THE UNIVERSITY OF WESTERN AUSTRALIA
Achieving International Excellence

Unit Outline*

MGMT8793

Quantitative Methods in Business Research

D7A-OFF 2010
Singapore

Prof Geoff Soutar

EQUIS ACCREDITED

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

UNIT DESCRIPTION

Introduction

Welcome to the MBR "quant. methods" unit. Here we will try to provide you with a foundation to undertake what is usually the central part of a thesis that uses numeric data. It is a crucial part of any research project as it provides the results that enable you to answer your research questions and examine your various hypotheses. The way you do this is an important piece of information for most examiners. If you take this unit seriously, you will be well on your way to developing an acceptable proposal – many MBR students have the most difficulty in including this aspect into their proposal and many are asked to redo this section – so take what you are doing seriously and life will be easier subsequently. GOOD LUCK

Unit content

This unit is an overview of some of the advanced quantitative research methods that are used in business research. Topics include: (1) the appropriate use of quantitative research methods; (2) theoretical concepts and empirical constructs and measures; (3) an examination of advanced statistical methods for discovering associations between variables; (4) the use of a statistical software package, in this case, the PASW program. The 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.

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
- 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.

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
3. Acquire skills in critically evaluating the data analysis aspects of past research.

TEACHING AND LEARNING RESPONSIBILITIES

Teaching and learning strategies

The main part of this unit is the literature review itself. You will be working one on one with your supervisor, so it is important that you interact regularly with that person and that you work out learning strategies that make these interactions effective.

Teaching and learning evaluation

You may be asked to complete an evaluation during this unit. The Students' Unit Reflective Feedback (SURF) is completed online and is a university wide survey. 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 form as your feedback is extremely important and can be used to make changes to the unit 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'. You are expected to attend all of the weekend workshop sessions.

CONTACT DETAILS

I strongly advise that you regularly access your student email accounts. Important information regarding the unit can be communicated by email and will not be automatically forwarded to private email addresses.

Unit coordinator/lecturer	
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Professor Geoff Soutar

Geoff Soutar is a Winthrop Professor and the Nancy Keegan and Don Voelte Distinguished Scholar at the University of Western Australia Business School. He has a degree in economics from the University of Western Australia and an MA and PhD from Cornell University. He lectured in the Department of Management at UWA from 1973 to 1986 and was the Foundation Professor of Management at Curtin University of Technology from 1986 to 1994 and Executive Dean of the Faculty of Business and Public Management at Edith Cowan University from 1994 until 1999. He was Director of the Graduate School of Management at UWA from 2000 to 2007. Geoff was made a Fellow of the Australian Marketing Institute, a life member of the Market Research Society, a Fellow of the Australian Institute of Management and a Fellow of the Marketing Institute of Singapore for his contributions to management, marketing, marketing research and education in Australia and the region. He is a Fellow and Life Member of the Australian and New Zealand Academy of Management and was one of three academics appointed as Inaugural Fellows of the Australian and New Zealand Marketing Academy. Geoff has been a consultant to a large number of private and public sector organisations in Australia and internationally and has been active in research across a wide area, publishing more than 150 papers in journals and books and presenting more than 300 papers at seminars and conferences. In recent years, he has had a particular interest in service quality, satisfaction and their impact on organisational. From this evolved a long-term study of value and its impact on people's willingness to buy and subsequent satisfaction or dissatisfaction. He is also involved in studies examining marketing strategies in professional service firms, word of mouth and cross-cultural decision-making.

TEXTBOOK(S) & RESOURCES

Recommended/required text(s)

Hair, J. F., Anderson, R. E., Tatham, R. L. & Black, W. C. (2009). *Multivariate data analysis*, 7th ed., Prentice Hall.

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 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.

UNIT SCHEDULE

Topics - The Last Two Weekends

Weekend 2	**Quantitative research: concepts and methods**	
2 July (night)	An introduction to quantitative methods in management research	
3 July	**9:00-12:30**	A first look at your data: Some univariate statistics
	1:30-3:00	Examining your data: Descriptive statistics, missing data and outliers
	3:30-5:30	SPSS workshop – reliability, nonparametric tests
4 July	***Some Interdependence Techniques***	
	9:00-12:30	Factor Analysis
	1:30-3:30	Cluster Analysis and Multidimensional Scaling
	4:00-6:00	SPSS workshop – FA, CA, MDS

(Friday nights are 6.00pm – 9.00pm)

Weekend 3	***Some Dependence Techniques***	
July 23rd (night)	Regression Analysis (Part I)	
24 July	**9:00-10:30**	Regression Analysis (Part II))
	11:00-12:30	SPSS Workshop - regression
	1:30-3:00	Conjoint Analysis
	3:30-4:30	Discriminant Analysis
	4:30-6:00	SPSS Workshop - MDA
25 July	***Another Dependence Technique***	
	9:00-10:00	Structural Equation Modelling I
	10:00-12:30	Structural Equation Modelling II
	1:30-3:30	Group Projects – Assignment 2
	4:00-6:00	SPSS workshop – finishing bits and a bit of AMOS

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 is a tests designed to examine your understanding of the foundation material needed for the unit, which will have been covered in the first weekend. The second 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 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. The second and third assignments are detailed subsequently and will be discussed in class.

Assessment	Due	%
Assignment 1: Foundations of data analysis (quiz)	30 minute quiz at the beginning of the night class during the second weekend	20
Assignment 2: Multivariate analysis presentation (team assignment)	Sunday afternoon of the third weekend (25 July)	30
Assignment 3: Data analysis & quantitative research paper	Friday 14 August	50

The final submission should be submitted for marking by email to pg-programs@biz.uwa.edu.au on or before 14 August.

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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