Master of Business Research

Unit Outline*

MGMT8793

Quantitative Methods in Business Research-
Weekend One

F3 2010
Perth

Lecturer: Catherine Jordan

Business School

www.business.uwa.edu.au

* This Unit Outline should be read in conjunction with the Business School Unit Outline Supplement available on the Students web site http://www.business.uwa.edu.au/students
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UNIT DESCRIPTION

Introduction

I would like to warmly welcome you to the Quantitative Methods in Business Research unit held in term F3, 2010. I hope you are enthusiastic about taking this unit and I trust you will find it enjoyable and applicable to your doctoral studies. You may be feeling a little nervous about this unit, especially if this is the first time you have studied research methods/statistics. I would like to reassure you that this is quite normal. I hope that as we work through the topics together you will start to feel more comfortable with this unit. In my experience, learning about statistics is similar to learning a new language or skill; initially you may feel confused, then frustrated, and finally (with hard work and perseverance) you will begin to understand how to apply the statistical tools and techniques discussed in the seminars. You therefore need to read your textbooks and work through SPSS exercises continuously so that you get the most from this unit and are well prepared to analyse your own data for your thesis. I wish you all the very best with your studies in this unit. Please note that at any time you feel overwhelmed all you need to do is contact Professor Geoff Soutar or myself so that we can work through your concerns together, the earlier the better.

Unit content

This unit is an advanced study of the quantitative research methods used in organisational analysis and management research and writing.
Topics include:
(1) research objectives and contexts appropriate to the use of quantitative research methods;
(2) maintaining correspondence between theoretical concepts and empirical constructs and measures;
(3) sampling strategies and issues;
(4) assessment of the appropriateness of archival data for an intended research purpose;
(5) survey of advanced statistical methods for discovering associations between variables;
(6) use of analytic models and dynamic simulation in quantitative research; and
(7) use of statistical software packages such as SPSS.
Effective use of several quantitative research methods is illustrated through a close reading of research papers drawn from several disciplines in management and social sciences.

The Goal of the unit

This unit aims to extend students’ understanding of the nature and role of quantitative management research, to develop students’ ability to effectively evaluate quantitative research papers and to equip students with the skills needed to use computer software to begin the statistical analysis of the types of data they may collect in the course of their doctoral research.

Educational Principles and Graduate Attributes

In this unit, you will be encouraged and facilitated to develop the ability and desire to:
1. Acquire skills in using the PASW program for data analysis;
2. Analyse data appropriately, logically and creatively; and
3. Acquire skills in critically evaluating the data analysis aspects of past research.
Learning outcomes

On completion of this unit, you should be able to:

• recognise research questions and contexts for which quantitative research methods are appropriate;
• understand the limitations of quantitative research and recognise situations in which it is inappropriate;
• know the basic steps in quantitative research;
• understand how quantitative measurement scales may be used to represent theoretical concepts;
• develop appropriate data collection for a quantitative study;
• understand how quantitative research methods can be used to measure the association between variables;
• identify the appropriate statistical technique to answer a range of research questions;
• use the knowledge gained in this unit to evaluate published reports of quantitative research; and
• be able to use some computer software (even if only basically).

This unit is an integral part of the MBR’s proposal preparation process. Candidates are expected to begin to understand the types of analysis approaches that can be made when looking at data and to be able to see how results can be explained and used to answer research questions.

TEACHING AND LEARNING RESPONSIBILITIES

Teaching and learning strategies

My teaching philosophy is encapsulated by the following quote-

“When teaching, light a fire, don’t fill a bucket” - Dan Snow

With teaching, my main goal is to inspire, to ‘light a fire’. I hope that you see real value in the learning material presented, understand the application of this material to your doctoral studies and beyond and, as a result, seek more information on the topics covered. I understand that many of you may have little or no background in this area and, therefore, are very nervous and concerned about studying towards this unit. I firmly believe that engaging and encouraging you to participate in each topic provides a more conducive learning environment than simply bombarding you with information or ‘filling your buckets’.

