APPROVED
by the Dean of the Faculty of Business Management
of Vilniaus kolegija/ University of Applied Sciences
Order No. V-66 of December 8, 2020

VILNIAUS KOLEGIJA/ UNIVERSITY OF APPLIED SCIENCES

FACULTY OF BUSINESS MANAGEMENT

METHODOLOGICAL GUIDELINES FOR PREPARATION, REGISTRATION AND DEFENCE OF GRADUATION THESES

Vilnius, 2020

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES **3**
INTRODUCTION **4**
1. PREPARING GRADUATION THESIS **5**
1.1. Steps for preparing Graduation Thesis **5**
1.2. Structure and content of Graduation Thesis **6**
2. REQUIREMENTS FOR FORMATTING GRADUATION THESIS **10**
2.1. Formatting of text **10**
2.2. In-text citation and referencing **11**
2.3. Formatting of tables and figures **15**
3. DEFENCE AND EVALUATION OF GRADUATION THESIS **21**
3.1. Graduation Thesis defence **21**
3.2. Graduation Thesis evaluation **21**
REFERENCES **23**
ANNEXES **25**

LIST OF TABLES AND FIGURES

LIST OF TABLES

Table 2.1. Formal requirements for text formatting 10
Table 2.2. Titling of chapters, sections, subsections, tables and figures 11
Table 2.3. Examples of direct quoting 12
Table 2.4. Examples of paraphrasing 13
Table 2.5. Examples of in-text citation of sources with the name of the author 13
Table 2.6. Examples of in-text citation of sources with several authors sharing the same name or several sources discussing the same issue 14
Table 2.7. Examples of in-text citation of sources with no author provided 14
Table 2.8. UAB "N" inventory turnover (thsd. EUR) for 202X-202Y 16
Table 2.9. Title of the table 17
Table 3.1. Requirements for Graduation Thesis content and presentation 22

LIST OF FIGURES

Figure 1.1. Steps for preparing Graduation Theses 5
Figure 1.2. Structural elements of Graduation Thesis 6
Figure 1.3. Data collection methods in applied social research 8
Figure 2.1. Sequential steps in a pattern 17
Figure 2.2. The relation of x with other sciences 18
Figure 2.3. Types of charts 18
Figure 2.4. UAB "X" profitability performance (thsd. EUR) in 20XX-20XY 19
Figure 2.5. Factors influencing UAB "X" customer satisfaction % (N = 199) 20
Figure 2.6. Analysis of consumer expenditures in city X in 20..., % (N = 199) 20

INTRODUCTION

Students of the Faculty of Business Management of Vilniaus Kolegija/ University of Applied Sciences accomplish their studies by preparing and defending their Graduation Thesis. Professional Bachelor's Thesis (hereinafter Graduation Thesis) is an original, self-prepared student's work, analysing a practical problem in business, management, marketing or communication (in relation to the study field of the study programme), offering its solution based on critically analysed theoretical information and independently conducted research, and demonstrating the achieved results of Professional Bachelor's studies. The volume of Graduation Thesis in credits is provided in the study programme, and the duration of Graduation Thesis preparation and defence in weeks is described in the Step-by-Step-Plan of Graduation Thesis Preparation. Graduation Thesis preparation and defence is the final stage of Professional Bachelor's studies. Full-time students develop their Graduation Thesis during the 6th semester and part-time students - during the 8th semester accordingly. Only the students who completely fulfilled the study programme and do not have academic debts are eligible to prepare their Graduation Thesis. The students are fully accountable for Graduation Thesis statements, calculations, solutions taken and research conclusions made.

Methodological Guidelines for Preparation, Registration and Defence of Graduation Theses are prepared in accordance with the recast The Republic of Lithuania Law on Science and Studies, Procedure of Studies at Vilniaus kolegija/University of Applied Sciences, General Requirements for Academic Papers at Vilniaus kolegija/University of Applied Sciences (orig. Vilniaus kolegijos Bendrieji studijų rašto darbų reikalavimai), Graduation Thesis (Project) Preparation and Defence Procedure Description at Vilniaus kolegija/University of Applied Sciences (orig. Vilniaus kolegijos baigiamųjų darbų (projektų) rengimo ir gynimo tvarkos aprašas) and Vilniaus kolegija/University of Applied Sciences the Code of Academic Ethics.

The Methodological Guidelines for Preparation, Registration and Defence of Graduation Theses at the Faculty of Business Management (hereinafter the Faculty) of Vilniaus Kolegija/ University of Applied Sciences establish the principles for Graduation Theses preparation, registration and defence in the Department, their (public) defence in the Defence Committee as well as the procedure of their evaluation.

Methodological Guidelines for Preparation, Registration and Defence of Graduation Theses shall be valid from December 8, 2020.

