
RESEARCH DESIGN

INTRODUCTION

This course aims to lay the foundation for your empirical research. The goal is to help you to design and develop your research projects.

OBJECTIVES

The main objective of this course is to improve the *design* of your research projects. To this end, we will focus on the importance of careful theoretical thinking and on the conceptual difficulties associated with establishing causality in empirical work.

Although this is not an econometrics course, econometric concepts, problems, and analyses will be considered, making explicit connections with what you have seen and will see in econometrics courses as well as in other methods courses.

LEARNING OUTCOMES

When you have completed this course, you will be (better) able to:

- Identify the best (feasible) research design for your research questions;
- Understand, apply, and criticize the main research methods that are typically applied in management studies;
- Develop and practice the skills necessary to conduct, review, and publish management research;
- Present and defend your research ideas.

COMPETENCIES

GENERAL COMPETENCIES

CG6: Use appropriate tools and techniques for problem solving, correction contrasting and decision validation.

SPECIFIC COMPETENCIES

CE1: Understand the concepts of social and human sciences relevant and necessary to carry out research projects of international level in the area of management.

CE3: Organization, planning and implementation of a research project related to social sciences.

CE4: Distinguishing of the different fields of management sciences and acknowledgement of the research methodologies related to them.

CE5: Ability to understand state-of-the-art research in organization theory published in the top academic journals and compare and contrast the arguments developed in the papers from a logical and empirical point of view.

CE7: Ability to articulate research questions that could extend our understanding of the field, and design a research program to answer them.

CE9: Analyze and relate the main contributions of the economy to the study of organizations and contrast them with statistical, econometric or qualitative methods.

CE17: Ability to critically establish, the relevance and significance of the results obtained with respect to the proposed objectives, and prepare conclusions within the framework of current scientific knowledge on the topic in question.

CE18: Develop a scientific / technical report or research work with the objective to inform the scientific community on the contribution of the research conducted, making use of adequate information technology for both acquisition and dissemination of research results.

EVALUATION

There are three main requirements for successfully completing this course:

1. Class participation, including in-class or at-home exercises (20%)
You are expected to come to class prepared to discuss *all* the material assigned and to contribute to class discussion.
2. Research project (40%)
You will have to develop a research project. This does not need to be a full-blown research proposal that will necessarily lead to your thesis, but rather an opportunity for you to choose an issue that is of interest to you, and spend some time thinking about what you need to do in order to accomplish it (with particular emphasis on the methodological issues and empirical strategy) – see Assignments 1 and 2 below.
3. Final exam (40%)
There is also a final exam, which will cover the entire content of the course and test your ability to apply it.

RESEARCH PROJECT – ASSIGNMENTS

1. Write a brief statement (max 1 page of a Word/PDF document, single space, font size 11) on a research question you are interested in. Due on January 19, 05:00 pm (please upload the document on Virtual Campus).
2. Present and discuss an “ideal” research design and empirical strategy to test your research question. I expect to see a description of your data (clearly, you do not need to have the data you would like to use, but it should be feasible to collect them), a specification for the regression(s) / empirical analyses you will perform, and a discussion of the assumptions that are necessary in order to believe that your analyses provide a valid answer to your research question. This document should be a Power Point. Due on March 27, 11:59 pm (please upload the document on Virtual Campus).

Please note that late submissions will not be considered.

COURSE OUTLINE AND REQUIRED READINGS

Sessions 1 and 2. Introduction to the course.

- Harton R. 2015. Offline. What is medicine's 5 sigma? *The Lancet*, 385: 1380.
- Website: <https://www.buzzfeednews.com/article/stephaniemlee/dan-ariely-honesty-study-retraction>
- Gulati R. 2007. Tent poles, tribalism and boundary spanning: The rigor-relevance debate in management research. *Academy of Management Journal*, 50: 775–782.
- West M. 2002. *Legal Determinants of World Cup Success*. Working paper, University of Michigan.
- King A., Baatartogtokh B. 2015. How useful is the theory of disruptive innovation? *Sloan Management Review*, Fall: 77-90.
- Amrhein V., Greenland S., McShane B. 2019. Scientists Raise Up Against Statistical Significance, *Nature*, 567: 305-307 <https://www.nature.com/articles/d41586-019-00857-9>

Sessions 3 and 4. Research design.

- King G., Keohane R.O., Verba S. 1996. *Designing social inquiry: Scientific inference in qualitative research*. Princeton University Press. Chapter 1.
- De Vaus D. 2001. *Research design in social research*. SAGE. Chapter 1.

Discussion of students' research questions. See assignment 1.

Sessions 5 and 6. Philosophy of science (Guest lecturer: Prof. Vaccaro).

- Tsang E. 2017. *The Philosophy of Management research*. Routledge.

Each student will be requested to deliver a 50-minute presentation about one chapter of the book, including references. Each presentation (ppt file, 25-30 slides), should be sent 24 hours before the presentation is scheduled to: avaccaro@iese.edu

Session 5: Rui Guan

- Chapter 1
- Alvarez et al. (2013), See references Chapter 1
- Gaphart (2004), See references Chapter 1
- Kilduff and Mehra (1997), See references Chapter 1

Session 6: Lorenzo Lesana

- Chapter 2
- Hambrick (2007), See references Chapter 2
- Sutton and Staw (1995), See references Chapter 2
- Welch et al. (2011), See references Chapter 2

Sessions 7 and 8. Philosophy of science (Cont'd) (Guest lecturer: Prof. Vaccaro).

- Tsang E. 2017. *The Philosophy of Management research*. Routledge.