Teaching and learning evaluation

You may be asked to complete two evaluations during this unit. The Student Perception of Teaching (SPOT) and the Students’ Unit Reflective Feedback (SURF). The SPOT is optional and is an evaluation of the lecturer and the unit. The SURF is completed online and is a university wide survey and deals only with the unit. You will receive an email from the SURF office inviting you to complete the SURF when it is activated. We encourage you to complete the forms as your feedback is extremely important and can be used to make changes to the unit or lecturing style when appropriate.
Attendance

Participation in class, whether it be listening to a lecture or getting involved in other activities, is an important part of the learning process. It is therefore important that you attend classes. More formally, the University regulations state that ‘to complete a course or unit students shall attend prescribed classes, lectures, seminars and tutorials’. Students should not expect to obtain approval to miss more than two classes per unit unless there are exceptional circumstances.

CONTACT DETAILS

We strongly advise students to regularly access their student email accounts. Important information regarding the unit is often communicated by email and will not be automatically forwarded to private email addresses.

<table>
<thead>
<tr>
<th>Unit coordinator/lecturer</th>
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<tbody>
<tr>
<td><strong>Name:</strong></td>
<td>Catherine Jordan</td>
</tr>
<tr>
<td><strong>Email:</strong></td>
<td><a href="mailto:Catherine.Jordan@uwa.edu.au">Catherine.Jordan@uwa.edu.au</a></td>
</tr>
<tr>
<td><strong>Phone:</strong></td>
<td>+61 8 6488 7987</td>
</tr>
<tr>
<td><strong>Consultation:</strong></td>
<td>By Appointment</td>
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</tbody>
</table>
| **Lectures:** | Saturday 29 May 9am- 5pm  
Sunday 30 May 9am – 5pm |
| **Lecture venue:** | BUSN: 201 (in UWA Business School Building) |

Lecturer: Catherine Jordan

Catherine Jordan holds a Bachelor of Psychology degree from UWA and a Masters degree in Psychology (with distinction) from Curtin University. She has been a lecturer at the UWA Business School since August 1999. During this time, she has taught the ‘Data Analysis and Decision Making’ unit on the Graduate Diploma in Business Administration and MBA programs, both in Perth and Singapore. Catherine has also been involved with team teaching the ‘Quantitative Methods in Management Research’ unit in Perth and Singapore on the Master of Business Research program. In 2008, Catherine taught the ‘Quantitative Methods for Management’ unit at Bocconi University in Milan, Italy. Prior to lecturing at UWA, Catherine was employed by the Graduate School of Business at Curtin University as a lecturer teaching the ‘Information for Business Decisions’ unit. Catherine also engages in consulting work for several organisations including the Main Roads, Silver Chain, Tourism WA, and St John of God Health Care. Much of this work involves the collection and analysis of data in order to develop strategies for improved organisational effectiveness. Catherine’s research interests include the following areas: organisational citizenship behaviour, job performance and satisfaction, organisational commitment and emotional labour. Catherine is currently completing her PhD thesis which is entitled “Emotional Labour in the Workplace: Understanding its relationship with employee attitudes, performance and well-being”.

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TEXTBOOKS & RESOURCES

Recommended/required texts


Coakes, S. 2009, ‘SPSS: Analysis without anguish [using SPSS (Version 17)]’, Wiley, Milton. Please ensure that you purchase this book in a package with the SPSS student software as you will need this.

Software requirements

PASW or SPSS - The student version of this software will come packaged with the Analysis without Anguish textbook. You are expected to bring a notebook computer to the class on the days on which there are SPSS workshops with the software installed as we will be doing practical exercises and each person should have their own computer.

Additional resources & reading material

Additional readings are provided as part of the course materials. The references for these readings are provided on the last page of this unit outline.
## UNIT SCHEDULE

