



Faculty of Business Administration and Economics
Professor for Business Administration,
especially Management Accounting

Guidelines for the preparation of scientific theses

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Preliminary notes

The following notes are intended to guide you while writing your seminar paper, bachelor or master thesis at the Chair of Business Administration, especially Management Accounting. They cover organizational aspects as well as formal and academic requirements for a convincing thesis.

It is in the nature of such guidelines that they cannot cover all contingencies. That is why this guidance is by nature neither exhaustive nor is it set in stone. You may find additional guidance in topical books, such as Kate L. Turabian's *A Manual for Writers of Research Papers, Theses, and Dissertations*.^{*} or you may seek advice and guidance from your thesis supervisor. Academic writing is an acquired skill, and because it is our foremost objective to see you gaining proficiency in academic thinking and writing and to see you embrace the subject of your thesis, don't hesitate to approach your thesis supervisor whenever you are uncertain on how to proceed with your work.

As a final note, be always conscious of the fact that your thesis is meant to be read. So, take these notes as much as a guidance for how to write a proper academic thesis as for how to write an entertaining one. Both, formal and content-related requirements are meant as much to ensure academic quality as they are meant to make the reader enjoy your thesis.

^{*}Kate L. Turabian (2013), *A Manual for Writers of Research Papers, Theses, and Dissertations*, Chicago: The University of Chicago Press, 8th edition.

1 Organizational aspects: application, admission requirements, deadlines

If you would like to write a scientific paper with us, ideally you have already successfully completed individual modules from our range of courses and have a keen interest in questions related to managerial accounting, financial accounting or auditing. For a bachelor's or master's thesis, you must first register via the central online application process of the Faculty of Business Administrations and Economics at the University of Paderborn. Further information can be found on the website of the Faculty under Study Organization and Formalities (Studienbüro Wiwi). If you have received a confirmation of supervision for your bachelor's or master's thesis from us, you will receive an invitation to an obligatory introductory event, which usually takes place in the first week of lectures in the summer / winter semester. For a bachelor's or master's thesis at our chair, it is necessary that you prepare own suggestions for your topic. This can initially be a rough idea or an interesting magazine article. We are convinced that you will learn more and do better work if there is an inherent interest in the topic. Together with your supervisor, a concrete research topic will be developed from your idea.

1.1 Seminar paper

The Chair of Business Administration, especially Management Accounting regularly offers seminar classes.

The following courses are available:

- M.184.3236 Seminar zu ausgewählten Fragen des Controllings (Bachelor)
- M.184.5234 Seminar zu aktuellen Fragen des Controllings (Master).

Seminar assignments can be written in German or English.

The topics are distributed in an introductory event. In addition, other organizational aspects are discussed. The participation is mandatory. You can find all dates in PAUL. Seminar presentations are blocked in the second half of the semester. The chair announces dates and rooms in the introduction session.

1.2 Bachelor thesis

The bachelor thesis is written during the 6th semester of your bachelor's program and has to be finished within 3 months. During an obligatory introductory event, you will be informed about the supervisor of your bachelor thesis and the start of the processing time. You work with your supervisor on the specific start of the processing time from your own topic suggestion. Using a web-based application process in PAUL, the bachelor's thesis must be registered with the title of the topic and the specified start date. Two to three weeks after the start of the processing time, a draft of the table of contents should be submitted to your supervisor and discussed together. In addition, you are obliged to present your work status at half-way through a colloquium. It should serve you for self-control and offers the opportunity to get intensive feedback and advice. We recommend you to focus on the aspects of your work on which you would like to get feedback. This could concern the general structuring of the work or also selected problems and key questions. Each colloquium lasts 45 minutes. To ensure that there is enough time for questions, the presentation should be a maximum of 30 minutes long and no longer than 15 presentation slides.

After submission and grading of the bachelor thesis, the result is communicated to the examination board. If desired, your supervisor will then be available to answer questions regarding the grading and provide detailed feedback.

1.3 Master thesis

The master thesis is written at the end of your master's degree and must be completed within six months. During an obligatory introductory event, you will be assigned the supervisor of your master thesis, with whom you can individually determine the start of your processing time. Please contact your supervisor about a month before you want to start, to work with your supervisor on your topic suggestions.

