Discipline: **Methods**

1. Language
English

2. Title
Meta-Analysis for Management Research

3. Lecturer / Referent
Prof.dr Tammo H.A. Bijmolt

4. Date and Location
April 26-29, 2027

VHS Göttingen
Bahnhofsallee 7
37081 Göttingen

5. Course Description
5.1 Abstract and Learning Objectives

In all disciplines within management research, numerous relationships (effects of some X on a specific Y) have been studied multiple times, and summarizing the existing empirical findings may result in an important scientific contribution. For example, one could determine the overall effect of a particular marketing instrument (price, advertising, etc.) on sales and whether the effect depends on market characteristics, study design, or other moderators. Meta-analysis encompasses a broad set of methods to conduct a systematic, quantitative review of the literature in order to derive empirical generalizations. As such, conducting a meta-analysis is an excellent project for a PhD student or other (junior) researcher having to review the literature on a particular topic.

This workshop will deal with methods for conducting a meta-analysis. The purpose is to train the participants to conduct and publish a high-quality scientific meta-analysis within the broad field of management research. The seminar will cover the entire meta-analysis research process, from problem formulation, literature search, coding of the effects, analysis, to reporting and publishing the findings.

The emphasis is on knowledge and skills needed to conduct a meta-analysis, not only on the statistical details. All steps of the meta-analysis process (including the statistical analyses) will be demonstrated and practiced in assignments during the workshop. In addition, the usage of AI for various parts of a meta-analysis project (literature search, screening, analysis) will be

discussed. All topics will be illustrated by means of actual meta-analysis examples. Participants will be informed about relevant literature (textbooks and journal articles) and software supporting meta-analysis projects. In particular, most analyses will be demonstrated using R; in particular the package metafor.

5.2 Content
Topics that will be covered include:

- Role of replications and empirical generalizations in science
    - Why conduct a meta-analysis?
    - When to conduct a meta-analysis?
    - Identifying a topic for a meta-analysis
    - Importance of replication studies
- Overview of approaches to conduct meta-analysis
- Collecting and selecting publications
    - Literature search
    - Coding of studies
    - Usage of AI
- Analyzing effect sizes:
    - Publication bias (causes, consequences, tests, corrections)
    - Type of effect sizes
    - Transformations of effects
    - Within- and between study variation
    - Homogeneity tests
    - Overview of potential moderators
    - Meta-regression, random- and fixed-effects
    - Multi-level meta-regression
    - Corrections for study artifacts
    - Structural equation modeling approach
    - Using meta-analysis methods within a single publication/paper
- Using meta-analytic findings: the next steps in scientific progress.
- Reporting and publishing meta-analytic findings

5.3 Schedule (including start and end time)
This is a four-day workshop, with sessions 09.00-12.00 and 13.00-16.00 (with a short break in both sessions, and lunch 12.00-13.00) each day; except that the session on Thursday afternoon ends around 14.00.

5.4 Course format
This workshop contains lecture-type sessions and sessions in which participants can practice and work on assignments.

6. Preparation and Literature

6.1 Prerequisites

Knowledge of basic statistical methods like t-tests and regression analysis is essential. Experience with the software package R would be very helpful. If a participant has no experience at all with R, it is highly recommended to take a course (e.g. on-line by Datacamp.com), read a textbook , or otherwise learn the basics of working with R.

6.2 Essential Reading Material

None

6.3 Additional Reading Material

The following textbook on meta-analysis is highly recommended: Borenstein, Hedges, Higgins, and Rothstein (2021), Introduction to Meta-Analysis, Second edition; Wiley. In addition, a series of papers on meta-analysis will be discussed and made available during the workshop.

6.4 To prepare

Install R and RStudio on your computer, and make sure that you are familiar with the basics of R, see 6.1. In addition, each participant should collect and read three articles presenting a meta-analysis in his/her own discipline.

7. Administration

7.1 Maximum number of participants
20

7.2 Assignments
Yes, multiple assignments (probably seven) on the various steps in the meta-analysis process.

7.3 Exam
Attendance, active participation, presentations, and successful finishing the assignments.

7.4 Credits
The course corresponds to a scope of 6 LP/ECTS.

8. Workload

Working Hours	**Hours**
Preparations (R, meta-analysis papers)	30
Active participation	50
Completing the assignments	100
TOTAL	**180 h**