Quantitative research methods in business studies (doctoral course; 7,5 ECTS credits)

Course directors

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Course content

The aim of this course is to introduce doctoral students to quantitative research methods in business studies. The focus of the course is on reading, interpreting, implementing and evaluating quantitative research. The course uses generic methodological examples from all fields of business administration as well as economics. Examples are chosen so that no specific contextual knowledge is needed.

The course deals with the following topics:

- Differences between qualitative and quantitative research
- The quantitative research process: models, constructs, measurement, design
- Mathematical modeling
- External and internal validity
- Introduction to Stata
- Basic statistical analysis: summarizing and describing samples of data
- Statistical inference (from samples to populations): probability; estimation; hypothesis testing for relationships between variables and comparing groups.
- Statistical association and causation among variables
- Regression analysis
- Experimental and quasi-experimental design

Intended learning outcomes

Upon completion of the course students are expected to be able to:

Knowledge and understanding

- Describe basic ideas, underlying assumptions, elements of design, data collection and analysis techniques available to a quantitative researcher in the field of business studies.

- Be familiar with basic statistical concepts associated with quantitative methods, such as statistical inference, statistical association and causation among variables.

Skills and abilities

- Use multivariate data analysis techniques using computer based statistical packages such as Stata.

- Identify the most suitable approach for empirical (quantitative) research.

Judgement and approach

- Read and interpret quantitative research in a critical way.

- Report quantitative research in a publishable way.

- Reflect over contemporary methodological problems and possible solutions.

Teaching and learning activities

The course consists of combined lectures and exercise sessions. There are five parts/sessions. The first four session will take place on campus at Stockholm Business School whereas the last session will be held online:

1. Introduction to quantitative research in business studies
2. Mathematical modelling
3. Descriptive statistics, inference and introduction to regression analysis
4. Regression analysis continued
5. Causal analysis

Please note that **all students must bring a laptop with the software Stata installed** to all sessions (Stata/IC, Stata/SE and Stata/MP will all work).

Preliminary reading list (subject to change)

Supporting Literature (not mandatory)

Angrist, J. D., & Pischke, J. S. (2008). *Mostly harmless econometrics: An empiricist's companion*. Princeton university press.

Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics using stata* (Vol. 2). College Station, TX: Stata press.

Wooldridge, J. M. (2015). *Introductory econometrics: A modern approach*. Nelson Education.

Session 1

Mandatory readings:
Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommendations. *The leadership quarterly*, *21*(6), 1086-1120.

Session 2

Mandatory readings:
Morgenstern, O. (1963). Limits to the Uses of Mathematics in Economics. PRINCETON UNIV NJ.

Session 5

Mandatory readings:
Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommendations. *The leadership quarterly*, *21*(6), 1086-1120.

For the presentation during session 5, the students will choose an article based on quantitative research methods in their dissertation area from the FT50 list.

Optional readings

Bascle, G. (2008). Controlling for endogeneity with instrumental variables in strategic management research. *Strategic organization*, *6*(3), 285-327.

Larcker, D. F., & Rusticus, T. O. (2010). On the use of instrumental variables in accounting research. *Journal of accounting and economics*, *49*(3), 186-205.

Final assignment:
The final assignment will consist of replication exercises. This means that the students will be given data from published papers and will be asked to replicate some of the results. The papers and data will be provided and introduced during the course.

Examination

The course is examined through active participation, homework assignments, presentations and a final assignment according to the following weights:

1. 20% - Active participation
2. 20% - Homework assignments
3. 20% - Paper presentation
4. 40% - Final assignment (paper replications)

The student's performance in relation to the learning objectives for the course is assessed according to a pass/fail grading scale. Further guidelines and criteria will be distributed during the course.

Preliminary schedule 2024

November 11:	13-17	(SBS boardroom)
November 12:	9-12	(SBS boardroom)
November 19:	13-17	(SBS boardroom)
November 20:	9-13	(SBS boardroom)
December 2:	9-13	(Online)

All physical meeting will be held in the Board Room at Stockholm Business School