ŠIAULIAI ACADEMY
OF VILNIUS UNIVERSITY

GUIDELINES FOR WRITING FINAL BACHELOR THESIS

Šiauliai, 2020

Contributors: updated text based on Balčiūnas, S., Juozaitienė, L., Rudytė, D., Tijūnaitienė, R. (2013) by Sigitas Balčiūnas, Lina Garšvienė, Laima Liukinevičienė, Kristina Matuzevičiūtė-Balčiūnienė, Evandželina Petukienė, 2020.

Study programme: ECONOMICS

Content

GUIDELINES FOR WRITING FINAL BACHELOR THESIS

1.1. General Provisions

The final bachelor thesis is the student's independent work, prepared at the end of the study programme, and intended to develop and evaluate cognitive, professional, and scientific competencies. The final thesis is a qualifying student's writing work, according to which the qualification commission assesses the student's readiness for independent work complexly and awards a bachelor's qualification degree in the respective study field. The student is responsible for making decisions, coming to conclusions, and correcting the calculations made in the final thesis.

The bachelor's thesis usually raises and solves a relevant practical problem in the field of science, and the research is applied. The research results in the bachelor's thesis are expected to be significant for practice, and their theoretical novelty is only desirable.

1.2. Academic ethics in preparation of the final thesis

When planning and carrying out the final thesis research and presenting their results at conferences of scientific works, social partner organisations, scientific journals, internet portals, and publishing in the eLABa system, it is necessary to observe academic integrity research publishing ethics.

It is vital to observe fundamental ethical principles throughout the final thesis preparation process: collecting materials, analysing data, interpreting them, and publishing results.

When collecting research materials, the following principles shall be observed: the fairness of respect for the individual’s privacy, confidentiality and anonymity, goodwill and willingness not to harm the subject. Following the Law on Legal Protection of Personal Data of the Republic of Lithuania, it is necessary to protect personal data and not use it in texts without the person's consent. When entering the field of study, a few practical tips should be followed:

- obtain permission from the head of the organisation to research if the organisation under investigation or the questionnaires are filled in during the working hours of the employees; in this case, the University's mediation letter is applicable;
- to familiarise the study participants with the content of the study and to obtain their consent to participate, including consent to make an audio recording or filming;
- provide correct information on the objectives of the investigation.

When presenting the research results in the text, academic ethics is violated when falsifying and manipulating investigation data, deliberately omitting data contradicting the hypothesis, not mentioning people or organisations who contributed to the research, where confidential information relating to an investigation is disclosed.

The most significant violation of academic integrity is plagiarism. According to the Code of Academic Ethics of Vilnius University, it is the use of a foreign text published in printed or electronic form without a detailed reference to the source or with a reference, but when the scope and nature of the foreign text make the independence of the work, work or its components questionable. Plagiarism is a punishable copyright infringement.

The most common types of plagiarism are:

- “verbal plagiarism” means the literal presentation and/or publication as one's own of another author's work or parts thereof;

- “primer” means a derivative written work consisting of extracts from different sources, whether or not specified;
- “forgotten reference” means the unintentional omission (not quoting) of the works of other authors;
- plagiarism when using synonyms – incorrect paraphrasing when synonyms replace single words;
- “translation plagiarism” means the publication of a translation of a work published in another language without reference to that work;
- “invalid source” means the provision of an expired reference or reference to a non-existent source.

In preparing the final thesis, compliance with the norms of academic integrity and research ethics is monitored by the supervisor, the commission for the initial presentation of the thesis, the supervisor, the reviewer and the commission for the evaluation of the final thesis. The supervisor checks for work coincidences in the Lithuanian Academic Electronic Library (eLABa) repository. The overall overlap of the final thesis with other works submitted in the eLABa system should be kept to a minimum and not exceed 30%. The overlap with individual works submitted in eLABa should not exceed 5%. In this case, assessing whether paragraphs from another work plagiarise the text is necessary. Having established the case of the work plagiarised by paragraphs, the head must apply to the study programme committee with a request to consider the submission of this work for defence. If another person is invited to edit the language of the final thesis, it is necessary to indicate the editor's name in the Introduction. Students must follow The Guidelines on Artificial Intelligence Usage at Vilnius University for AI usage.

Ethics is violated if all or part of the final thesis is not independently prepared or final thesis preparation services are purchased. According to the study regulations of Vilnius University, if dishonesty is established, the final thesis may be declared indefensible, and the student may be removed from the student list.

1.3. Components of the final work

The structure of the final thesis may vary, but the main parts remain the same. The final work should consist of the following components in the following order:

- cover;
- a cover page;
- summary in English (1 page, about 500 words);
- a summary in Lithuanian (1 page, about 500 words);
- a list of tables, if there is more than one;
- a list of the images, if there is more than one;
- glossary of terms and/or abbreviations (this paragraph is optional);
- content;
- introduction (pages 2-3);
- theoretical part (30-40% of the total volume of work without appendixes);
- in the bachelor's thesis, the research methodology is presented as a chapter of the research part, about three pages),
- exploratory (empirical) share (around 50 % of the total volume of work without additives);
- discussion (recommended in the master's thesis) (1-2 pages)
- conclusions (2-3 pages);

- recommendations (1-2 pages) (this paragraph is optional and depends on the topic of the bachelor’s thesis; the recommendations for macroeconomic topics are not written);
- literature (at least 35 sources of scientific literature in the bachelor's thesis; more than half of literature references should be not older than 10 years);
- annexes.

The recommended volume of a bachelor's thesis (without appendixes) is 35-45 pages, with a line spacing of 1.15 (about 69-87 thousand characters with spaces). If a student significantly exceeds the specified scope of work, this can be seen as a lack of ability to present information in a concentrated manner.

1.4. Choosing and formulating a topic

The right choice of topic demonstrates the professional maturity achieved by the student and the directionality of his activities. The topic of the final thesis should correspond to the student's chosen level of study direction.

