

# **Research Methodologies PhD Course**

**July 2022**

## **Instructors:**

### **Professor Martina Linnenluecke**

Martina leads the Corporate Sustainability and Environmental Finance at Macquarie University which is at the forefront of developing financial and market applications to help tackle some of the world's most pressing environmental and social problems. The Center has worldwide reach and impact by demonstrating a financial case for action on environmental and social change. Martina's research interests focus on the strategic and financial implications of corporate adaptation and resilience to climate change impacts. Her expertise in the field has been demonstrated through a number of prestigious awards, such as the Carolyn Dexter Best International Paper Award at the Academy of Management Conference, the leading conference in the field. She is the author of the book "The Climate Resilient Organization", and has extensive experience in working with government and industry related to organizational climate adaptation strategies, assessments and planning.

### **Professor Tom Smith**

Tom's research interests are in the areas of Environmental Finance, Asset Pricing Theory and Tests; Design of Markets - Market Microstructure and Derivatives. His articles have appeared in leading journals including the Journal of Financial Economics, Journal of Finance, Review of Financial Studies, Journal of Financial and Quantitative Analysis, Journal of Business, Journal of Law and Economics, Journal of Accounting Research. Tom is particularly proud of all of his PhD students and the fact that they have more than 50 tier 1 publications in the Journal of Finance, Journal of Financial Economics, Review of Financial Studies, Journal of Financial and Quantitative Analysis and Journal of Business. Tom's students have used all of the methodologies discussed in this course in their research and credit the PhD course work that Tom provides as providing a great base for their research careers.

## **Overview**

This course, is designed to introduce students to the major research methodologies used in modern research. All of the material is developed from first principles, so there are no formal prerequisites for taking this seminar. It is assumed, however, that students are familiar with basic microeconomic theory and have a working knowledge of both calculus and matrix algebra. The outline that follows provides a brief description of the material that is covered in the course. The course consists of 5 consecutive days with

each day dealing with a different research methodology: qualitative research; survey research; systematic literature reviews; experimental research and econometrics. The general approach will be:

- to explain the methodology and how it is used
- provide exemplars of the methodology
- to outline the key issues that Editors are focusing on regarding the methodology
- provide further reading and courses to learn more about the methodology
- provide a hands on example of the methodology

### **Textbooks**

There are no required texts for this course. The following books are useful references:

- Cowles, E., & Nelson, E. (2015). *An introduction to survey research*. Business Expert Press.
- Kagel, J. H., & Roth, A. E. (Eds.). (2016). *The handbook of experimental economics*. Princeton university press.
- Hart, C. (2018). *Doing a Literature Review: Releasing the Research Imagination*. Sage.
- Myers, M. D. (2013). *Qualitative research in business and management*. Sage.
- Patton, M. Q. (2015). *Qualitative Research and Evaluation Methods*, 4<sup>th</sup> Edition
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods*. Cengage Learning.

### **Grading**

There will be a number of group projects throughout the course which will provide 40% of the marks. The remaining 60% assessment for the course is to design a research proposal using one or more of the research methodologies examined in the course. Proposal Due Friday November 19 5pm.

### **Timetable**

On-line delivery

Four Day Intensive Mon-Thurs 18-21<sup>st</sup> July 3-5pm Live Zoom Session

## List of Topics

The following is a list of topics that will be covered in the course along with the associated reading assignments. A set of class notes will be available.

### *Day 1 Qualitative Research*

- Important of the Research Question
- Theoretical Perspective
- Tying interview questions to research question(s)
- Triangulation between interview, observation, documents
- Other forms of triangulation eg investors, regulators, financial firms
- Iteration from coding to themes
- Tying conclusions to sources – interviews/observations/documents/notes
- Writing up your Research
- Readings:
  - Anfara VA Jr, Brown KM and Mangione TL (2002) Qualitative analysis on stage: Making the research process more public. *Educational Researcher* 31: 28–38.
  - Gephart, R. P. (2004). Qualitative research and the Academy of Management Journal. *Academy of management journal*, 47(4), 454-4.62.
  - Kaczynski, D., Salmona, M., & Smith, T. (2014). Qualitative research in finance. *Australian Journal of Management*, 39(1), 127-135.