Once the topic is sufficiently developed, you need to arrange for an office meeting with Prof. Dr. Ebert. This meeting marks the official start of the thesis writing phase. During the meeting Prof. Dr. Ebert, you and your respective thesis supervisor finalize the thesis title and document all relevant dates (colloquium, hand-in deadline).

After about four weeks you are expected to discuss a preliminary outline of the thesis with your supervisor. After three months you are required to present the current status of your work in our master colloquium, which is attended by all current master

candidates and all members of the chair. This colloquium bears no impact on the final grade. It is meant as a pure self-check for you and as an opportunity to get extensive feedback as well as guidance on how to proceed. Therefore it is advisable to focus on those aspects of the thesis that you feel you need feedback on. This could be the overall structure or some important issues that are central to the thesis. Each colloquium takes 90 minutes in total. To ensure that there is enough time for questions, the presentation should be a maximum of 60 minutes long and no longer than 20 presentation slides.

After submission and grading of the master thesis, the result is communicated to the examination board. If desired, your supervisor will then be available to answer questions regarding the grading and provide detailed feedback.

2 Requirements in terms of content

Regardless of the type of thesis (seminar paper, bachelor thesis, master thesis), the academic requirements are identical in principle. You are expected to address a given topic/question using scientific methods. However, it is not necessary to develop original scientific insights or to develop and carry out a genuine research programme. Instead you are expected to address the topic by means of a critical discussion, which is based on relevant literature and on sound theory. Depending on the type of thesis, the emphasis on theory and the solid of literature that should be considered varies. The following section provides you with some guidance on what a typical thesis requires.

2.1 Introduction and motivation of the problem/question to be discussed

The introduction should point out the problem of the thesis to the reader and motivate why it may be beneficial to work on this problem. If the problem sets or questions underlying a topic are very general or too broad for a single thesis, it is also part of the introduction to sensibly and justifiably narrow down the topic and focus the thesis on a specific research question. The necessity to focus the thesis stems in parts from the limited space available. Page limits are as follows: seminar papers – 20 pages, Bachelor theses – 30 pages and master theses – 60 pages.

The introduction also provides the reader with an idea of the general structure of your thesis. After reading the introduction the reader should know what problem/question the thesis is about, why the problem/question is important and how the thesis approaches this particular issue.

The following questions may help in motivating the thesis:

- Which practical problems or observations should be explained or analyzed?
- Who may benefit from the explanations or analyses?

- To what extent are the problems discussed in your thesis present in the public/professional/political debate?

When narrowing down the topical problem to a specific research question and research plan you should provide a reason for the particular focus and the structure of your thesis. For example, the title of the thesis may be "Capital market reactions to disclosure" and, after reading a broad range of related literature, you decide to focus on stock market reactions to voluntary disclosures by firms. This decision needs to be justified towards the reader. Justification could be based for example on theoretical arguments, anecdotal evidence about the relative importance of this subtopic, or the availability of academic literature (which can be seen as an argument about the academic importance of this subtopic).

2.2 Literature review

Since a critical discussion of academic literature related to the problem at hand is one of the main objectives of any thesis, it is necessary to identify the *relevant* literature. Work on the thesis typically starts with reading a broad range of academic papers and books which seem somehow related to the thesis' topic. From these readings you need to identify those sources that are relevant for the focus of your thesis. The following questions may help to identify relevant papers:

- How close is the research question of this paper to the topic/focus of my thesis?
- What main arguments are used?
- What are the conclusions?
- To what extent is the paper breaking new grounds?
- What methods do the authors of this paper use?

The literature review allows to present a comprehensive overview of the related literature to the reader without violating space constraints. The above questions may also help you to structure your literature review, for example by grouping the papers based on their main argument or based on their methodology. Then it suffices to cite only the most prominent or most typical papers in each group. Generally speaking, the extent

of the literature review depends on the available space, the available literature, the type and the objective of the thesis. In particular the latter is important. The literature overview is not a means in itself. It should equip the reader with enough background information to understand the topic, relate it to the existing literature, and know the state of the art with respect to the topic.