When choosing a topic, it is recommended to follow the following general provisions:

- the topic of the bachelor's thesis should be meaningful, dealing with the topical phenomenon of practice.
- the topic should interest the researcher and correspond to his inclinations and motivation. The study should provide valuable knowledge for the student's further professional and scientific activities.
- it is good when the topic is in the scientific interest of the supervisor of the final thesis.
- an essential characteristic of the topic is the novelty of the study. For example, when preparing a bachelor's thesis, it is not appropriate to repeat a research of a similar nature carried out in the same company a year ago if it is likely that no changes have occurred after it. However, based on the data of the study already carried out, it is possible to study the problem in more depth to reveal other aspects using other research methods.
- possibilities to prepare the work should be taken into account: whether sufficient literature can be found to develop the topic and justify the study, whether there will be enough time to conduct the study, whether appropriate methods can be used, whether the intended sources of empirical information are available and whether the available financial resources will allow the research tasks to be solved.
- when choosing a topic, an ethical dimension should be taken into account.
- choosing the theme of the final thesis is vital at the beginning of the thesis to distinguish and define the essential (key) concepts. It is recommended that these concepts be used to describe the problem, compile the content of the work, and formulate the research's object, purpose, and tasks.

Undergraduate students are recommended to combine the theme of the final thesis with the problems solved or the activities performed during the practice. This makes it possible to get to know the problem in question better, ensures better access to the company's databases, and formulates specific targeted conclusions. This helps to carry out a deeper analysis, the results of which can then be used in the practical activities of companies. However, it should be noted that practice tasks and the study of the bachelor's thesis should not be directly identical since the study programme provides for different objectives of these subjects.

Choosing a research topic would require formulating a job title, but it's not easy.

- the thesis title must accurately disclose the subject's essence under investigation, correspond to the problem, and the content of the work.
- the thesis title should be laconic; every word is essential.
- he thesis title should be short; it is recommended not to use more than ten words.
- the issue at stake should be reflected in the topic's wording.
- the thesis title should use terms recognised and clearly defined by the scientific community and avoid ambiguous household concepts.
- the subject must be drafted clearly without special explanation, and its title may use official abbreviations, e.g., JSC, CJSC, etc.
- excessive words in the title should be avoided, i.e. words which, if deleted, do not change the title's meaning.

Choosing a topic is a somewhat complex process. The topic is defined at the beginning of the work, but its wording is often only preliminary, determining the direction of the research. It can be adjusted during the study, considering the development of the theoretical concept of work and the study's course. Sometimes, in the middle of the work, the topic's title needs to be changed to reflect the work's content as accurately as possible. Changes must be made following the deadlines set by the University for the work preparation.

1.5. Contents

The content reveals the structure of the work. The methodological literature distinguishes between two opinions on content creation. One states that the content must be compiled at the beginning of the work and then purposefully searched for material to write each chapter. According to the other, the content can only be created after a sufficient level of study of the topic in question, a fully developed working concept, and the collection of adequate material for the analysed question, which can already be structured. In practice, these extreme positions are usually combined. After getting acquainted with the topic and having studied the literature on the relevant issue, the preliminary content of the work is drawn up. The work is written according to the deadlines for preparing the bachelor's final thesis. Still, it is assumed that the content can be changed depending on the development of the concept of work, the study of theoretical material, and the course of empirical research. Sometimes, the theoretical material has to be restructured after the research has been completed.

Study work is usually divided into parts, divisions, and subdivisions. The content of the work is recommended to be arranged following the classical requirements of the structure of scientific work. Two parts of the bachelor's thesis are recommended: The first part presents a theoretical analysis of the research problem, and the second part presents the research methodology and results.

The titles of sections and sub-sections should be short, reflecting the substance of the text submitted. Names referring exclusively to the referential nature of the text (e.g. “Maslow Motivation Theory” is better replaced by “Modern Approach to Maslow Motivation Theory” or “Application of Maslow Motivation Theory in Management Research”) are not recommended.

The content should reflect the theoretical concepts used in the study. When formulating the titles of parts, chapters, and subdivisions, the same key concepts should be used, which are in the wording of the topic. Still, the name of the theoretical or empirical part should not coincide with the work's title.

The content is presented after the summary. The word CONTENTS is written in capital letters as the chapter's header. The titles of the parts shall be written in capital letters, and those of the sections and subdivisions shall be in lowercase. The chapters INTRODUCTION, SUMMARY, CONTENT OF TABLES/FIGURES, LITERATURE, and ANNEXES are not numbered. The number of annexes is not limited, but it is not recommended that a large number of them be provided. The annexes contain research instruments, additional calculations, additional systematised textual information used in the work, dissemination of results, and documents confirming their practical use. Documents analysed in the work and the primary data used for calculations are not provided in the annexes (except for specific cases, e.g., the balance sheet of enterprises).

In compiling the content of the final thesis, use should be made of the content creation possibilities provided by text management programs.

1.6. Introduction

The Introduction is a business card for study work. The recommended scope of the final thesis introduction is 2-3 pages.

The possible structure of the Introduction is as follows:

- presentation of the topic and its relevance;
- the scientific research of the subject and the novelty of the study;
- problem definition, problematic issues;
- hypotheses or defensive statements (if necessary);
- research object;
- research aim;
- research methods and organisation (for bachelor's work) or short research methodologies
- scientific significance of research results (for bachelor's thesis - only recommended, depending on the results obtained), dissemination of research results in the scientific community;
- practical significance of research results (necessary for bachelor's thesis), dissemination of research results in the community of practitioners;
- structure of work.

If an organisation has commissioned the study, this should be indicated in the Introduction. Suppose there is feedback from the organisation on the significance of the work carried out during participation in the scientific conference. In that case, this should be noted in the Introduction, and a copy of the feedback or certificate of participation in the conference should be provided in the annexes.

The structural parts of the Introduction are described separately below.

Presentation of the topic, relevance, and novelty of the research

In the first paragraph of the Introduction, it is customary to present the topic to define its place in a broader context. It is unnecessary to begin with the historical origins of the question or provide a general description of the scientific field or branch from which the topic was chosen. The chosen topic should be presented concretely, revealing its practical and scientific aspects. For the presentation of the topic, it is customary to devote paragraphs 1-2.

The Introduction describes how important and relevant this topic is in the modern scientific space and field of practical operation. Based on scientific sources, legal documents, regulations, reports of organisations, etc., the work's author presents some arguments revealing the relevance.

Arguing for the novelty of the research, one should briefly present the scientific achievements in the field analysed by the student, indicating the most important scientific resources and grouping them by topic results. The novelty criterion means that the problematic question formulated by the researcher is not answered. The student is not expected to find new laws and develop new theories in his work.

