

Guideline for theses

Chair of Economics, esp. Sustainability

University of Paderborn

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Note

Please check your current examination regulation guidelines for further details on thesis regulations. The regulations for selected study programs may differ. If necessary, please check any deviations in your respective examination regulation guidelines and consult the person supervising your thesis ahead of time.

Preliminary remark

Thank you very much for your interest in writing a thesis at our department. Please read the following guidelines carefully. It contains all essential information for the registration, preparation, and execution of a thesis at our chair. **To write a thesis at the Chair of Economics, esp. Sustainability, you must be registered as a student at the University of Paderborn. It is important that you display a strong interest pertaining research questions in the field of economics related to sustainability. This interest should already be reflected in your course of study. Priority will be given to students who have successfully completed a course (especially a seminar) offered at our chair. In particular, microeconomic and experimental theses are supervised at our chair. The successful completion of a course with statistical and econometric contents (incl. exercise with a statistical software like STATA or R) is therefore also expected.**

1 Bachelor and master theses

1.1 Central allocation process

The Chair of Economics, esp. Sustainability participates in the central allocation process of theses at the Faculty of Business Administration and Economics. After the application deadline the assignment to the supervisor takes about 4 to 6 weeks. Once an assignment has been made you will be informed by mail about your acceptance and given the contact details of your supervisor. For general questions about the assignment process, please email abschlussarbeiten@wiwi.upb.de. In addition to a current transcript of results the application should also include an exposé of no more than two pages. Please also check your examination regulation guideline regarding further regulations for theses.

1.2 Topic

The topic of the thesis comes from the teaching and research areas of the chair and is determined individually according to your preferences and your course of study. You can apply for a topic advertised on the chair's website. Otherwise, the chair is always happy to receive applications with your own topic suggestions.

In **bachelor theses** it is generally possible to work on questions that can be solemnly addressed using literature analysis. Please make sure that the research question is precisely defined. You are welcome to design the literature evaluation as a meta-study. Empirical work is also possible within the framework of a bachelor thesis. In particular, replications of published experimental or empirical work or further econometric analyses are possible.

In **master's theses** it is mandatory to conduct an own quantitative empirical analysis. Data can be collected or publicly available data can be used. If choosing your own topic proposal, concrete details regarding the research question, the data and the methodology should already have been displayed in the exposé. Topics based on qualitative research methods are usually not supervised.

1.3 Application documents

Please attach the following documents to your application:

- CV
- Current grade overview (screenshot from Paul is sufficient)
- Max. two-page expose

Exposé

The exposé comprises a maximum of 2 pages. It includes the background and motivation of your work and formulates a clear research question that you want to answer within the scope of the work. It also contains a detailed description of the methodological approach you intend to use. For quantitative research, please outline the methodological principles as well as the available data. For theoretical or literature-based research you must describe the relevant literature in particular.

1.3 Administrative procedure

About 4 to 6 weeks after the submission of your application you will be notified whether you have been accepted at the Chair of Economics, esp. Sustainability. Usually, the processing period starts at the beginning of the semester following your submission. Please make sure that your thesis is registered with the study office.

1.4 Procedure

Initial meeting

After you have received an acceptance your contact person will get in touch with you to arrange an initial meeting. After consultation with your supervisor a revision of the exposé may be necessary.

Additional module

For students writing their final thesis at the Chair of Economics, especially Sustainability, the module "Scientific Work in Environmental and Behavioral Economics" is strongly recommended. This module aims to support the scientific working process. It provides insights

into fundamental research concepts and addresses organizational aspects of the work. Within the module, students finalize and present their exposé.

Processing period

Currently the processing period for a bachelor's theses is 3 months, for a master's theses it is 6 months. Please note that a late submission of the thesis cannot be accepted. If health circumstances jeopardize the timely submission of a thesis, please contact the responsible supervisor immediately.

1.5 Technical notes for design and formatting

Please read the formatting guidelines carefully. We recommend that you follow them from the very beginning to avoid time-consuming formatting work later on.

Submission

Please note that your thesis must be submitted in PDF/A format. The thesis must be sent from your university account email address. The thesis must be submitted on time. For acceptance purpose the time your email will be received at the examination office is crucial, not the time you sent the email. The e-mail must be sent to the examiners and the responsible clerk of the examination secretariat. It must be sent in a single e-mail, with all recipients in the "To" box. The e-mail should not be sent to other persons in the department, such as supervisors or secretaries. Electronic delivery replaces the submission of hard copies. The correct submission of the thesis will be documented in the PAUL System. (in the section "My exams"). No emails will be sent. This process will be conducted during normal business hours. For further information please visit the website of the University of Paderborn under the following link: <https://www.uni-paderborn.de/zv/3-2/sonstiges/abschlussarbeiten/elektronische-abgabe/informationen-elektronische-abgabe>.

