

Quantitative Methods for the Analysis of Organizations

Lecturer: Dr. Alois Farthofer

266030 WS 15

Course description

In this course the participants will learn, how to use quantitative methods for the analysis of organizations, especially in the sense of Global Management Studies. The use of quantitative methods for the analysis of organizations is based on the scientific standards for the research in and about organization. Further on, it is an important part for an Evidence based Management. Such a process of research or analysis contains several major steps, which will be treated within the course:

One major part of empirical research in organizations are theoretical models about certain characteristics of an organization. In general, theories demonstrate the relationship between two or more variables, and offer the possibility for building hypothesis to answer open questions. The basic principles of theories, variables and hypothesis in relation to organizations will be presented at the beginning of the course.

A further step in empirical research is the design of the methodological part of a study. This step defines, how the study is organized (e.g. as a field study with a pre- and post-treatment measurement, with or without a control group), and which methods (e.g. survey) and instruments (e.g. questionnaire) are used for the data collection procedure.

Within the next step, the data have to be transformed into a program for statistical analysis and analyzed by using the most relevant statistical methods. Depending on the type of the available data (e.g. nominal or interval), analysis of relationship (Correlation Analysis) or differences (t-Test), or other Bivariate or Multivariate Analysis (Regression Analysis) can be executed. Within the course, such analysis will be demonstrated by using SPSS for data analysis.

In a further step, the results of data analysis have to be interpreted, and conclusions can be drawn. This process will be demonstrated during the course.

Finally, the whole research process has to be documented and a report for publication or presentation has to be prepared. The course will provide several examples and recommendations for that final task.

In general, this course will be directed to organizations, who are working around the globe, which in consequence requires knowledge based on Global Management Studies. In other words, the quantitative methods have to support "Evidence based Management", based on Global Management studies.

To sum up, students will learn about the following topics during the course:

- Basic principles of theories, questions and hypothesis in general for research and especially for organizational analysis.
- Methodological design of a study.

- Methods and instruments for the data-collection, e.g. a survey by using a questionnaire.
- Descriptive and inferential statistical methods for data analysis and testing hypothesis, like the measures of location and spread (e.g. the mean and standard-deviation), Correlation- and Regression Analysis, comparison of mean (t-Test and Analysis of Variance), Factor-Analysis, and others.
- Using SPSS for statistical analysis.
- Preparing reports for presenting the results.
- Getting in contact with organizations, working on an international or global level.

Objective

After the course, the students will be able to transform organizational problems or questions into a scientifically based process of organizational analysis. The required knowledge and skills for such a task will be demonstrated by the execution of a small group project.

In the best case, students will have the possibility, to apply their knowledge and skills during a project with an international organization. In any way, it is intended to work on data or case studies based on Global Management Studies.

Teaching and learning method

a) Power-point presentation by the lecturer:

- Basic scientific principles about theories, hypothesis and variables.
- Selected methods in order to test hypothesis (study design).
- Design and application of methods for data collection (e.g. questionnaire).
- Selected descriptive and inferential-statistical methods for data analysis (with SPSS).
- Important principals of writing reports and presenting results.
- Important aspects of Survey feedback (in the sense of intervention).

b) Group work

- Small group discussion of case studies.
- Group project (including an Exposé).
- Verbal presentation of the results (power point)
- Final report (Seminararbeit)

Exam information / Assessment

- Time of presence (at least 75 %) and active participation
- Group project work and 2 written products (group work)
 - Exposé
 - Final report (Seminararbeit)
- Written examen (individual work)

Who should attend to this course?

- International students (e.g. from ERASMUS Programs).
- Students, who are interested in Global Management Studies.
- Students, who intend to study abroad for one or more semesters.
- Students, who have to read continually English papers for their work.
- Students, who intend to present their research results (e.g. the thesis) at international conferences or intend to publish it within an international journal.
- Students, who will work in international project teams or net works.
- Students, who intend to start their career in international organizations.
- Every student, who is interested in this topic and likes to practice English (e.g. with students in ERASMUS programs, or Managers of international organizations) at the same time.

Recommended reading

Field, A. (2013). Discovering statistics using SPSS (4th Ed.). London: Sage

Further literature will be presented at the beginning of the course.

Alois Farthofer
August, 2015

Kontakt:
alois.farthofer@jku.at
or
a.farthofer@aon.at