

ASSESSMENT BRIEF	
Subject Code and Title	STAT6003 : Statistics for Financial Decisions
Assessment	Assessment 3- Group Presentation
Individual/Group	Group
Length	15 min
Learning Outcomes	<p>a) Analyse and present data graphically using spreadsheet software (Excel).</p> <p>b) Critically evaluate summary statistics against suitable benchmarks.</p> <p>c) Apply judgment to select appropriate methods of data analysis drawing on knowledge of regression analysis, probability, probability distributions and sampling distributions.</p> <p>d) Select and apply a range of data analysis tools to inform problem solving and decision making.</p> <p>e) Conduct quantitative research both individually and as part of a team and articulate and present findings to a wide range of stakeholders, from accounting and non-accounting backgrounds.</p>
Submission	Module 5.1 (Week 9)
Weighting	25%
Total Marks	100 marks

Context:

The main aims to develop students' competency in statistical literacy for decision making in the local and global business environment. It reviews statistical techniques for the quantitative evaluation of data in Financial applications. Students will develop analytical and statistical skills to enable them to transform data into meaningful information for the purpose of decision making.

Objectives:

- To more broadly understand the statistical literacy for decision making.
- Interpret statistical results and communicate their statistical analysis in business reports.

Instructions:

This group assignment requires your team to apply statistical knowledge and skills learned from STAT6003 lectures between week 1 to 8.

- Each assignment group will comprise no more than 4 members. Each team member is expected to work collaboratively with one another and contribute their fair share of effort in completing this group assignment. Team members must be from the same tutorial group. It is important that there is coordination among team members to ensure this assignment is duly completed.
- Please use Excel for statistical analysis in this group assignment. Relevant Excel statistical output must be properly analysed and interpreted.
- Please provide a number for every table, graph or figure used and make clear reference to the table/graph/figure in your discussion.
- The word limit for this group assignment is 1,000 words (excluding Excel output) in the report format.
- Your findings are to be presented within 15 mins time limit. Each member of the group is expected to be engaged in the presentation.
- The presentations will be conducted in class in weeks 9 and 10 as directed by your facilitator.

Submit copy of presentation Report in .docx, ppt or .pdf format via the **Assessment** link in the main navigation menu in STAT6003. The Learning Facilitator will provide feedback with reference to the criteria below via the Grade Centre in the LMS portal. Feedback can be viewed in My Grades.

Assignment tasks:

The variables for this assignment are as follows: House Price Index (a)(b): Brisbane, Sydney and Melbourne, 2002–03 to 2016–17.

- V1) Financial year
- V2) Capital city Brisbane Index
- V3) Capital city Brisbane Annual % change
- V4) Capital city Sydney Index
- V5) Capital city Sydney Annual % change
- V6) Capital city Melbourne Index
- V7) Capital city Melbourne Annual % change

1) Module 1 topic – Descriptive Statistics

Present V2, V4 and V6 variables using the following descriptive statistics* and compare them across these cities:

Topics
Module 1: Descriptive Statistics – presenting charts
Histogram plots
Module 1: Descriptive Statistics – numerical descriptive measures
Central tendency (mean, median)
Non-central tendency (95 percentile, 1 st quartile)
Variability (range, variance, standard deviation, coefficient of variation and interquartile range)

2) Module 4 topic – Estimation

2a) Construct a confidence interval to estimate the population mean at 95% confidence interval for these cities for V2, V4 and V6 variables. Interpret each confidence interval in context and make a comparison across cities in your analysis.

3) Module 4 – Hypothesis Tests

- Requirements for each hypothesis test:
- Formulate the null and alternative hypotheses.
- State your statistical decision using significant value (α) of 5% for each test.
- State your conclusion in context.
- Perform a one-sample test for each city:

Variable	Hypothesis statement for test:
V2: Brisbane house Price Index	Test whether the population's average house Price Index for Brisbane is different from 100.
V4: Sydney house Price Index	Test whether the population's average house Price Index for Sydney is different from 100.
V6: Melbourne house Price Index	Test whether the population's average house Price Index for Melbourne is different from 100.

Perform independent samples test for each pair of cities:

Variable	Hypothesis statement for test:
V2, V4 and V6: house Price Index	Test whether the population mean house Price Index for these cities is different for each pair of cities.