Session 7: Che Chen

- Chapter 3
- Foss and Hallberg (2014), See references Chapter 3
- Lam (2010), See references Chapter 3
- Nagel (1963), See references Chapter 3

Session 8: Steven Sheng Rong

- Chapter 4
- Bettis et al (2016), See references Chapter 4
- Lewis et al (1999), See references Chapter 4
- Mingers (2001), See references Chapter 4

Sessions 9 and 10. What is 'theory' and why do we need it?

- Stinchcombe A. 1968. *Constructing social theories*. The University of Chicago Press. Chapter 2.
- Hambrick DC. 2007. The field of management's devotion to theory: Too much of a good thing? *Academy of Management Journal*, 50: 1346-1351.
- Barney J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17: 99-120.
- Priem RL., Butler JE. 2001. Is the Resource-Based Theory a Useful Perspective for Strategic Management Research? *Academy of Management Review*, 26: 22-40.
- He J., Tian X. 2013. The dark side of analyst coverage: The case of innovation. *Journal of Financial Economics*, 109: 856-878.
- Cohn J.B., Liu Z., Wardlaw, M.I. 2022. Count (and count-like) data in finance. *Journal of Financial Economics*, 146: 529-551.

Sessions 11 and 12. Philosophy of science (Cont'd) (Guest lecturer: Prof. Vaccaro).

- Tsang E. 2017. *The Philosophy of Management research*. Routledge.

Session 11: Haorui Wang

- Chapter 5
- Lee and Baskerville (2003), See references Chapter 5
- Lieberman (1992), See references Chapter 5
- Zachariadis et al (2013), See references Chapter 5

Session 12: Grace Gitonga

- Chapter 6
- Colquitt and Zapata (2007), See references Chapter 6
- Geringer (1998), See references Chapter 6
- Glaister and Buckley 1998b, See references Chapter 6

Sessions 13 and 14. Identification.

- Angrist J., Pischke JS. 2009. *Mostly harmless econometrics*. Princeton University Press. Chapter 1 and chapter 2.
- Shaver J.M. 1998. Accounting for endogeneity when assessing strategy performance: Does entry mode choice affect FDI survival? *Management Science*, 44: 571-585.
- King G., Keohane R.O., Verba S. 1996. *Designing social inquiry: Scientific inference in qualitative research*. Princeton University Press. Chapter 3.5 (notice: only 3.5, not the whole chapter 3).
- Gelman A., Imbens, G. 2013. *Why ask Why? Forward Causal Inference and Reverse Causal Questions*. NBER Working Paper No. 19614.

Sessions 15 and 16. Randomized trials and field experiments.

- Angrist J., Pischke J. 2015. *Mastering Metrics*. Princeton University Press. Chapter 1.
- Ewens M., Tomlin B., Wang LC. 2014. Statistical Discrimination or Prejudice? A Large Sample Field Experiment. *Review of Economics and Statistics*, 96: 119-134.
- Atkin D., Khandelwal A.K., Osman A. 2017. Exporting and Firm Performance: Evidence from a Randomized Experiment. *Quarterly Journal of Economics*, 132: 551-615.
- Deaton, A., Cartwright, N. 2018. Understanding and misunderstanding randomized control trials. *Social Science & Medicine*, 210: 2-21.
- List, J. 2011. Why Economists Should Conduct Field Experiments and 14 Tips for Pulling One Off. *Journal of Economic Perspectives*, 25(3): 3-16.

Sessions 17 and 18. Quasi-natural experiments and DiD.

- Waldinger F. 2010. Quality Matters: The Expulsion of Professors and the Consequences for PhD Student Outcomes in Nazi Germany. *Journal of Political Economy*, 118: 787-831.
- Azoulay P., Graff Zivin J., Wang J. 2010. Superstar extinction. *Quarterly Journal of Economics*, 125: 549-589.
- Bena J., Ortiz-Molina H., Simintzi E. 2022. Shielding firm value: Employment protection and process innovation. *Journal of Financial Economics*, 146: 637-664.

Sessions 19 and 20. Inferring causality from non-experimental data.

- Villalonga B. 2004. Does Diversification Cause the 'Diversification Discount'? *Financial Management*, 33: 5-27.
- Feldman E., Villalonga B., Amit R. 2016. Corporate Divestiture and Family Control. *Strategic Management Journal*, 37: 429-446.
- Flammer C., Bansal P. 2017. Does a Long-Term Orientation Create Value? Evidence from a Regression Discontinuity. *Strategic Management Journal*, 38: 1827-1847.
- Melero E., Palomeras N., Wehrheim D. 2020. The Effect of Patent Protection on Inventor Mobility. *Management Science*, 66: 5485-5504.

PROFESSOR'S BIOGRAPHY

David Wehrheim is Assistant Professor in the Strategic Management Department at IESE Business School. He has received a Ph.D. in Business and Finance from Universidad Carlos III de Madrid, a Master of Science in Business and Quantitative Methods from the same university, and an undergraduate degree from Technical University of Munich; during his doctoral studies, he has held a visiting position in the Department of Management and Technology at Bocconi University.

David's research aims to apply rigorous academic tools to investigate questions of relevance to practitioners and policymakers. In particular, his work focuses on technological innovation both at the firm and individual level. His current research interests include the design and management of technology-based strategic alliances, feedback effects from financial markets to corporate R&D decisions, as well as the role of patent rights for the mobility of knowledge workers and the creation of start-ups.

His work has been presented at prestigious international conferences such as Academy of Management, Strategic Management Society, Searle Center/USPTO Conference on Innovation Economics, DRUID Society Conference, Munich Summer Institute or IP Statistics for Decision Makers. Part of his work has been published in top-tier academic outlets such as the Journal of Corporate Finance, Journal of Financial Economics, Journal of Industrial Economics, Management Science and Strategic Management Journal. Prior to joining academia, David spent several years in industry working in strategy positions.