

WRITING A MASTER'S THESIS AT TIM

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Technology and Innovation Management Research Group

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1. INTRODUCTION

Students can write a master's thesis on current research topics in the field of technology and innovation management.

The final thesis is an examination paper and forms part of scientific training. By means of the thesis, the candidate should demonstrate that they are capable of addressing a problem from their study program independently, based on scientific methods, within a specified deadline (AllgStuPo §60, English version).

A master's thesis should demonstrate the author's ability to work independently. The thesis should guide the reader in a clear and clearly comprehensible manner to new knowledge, i.e., to the results of the performed scientific work.

That is, the reader must know in the end:

- why it was done, which question was addressed
- what was done
- how it was done
- what results were achieved and
- how these results can be interpreted, inform future research, and become of practical relevance (i.e., used).

The task of the author is to find a way to convey to the reader complex facts as concise (but not simplistic!) and as clearly as possible. Ideally, the reader should find the answers to questions that arise while reading.

This guide will assist you in successfully writing a thesis in the Technology and Innovation Management field. It provides instructions for successful completion of the final thesis and indicates the general process of writing a final thesis. We regard following this guide as indispensable for creating the conditions, which help you in delivering a successful thesis.

Good luck!

2. APPLICATION FOR A MASTER'S THESIS AT TIM

2.1. Requirements

To be eligible to write your master's thesis at the TIM research group, you must have successfully completed

- at least one TIM advanced module (e.g., Corporate Innovation Management, Innovation Management – Process and Actors, Advanced Research Seminar).
- completed [DBWM Information Passport](#) (minimum 'Proficient' level)
- or selected alternative courses (e.g., from other universities), which developed an adequate competence level. We reserve the right to assess the adequacy of such alternative courses.

2.2. Applying for a master's thesis at TIM and registering the thesis at the Examination Office

Applications for writing a master's thesis at TIM are to be submitted by filling out the required information on the dedicated ISIS page. TIM offers an array of topics closely related to our research projects. You may accept or decline the topic once, if at the second offering the topic is not accepted you must apply to a different research group.

The next step is the registration at the examination office. With the registration at the examination office the official thesis processing time starts. The specified deadline must be met. The assessment of the work is done after submission of the thesis. For questions regarding the organization, deadlines and dates, registration / deregistration, the content of the examination regulations, number of copies to be submitted, please contact the Examination Office or **consult** your study and examination regulations.

Once registered, your writing process begins. Please be advised that one of the main evaluation criteria for master's theses at TU Berlin is the capability to work independently. This means that your thesis supervisor will not read any manuscripts and will have to remain as uninvolved in the writing process as possible. The supervisor will answer only specific questions (i.e., refrain from sending manuscript sections to your supervisor asking if they think "it's ok like that").

For the final submission, you must send the final paper in a PDF format alongside a photo or scan of your application form. The file of the thesis should be named as follows: "Thesis, Your Matriculation Number".pdf.

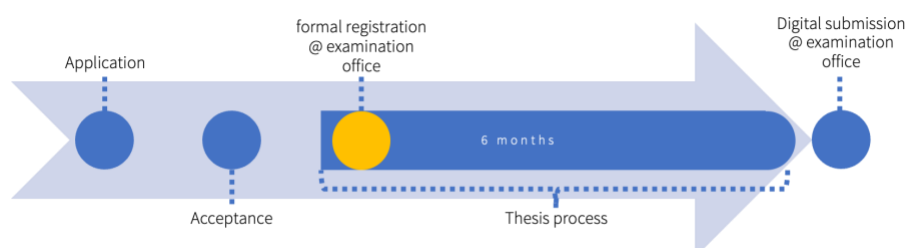


Fig. 1 Diagram of the master's thesis process.

3. FORMAL CRITERIA FOR A MASTER'S THESIS

3.1. Length

The scope of the text of a master's thesis should not exceed 25 pages, excluding the title page, abstract, table of contents, reference list, and appendix. The page size can also be set differently, upon formal agreement with the supervisor prior to changing the length of the text.