Volume

The body of the thesis (introduction to conclusion) should be 30 (+ 10%) pages for bachelor theses and 60 (+ 10%) pages for master theses.

Formatting

- Font: Times New Roman size 12 (footnotes size 10) or Arial size 11 (footnotes size 9)
- Spacing between lines: 1.5 (footnotes 1)
- Margins: right, top, and bottom 2.5 cm and 3.0 cm left
- Alignment: even right margin by "justification" (except for headings)

- Page numbers: appear in the footer
- Highlight headings using bold type
- Structure sections and subsections using Arabic numerals according to the decimal outline system (1, 1.1, 1.1.2, 2, ...)
- The font size for the headings of the main sections (1, 2, ...) is two points larger than the rest of the text
- All other headings have the same font size as the text

Page numbering

Page counting starts with the title page. However, page numbering starts with the following page and is done in large Roman numerals. With the beginning of the text part, page counting and numbering start again in Arabic numerals and continue until the last page of the text part of the thesis. With the beginning of the bibliography, the Roman numbering is resumed from above and continued. The numbering is to be placed on the right-hand side of the footer throughout the document.

2 Scientific writing

2.1 Structure

Theses at the Chair of Economics, esp. Sustainability should follow the structure below. The items marked with * are optional.

1. Front cover page
2. Title page
3. Table of contents [Roman numbering]
4. List of tables* [Roman numbering]
5. List of figures* [Roman numbering]
6. List of abbreviations* [Roman numbering]
7. Text part (Introduction, main part, conclusion) [Arabic numbering]
8. Bibliography [Roman numbering]
9. Appendix* [Roman numbering]
10. Affidavit

2.2 Outline: Structure of the thesis

The outline is a part of the thesis and showcases the way the topic has been understood and worked on. It is the first thing a potential reader skims through and decides whether the text

is interesting or not. Therefore, it should reflect the logical structure of the work and must give the reader a first impression of the content of the work.

General principles

A consistent and coherent line of thought is shown by a formally logical structure with corresponding structuring sections. Subsections that are on the same level in an outline must start from a common superordinate problem (i.e., subsections 2.1.1-2.1.4 all refer to the superordinate section 2.1). When subdividing care must be taken to ensure that at least two subsections occur at each outlined level. A clearly organized arrangement of the structuring sections in the table of contents and a justification of the chosen structure of the thesis in the introduction facilitate the reader's access to your thesis and form a necessary condition for a qualitatively good thesis.

Table of contents

The table of contents must include a complete outline of each chapter heading and the corresponding page numbers.

2.3 Abbreviations

Commonly used abbreviations (e.g., etc., i.e., etc., cf., ...) and the usual abbreviations of the bibliography can be used without further explanation. If you use several topic-specific abbreviations, please create a list of abbreviations in which they are explained. At the first mention in the text, you should still write out the corresponding expression followed by the abbreviation in brackets. Thereafter, you can use the abbreviation as is.

2.4 Language

In general theses can be written in German or English. For a scientific work, you should use an appropriate language style. Avoid convoluted sentences. Be clear and concise. Avoid repetition. Use technical terms and avoid colloquial expressions. Use correct grammar and spelling. It is imperative that your presentation be free of personal judgments. Statements with "you", "I", "we" are to be avoided.

3 Literature research

Literature forms the basis of any scientific work, and a comprehensive study of literature is essential for any thesis. This includes both basic theoretical works as well as literature that

represents the most current possible state of knowledge in the respective field. Please use a wide variety of methods when researching the literature in order to base your work on an extensive as possible based literature foundation. Databases on citation frequencies and journal rankings can be used to assess the standing of a paper in the scientific environment.

3.1 Procedure

Preferably, start the literature search on a specific topic with review articles, relevant textbooks, or articles in international journals, each of which are most recent. Based on the bibliographies in these papers it is usually no issue to locate previously published literature on the chosen topic. In addition, it is possible to access many journals through the campus network via online databases. Many articles are available online, some have to be ordered via interlibrary loan. The starting point for online research via the campus network is the homepage of the University Library. From there you select the eLibrary section and can specify the search areas.

