

Alliance Manchester Business School

PGR Course unit outline 2022/23

Unit code:	BMAN80792
Title:	Introduction to Multilevel Modelling (MLM)
Credit value:	5
Semester:	2
Course Coordinator contact details:	Heiner Evanschitzky, heiner.evanschitzky@manchester.ac.uk
Other staff involved contact details:	
Pre-requisites Co-requisites Dependent course units Restrictions	BMAN82232 - Advanced Quantitative Research Methods Mastery of Mplus software

Aims

This workshop aims at providing an overview of multilevel (nested) data analysis and offers hands-on software training with the Mplus software.

Objectives (Learning outcomes)

On completion of this unit, successful students will be:

1. Familiar with the key characteristics of nested data;
2. Able to critically examine nested data and draw meaningful conclusions;
3. Able to use the Mplus software on sample data sets.

The objectives will be achieved when actively participating during the workshop. If participants need further insights, a fairly comprehensive literature list is provided at the end of this document.

Syllabus content

We will cover the following topics:

- (1) Introduction to MLM
 - Multilevel structure
 - Ignoring multilevel structure
 - Multilevel model
 - Four steps in MLM
 - Centering
- (2) MLM analyses: A Practical Guide
 - Indicative examples
- (3) Lab exercise
 - Introduction to the Mplus software
 - Data preparation
 - Model specification

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- Interpreting of results

Methods of delivery

Pre-reading	24 hours
Workshop	8 hours
Independent Study	68 hours
Total Study Hours	100 hours

Reading List

Pre Reading:

Evanschitzky, H., Backhaus, C. (2015): Multilevel Modelling, Wiley Encyclopedia of Management.
 Evanschitzky, H., A. Sharma, and C. Prykop (2012), "The Role of the Sales Employee in Securing Business Customers Satisfaction: A Multilevel Study," European Journal of Marketing, 46 (3), pp. 489-508.
 Snijders, T.A.B (2003). Multilevel Analysis. In: Lewis-Beck, M., Bryman A.E., and Liao T.F. (eds.) The Sage Encyclopedia of Social Science Research Methods (Vol. II), Sage 2003, pp. 673-677

Core Text:

Hox, Joop J., Mirjam Moerbeek, Rens van de Schoot (2018): Multilevel Analysis: Techniques and Applications, New York: Routledge.
 Muthén, Linda K. and Bengt O. Muthén (2017): Mplus User Guide.
<https://www.statmodel.com/html Ug.shtml> (selected chapter!)
 Snijders, Tom A.B. and Roel J. Bosker (2012), Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling. 2nd edition. London: Sage Publications.

Supplementary Text:

Methodological books/papers

Enders, C. K. and Tofighi, D. (2007): Centering Predictor Variables in Cross-Sectional Multilevel Models: A New Look at an Old Issue, Psychological Methods, 12(2), 121–138
 Hofmann, D.A. (1997). An Overview of the Logic and Rationale of Hierarchical Linear Models. Journal of Management, 23(6), pp.723-744.
 Hox, J. J. (2002), Multilevel Analysis: Techniques and Applications. Mahwah, NJ: Erlbaum.
 Kreft, I., & De Leeuw, J. (1998). Introducing Multilevel Modeling. London: Sage.

Applications in Marketing/Management

Blut, M., S. Beatty, H. Evanschitzky, and C. Brock (2014), "The Impact of Service Characteristics on the Switching Costs-Customer Loyalty Link," Journal of Retailing, 90 (2), pp. 275-290.
 De Jong, A., K. de Ruyter, and J. Lemmink (2004). Antecedents and Consequences of the Service Climate in Boundary-Spanning Self-Managing Service Teams. Journal of Marketing, 68 (2), 18-35.
 Fu, Frank Q., Keith A. Richards, Douglas E. Hughes, and Eli Jones (2010), "Motivating Salespeople to Sell New Products: The Relative Influence of Attitudes, Subjective Norms, and Self-Efficacy," Journal of Marketing, 74 (6), 61-76.
 Kidwell, R.E., and Mossholder, K.W. (1997). Cohesiveness and Organizational Citizenship Behavior: A Multilevel Analysis Using Work Groups and Individuals. Journal of Management 23(6), pp. 775-793.
 Sarin, S., and McDermott, C. (2003). The Effect of Team Leader Characteristics on Learning, Knowledge Application and Performance of Cross-functional New Product Development Teams. Decision Sciences 34(4), pp. 707-739.

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Steenkamp, J-B.E.M., Ter Hofstede, F., and Wedel, M. (1999). A Cross-National Investigation into the Individual and National Cultural Antecedents of Consumer Innovativeness. Journal of Marketing 63(2), pp. 55-69.

Assessment

Mode of Assessment	Length required	Weighting within unit
<p>Assessment is for those requiring unit credits (please make this clear to the tutor at the start of the elective)</p> <p>The assignment consists of questions about creating an MLM, run the analyses, interpret results, and write-up the findings. Dataset will be provided.</p>	2,000 words	100%
<p>Resits: The same as the original assignment but with different dataset.</p>	2,000 words	100%

Feedback methods

Written feedback will be provided for the assignment. Apart from a model answer sheet, students are offered office hours to discuss their results.

Feedback from students

In addition to the course unit evaluation questionnaire, PGRs are encouraged to give feedback through emails and conversations at any time, and using the online questionnaire near the end of the semester