### *Day 2 Survey Research*

- getting the questions right
- the use of scales
- response bias
- common method variance
- Readings:
  - Heaphy, M. S., & Gruska, G. F. (2000). A primer on surveys. *ASQ Statistics Division Newsletter*, 19(1), 21-23.
  - Dolnicar, S. (2013). Asking good survey questions. *Journal of Travel Research*, 52(5), 551-574.
  - Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, 41(2), 178-184.
  - Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879.
  - Graham, J. R., & Harvey, C. R. (2001). The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics*, 60(2), 187-243.

- Beck, T., Demirguc-Kunt, A., & Peria, M. S. M. (2007). Reaching out: Access to and use of banking services across countries. *Journal of Financial Economics*, 85(1), 234-266.
- Guiso, L., Sapienza, P., & Zingales, L. (2015). The value of corporate culture. *Journal of Financial Economics*, 117(1), 60-76.

### ***Day 3 Systematic Literature Reviews***

- The need to be systematic and scientific to enable replication
- Establishing the scope of the literature review
- Systematic keyword searches
- Network analysis using Garfield's HistCite or Bibliometrix in R
- Issues on radar of Editors
  - Data cleaning
  - Cited reference check
  - Accuracy of references
- Readings:
  - Garfield, E., 2004. Historiographic mapping of knowledge domains literature. *Journal of Information Science* 30, 119-145.
  - Garfield, E., 2009. From the science of science to Scientometrics visualizing the history of science with HistCite software. *Journal of Informetrics* 3, 173-179
  - Massaro, M., Dumay, J. and Guthrie, J. (2016), "On the Shoulders of the Giants: Undertaking a Structured Literature Review", *Accounting, Auditing and Accountability Journal*, Vol. 29 No. 5, pp.767-801.
  - Linnenluecke, M. K., Birt, J., Chen, X., Ling, X., & Smith, T. (2017). Accounting Research in Abacus, A&F, AAR, and AJM from 2008–2015: A Review and Research Agenda. *Abacus*, 53(2), 159-179.
  - Linnenluecke, M. K., Marrone, M., & Singh, A. K. (2020). Conducting systematic literature reviews and bibliometric analyses. *Australian Journal of Management*, 45(2), 175-194.

### ***Day 4 Experimental Research***

- Outline of the methodology
- Control versus treatment groups
- Exogeneous treatment variable(s)
- Issues on the Radar of Editors:
  - use of students as subjects
  - applicability of experimental results to the real world
  - anchoring biases
  - order effects
- Readings:
  - Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *science*, 185(4157), 1124-1131.
  - Krosnick, J. A. (1999). Survey research. *Annual review of psychology*, 50(1), 537-567.
  - Callahan, C. M., Gabriel, E. A., & Sainy, B. J. (2006). A review and classification of experimental economics research in accounting. *Journal of Accounting Literature*, 25, 59.
  - List, J. A., Sadoff, S., & Wagner, M. (2011). So you want to run an experiment, now what? Some simple rules of thumb for optimal experimental design. *Experimental Economics*, 14(4), 439.
  - Feltovich, N. (2011). What's to Know About Laboratory Experimentation in Economics?. *Journal of Economic Surveys*, 25(2), 371-379.
  - Asparouhova, E., Bossaerts, P., Roy, N., & Zame, W. (2016). “Lucas” in the Laboratory. *The Journal of Finance*, 71(6), 2727-2780.
  - Asparouhova, E., Bossaerts, P., Eguia, J., & Zame, W. (2015). Asset pricing and asymmetric reasoning. *Journal of Political Economy*, 123(1), 66-122.
  - Heaney, R., Foster, F. D., Gregor, S., O'Neill, T., & Wood, R. (2010). Are two heads better than one? An experiment with novice share traders. *Australian Journal of Management*, 35(2), 119-142.
  - Greiner, B., Zhang, L., & Tang, C. (2017). Separation of prescription and treatment in health care markets: a laboratory experiment. *Health Economics*, 26(S3), 21-35

#### ***Day 4 Econometrics***

- Different approaches
  - Maximum likelihood
  - Bayesian
  - GMM

- Bootstrap
- Endogeneity
- Sample selection bias
- Spurious Correlation