3.2 Citations

Be transparent whenever you refer to the statements or results of others! This does not only refer to information that originates from literature, but also to statements from interviews or conversations with third parties. Therefore, all text parts of any kind that you have taken over verbatim or in spirit must be marked as such and their source must be indicated. Violation of these rules may result in non-credit for your work. Each quotation must be checked to ensure that its use does not take it out of context and thus give it a different meaning than the author intended in the original work. To be able to check quotations, the page number of the original text from which the quotation was taken should always be given in addition to the references. Please cite with a short reference in the text (Harvard citation style) and not in the footnotes.

Remember to always identify the use of other authors arguments, ideas, figures, and data. Not only direct copying of others' ideas without crediting the original author is considered plagiarism, but also rephrasing. Plagiarism is a serious offense that will result in serious consequences. Any thesis submitted to the Chair may be subject to a software-based plagiarism test.

3.2.1 Literal quotations

Literal quotations are enclosed in double quotation marks. Literal quotations must be reproduced accurately. The omission of a word is to be indicated by two dots, the omission of

several words by three dots in square brackets. Any deviations from the original are to be indicated by additions in brackets with the note 'note by author'. A literal quotation should not exceed two to three sentences. If longer quotations are unavoidable, they should be visually distinguished by being indented, single-spaced, and written in size 10 font.

As a rule, quotations from English sources should not be translated. If foreign-language texts are used in the text in your own translation, this must be specially indicated.

3.2.2 Analogous quotations

Any kind of use of the original text must also be fully recognizable as such and, like literal quotations, verifiable by means of a precise source citation. Apart from the source citation, however, they are not highlighted by any additional formatting in the text.

3.3 References in the text

The complete details of the references can be found in the bibliography. However, you must briefly refer to them in the text after each literal or analogous citation. This is done by naming the authors, the year of publication and, if applicable, the page number directly after the citation (Harvard citation style). If more than three authors have published the source, only the first author is to be mentioned with the marking et al., since a complete listing of the authors is given in the bibliography. If there are several publications by one author in one year, further distinguish them with lowercase letters. Please make sure that there are no misunderstandings when citing sources.

3.4 Bibliography

The bibliography contains all literature sources referred to in the thesis. The entries are to be arranged alphabetically according to the name of the author and, in the case of several works by one author, chronologically. Depending on the type of source, different entries are required. These are briefly explained below.

1. Books

- Name of authors, first names abbreviated
- Year of publication in parentheses (if missing, mark with n.d.)
- Title of the book in italics
- Edition (if several editions have been published)
- Publisher
- Place of publishing

Example: Mustermann, A. and Musterfrau, B. (2013) *Name of the book*. 3rd edition, name of publisher, place of publishing.

2. Journal articles

- Name of authors, first names abbreviated
- Year of publication in parentheses (if missing, mark with n.d)
- Title of article
- Name of the journal in italics
- Number of the journal volume
- Issue number of the journal volume (in case of several issues per year)
- Page range

Example: Mustermann, C. and Musterfrau, D. (2010), name of article, *name of journal* Vol. 23(2):44-78.

3. Magazine articles

- Name of authors, first names abbreviated
- Year of publication in parentheses (if missing, mark with n.d)
- Title of the article
- Name of the magazine in italics
- Page range

Example: Mustermann, C. and Musterfrau, D. (2010), name of article, *name of magazine*, 44-78.

4. Essays from collective works

- Name of authors, first names abbreviated
- Year of publication in parentheses (if missing, mark with n.d)
- Title of the publication
- Name of the editor of the collected works with the note (Ed.)
- Title of the collective work in italics
- Indication of the volume (in the case of multi-volume works) and the edition
- Page range
- Publisher
- Place of publishing

Example: Mustermann, G. (2009), name of article, name of editor (ed.), *title of collective work*, vol. 3, 361-387, name of publisher, place of publication.

5. Dissertations, research reports, etc.

- Name of authors, first names abbreviated
- Year of publication in parentheses (if missing, mark with n.d)
- Title in italics
- Type of written source (possibly with indication of the institution)

Example: Mustermann, H. (2012), *title of article*, type of written source, institution

6. Internet sources

- Name of the authors, first names abbreviated. N.A. if this is not known
- Year of publication in parentheses
- Title of the article the complete Uniform Resource Locator (URL)URL)
- the day the information was retrieved

Example: Mustermann, J. (2015) Name of the article. URL
<http://beispiel.de/Artikel/>. Last accessed: 10.04.2015

Since Internet sources are frequently changed or deleted, you should save or print the corresponding pages.