Learning Rubric: Environmental Scan Report – Part A

Assessment Attributes	Fail (Unacceptable) (0-49)	Pass (Functional) (50-64)	Credit (Proficient) (65-74)	Distinction (Advanced) (75-84)	High Distinction (Exceptional) (85-100)
<p>Grade Description (Grading Scheme)</p>	<p>Fail grade will be awarded if a student is unable to demonstrate satisfactory academic performance in the subject or has failed to complete required assessment points in accordance with the subject's required assessment points.</p>	<p>Pass is awarded for work showing a satisfactory achievement of all learning outcomes and an adequate understanding of theory and application of skills. A consistent academic referencing system is used and sources are appropriately acknowledged.</p>	<p>Credit is awarded for work showing a more than satisfactory achievement of all learning outcomes and a more than adequate understanding of theory and application of skills. A consistent academic referencing system is used and sources are appropriately acknowledged.</p>	<p>Distinction is awarded for work of superior quality in achieving all learning outcomes and a superior integration and understanding of theory and application of skills. Evidence of in-depth research, reading, analysis and evaluation is demonstrated. A consistent academic referencing system is used and sources are appropriately acknowledged.</p>	<p>High Distinction is awarded for work of outstanding quality in achieving all learning outcomes together with outstanding integration and understanding of theory and application of skills. Evidence of in-depth research, reading, analysis, original and creative thought is demonstrated. A consistent academic referencing system is used and sources are appropriately acknowledged.</p>

<p>Data Analysis using Excel 40%</p> <p>SLO addressed:</p> <p>a) Examine the statistical analysis through Excel</p>	<p>Limited or no understanding of the statistical data analysis.</p>	<p>Identifies a proportion of the understanding of the statistical data analysis.</p>	<p>Identifies a majority of the understanding of the statistical data analysis.</p>	<p>Correctly identifies all of the analytical techniques and understanding of the statistical data analysis.</p>	<p>Not only identifies all of the analytical techniques with good understanding of the statistical data analysis.</p>
<p>Application of Framework 40%</p> <p>SLO addressed:</p> <p>b) Identify and apply appropriate frameworks and tools to the problems and challenges</p>	<p>Demonstrates no understanding of the framework and concepts relevant to the data analysis.</p>	<p>Demonstrates little understanding of the framework and concepts relevant to the data analysis.</p>	<p>Demonstrates good knowledge of the framework and concepts relevant to the data analysis.</p>	<p>Demonstrates correct knowledge of the framework and concepts relevant to the data analysis.</p>	<p>Demonstrates correct and complete knowledge of the framework and concepts relevant to the data analysis.</p>

<p>Correct citation of key resources and evidence 10%</p> <p>Overall structure, appearance and referencing of the report are assessed.</p>	<p>Effective conclusions were not provided. Specific data or facts necessary to support the analysis and conclusions were not provided.</p> <p>Very badly written, incorrect grammar, inappropriate language used, no proper structure of the document, badly organised with no logical flow of the arguments. The document is missing in text referencing and/or a reference list.</p>	<p>Limited conclusions were provided. Specific data or facts necessary to support the analysis and conclusions were not provided.</p> <p>Grammar, spelling, punctuation, professional writing and syntax needs significant improvement. The document is very poorly referenced.</p>	<p>Effective conclusions were provided in some areas. Specific data or facts were not referred when necessary to support the analysis and conclusions.</p> <p>Grammar, spelling, punctuation, professional writing, and syntax needs improvement. The document is partially referenced, reference list or in text referencing is missing.</p>	<p>Effective conclusions were partially provided. Specific data or facts were occasionally referred when necessary to support the analysis and conclusions.</p> <p>Adequate grammar, spelling, punctuation, professional writing, and syntax. The document is referenced but some referencing is missing.</p>	<p>Effective conclusions were provided. Specific data or facts were referred to when necessary to support the analysis and conclusions.</p> <p>Excellent grammar, spelling, punctuation, professional writing, and syntax. The document was properly referenced with both reference list and in text references.</p>
<p>Presentation 10%</p>	<p>No eye contact. Inappropriate body language. Difficult to understand. No effort made to keep the audience engaged.</p> <p>Little use of presentation aids or materials used were irrelevant. Presenters not cooperating with each other. No evident rehearsal prior to presenting.</p>	<p>Minimal eye contact with focus on a small part of the audience. The audience was not engaged. Spoke too quickly or quietly making it difficult to understand. Inappropriate/disinterested body language.</p> <p>Unbalanced presentation or tension resulting from over-helping. {resenter not participating. Evident lack of preparation/rehearsal. Dependence on slides.</p>	<p>Presentation focused on only part of audience with a sporadic eye contact. The audience was distracted. Could be heard by only half of the audience. Body language was distracting.</p> <p>Presenter minimally contributing to the group efforts. Primarily prepared but with some dependence on just reading off slides.</p>	<p>Spoke to majority of the audience with steady eye contact and at a suitable pace and volume. The audience was engaged by the presentation. Some fidgeting by the presenter.</p> <p>Slight domination of one presenter. Presenters helped each other. Very well prepared.</p>	<p>Regular/constant eye contact. The audience was engaged, and the presenter held the audience's attention. Appropriate speaking volume & body language.</p> <p>All presenters knew the information, participated equally, and helped each other as needed. Extremely prepared and rehearsed.</p>