The following aspects can define novelty:

- systematised, generalised, less analysed problem;
- other market segment, other organisations, and other situations investigated by known research methods;
- the problem is looked at from a different angle;
- The new research method used and the data obtained confirm, refute, or extend a known theory or its claims.

Problem

The problem is something that has not yet been fully explained. The final thesis must have one stem problem and be homogeneous. Finding a problem is not an easy process, and it requires systematic work with scientific literature, knowledge of practice, necessary consultation with the supervisor, and discussion with colleagues. A problem is identified when the selected area lacks a solution.

The exact wording of the problem is essential, as it determines the content of the work. When defining a research problem, it usually briefly describes its essence and formulates one or several related questions the work seeks to answer. The problem can be explained without formulating a question. In the bachelor's thesis, a practical problem is more often solved.

Examples of formulating the problem of the final thesis by asking a question

Explain the characteristics of an object in studies that aim to describe it:

How has the structure of Lithuanian exports changed since the Introduction of the euro?

How has Lithuania's economic convergence changed since it acceded to the EU?

Explain and predict in studies that aim to uncover connections

How does population ageing affect public finances in the EU?

How does the economic downturn affect the marginal propensity to consume?

How does spending on social assistance lead to poverty reduction?

How does the sales structure affect company X's profits?

How does the impact of public debt levels on economic growth depend on the country's openness to international trade?

Does the impact of the country's financialisation on productivity depend on the scale of financialisation?

How do Emigrants' Money Transfers Affect Poverty? Does it depend on the country's level of development?

Which groups of consumption expenditure are most sensitive to income developments?

How does economic growth affect the unemployment rate of men and women of different ages?

In studies aimed at evaluating the activities of the organisation, the results of the project, the program

What are the main drivers of company X's profits?

What are the export development opportunities for Company X?

What are the possibilities of increasing the efficiency of company X?

What are the cost reduction options for company X?
How does implementing investment project X impact the company's performance?
How EU support for agriculture determines countries' agricultural performance
How does EU structural assistance affect regional economic differentiation?
What is the impact of regional housing support on labour supply?
The wording of the problem does not need to be considered complete until the full text is written, as it can be improved depending on the results and conclusions.

Hypothesis

Hypothesis, as an element of research, is more often formulated in a master's than in a bachelor's thesis. The hypothesis is a preliminary prediction, assumption, or explanation of the expected results of a study. It is an initial theoretical concept formulated as a premise or a prediction of what conclusions the author expects from his research. Hypotheses arise from the analysis of scientific literature. The author should provide a justification based on which theories or research has already been conducted. He raises such a precise hypothesis and foresees the results of the research.

Not every study needs to have a hypothesis. The hypothesis is also unnecessary in quantitative descriptive research or evaluation studies if it is difficult for the author to predict the possible result in advance.

The hypothesis is necessary for causal-correlational statistical studies. It helps to identify the main directions and boundaries of the future research. The hypothesis must be directly related to the investigated problem and provide the basis for solving it; it must be possible to test it empirically. After the study, the hypothesis is confirmed or refuted. There may be several related hypotheses in one study. In correlational, causal, and experimental studies, hypotheses are mandatory. In the case of mixed methods studies, the hypothesis may be raised only for part of the quantitative study.

The research object

The object of the research is what will be studied and what the cognitive process will be focused on. The object of the research should be reflected in the title of the topic. The research object must cover both parts of the thesis.

Aim and objectives of the study

The research aims to address the problem under analysis. The aim of the research does not need to be expanded; it should be expressed in one sentence. The research aims always to obtain new knowledge, reveal and explain the analysed object, evaluate the situation, innovate, design a change scenario, etc. It cannot be formulated as a kind of intervention in processes or as a consequence of this intervention. For example, objective formulations such as "improving the personnel management system in the organisation" or "increasing the loyalty of the organisation's employees" are not appropriate. However, the study's knowledge may help address these managerial challenges. The wording of the objective should correspond to the chosen topic's title, reflecting the study's subject. The aim should cover all the objectives, i.e. it cannot be narrower than the objectives.

Each topic can have many solutions, so specific research tasks are chosen after formulating the goal. Tasks are sub-tasks that show how an aim is being achieved. Study papers typically have 3-5 main objectives. Each research objective must have a solution described in the work text and reflected in the conclusions.

In the wording of the aim and objectives, the infinitive of active verbs is used.

Verbs to be used in the aim and objectives: *disclose, discuss, define, classify, identify, describe, compare, identify, distinguish, compile, prepare, analyse, create, substantiate, evaluate, integrate, relate, interpret, contrast, perform critical analysis, formulate, verify,* etc.

The verbs often used by students to find out are more suitable for the report than for the final thesis. Procedures such as "analysis of literature on the chosen topic", "survey", "analysis of survey data", and "conclusions and recommendations" should not be written according to the working structure. The tasks of the work should reflect the specific aspects of the particular topic being studied, as well as how this is done. The research objectives shall be numbered, and each of them shall be written on a separate line. The tasks must be specific and relevant to the issues covered (often part of the content, section or subsection) (see Annex 2).

Methods of the research

In the Introduction, research methods are presented briefly in a few paragraphs. It is recommended not only to list the methods used for data collection and analysis but also to briefly indicate the purpose of which one method is used in the work and which statistical programs are used. It should also briefly describe the sources of data, the size and type of the sample, how the survey was organised, the timing, and the compliance with ethical requirements. The detailed research methods, the expediency and justification of their choice, and the desired results.

Scientific, practical significance and dissemination of research results

This part of the Introduction sets out who has benefited or could benefit from what research results and by whom. It should also be noted where the results have been/will be disseminated: e.g. presentation of the research results to the heads or employees of the organisations, presentation of the results at the student scientific work conference, publication of an article in the student work collection, etc. The text contains references to annexes – feedback from the heads or specialists of the organisations, certificates of attendance at conferences, and copies of the paper.

Structure of work

The content of the working chapters is presented, and the issues covered in the individual chapters are summarised.