3.2. Outline template

Front page

Abstract

Table of contents

if necessary, list of abbreviations

If necessary, list of illustrations and tables

Text (the actual work), usually consisting of:

1. Introduction with research question, relevance and contribution to literature, and high-level outline of planned work
2. Theoretical Framework
3. Methodology
4. Results
5. Discussion
6. Limitations of the research and implications for research and practice

References / Bibliography

Appendix, if necessary

Affidavit

3.3. Layout

- The thesis may be submitted in German or in English
- The TIM research group provides a Word template. We strongly recommend using it for your thesis submission.
- Use sans-serif fonts (example: Calibri (11 pt.), Arial (11 pt.)) Written with 1.5 line spacing and written in block format. Please avoid footnotes for references and use "in text" citations instead – e.g. (Salomo et al., 2022).
- Leave a margin of 3 cm left and right; top and bottom each 2 cm edge
- The page counting with Arabic numerals starts with the first page of the text and runs to the last page of the work
- Front pages and tables of content before the main body of the text are counted with Roman numerals, which are, however, only written out after the title page. All numerals should be placed in the bottom right corner of a page.
- No unnecessary page breaks; Max. 1-line spacing between headings and between text breaks
- Tables and figures must be readable and as small as possible.

3.4. Citations & references

Use the [Chicago reference style](#) for in-text citations

- The short references within the text are given wholly or partly in round brackets.
- Use only the surname of the author followed by the year of publication. Include page numbers if you need to be specific (i.e., when citing directly or verbatim). A comma is placed between the year of publication and the page, chapter, section, or paragraph numbers.
- Citations in the text can either be placed at the end of a sentence in parentheses (brackets) or alternatively, the author's name may be included in the text, and just the publication date and page number placed within the brackets.

3.5. Abbreviations

- In general, avoid all abbreviations in the text.
- Only the abbreviations and acronyms cited as generally understandable in the DUDEN (short words such as USA) are permitted.
- Common abbreviations do not have to be included in the list of abbreviations.
- If you use abbreviations that are customary to the thesis subject area and are not listed in the DUDEN, they must be declared without exception and included in the list of abbreviations. It is not allowed to make your own abbreviations for convenience (for example, "Volksw." or "Prod.mgmt.").

3.6. Quotes and footnotes

It is a requirement of scientific writing to give accurate information with clear reference to the source of all facts and not independently developed ideas - if they do not represent scientific public good - as well as other suggestions! If in doubt, the author should refer to a quote. We recommend against using footnotes to avoid interrupting the continuity of the text. Further information and guidelines can be found in the [DBWM Guide](#).

3.7. Tables and figures

- An illustration should stand alone and be accessible to the expert reader without the study of the surrounding pages.
- Explain your table in the paragraph leading to the table
- Add a number and title before each table or figure, example: "Table 1: Sample characteristics".
- Add a source line at the bottom of the table or figure.
- References to tables and figures are to be stated after the word "source" If the table or figure is based on your own data or on your own representation, the source must be specified as follows: "Source: Own representation".
- Add the corresponding citation to your bibliography.
- Only if tables or figures take a disproportionately large amount compared to the text, it is advisable to move them to the appendix of the thesis. Otherwise, they should appear in the current text.

4. STRUCTURE OF THE THESIS

4.1. Front page

Please use the template provided! Each submitted work must have a title page containing at least the following information:

- University and institute name
- Type or thesis (i.e., master's thesis) & course of studies
- Title of the thesis
- Name of the first examiner with academic titles
- Name, first name, matriculation number of the author (submitted by: ...)
- Address (with telephone and email address, if applicable)
- Date of submission

4.2. Abstract

Whether you are submitting your thesis in English or in German, the abstract must be written in German. Please be sure to also include an abstract in English.

The abstract should give a precise overview of the work and should never exceed one page. It includes the following: objective / research question, methodology / procedure, and results.

The abstract is used to quickly inform a reader about the contents of the work and to grab attention to the thesis topic. The abstract is to be integrated into the work directly after the title page.

4.3. Introduction

State the purpose of the research, the main research question, the relevance of the problem/research, its contribution to the literature, and a high-level outline of the planned work.

4.4. Theoretical Framework

This chapter sets the stage for the thesis, as it provides definitions for the central concepts, explain the mechanisms through which the central concepts are related to one another (i.e., theories), and uses these theoretical arguments to develop hypothesis or provide insights into the core conceptual model.