2.3 Demonstration and critical discussion of selected papers

The main part of the seminar paper, bachelor or master thesis should be devoted to a critical discussion of the literature most relevant for the thesis at hand. In contrast to the literature overview discussed before, the focus is on a smaller, narrowly defined range of academic papers, which are used to build or critically assess a logical argument. In all types of theses, but especially in master theses, logical arguments are based on a detailed presentation and discussion of a (few) selected article(s). The detailed presentation should refer to the following questions:

- What is analyzed in these articles and how?
- What are the (surprising) results?
- What are explicit or implicit assumptions underlying the analysis?
- Which assumptions/parameters are responsible for the results ('drive the analysis')?
- Are there critical voices/alternative approaches in the literature?
- Do the results make sense ('on-road test')? What is the economic intuition for the results?

The critical discussion, application to the topic at hand or advancement of the presented analytical or empirical papers is of particular importance in a master thesis since the ability to transfer established knowledge to new or different problems is a key determinant of the final grade.

2.4 Summary

The thesis ends with a brief recapitulation of its content, its important results and their implications for the academic field, for practice or for regulation. You may also point out research questions related to or following from the thesis, which are still unanswered. The summary can also refer to limits that apply to the generalization of results and suggest ways to overcome these limits.

It often contributes to a well rounded thesis to pick up the initial motivation again in the conclusion. This gives you an opportunity to remind the reader why the topic is important and how your findings help understanding or solving specific problems related to the topic of your thesis.

2.5 Appendix

If the thesis has an appendix, it contains only such information that is not crucial to the understanding of the thesis but merely supports it. Everything that is necessary for the reader to understand the thesis and follow your line of arguments has to be put in the main text. The appendix must not be abused to circumvent the page restriction. Hence, the appendix contains supporting material, such as formal demonstrations, examples, extensive quotations and the like. Tables and figures, which illustrate important results and/or arguments need to be in the main text. They do not count towards the page limit. Hence, if a master thesis includes three figures and five tables, which take up six pages, the page limit increases by six – to 66 pages in total.

3 Formal requirements

3.1 Structure and layout

The following order applies to the formal components of an academic thesis:

1. Title page
2. Table of contents
3. List of abbreviations
4. List of symbols (if applicable)
5. List of figures (if applicable)
6. List of tables (if applicable)
7. Main text (e.g. Introduction, Literature overview, Main part, Summary and conclusion)
8. Appendix (if applicable)
9. Bibliography
10. List of legal references (if applicable)
11. Declaration of Authorship

Title page

The title page must contain the following information:

- Thesis title
- Type of thesis
- Author

- Immatriculation number
- Denomination of the chair: Chair of Business Administration, especially Management Accounting

A sample title page can be found in the appendix.

Main text

The main text is divided into chapters, for example: 1. Introduction, 2. Literature overview, 3. Definitions Each chapter may be divided further into sections, subsections, etc in order to structure the thesis. Each structural element starts with a numbered headline and appears in the Table of Contents. A structure level is only justified if it has more than two elements, i.e. do not invoke subsection "2.1 ..." unless there is also going to be a subsection "2.2 ...". The depth and granularity of the structuring should guide the reader without impairing the readability of your thesis. As a rule of thumb: the structure is probably too granular if there are more than two headlines on a single page on average. It is probably too coarse if there are more than 10 pages of text between two headlines on average. In general the depth of the structure should not exceed the fourth level, i.e. chapter, section, subsection, subsection (also in master theses). New sections and paragraphs should be started on a new page whenever the current page has less than two remaining lines of text.

Layout and space restrictions

The thesis has to be written using an electronic word processor such as L^AT_EX, LibreOffice Writer, Mac Pages or Microsoft Word. The page layout is DIN A4 with 2.5 cm margins on all sides of the page. The text is set justified with 1.5 line spacing in a 12 point serif type (for example Times New Roman). Chapter, section and subsection titles as well as headlines for the other formal components of the thesis have to be set in bold type and slightly larger than normal text (most word processors automatically provide a suitable style for formatting headlines and titles). The table of contents shows all formal components of the thesis aligned to the left with respective page numbers aligned to the right of the page.