Summary

The summary is an abbreviated presentation of the substance of the study work. The summary shall be provided first in English and then in Lithuanian. The summary should be written so that its information allows the reader to form an opinion on the content of the study work, and the studies carried out and their results. The summary does not need to rewrite the text of the Introduction, but it should describe the essence of the work concisely and generalise and present the main conclusions. The recommended length of the summary is around 500 words. The summary shall begin at the top of the sheet in pt 11, 1.0. The summary should fit on one page. The following keywords appear at the end of the summary: three to five key concepts that reveal the essence of the work.

Example of writing a summary

Surname, V. (2020). *Changes in organisational culture through the implementation of global quality management.* Bachelor's thesis. Vilnius University Šiauliai Academy, Institute of Regional

Development, Šiauliai.

SUMMARY

The summary shall begin with the words: *"The* bachelor's thesis analyses..." This part of the work should briefly outline the essence of the work, specify its components, describe the main issues under consideration, and present the results.

Keywords: three to five key concepts that reveal the essence of the work.

The summary of the final thesis is presented on separate pages under the cover page.

1.7. Theoretical part of the final thesis

The theoretical part of the final thesis presents the conception of the main concepts used in the work, a literature review on the researched topic, the analysis of the problem at the theoretical level, and the research related to the analysed problem. The main ideas of the topic should be presented here, and their interrelationships and possibilities of using existing theories to solve the problem should be revealed. In this part, the author's knowledge is best demonstrated.

The theoretical part should account for about 30-40% of the total volume of the final thesis (without appendixes). The purposes of the literature review:

- understanding the key concepts, terminologies, ideas, theories and practices of the topic
- becoming familiar with the main issues/problems/theories
- becoming familiar with the key researchers on the topic
- establishing the state of knowledge on the topic
- identifying and evaluating relevant research methods

The work should contain only material that is directly related to the investigated problem, only essential and up-to-date information. The latest research papers are published in scientific journal articles and conference materials. The monographs contain older and generalised material. The textbooks are more suitable at the initial stage of preparation for the work when getting acquainted with the topic under consideration. Rewriting textbook material should be avoided. Most sources of scientific literature should be no older than five years (unless the logic of the work requires otherwise). To search for literature, you should use the scientific databases subscribed to by Vilnius University Library (Web of Sciences and Scopus are recommended).

It is customary to use online material for the final thesis. It is equivalent to printed sources of information, but it requires a particularly critical assessment of reliability.

When analysing the problem, comparing, arguing and evaluating individual ideas and statements is necessary. Each chapter or subsection shall be written in summary form, systematising the views of at least a few authors. Sections or subsections that are written based on a single article or are abbreviated parts of a textbook should be avoided.

It is not recommended to refer to periodical articles or popular literature. Materials from journalistic articles (e.g. an interview with a minister) may also be submitted. Still, they should be used to illustrate the situation, not to define the concept or confirm the regularity. The theoretical part can also be based on laws, codes, communications, other legal acts, and information from reports and databases. Still, it is necessary to present this material as empirical, defining and describing a specific situation and revealing the context of the analysed problem. Subdivisions may not be created by rewriting laws or regulations. They can be used not to justify the investigation theoretically but to reveal the situation to argue the practical significance of the investigation.

The most common mistakes in the part of the analysis of literature:

- the student merely presents the views of other authors, does not analyse them, does not compare them, does not evaluate them;
- the main works of the field under consideration are not used, and the latest literature is not analysed;
- the work consists entirely of quotations; it is difficult to distinguish the original text of the author from quotations or references;
- relying on material contained in articles that are popular on the internet;
- recounting textbooks, presenting truths known to everyone, not relying on scientific articles;
- written in a non-scientific style;
- inadequate (or non-existent) references to literary sources.

The theoretical part of the work must have a specific title and cannot be called the 'theoretical part'. The material presented in the theoretical part is divided into sections and subdivisions according to the selected research questions. It is not recommended that subsections be less than 1 page long.

The working text is set out in paragraphs. The article consists of coherent sentences related to one main idea. The classic paragraph consists of a thematic sentence (main claim), statements of its explanation (or supporting arguments) and a conclusion or a summary sentence. The arguments should be combined into a logical whole. It is recommended not to write very long paragraphs; the optimal length is 12 lines. Of course, such a classic structure is not mandatory for all paragraphs without exception; a paragraph can also consist of one sentence.

The paragraphs should be linked by meaningful links and form a logically coherent text. To help the reader better understand the text, the logic of the material can be briefly presented at the beginning of the chapter/section.

The theoretical part should contain tables and figures; under them, it is necessary to indicate the source.

Summaries should be used to complete the theoretical analysis of the sources. They should be presented at the end of the chapters and sub-chapters. It is recommended that the material submitted be summarised in one or more paragraphs. In the theoretical part, the student implements specific objectives described in the Introduction. In summary, conclusions should be drawn according to the challenges posed. Subsequently, it is recommended to use these summaries when formulating the conclusions of the final thesis.

At the end of the theoretical part of the thesis, it is recommended to present a section summarising the material of the theoretical part according to the researched problem, explaining the main theories applied in the research, conceptualisation and operationalisation of the research object (if necessary), and presenting theoretical models applied in the empirical research (if required). The summary reveals the author's ability to comprehend theoretical concepts of the research problem and use them in empirical research.

1.8. Research Methodology

In the bachelor's thesis, the research methodology can be a separate part of the work or the first chapter of the empirical part. The structure of the research methodology part is not regulated; it is crucial to present the information in the chosen logical consistency, distinguishing the essential elements. The descriptions should show how the requirements of the selected test type, test strategy, and method have been met. In the bachelor's thesis, it is about three pages long.

Three elements can be distinguished in the research methodology part: a description of the general research design or logic, a description of specific study methods and instruments, and a description of the study organisation. Other procedures for disaggregating the information presented in the work can be chosen, for example, to form a section/subdivision describing the study sample, a research ethics section, a separate section dedicated to the limitations and reliability of the research, etc.

Research concept

Depending on the content's accents, this part's title can be: Research methods, Justification of research methodology, etc.