Central to this section are: (i) definition of the phenomenon to be researched (e.g., the relationship between factor Y and factor X), (ii) definition of central concepts (factor Y & factor X), and (iii) existing research explaining the relationship between factor Y and factor X). This should provide an overview of the research field. Ideally, this section also includes a convincing justification for conducting the literature review.

4.5. Methodology

Describes the methodology (e.g., literature review, interviews, questionnaire/survey, experiment, case study analysis) and specifics of the chosen method. Valid references and a convincing justification for the chosen method must be provided. Literature reviews can use the **guideline** provided by the Economics and Management Library as a point of reference.

4.6. Results

The results should be clearly articulated. Here also graphics or tables can be used for a clear presentation. Figures and tables must be explained in the text. It is important that in this chapter there is not yet a rating, interpretation, and discussion of the results, but rather their description.

4.7. Discussion

This is the most demanding chapter, in which predominantly own thoughts are to flow in and the transfer performance is greatest. It is about recognizing newly discovered relationships between the results and presenting the contributions (e.g., new knowledge created), contradictions, differences, or similarities to already existing findings. Furthermore, it is about the discussion (pros and cons argumentation) of the applicability of the results. For example, are the results generally valid or dependent on a particular context? Where are the results valid? To what extent are there restrictions? Part of this chapter is the discussion of the contribution to science and practice. Important: This chapter is not a summary, but a discussion of the results.

4.8. Limitations and implications for research & practice

This section essentially consists of three elements: Limitations of the work, an outlook on further research, as well as implications for practice. The limitations should critically deal with one's own work. What can the work provide, but what not? Which restrictions should be considered when interpreting the results (for example limited number of interviews, focus on a particular area and thus possible problems with generalizability). The limitations are followed by an outlook on further research. This can also be informed by the specific limitations of the presented research. Providing insights on how your own research can inform further research, what additional research questions emerge from the insights, and how your results can be extended by integrating alternative previous research are all relevant aspects to be covered here. In addition, highlighting central and valid implications for management practice from your research is also required.

4.9. References / Bibliography

Please design the bibliography according to the **Chicago reference style** and follow the guidelines of the **DBWM** (The Library for Economics and Management, TU Berlin).

We strongly encourage using a **software** to organize your literature, e.g., Citavi (for Windows, can be downloaded for free from TUBit), or Zotero (for Mac). These programs automatically create a formally correct bibliography and avoid formal mistakes when citing / referencing an article in the main text.

5. EVALUATION TEMPLATE

We follow an evaluation template to assess the theses. For each section, some guiding questions for evaluation provide you with information about the evaluation topics. This is not a comprehensive nor a fixed list of issues or

questions determining the evaluation of your work but serve as guiding questions for the evaluator. The evaluation template also provides an indication of the weighting of the different parts of your thesis towards a final grade. Note, that the distribution of points can vary according to the individual thesis. However, this distribution of points identifies, how the different parts of your thesis contribute to the final grade.

5.1. Evaluation template

<u>Introduction (15 points)</u> Research Question clearly determined Following a clear and logical rationale for developing the research questions Contribution to the literature clearly delineated Relevance from a conceptual and practical perspective argued convincingly Definition and delineation of the topic delivered in a concise and sufficient manner
<u>Conceptional Part (25 points)</u> Logical structure of the text Reasonable line of argument for achieving the desired result Necessary depth of the literature analysis, incl. critical reflection of previous research Systematic presentation and critical reflection of previous empirical results (e.g., variance in methods or relationship to conceptual models)
<u>Empirical Part (25 points)</u> Positioning, reasoning, and delineation of chosen empirical approach in relation to research objective Clear and logical method section (operationalization, data and sample, analysis) Concise and comprehensive presentation of empirical results
<u>Discussion (15 points)</u> To what extent was the research objective fulfilled or the research question answered Do the results complement and/or contrast the conceptual framework? What is surprising? Are results clearly related to previous research?
<u>Limitations und Implications (15)</u> Critical reflection of own research and resulting limitations What are the implications for research? What are the implications for (corporate) practice?
<u>Formal criteria (5 points)</u> >> <i>This aspect is different from the requirement of always living up to the Standards of Good Scientific Practice</i> << Observing page limitations (+/-10%) or agreement to deviate from this with supervisor Necessary figures and tables in the text Complete and correct referencing of previous literature Observing the TIM Guidelines Use of recent and high-quality research