The page limit (seminar paper 20 pages, bachelor thesis 30 pages, master thesis 60 pages) refers to plain text without tables and figures. Pages have to be numbered consecutively. The pages before the main text (Table of contents, List of abbreviations, List of symbols, List of figures, List of tables) should be numbered consecutively with roman numerals.

The title page is counted as a page but not numbered. All pages starting with the main text are numbered using arabic numerals.

Lists of ...

All the different "List of ..." parts act as quick references, which allow the reader to easily locate figures and tables or recall the meaning of abbreviations and symbols without searching the whole text. The list of abbreviations contains all abbreviations used in the thesis in alphabetical order. This includes abbreviations defined by you as well as common abbreviations (for example "eg") and technical abbreviations (for example "IFRS"). All abbreviations except common abbreviations have to be properly introduced upon their first use. For example: "The International Accounting Standards Board (IASB) issued a new standard ..."

Similarly, all symbols used in the text, i.e. letters and signs used to denote mathematical expressions, have to be introduced upon their first usage and explained in a list of symbols. For example: "The circumference of any circle (C) can be calculated by the formula $C = 2\pi \cdot r$, where π is a mathematical constant and r denotes the circle's radius." In this example all three symbols, C , π , and r go into the list of symbols:

List of symbols	
C	Circumference of a circle
π	Mathematical constant ≈ 3.1428
r	Radius of a circle
...	

The lists of tables and of figures have to be added if the text (appendix included) contains more than one table or figure, respectively. The lists state the figure's (table's) number, caption, and page.

Miscellaneous

A consistent and correct use of technical expressions, correct usage, orthography, and grammar as well as meaningful, i.e. content-related, section titles are necessary requirements. They facilitate reading and help the reader to comprehend the content of the thesis.

3.2 Proper citation rules

The use of other people's work, written or spoken, in the form of text, graphics, tables or any other way is an essential part of academic work – even more so in academic theses, since their main contribution is a critical discussion based on existing literature. However, every usage of other people's work *has to be made explicit* and marked as a citation. This is as much an expression of academic diligence as of honesty. In addition, proper citation is the most important tool in social sciences (such as economics and business administration) to build strong arguments by explicitly connecting insights from different sources. Any failure to cite other people's work in a thesis written at the Chair of Business Administration, especially Financial Accounting leads to a grade of 5.0 (Failed).

Citations have to be verifiable and the overwhelming majority of sources cited in an academic thesis should be academic in nature, i.e. articles published in peer-reviewed journals. Lecture notes, working papers that are not publicly available or undocumented interviews or speeches can not be used. If possible, secondary citations should be avoided. For example "According to Smith (1997), Meyer (1994) finds a positive correlation between ..." is a secondary citation of Meyer (1994). Scientific diligence requires that the author looks up the original source (Meyer(1994)) and cites it directly. If the original source is not available, secondary citations are occasionally permissible as long as they are identifiable as such. Here for example by the citation "Meyer (1994) as cited by Smith (1997)". Non-academic sources such as newspaper excerpts or wikipedia entries should be used sparingly and with extreme caution – for example as motivational quotes only.

References in the text and corresponding bibliography entries

Citations are referenced by footnotes. The footnotes are numbered consecutively and formatted as single-spaced text. Modern word processors do this automatically. Also, footnotes are sentences – they start with a capital letter and end with a full stop. A footnote's position determines what it is referring to. Usually, it refers to a whole statement or sentence. In this case, it is placed directly after the punctuation mark. If it refers to only a single word, it is placed directly thereafter.

A *direct quote* has to be highlighted by quotation marks in the text and cited by a footnote with a precise reference to the source of the information, i.e. author(s), publication year and page of the original text. For example:

...

"Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment."¹

...

¹ *Shleifer and Vishny* (1997), p. 737.