- the reader is reminded of the problematic questions to which the research seeks an answer or hypothesis (if formulated). Still, it is unnecessary to rewrite the research's object, purpose and objectives indicated in the Introduction. It would also be wrong to make defensive statements here, as they are formulated after the investigation has been carried out. It is possible to detail the tasks of the empirical part, expand, and detail the problematic issues.
- the theoretical basis of the research is briefly presented, indicating which theories and how the research is based, mentioning some of the most important authors, defining the research phenomenon that is used in the research, the theoretical model (if compiled) or the operationalisation of the concept (if necessary) or a reference to the chapter of the theoretical part where it is described.
- brief presentation of the methodological basis of the study. Specify the type of investigation, justify why this particular type of investigation was chosen, and state whether it is best suited to solve the problem of the investigation. In connection with detailing the research problem, the research strategy selected/logical scheme/design is described (a graphical scheme can be provided), and the applied research methods and their interfaces are presented.

In the bachelor's thesis, selecting and implementing the research strategy corresponding to the research problem is essential.

Methods of investigation

Overwriting methodological textbooks should be avoided when describing research methods, and only essential work-related information on the method used should be provided. Below are the recommendations for the description of the research methods.

Analysis of secondary data.

- very brief presentation of the method and the rationale for its choice, description of the conditions/assumptions of the method and how they will be verified
- detailed questions are given to find an answer using this method.
- the statistical indicators shall be described, their reliability and appropriateness shall be assessed, and their selection shall be justified.
- indicates databases and other data sources.

- presentation of statistical methods and data analysis instruments used for data analysis (Excel, SPSS, Gretl...).

Organisation of the study

Describe the research organisation, indicating the stages and any obstacles that may have affected the reliability of the study results. If the conduct of the study has not been described in the information on the research methods, it shall be demonstrated how the conduct of the study has complied with the ethical requirements of the research.

1.9. The Empirical Part of the Work

The empirical part of the work should have a specific title corresponding to the topic being analysed; it cannot be called the “Empirical part”. This part contains factual (statistical or other) information about the researched problem and the results of the interpretation in the context of the theories described in the theoretical part of the work; when describing the results, it should be stated whether they confirm or refute the hypothesis of the research (if it was raised).

The empirical part of the work with methodology should make up about 60% of the total work volume without appendixes, the work's introductory parts, and the literature list.

Systematisation and analysis of quantitative data are strictly defined procedures that must be followed at work. Having decided on the method of data analysis, the student should purposefully deepen the knowledge acquired in the lectures on methodology – read several sources of research methodology that describe the method, critically review examples of its application in well-regarded student works, dissertations, and scientific articles.

The empirical part of the work is recommended to be divided into sections. The first chapter of the empirical part of the bachelor's thesis presents the research methodology. The results of the research are described and interpreted in several chapters. The division of information into sections depends on the design of the study.

Essential aspects of data analysis and description of results:

- to analyse the economic, commercial and financial activities of enterprises or organisations, the general macroeconomic indicators of the country, and to reveal the trends and reasons for their development, data for at least the last ten years should be analysed. Depending on the specifics of the method of analysis used (particularly in economic work), a more extended investigation period may be necessary. If more recent data are published during the student's data analysis, they may be excluded from the work.
- the thesis presents the generalised and systematised research results, highlighting the main results and trends. The research results in the final thesis should be interpreted in the context of similar research by other authors. The charts should be visual and informative. Only the final results are shown in the tables. The general provision reads as follows: Additional statistical information with little relevance to the topic should be included in the annexes if the information is essential and must be kept in the text.
- empirical data should be grouped, systematised, summarised, transformed, compared, interpreted, evaluated. When analysing them and making insights, it is necessary to rely on the analysis results presented in the work's theoretical part.

- software programs help to systematise and analyse empirical data. Quantitative data is convenient to systematise and analyse using statistical software packages SPSS, SAS, open programs PSPP, Gretl, R, etc.

The material should be summarised in one or two paragraphs at the end of each chapter or subsection of the empirical part.

1.10. Conclusions and recommendations

Conclusions and recommendations are written in separate chapters.

The conclusions are the most significant and essential part of the final thesis. This is the solution to the problem, the answer to the challenges raised at the beginning of the work. Conclusions should be specific and aligned with the work's title, purpose, objectives and results. They refute or confirm the hypothesis (if any). The conclusions are up to 2 pages long. The solution to one objective can be described in several conclusions.

The conclusions should not be abstract but rather a generalisation of the theoretical part and the study's results on a larger scale. When concluding, it is recommended to use summaries of sections and sub-sections to combine the information. It should be noted, however, that the findings are not merely a finding of fact or a transcription of the summaries of the sub-sections. The conclusions should conceptualise the main results in addressing the challenges raised. Conclusions are not numbered. They should not be overloaded with quantitative information, generalisations, or distinguishing trends; insights are more significant.

The most common mistakes in the formulation of conclusions:

- the conclusions contain statements which are not based on the results of the investigation;
- the conclusions are not related to the tasks of the work; the hypothesis is omitted, although it is formulated;
- the conclusion of the theoretical part contains definitions of the main concepts used at work;
- the results of one or more case studies are used to formulate highly aggregated conclusions;
- the conclusions refer to small, non-essential facts, and the assessments made during the investigation are repeated but do not draw conclusions as to what these facts, evaluations, and indicators have helped to reveal in the context of the problem under consideration.
- the conclusions include quotations and references to literary sources;
- the conclusions should not lead to new, additional information that has not been analysed in the work.

Recommendations

The practical recommendations should be based on the research results and related to the findings of the work. They should be particular, reasoned and workable in practice. Recommendations should avoid abstract provisions already known before the study (e.g. increasing profits, reducing costs, ensuring cooperation, involving citizens in decision-making, etc.) and common phrases (improving, etc.). Specific tools, models, suggestions, and problem-solving solutions based on the study's results and revealing the author's practical knowledge should be indicated.

Recommendations should be targeted, i.e. indicate to whom they are addressed (e.g. specific institution, organisation, population, staff group, etc.), by whom they could be implemented and over what period, what specific result is expected concerning the problem analysed in the work. It is appropriate to base recommendations showing that they do not conflict with the law or are based on it, if possible, on economic calculations. How much money would be needed to implement them, or how would the company pay? Potential sources of funds can also be proposed.

An exception is made for the final thesis on macroeconomic topics. They may not formulate recommendations.

There is no regulation on the number of recommendations; one substantial one may be fully justified.

1.11. Text style and formatting

Cover and cover page

The cover page and cover page provide essential information about the work. Page numbering starts with the title page but does not include the number (summary page number 2).