4 Text body

4.1 Introduction

The text body begins with an introduction that provides information about the topic, research objectives, and methodological approach of the thesis. The introduction should be no longer than 5-10% of the total length of the text and usually includes the following components:

- **Relevance of the topic:** At the beginning, you should spark the reader's interest by introducing the topic of the thesis and pointing out its relevance.
- **Definition and delimitation of the work:** Define the central research question and the goal of your work. The main question serves as a framework that guides you through the thesis and should be answered in the conclusion.
- **Overview and methodological approach:** Complete the introduction by explaining your methodological approach in detail, giving an outlook on the main findings, and briefly outlining the structure of the thesis.

4.2 Main part

The main part of the thesis contains the core element: the elaboration of the chosen topic. It follows a consistent and comprehensive argumentation by theoretically and empirically examining the formulated research question. The main part of the thesis is divided into sections and subsections with precise headings. Usually in empirical and experimental work, testable research hypotheses are first derived and formulated (H_1, \dots, H_x). This is followed by a description of the data (collection) and the underlying method of analysis. In the presentation and discussion of the empirical results, it is then important to ensure that a link back to the previously formulated research hypotheses is evident.

The number of chapters and sections should be proportionate to the length of the thesis. The length of each chapter should reflect its importance within the thesis. Make sure that the reader can follow your train of thought. Explain equations, figures, or tables in the main text. Explain any abbreviations when they are first used.

4.3 Conclusion

The conclusion addresses the research question formulated at the beginning, which reflects the central purpose/objective of your work and includes a critical reflection on the content and results, a summary of the main findings, and implications of the findings for science and practice. Do not present new data or facts in the conclusion. However, do not simply repeat previously stated reasoning either. The conclusion comprises approximately 10% of the thesis.

5 Text complements

5.1 Tables and figures

Tables and figures are to be numbered consecutively chapter by chapter in decimal classification. In addition to the numbering, a description of the contents must be given as clearly as possible. The overview of all tables and figures must be found in the corresponding index. If a table or figure is referred to in the text, it must be quickly and clearly located by number and page reference. Tables and figures based on primary material must be accompanied by a reference to the source. Folded multi-page tables are to be avoided if possible. Tables and figures in landscape format should be arranged so that the final version of the thesis can be rotated clockwise to be read. Extensive tables or figures (as well as longer excerpts from original sources, legal texts) should be placed in one or more appendices so as not to impair the readability of the text. The source is indicated directly below the respective table or

figure. If the content of tables or figures by other authors is revised, this must be indicated in the source citation.

5.2 Footnotes

You should use footnotes as sparingly as possible and avoid lengthy explanations in footnotes altogether. They contain additional information that would disrupt the immediate context of the text (references to supplementary sources, references to other parts of your own manuscript, deviations from the main line of argument in the text, etc.). Footnotes should be numbered consecutively. The reference point of a footnote in the text is to be indicated by a superscript Arabic numeral. The text of the footnote is to be placed at the end of the same page.

5.3 Formulas

Symbols used in mathematical formulas are to be clearly defined the first time they are used in the text. Consistent formula notation throughout the thesis facilitates readability. The symbolism used may be recorded in an index at the end of the thesis. To allow cross-referencing between formulas, number the formulas consecutively in the margins of the text. The formulas should be centered and separated from the text by blank lines.

6 Affidavit

The affidavit must be inserted at the end of the thesis. **Remember to date the declaration and sign it.**

„Hiermit versichere ich an Eides Statt, dass ich die vorliegende Arbeit selbstständig und ohne die Benutzung anderer als der angegebenen Hilfsmittel angefertigt habe. Alle Stellen, die wörtlich oder sinngemäß aus veröffentlichten und nicht veröffentlichten Schriften entnommen wurden, sind als solche kenntlich gemacht. Die Arbeit ist in gleicher oder ähnlicher Form oder auszugsweise im Rahmen einer anderen Prüfung noch nicht vorgelegt worden.“

„I hereby confirm to the best of my knowledge that this thesis is solely my original work and that I have only used the sources and materials indicated. All quotations from other works as well as paraphrases or summaries of other works have been identified as such and properly acknowledged in the thesis. This thesis or parts thereof have not been submitted to an educational institution in Germany or abroad as part of an examination or degree qualification.“

We wish you all the best for your thesis!