The quote has to be an exact copy of the original text, even if usage and orthography have changed. Accentuations in the quoted text have to be adopted as well. Own accentuations have to be marked in the footnote by adding "Accentuation by the author". Citation is by author-year style, which states the last name(s) of the author(s), the year of publication and the page with the quoted text. Author(s) and year link the quote to the bibliography of the thesis, where the exact reference is listed, and the page tells where to look in the cited source.

A word of caution: Direct quotes should be used very sparingly. One purpose of a academic thesis is to discuss, contrast and evaluate ideas. Paraphrasing those ideas in order to get to their intellectual core is therefore necessary.

In contrast to direct quotes, *indirect quotes* are paraphrases of the original text – they express the meaning of the original source in own words. Hence, they use no quotation marks. For example:

...

The complementary perspective to both stakeholder theory and legitimacy theory as well as the linkage of organizational practices to the values of the society make institutional theory important to researchers who investigate voluntary corporate reporting practices.²

...

² *Cf. Deegan and Unerman* (2006), p. 296.

The corresponding footnote starts with "Cf." (Confer) or "See" in order to indicate that the quote is a paraphrase.

References in the footnotes serve as markers for bibliography entries. These entries link to the exact source of the cited information. Bibliography entries must be precise enough

to identify the original source beyond any doubt. Thus, depending on the type of source, several pieces of information are necessary.

The following example displays a sample bibliography with entry based on a variety of source types.

Bibliography

Chan, D.K. (1999), *'Low-Balling' and Efficiency in a Two-Period Specialization Model of Auditing Competition*, Contemporary Accounting Research, Vol. 14 No. 4, p. 609-642.

Christensen, J.A. and J.S. Demski (2003), *Accounting theory - an information content perspective*, Boston: McGraw-Hill.

European Commission (2005), *Structures of the taxation systems in the European Union. Data 1995-2003*, http://www.eu.int/commm/taxation_customs/taxation/gen_info/economic_analysis/tax_structures/index.en.htm (10.01.2006).

Lee, C.E., J. Page, and W. Mauldin (2014), *U.S., China Reach New Climate, Military Deals*, The Wall Street Journal, November 12th 2014, p. 1.

Hemmer T. (2007), *On the subtleties of the principal-agent model*, in: Antle, R., F. Gjesdal, and P.J. Liang (Ed.), *Essays in accounting theory in honour of Joel Demski*, New York: Springer, pp. 123-142.

List of legal references

European Commission, Commission Regulation (EC) No 1126/2008, November 3rd 2008.

European Court of Justice (2002), Case C-324/00 Lankhorst-Hohorst GmbH v. Finanzamt Steinfurt, European Court Reports 2002 I-11779.

U.S. Supreme Court (1973), *Roe v. Wade*, 410 U.S. 113, 1973.

The following citation rules apply:

- The bibliography is sorted by the first author's last name in ascending alphabetical order. The secondary sorting criterion is the year of publication. Should there be several entries with identical authors and years of publication, they are separated by minor letters:

Koonce et al. (2005),

Koonce et al. (2005a) ...

- Sources with up to three authors are cited in the text with all author names. If there are more than three authors, the citation is by the first author followed by "et al". The bibliography always lists all authors' names.
- Newspaper articles are cited by specification of the author or N.N. if no author is discernible. In the case of universally known newspapers, one may use their common abbreviation (e.g. WSJ, NYT, FT).
- Online sources usually don't have page numbers. In addition to the usual information (author, title, year) the bibliography entry provides a link and the date of access to the source. The latter is important because many websites are dynamic and change over time.
- When quoting court decisions one has to indicate: the court, exact source of information, first page of the decision, and, if applicable, in parentheses the page you are referring to. For the example provided above we follow the official U.S. and EU citation schemes:

U.S. Supreme Court (1973), *Roe v. Wade*, 410 U.S. 113 (1973).

Here the citation says that the case 'Roe v. Wade' is found in volume 410 of the U.S. reports, starting on page 113 and that the case was decided in 1973.

European Court of Justice (2002), Case C-324/00 *Lankhorst-Hohorst GmbH v. Finanzamt Steinfurt*, European Court Reports 2002 I-11779.

Here the citation says that the case 'Lankhorst-Hohorst GmbH v. Finanzamt Steinfurt' is found in the volume for 2002 of the European Court reports, starting on page I-11779.