Glossary

The glossary is intended to introduce the reader to the meaning of the basic concepts used in the work. It is not mandatory, but it is recommended in cases where the study uses concepts that are not generally accepted and clear or specific terms. The glossary defines the terms' content, indicates the sources, and explains the abbreviations used in the work text. The dictionary does not include more commonly used concepts with an ordinary meaning at work (e.g. questionnaire, administration, etc.). The glossary is presented on a new page after the list of pictures.

Text style

The work is printed in Times New Roman font. The height of the main text characters shall be 12 pt, with a line spacing of 1.15. In the text, some words can be written in bold or italics. The text is aligned using a two-way alignment. The titles of parts and individual sections (summary, list of tables, list of pictures, glossary, content, Introduction, conclusions, recommendations, annexes) are written in capital letters 14 pt; Chapter titles in lower case, bold 13 pt; the titles of the subdivisions in lower case, bold, 12 pt. The text of all titles is aligned in the centre. Each paragraph shall begin without an indent and a space of 6 pt should be selected between the paragraphs. The text of the footnotes shall be 10 pt, and the row spacing shall be single.

Parts of the final thesis and separate chapters (summary, list of tables, list of pictures, glossary, content, Introduction, discussion, conclusions, recommendations, annexes) begin to be written on a new page. The titles of the other sections and sub-sections shall appear on the page on which the text of the preceding sub-section ends. Under the title, the dot is not written. The section header is written one line below the beginning of the page text field, and the section header is separated from the text before and after it by a one-line space. The subdivisions are numbered only inside the division, so the subdivision sequential number is formed from the subdivision number, the subdivision number, and the subdivision number in that division, which are separated by points. For example, 1. – part; 1.1. – chapter; 1.1.1. – Subpart. Introduction, conclusions, and recommendations shall not be numbered.

On the page from the edges should be left margins: 2 cm on the left, 2 cm on the right, 2 cm at the top and 2 cm at the bottom. The orientation of the text sheets is vertical. If large-width tables are printed, the orientation of the sheets can be horizontal.

All pages are numbered except the title page. The number is written under the text on the right-hand side of the page's footer in Arabic numerals, without a dot or hyphen. It is recommended to enter the title and author of the work (in 10 pt) on the left-hand side of the upper heading of each sheet, starting with the introduction sheet.

Formulas included in the text should be explained, and the source should be indicated. Where there is more than one formula, it shall be numbered in Arabic numerals by chapter. A formula number consists of a section number and a formula sequential number in that section. The formulas are recommended to be submitted using Microsoft Equation Editor. The number appears on the same line as the formula on the right-hand side of the sheet, for example:

$$\Delta lnE_{i,t} = \alpha + \beta \cdot \Delta lnY_{i,t} + \theta_t + \Delta\varepsilon_{i,t,} \tag{1}$$

where:

$\Delta lnE_{i,t}$ denotes the growth of employment, measured as a thousand persons employed,

$\Delta lnY_{i,t}$ denotes the growth of real output, measured as GDP at constant 2015 prices, million euro, in country *i* at the year *t*.

If there are more formulas in the text, it is advisable to include them in the tables, writing the formula and its number on the left and the symbol values on the right. Smaller tables can be left in the working text, and larger tables can be in the annexes. The formula is described and commented on in the working text, and a link is made to a specific annexe.

1.12. Language of the text

The study paper is written in the correct English. It should be clear and ambiguous. It is necessary to refuse loud, empty phrases and not repeat what is written in each textbook. Scientific language should be used, and journalistic or emotionally coloured language should be avoided. Scientific style is characterised by clarity of speech, accuracy, conciseness, and logical sequence of thought. The sentences should be smooth and the idea clear.

The international words or special terms or abbreviations used may be described in the text, in the glossary at the beginning of the work or in footnotes.

The titles of sections and sub-sections should avoid question formats, be specific and accurately reflect the content. Abstract textbook titles should be avoided. At the end of the sections is a summary paragraph summarising the main message of the section.

A text is considered to be of good quality and well-written when it is understandable and easy to read, so it is advisable to:

- not to use complex phrases, long sentences;
- avoid scientific terms the meaning of which the student does not know precisely;
- not to write long sentences (most sentences should not exceed 30 words);
- to express only one thought in the paragraph;
- use impersonal forms – e.g. write ‘results of the study show’, ‘identified’, ‘tested’, ‘analysed’, ‘assessed’, ‘composed’, etc. instead of ‘received in my study’, etc.;
- tables and pictures published by other authors, indicating the source;
- to accurately quote the thoughts of other authors;
- use uniform terms, conditional abbreviations and markings in the text.

If the numbers in the text have a unit of measurement, they should be written in digits (e.g. 258 Eur). If the text contains several numeric values in succession, the unit notation should be written once and only after the last digit, e.g. EUR 25, 35, 45. If you're deciding whether to use “per cent” or “%”, please “use the per cent symbol and currency symbols only when a numeral accompanies them; also use them in table headings and in figure labels and legends to conserve space”. In tables and figures, do not write next to the percentage sign of the number; specify the units of measurement in the name of the chart or table, in the name of the axis or column. As for how many digits should be detailed, in general, most statistics are reported to two decimal places ($p < 0.01$); however, there are times when three or four decimal places should be reported ($p < 0.001$), but numbers should never exceed that.

1.13. Tables and figures

There are two main ways of graphically formalising data: tables and figures (graphs, diagrams, diagrams, etc.). Lists of tables and figures are presented at the beginning of the work if there is more than one of them. Lists of tables and pictures are presented on different sheets. Lists of tables and figures are lists of all the figures and tables you have used in your thesis, along with the corresponding page numbers.

It is left to the author to decide how to present the results of his research so that they are informative, precise, and not overloaded with secondary, irrelevant information, and the data is not scattered or duplicated. In both the theoretical and empirical parts of the text, it is unnecessary to overload the text with tables and pictures; part of the statistical material can be presented in the text and not depicted graphically or in a table. The student should adequately choose the most effective way of presenting information. It is not appropriate to provide the same information in the form of a table or a figure.

