variables.
- At least one t-test.
- At least one ANOVA.
- At least on Multiple regression analysis (using 3 (three) independent variables from the dataset).

Note: You do not need to develop research hypotheses for frequency counts and descriptive statistics sections.

Need to have well developed and justified research hypotheses.

Report Structure

Section 1: Introduction

Section 2: Conceptual Framework and Research Hypotheses

Section 3: Research method(s) (Sampling)

Section 4: Results and discussion

Section 5: Recommendations and conclusion

Section 6: Limitations of the study

Section 7: References (APA 7th)

Section 8: Appendices (Include the screenshot of the last question from the survey)

Sampling Methods

The survey method you did, what type of sampling was it?

Read the brief

Use the exemplars as a guide

Multiple Regression Analysis

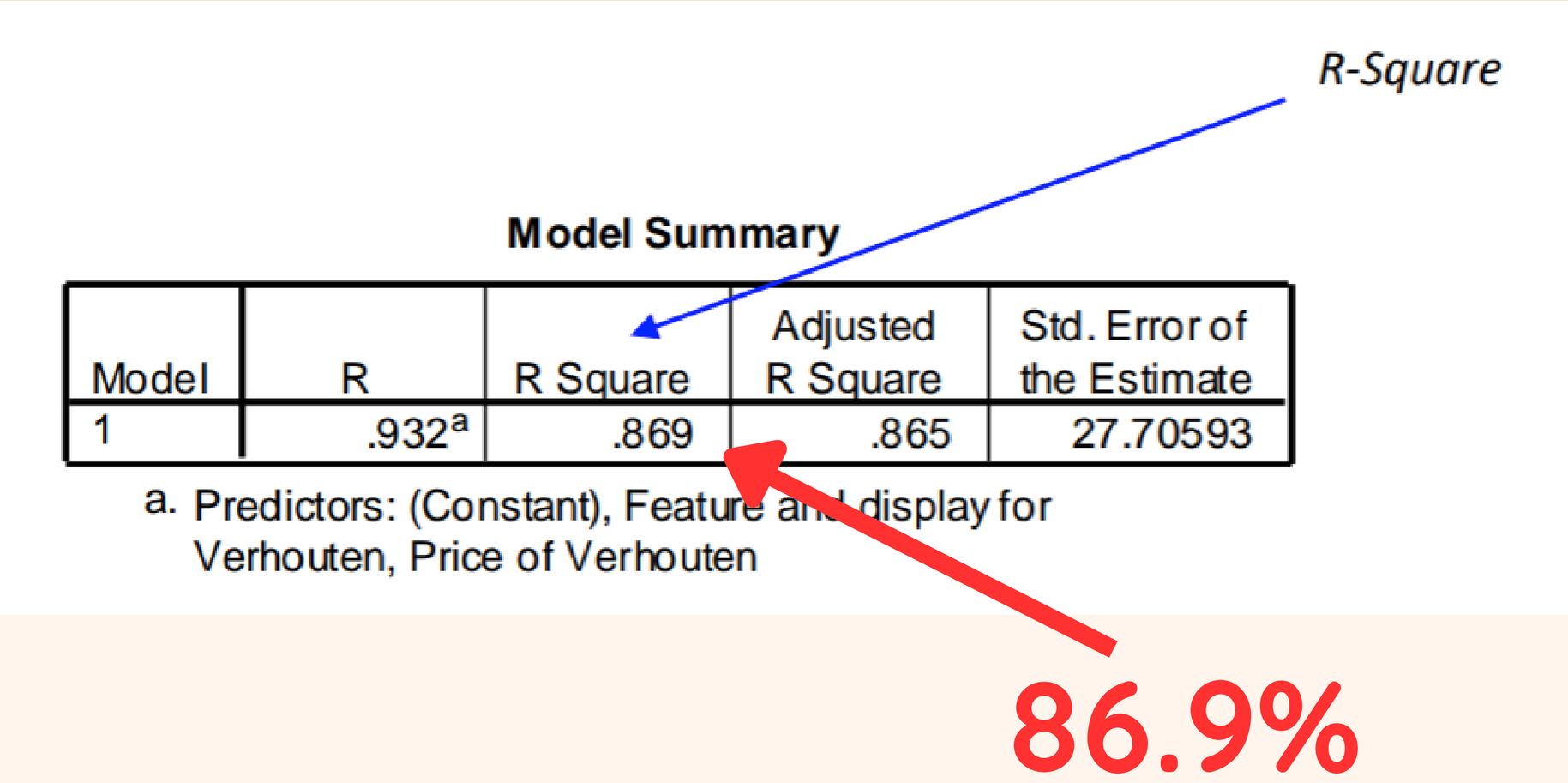
Pay attention to "parameters", "p-value" and "R^2".