- Papers without indication of the author have to be listed into the bibliography as "unknown author".

3.3 Tables, figures, and formulas

Tables and figures are an excellent tool for providing condensed information. This means, however, that they need to be explained and referred to in the text. The reader should not be left wondering what a table or figure is about.

Tables and figures should be numbered consecutively and listed in a List of tables and List of figures, respectively. Figures and tables lifted from other sources have to be properly referenced by adding a reference to the caption, for example: "Source: Baxter/Spinney (1975), p. 31". Similarly, figures and tables whose content is based on other people's work are identified by the addition of "Based on: ..." to the caption. This means that you claim authorship of any table and figure which is not referenced to other sources.

Figures and tables are denoted by a unique number, which is used in the text for references: "Figure ?? shows a simple lottery with positive expectation value for all $p > 0$."

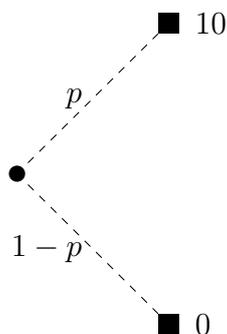


Figure 3.1: Simple lottery

Especially when discussing analytical and empirical literature the use of mathematical expressions such as equations is necessary. Most word processors provide tools such as formula editors for typesetting proper mathematical expression. Larger and/or important mathematical expressions as equations or matrices are set in separate lines and denoted by a unique number:

$$C = \pi \cdot d \tag{3.1}$$

$$= 2\pi \cdot r \tag{3.2}$$

Any reference in the text to a formula is by its number: "The circumference of a circle is calculated using its diameter (equation (??)) or its radius (equation (??))."

3.4 Submission of the thesis

Before submitting the thesis you should check whether

- literature references in the text are correct and match the information in the bibliography,
- the bibliography doesn't contain any entries which are not used in the text,
- the entries in all List of ... environments and in the Table of contents are complete and correct.

Most word processors allow for an automatic creation of the table of contents, lists of figures and tables, and the bibliography. Use these features to lower the potential for mistakes. Furthermore, a final check of the whole text helps to avoid a faulty page layout, such as headlines at the end of a page or half empty pages.

All theses have to be submitted before the set deadline in the form of a printout and an electronic copy on CD-ROM or USB stick. The CD-ROM/USB stick must also contain electronic copies of the literature which is cited in the thesis, as far as it is available electronically. Attach the CD-ROM/USB stick in a paper or plastic bag (no hard CD case) to the back (inside) of your thesis. All printouts are single-sided. Printouts of master theses must be bound in hard or soft cover. Seminar Papers may be submitted in a simple office binder.

Thesis submissions are handed to the Audit Office (Prüfungssekretariat) or the Service Center, seminar papers are submitted to Ms. Guttwein (Q5.322, 11:30 a.m. - 4 p.m.) or dropped into the mailbox at level Q0.

Every thesis must have a personally signed declaration of authorship (no signature copy!). This declaration states that the author prepared the thesis without help from others and without any sources other than those referenced and listed in the bibliography. The current declaration reads as follows:

Declaration of Authorship

"I assert with my signature that this thesis was written by me personally without improper help by a third party. All uses of the writings or thoughts of others are properly referenced. I assert that this paper or parts thereof have not been submitted for grading elsewhere, and have not been published, neither by me nor by others. I am aware that any false statement on my behalf regarding these issues will result in a fail grade. If there is reasonable suspicion of academic misbehavior, I consent that my paper may be screened by the software Turnitin. Thereby

I allow that my thesis may be stored electronically by the chair

I don't allow electronic storage by the chair

Regardless of the result returned by Turnitin, the paper will be evaluated and graded individually. The paper will not be made accessible to third parties without my consent.

Signature

4 Pattern cover sheet



Faculty of Business Administration and Economics
Professor for Business Administration,
especially Management Accounting

Master thesis

This is the title of the Master thesis
And this is the Subtitle (if there is one)

Submitted to
Prof. Dr. Michael Ebert

Respective thesis supervisor
Name of the supervisor

Hand-in Deadline:
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