Figures and tables in the text must be numbered and have clear titles. The title “figure” is used for all graphical elements like charts, diagrams, and pictures. Tables in the text must be numbered using Arabic numerals. Tables and figures have different numeracy systems. They are numbered by the sections; for example, if the table (figure) is located in the second section, the number will be 2.1 table (figure). A smaller font and gap size in the tables (pictures) is recommended. Tables and figures must be prepared so the student can make font changes and other necessary corrections. The font of the entries in the first row of the table, where the headings of its columns are written, should be bold. Numeric indicators in a column of the same table must have the same number of digits after the decimal point. The table number is above the table's title, in the right-hand corner, next to the word ‘table’. The title shall be in bold type, with a single line space between the title and the table, with no point at the title's end.

If a figure or table is taken from (or based on) another source, you should note that source below the table (figure) (10 pt). The page number must be indicated if another author has initially drawn the provided table (figure). If the table (figure) information is based on the author’s calculations or systematisation efforts, the indication „prepared by the author ....“ should be provided. If other sources are used to compile the table, this must be noted at the end: the author (name of the publication if there is no author), the year and pages of the publication or the name of the database. The name of the database, the entire internet address and the visit date are indicated in the literature list.

The word “Table” and its number are placed at the right margin for the tables. The title of the table (11 font size, Bold) is centred in a new paragraph. Text within the table must be formatted as follows: 10 pt, Normal, e.g.:

Table 3

Title of the table

No.	Question	Group A	Group B
1.	Text 1	5	8
2.	Text 2	7	3

Source: Prepared by the author according to the calculations, 2022

Suppose the table does not fit on a vertically oriented sheet. In that case, it can be presented on a horizontally oriented sheet or divided into parts arranged side by side or on different sheets. If the table is moved to another page, it reads "continuation of the table on page xx" at the bottom of the first page and "continuation of table X" on the new page on the right-hand side. The column headings are repeated when you move a table to another page. Large tables should be included in an appendix at the end of the thesis.

All illustrations (schemes, photographs, diagrams, graphs) are called Figures. The figures are designed to convey the desired information visually, so the way of presentation should be chosen to represent the desired connection, trend, and difference. Figures are not recommended to depict a large amount of data because they become difficult for the reader to understand. It is also not recommended to provide straightforward information (e.g. gender distribution of respondents), which can be written in one sentence in the text. The figures should be informative, and the reader should understand their content without further explanation in the text of the work. When illustrating numeric information, a graph that best suits the nature of the data represented should be selected, and a wide variety of graph types and colours is not recommended.

The figures are arranged in the text, with references to them. If there are more than one figure, they shall be numbered. The title of the figure is preceded by the sequential number of the figure, which is highlighted. No point at the end of the title. The sources of the images are shown in the same way as in the tables. For the figure titles, the abbreviation "**Fig**." is used (11 pt, Bold), and the title (11 pt, Normal) is placed below the picture, chart, or diagram, e.g.:

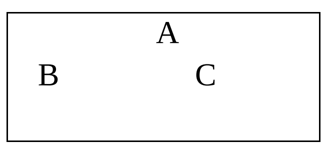

Fig. 1. Title of the figure

Source: the adapted Business environment analysis model of Perminienė (2021)

The same principles for figure formatting and data referencing are applied to the tables. It is recommended to use the black-grey style for the figures or to pick 2-3 colours (not too bright) and use them in the entire work.

All tables and figures have to have references in the text.

Examples of references in the text:
As it is explained in Table 1.1.; ...as shown in Figure 2.1; the employee's opinion about... is provided in Figure 2.2; Change in the number of management staff is shown in Table 5.1.

For women working in the civil service in the public sector, the wage growth rate is higher than that of the sector officials who employed men (see Table 2.1.) / (see Figure 2.1.)

It is essential to mention that explanations, interpretations, comparisons or other forms of textual analysis must follow all tables and figures. Two tables (figures) can't follow each other without the text between them, and the section (subsection) can not end with a table (figure). The formatting of the tables and figures (style, font, font size, colours, spacing) has to be unique in all work.

1.14. Citation and paraphrasing requirements

Various relevant, current and authoritative academic sources should be used. An extensive review of relevant material will include — books, journal articles, reports, government documents, conference proceedings and web resources. Note the bibliographical details of your sources. Keep a note of the publication title, date, authors' names, page numbers and publishers.

Analyse the literature you have found:

- determine what has already been written on a topic
- provide an overview of key concepts
- compare and contrast different authors' views on a topic
- group authors who draw similar conclusions
- note areas in which authors are in disagreement
- highlight exemplary studies

The literature review should combine and demonstrate the skills of summarising, paraphrasing, synthesis, critical analysis, comparing and contrasting, citing and in-text referencing, a reference list, proper writing structure, and evidence of the writer's proofreading. A citation is made when the original words, sentences, and sometimes paragraphs are significant and necessary to discuss a topic or explain a thought. The quotation must be identical to the original text. It is not recommended to cite more than 3-4 sentences of another author in full, although the authorship is indicated. Quotes are always put in quotation marks; the page is shown. Quoted text can be presented in two ways:

1. at the end of the quoted text, the name of the source's author, the year of publication and the page are indicated in square brackets. For example: "Lithuania's low level of innovation mostly reduced the overall assessment of Lithuania's competitiveness" (Šeputienė, Brazauskienė, 2013, p. 31).
2. the author of the quoted source may also be indicated in the text, in which case only the year is written in brackets after the author's name, and the page of the quotation is shown at the end of the text. For example, Jasaitis (2010, p. 17), criticising the practice of strategic planning, points out that strategic development plans '... identify a multitude of challenges for which the potential for solutions is not highlighted and the various measures are poorly interlinked'.

If you are using the original text of other authors, you have to cite properly (to name the author and the source with the page numbers). There are quite a few types of citations and styles. You should pick one and use it in your research paper. The APA style (by the American Psychological Association)is the most recommended.

Table 4

Requirements for references in the text

Citing possibilities	Example
Reference to a publication by one author: (Author’s surname, year)	The study (Smith, 2009) revealed that... According to Brown (2009), ...
Semicolons separate references to different publications by various authors	Researchers (Smith, 2009; Brown, 2010; Gary, 2008) suggest ... In the works by Smith (2009) and Brown (2010) ...
When there are three or more authors	First reference: Smith, Brown and Gary (2010). Further in the text: Smith et al. (2010).
When the author of the publication is an organisation or it has no author	It has been found (Lithuanian Department of Statistics, 2008) that ...
When the publication has no author and its title is long.	Profit increased (Company Financial Indicators …, 2007)
Different publications by the same author with the same year of publication	Several researchers point out this idea (Smith, 2005a, 2005b, 2005c; Johnson, 2008a, 2008b).
Exact citation of another author (up to 40 words)	“Learning is a continuous process” (Gary and Smith, 2008, p. 156).
Citation of a legal act or another legal document from “Valstybės žinios”	(Žin., 2008, No. 48-1857)
A secondary source is referred to Note: Secondary sources are included in the list of references (Brown, 2010).	Seidenberg and McClelland (2006), cited by Brown (2008), found that...

