

GP-OML Capita Selecta Empirical Methods in Supply Chain Management

Date:	2 & 9 December
Time:	10.00 – 16.00 h.
Location:	Utrecht
Course leader:	Dr. Maximiliano Udenio (KU Leuven)
Days:	2
ECTS:	0.5 (attendance only) / 2 (attendance + assignment)
Course fee:	free for TRAIL/Beta/OML members, others please contact the TRAIL office
Registration:	www.rstrail.nl

Objectives

Over the past decade, empirical research has been gaining traction in top operations management journals. This has been mainly due to improvements in suitable software and computing power, as well as the increased availability of data – both primary (i.e., collected by the researcher) and secondary (i.e., available from other public or proprietary sources).

By the end of the course, students will: (1) Understand various aspects of empirical research in OM; (2) understand the theoretical background of, and be able to apply selected mathematical techniques for hypothesis testing; and (3) be able to judge other work in this area and identify new research directions.

Course description

The course is heavily literature-based. The first half of the day will be devoted to a broad introduction to the empirical SCM literature, its foundations and the methodologies used. Particular attention will be paid to recent research output using experimental, primary, and secondary data. The second half of the day will introduce the main mathematical concepts used for hypothesis testing in the literature (e.g., regression models, fixed/between/random effects models, interaction effects). The second day will consist of in-depth discussions of a number of seminal papers, led both by the instructor and by the students (as part of their first assignment) and followed by an introduction to a number of specialized econometric techniques (e.g., logistic regressions, survival models, post-hoc analyses). Additionally, the second assignment will be further explained.

Assignment

Assignment 1.

Students will select from a list of seminal papers and prepare (in pairs) a presentation discussing: The main insights and approach of the paper; the SCM theories that support the hypothesis development; the mathematical/econometric approach to hypothesis testing; an assessment of the rigorousness of the paper; and any other points of concern.

Assignment 2.

Students will choose whether to (a) develop a proposal for an empirical paper or (b) to replicate and comment on the robustness of previously published results. If developing a proposal, it will consist of a research question, a brief literature study, a theory-based hypothesis development (supported by relevant references), and a methodology section stating the chosen mathematical approach. If replicating previously published results, students will select a paper that uses available secondary data (e.g., Compustat, factset) and attempt to replicate the results following the methodology described in the paper. The assignment will describe the process of replication (including any discrepancies or undocumented steps) and perform a robustness check on the results.

Program

t.b.a

Course material

Scientific papers, t.b.a.

Methodology

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Prerequisite

Master degree. Basic knowledge of statistics appreciated but not required.