# MULTIVARIATE STATISTICS

Your expectations and mine.

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### Goals

The aim of this course is to give students a *basic understanding* for a range of quantitative statistical techniques. The basics of data, such as measurement level, normality, outliers, and missing data will be discussed, then some of the more widely used analysis techniques will be demonstrated. The idea is that students will get hands-on experience with the techniques using SPSS software. The goal is for students to *understand the potential* for these techniques as well as *interpret results*.

### **Sections**

- 1. Introduction to multivariate techniques.
- 2. Examining your data.
- 3. Exploratory factor analysis.
- 4. Regression analysis (OLS).
- 5. Discriminant analysis
- 6. Logistic regression
- 7. Analysis of variance ANOVA.
  - > T-tests
- 8. Cluster analysis.
- 9. Structural equation modeling LISREL.

## Approach

• Lectures.

- Rules of thumb! (even Hair et al. does this)
- Practical examples.
  - Assignments?
- Evaluation (in English, Swedish, Danish, Norwegian):
  - Either using your own data or data I provide, you do a statistical analysis that we agree on. Cut and paste the appropriate outputs into a document and briefly explain them.

#### Literature

Hair, Black, Babin, and Anderson (2013), Multivariate Data Analysis: Pearson New International Edition, 7th Ed.

ISBN: 978-1-292-02190-4



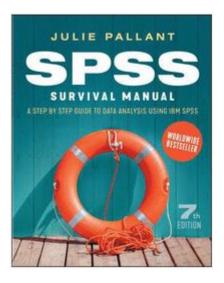
For graduate and upper-level undergraduate marketing research courses. For over 30 years, this text has provided students with the information they need to understand and apply multivariate data analysis. Hair et. al provides an applications-orien...

Läs mer »

Earlier versions are fine to use.

#### Literature

Pallant, Julie (2020), SPSS Survival Manual (7th ed.) McGraw Hill. ISBN: 9780335249497



SPSS Survival Manual: A Step by Step Guide to Data Analysis using IBM SPSS av Julie Pallant HÄFTAD Engelska, 2020-04-09 439 kr

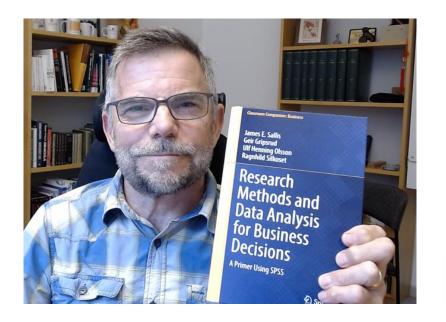
Skickas inom 7-10 vardagar.

Gratis frakt inom Sverige över 159 kr för privatpersoner.

### Literature

Sallis, Gripsrud, Olsson, and Silkoset (2021), Research Methods and Data Analysis for Business Decisions: A Primer Using SPSS (1st 2021. ed.), Springer International Publishing, Cham, Switzerland.

ISBN: 9783030844219



Free electronic versions from the UU Library website!



### Support videos & methods stuff

#### https://uppsala.instructure.com/courses/39264

#### Estimating correlation coefficients in SPSS.mp4

Download Estimating correlation coefficients in SPSS.mp4 (327 MB)



#### Links to support:

<u>SPSS skills videos</u> <u>Quantitative support literature</u> <u>Qualitative support literature</u> <u>Data collection and sampling literature</u>