1.15. The list of references

Items on the list of references must be listed in ***alphabetical order***. Extensive use of scientific sources (e.g. cited in Thomson Reuters (http://science.thomsonreuters.com) is mandatory. References should be sequentially numbered and written in the original language. The font size for the extensive list of references is 10, and line and paragraph spacing may be used. Please see below the example of the list of references:

1. Articles in the journals (periodicals)

Perry, J. L., Brudney, J. L., Coursey, D., Littlepage, L. (2008). What drives morally committed citizens? A study of the antecedents of public service motivation. *Public Administration Review*, 68 (3), 445-458.

2. Books (other non- periodicals)

Zakarevičius, P., Kvedaravičius, J., Augustauskas, T. (2004). *Organisation development paradigm.* Monograph. Kaunas: Vytautas Magnus University Press.

Gregory, G., Parry, T. (2006). *Designing brain-compatible learning* (3rd ed.). Thousand Oaks, CA: Corwin.

3. Non- periodical source without identified authors (prepared by editors)

Mayo, E., Moore, H. (Eds.). (2002). *Building the Mutual State*: Findings from Virtual Thinktank. London: New Economics Foundation.

4. Newspaper article

Čerkauskas, M. European Union Support for Lithuania. (January 21, 2009). *Lietuvos rytas*, p.16.
5. Source by an organisation
Department of Statistics (2008). *Statistical Yearbook of Lithuania.* Vilnius: Statistics Lithuania.
6. Source with no author or editor
Constitution of the Republic of Lithuania (2008). Vilnius: Centre of Registers.
7. Article or chapter in irregularly published sources by other authors
Rodie, A. R., Kleine, S. S. (2000). Customer Participation in Services Production and Delivery. In Swartz, T.A. & Iacobucci, D. (Eds.), *Handbook of Services Marketing and Management* (111-125). Beverley Hills, California: Sage Publications.
8. Chapter in encyclopaedia
Higher Education (2002). *Lithuanian encyclopaedia* (T. 1, p. 232). Vilnius: Science and Encyclopaedia Publishing Institute.
Smith, M. K. (2007). Social capital. *The encyclopaedia of informal education*. Available online at http://www.infed.org/biblio/social_capital.htm.
9. Article or chapter in conference material
Juozaitienė, L., Žičkienė, S. (2007). Collective Investment Undertakings and Their Place in the Financial Market of Lithuania. *3rd International Conference on Business, Management and Economics*: *E-Conference Proceedings: [electronic resource]*, (1-17). Izmir: Yasar University.
10. Dissertation
Skunčikienė, S. (2008). Evaluating the application of simulating business games in a learning organisation (Doctoral dissertation, Vytautas Magnus University).
11. Online (internet) resources
The average salary in Lithuania in 2007. Lithuanian Department of Statistics. Available online at http://www.stat.gov.lt/lt/news/view/?id=2899.
12. Legal acts or other legal documents
Law on Real Estate Cadastre of the Republic of Lithuania. *Valstybės žinios*. 2000, No. 58-1704.
Note: first number – issue number of Valstybės žinios, second number – number of publications.
Ministers' orders, mayors' acts and similar documents are referenced similarly.

1. 16. Appendixes

Data tables, statistics, calculation tables, and other information for additional reading can be provided in appendixes at the end of the thesis. Every appendix must start on a different page, be numbered and have a title. Appendixes should be listed in the table of contents with their numbers, titles and page numbers. The number of the attachments is not specified. Links to the attachments should be provided in the main text.

1.17. Defence of the final work

The most essential thing in preparing the defence is to prepare the presentation of the final thesis and the presentation report. Presentations for the final thesis can be prepared with various software, but the most commonly used one is Microsoft PowerPoint. The logic of the presentation of the work can be as follows:

- the topic of the work, the problem, its relevance, the object, purpose and objectives of the research, hypothesis (if any);

- methodological justification and methods of the study, sample of the study;
- the main results of the research, their interpretation;
- conclusions and recommendations of the work.

The most important research results can be presented by grouping them according to the objectives formulated in the Introduction, the research problematic questions, or research hypotheses, providing the supporting conclusions and facts. In this case, it is not necessary to present the study's conclusions again; it is recommended that only a conclusion summarise all the work results.

When preparing the presentations, the following aspects should be taken into account:

- for a 7-10 minute report, it is recommended to draw up between 10 and 15 slides; the number of slides depends on the logic of the presentation of the work chosen by the student.
- the slides should show only the most important results, showing that the goal of the work has been achieved.
- the text should be written in academic style. The information in the tables or graphs should be understood without further explanation. Tables and pictures should not be copied from work to presentation, as the font on the slides should be larger; extract from the larger table (picture) presented in the work and show only the essential information you want to comment on the slides.
- it is worth following the general rule of no more than six statements per slide, with no more than six words per statement. It is inappropriate to provide voluminous texts and read them when presenting them.
- the smallest font should be at least 18 pt. Times New Roman
- the slides should not be overloaded with drawings or colours but should use a maximum of three colours and their shades.
- a bright background of slides without additional texture is recommended. All slides should be formatted in the same way.
- sound and animation effects are not recommended.

When presenting the final thesis to the Bachelor Thesis Defence Committee, the student should demonstrate subject preparation and properly report the results of the study:

- concisely, clearly distinguish and present the essential aspects of the final thesis;
- correctly answer the questions of the reviewer and other participants in the defence process; be able to discuss the work;
- subject matter;
- to know the theories related to the problems of defended work, to know the theories of the main field of study;
- be able to justify and discuss the chosen survey methodology;
- analyse the perception of the situation and problems in the field of practice and the ability to analyse them in the context of selected theories;
- to present their work accurately, clearly and specifically without reading information from slides or a sheet.