<table>
<thead>
<tr>
<th>Seminar</th>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td><strong>Weekend One</strong></td>
<td><strong>Introduction to Quantitative Research</strong></td>
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</tbody>
</table>
| Seminar 1 | 1.1 Introduction to Statistics  
- data types  
- data sources  
- sampling methods  
1.2 Introduction to SPSS Software | SPSS Analysis Without Anguish Ch. 1  
Readings:  
- A Refresher on Some Statistical Terms and Tests  
- Research in Business Studies |
| Seminar 1 | 2. Preparation of Data Files | SPSS Analysis Without Anguish Ch. 2 |
| Seminar 1 | 3. Data Screening and Transformation  
- errors on data entry  
- assessing normality | SPSS Analysis Without Anguish Ch. 3 |
| Seminar 1 | Extra Topic: Understanding Probability  
- probability approaches  
- Central Limit Theorem | Not covered in textbooks- refer to powerpoint slides |
| Seminar 1 | 4. Descriptive Statistics  
- measures of central tendency  
- measures of variability  
- SPSS worked example | SPSS Analysis Without Anguish Ch. 4  
Readings:  
- The Well-Chosen Average  
- Case One: A Personal Story |
| Seminar 1 | 5. Correlation  
- Scatter plots  
- Correlation matrix  
- SPSS worked example | SPSS Analysis Without Anguish Ch. 5  
Readings:  
- Relationships: Causal and Casual  
- Celebrate a Beer with a Wage Rise  
- Wine and Chocolate Help You Live Longer  
- Long Way Home is the Best |
| Seminar 2 | 6.1 Hypothesis Testing Methodology  
- Understanding probability  
- Setting up hypotheses  
- Significance levels | Readings:  
- Choosing an Appropriate Statistical Procedure  
- Searching for Your Keys?  
- Car Insurers Reward Safer Women Drivers |
| Seminar 2 | 6.2 Hypothesis Testing- t-Tests  
- Assumption testing  
- One-sample t-test  
- Repeated measures t-test  
- Independent groups t-test  
- SPSS worked examples | SPSS Analysis Without Anguish Ch. 6  
Readings:  
- Managers’ Perceptions of Proper Ethical Conduct  
- The Earth is Round (p<.05)  
- Should Significance Tests Be Banned?  
- Statistical Methods in Psychology Journals |
| Seminar 2 | 7. Hypothesis Testing- ANOVA  
- Assumption testing  
- Planned and Post-hoc comparisons  
- SPSS worked examples | SPSS Analysis Without Anguish Chs. 7,8  
Readings:  
- Impact of Computer Disasters on Information Management: A study |
| Seminar 2 | 8. Summary | Readings:  
- Kiss High Blood Pressure Goodbye  
- Effects of Low Habitual Cocoa Intake on Blood Pressure and Bioactive Nitric Oxide |

**Seminar 1**  
Perth  
29 May

**Seminar 2**  
Perth  
30 May
ASSESSMENT MECHANISM

The purpose of assessment

There are a number of reasons for having assessable tasks as part of an academic program. The assessable tasks are designed to encourage you to explore and understand the subject more fully. The fact that we grade your work provides you an indication of how much you have achieved. Providing feedback on your work also serves as part of the learning process.

Assessment components

There are three assignments in this unit. The first assessment is a test designed to examine your understanding of the foundation material covered in the first weekend. The second assessment is a group project that examines your ability to look at the way past researchers have analysed data through the use of a specific procedure. The third assessment is an individual assignment that is designed to examine your ability to analyse data and use the results obtained to answer a set of research questions.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Due</th>
<th>%</th>
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<tbody>
<tr>
<td>Assignment 1: Foundations of data analysis (quiz)</td>
<td>30 minute quiz</td>
<td>20</td>
</tr>
<tr>
<td>Assignment 2: Multivariate analysis presentation (team assignment)</td>
<td>Refer to Geoff's unit outline</td>
<td>30</td>
</tr>
<tr>
<td>Assignment 3: Data analysis &amp; quantitative research paper</td>
<td>Refer to Geoff's unit outline</td>
<td>50</td>
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Assessment 1: Quiz

OBJECTIVE
The purpose of the quiz is to encourage you to keep pace with the workload in this unit as many of the topics provide the foundation for latter topics. The quiz is also designed to provide you with helpful feedback on your progress. A practice quiz will be provided to help with your revision.

DETAILS
The quiz will be of 30-minutes duration (plus 5 minutes reading time) and will consist of a combination of multiple-choice and short-answer questions. The quiz will be open-book and is worth 20% towards your final mark. The quiz will be held at the beginning of the night class during the second weekend (see dates below).

<table>
<thead>
<tr>
<th>Campus</th>
<th>Date/Time</th>
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<tbody>
<tr>
<td>Perth</td>
<td>June 11th 6pm</td>
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</tbody>
</table>
Assessments 2 & 3: Please refer to Geoff Soutar’s unit outline

**Note 1:** Results may be subject to scaling and standardisation under faculty policy and are not necessarily the sum of the component parts.

**Note 2:** The grade FC indicates failure to complete an identified essential assessment component and means failure of the unit.

**Note 3:** Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning outcomes as required for accreditation and audit purposes. The findings may be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the unit.

UWA Student Guild

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References for Supplementary Readings