Parameter P-Values: relate to the probability that an association between the X variable and the Y variable is statistically significant ($P < 0.05$)

Overall P-Value: relate to the probability that the overall model is statistically significant ($P < 0.05$)

An 'R^2' (R-Square) is the percent of the Y variable you explain with the model. The larger the better, but we are often satisfied with only 30% or more.

Multiple Regression Analysis



Multiple Regression Analysis

Overall p-value

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	331485.1	2	165742.531	215.918	.000[a]
	Residual	49895.202	65	767.618		
	Total	381380.3	67			

a. Predictors: (Constant), Feature and display for Verhouten, Price of Verhouten

b. Dependent Variable: Sales of Verhouten

P < 0.05 = significant

Multiple Regression Analysis

Parameters

Parameter p-values

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	821.734	35.307		23.274	.000
	Price of Verhouten	-483.986	23.905	-.909	-20.246	.000
	Feature and display for Verhouten	172.914	44.253	.175	3.907	.000

a. Dependent Variable: Sales of Verhouten

1 unit increase in price = 483.986 unit decrease in sales (- in front of number means decrease)

Therefore Feature and Display has a positive effect on sales, increasing sales by 172.914 units on average

Multiple Regression Analysis SPSS Instructions

- Analyze > Regression > Linear
- Q6 Recoded into Dependent Box
- Enter in predictor variables in the independent box

SPSS Cheat Sheet

Recode: Transform > Recode > Old and New Variables > Continue > OK

Frequencies: Analyze > Descriptive Statistics > Frequencies

Descriptives: Analyze > Descriptive Statistics > Descriptive

Multi-Item Constructs: Transform > Compute Variable > Enter New Variable Name in Target Variable > Input "(q1 + q2 + q3 + q...)/number of variables" in Numeric Expression

SPSS Cheat Sheet

One sample t-test = tests whether the sample mean is significantly different from a specified value
Independent samples t-test = test a difference in one continuous variable for two separate groups.
Paired samples t-test = test difference in two continuous variables for one group. The means of two variables are compared that apply to everyone in the sample.

One Sample T-Test: Analyze > Compare Means > One Sample T-Test > Select Variable > Enter Test Value > OK
Independent Sample T-Test: Analyze > Compare Means > Independent Sample T-Test > Select Variable and Enter as Test Variable > Select Grouping Variable> Define Groups > OK
Paired Sample T-Test: Analyze > Compare Means > Paired Sample T-Test > Select Variables for Variable 1 and Variable 2 > OK

SPSS Cheat Sheet

ANOVA: Analyze > Compare Means > One Way Anova > Variable into Dependent List > Variable into Factor > Options > Descriptive and Means Plot > OK

Multiple Regression Analysis: Analyze > Regression > Linear > Variable into Dependent Box > Other Variables into Independent Box

Cross Tab and Chi-Square Tests: Analyze > Descriptive Statistics > Cross Tabs > Insert Variable into Rows > Insert Variable into Columns > Statistics > Chi-Square > OK > Cells > Observed and Expected > Continue > OK

Good Luck
and
Thank You

Any questions email: kiriana.welsh-phillips@vuw.ac.nz