

Masters - Report/Paper/Project Cover sheet

Academic year 2020-2021

Program	Master of Financial Management and Control
FT/PT	FT
Da	Data Analytics
Name Stream (if applicable)	Research
Total Credits	3
Name Lecturer	J.H. (Hans) van der Zwan
Deadline submission (date)	2020-11-15
Deadline submission (time)	24:00h
Status of test	
Type of test	Group (2 students) or individual
Project content (refer to project description)	Quantitative research
Weight of this report (example: this report comprises 50% of the final grade)	100%
Weight of report components (indicate how many points can be earned for each component)	
Passing grade	55
Additional remarks	none
Name author of this test	J.H. van der Zwan
Name second reader of this test	S. Beltman

Group assignment Data Analytics (max. two students per group)

Perform a quantitative research, on the basis of a dataset of your interest; if applicable use data from the organization you work for.

The research should contain (1) descriptive analysis with graphs and summary statistics, (2) association analysis and (3) hypotheses testing.

Approach

1. Formulate a central research question.
2. Formulate a couple of functional sub questions that can be used in order to answer the central research question. These sub questions should be quantitative in nature. The sub questions don't have to be exhaustive, i.e. answering the sub questions doesn't have to lead to answer the central research question in full.
3. Describe how the sub questions are operationalized; which hypotheses are formulated and how are these hypotheses founded in the theory.
4. Describe the data used to answer the research sub questions. Describe the data source. Describe the results of the exploratory data analysis. Use some graphs, a table (or more if necessary) with summary statistics that are relevant for this research.
5. Describe the conclusions of the testing of the hypotheses.
6. Describe the association analysis and the results of this analysis.
7. Formulate on the basis of the data analyses an answer to the central research question. Again, not in full, but clearly indicate a direction to the answer and argue.

Structure of the paper to submit (APA style)

Cover page with report/paper name (and sub name), name of the course, student name, student ID

Preface (optional)

Management summary (or Abstract): topic, research question, methodology, main findings

Table of contents

Introduction: reason for the research, central research question and quantitative sub questions

Chapter 1: Theoretical background (in short)

Chapter 2: Methodology: operationalization of the quantitative sub questions

Chapter 3: Fieldwork: describing the data used, statistical analysis, answers to the sub questions

Chapter 4: Conclusions based on statistical analysis and discussion

Chapter 5: Recommendations, among which recommendations for further research

References

Appendices

Products to deliver

1. Digital copy of the report must be uploaded to the blackboard (use button Assignments).

2. Excel file used for the data analysis must be uploaded on MS Teams in the group.

Grading is based on the report, not on the Excel file.

Additional information (1)

This assignment can be made in groups of two students.

In the preface it must be stated for what part/ percentage each of the students is responsible.

Additional information (2), suggestions for research topics

The students can choose their own topic of interest for this research paper. For students who have troubles with finding a good research topic, here are some suggestions.

(1) Air pollution

Air pollution is currently an important topic worldwide. A lot of data is available from stations all over the world. A great deal of research has been conducted into the relationship between this data and other data, like climate data or health data.

An idea is to search for a research on such a topic and replicate this research for another country or city.

(2) Covid-19 crisis

Perform an analysis on the number of reported covid-19 cases and deaths compared with the excess mortality in at least two different countries.

(3) Healthcare costs

Much research has been done into the relationship between medical costs and socio-economic factors.

Perform a research in which the Dutch healthcare costs reimbursed under the basic health insurance are related to socio-economic factors.

(4) Relationship between CO2 Emissions and Renewable Energy Production

Reproduce (in part) the research described in [this paper](#) and use figures from a sample of countries instead of figures from different states in the USA.

(5) The Environment and the Economy: Correlation between CO2 Emissions and GDP.

See for instance [this link](#).

(6) Find a research paper that describes a quantitative study of your interest and perform a replication study.