1. PREPARING GRADUATION THESIS

1.1. Steps for preparing Graduation Thesis

Graduation Theses are prepared consistently and in accordance with Step-by-Step-Plan of Graduation Thesis Preparation, developed by the Department supervising the study programme and approved by Vice-Dean of the Faculty. A separate plan is approved for each study programme. The plan is made public to the students no later than 2 weeks before the start of their final internship.

The main steps for developing Graduation Theses are presented in Figure 1.1.

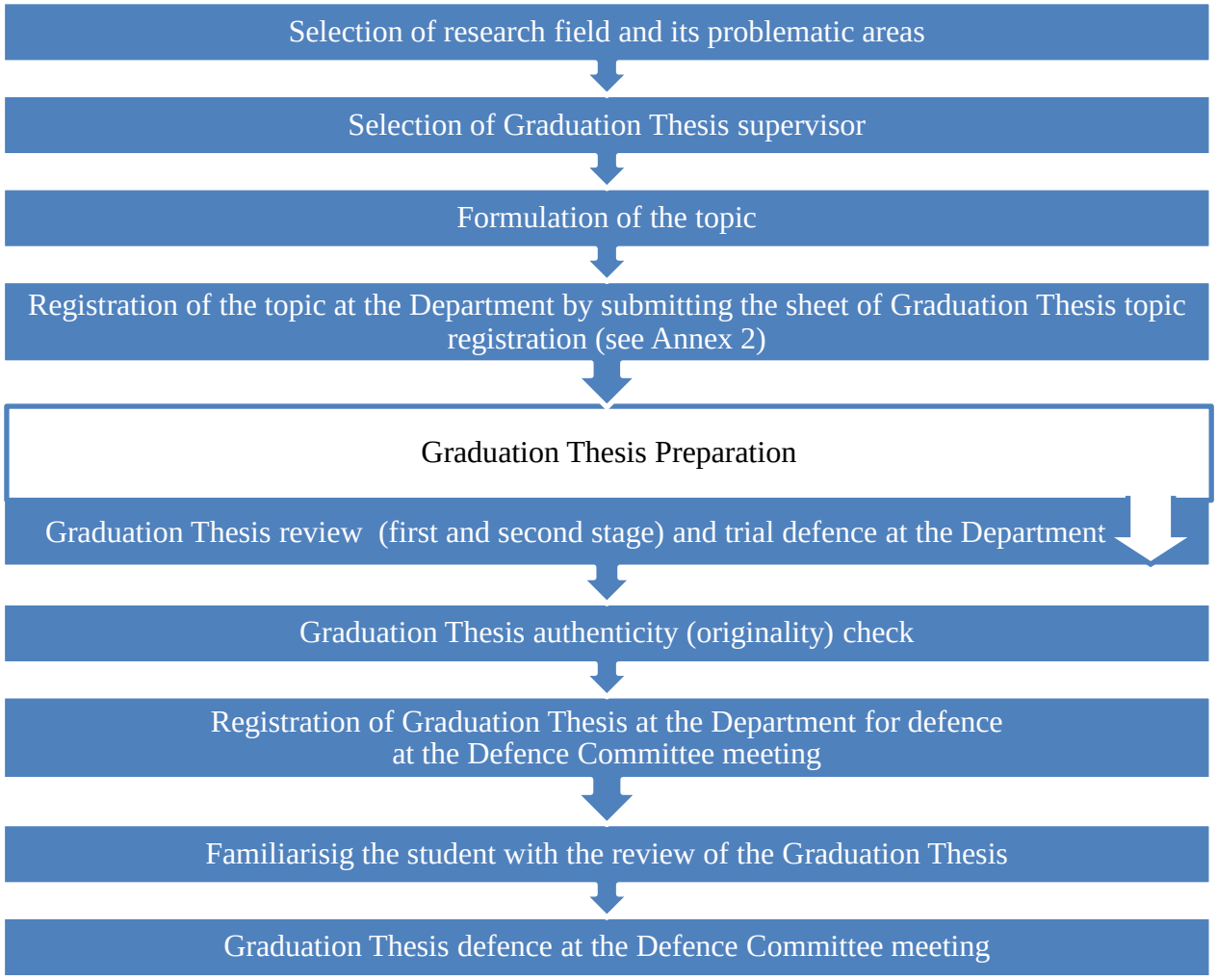


Figure 1.1. Steps for preparing Graduation Theses

Important note! When preparing Graduation Thesis, figures in size as seen above (i.e., spanning more than a quarter of a page) are moved to annexes.

Please refer to Annex 1 for more information on the steps for preparing Graduation Theses, their deadlines and summaries.

After preparation and successful defence of his/her Graduation Thesis in the Defence Committee, the student proves that he/she is ready to work individually and is awarded an

appropriate study field Professional Bachelor's degree, certified by a Professional Bachelor's diploma.

1.2. Structure and content of Graduation Thesis

The length of Graduation Thesis is 40-50 pages (list of references and annexes are not included in page count). Graduation Thesis is comprised of 12 obligatory structural elements (annexes are not compulsory) (see Figure 1.2).

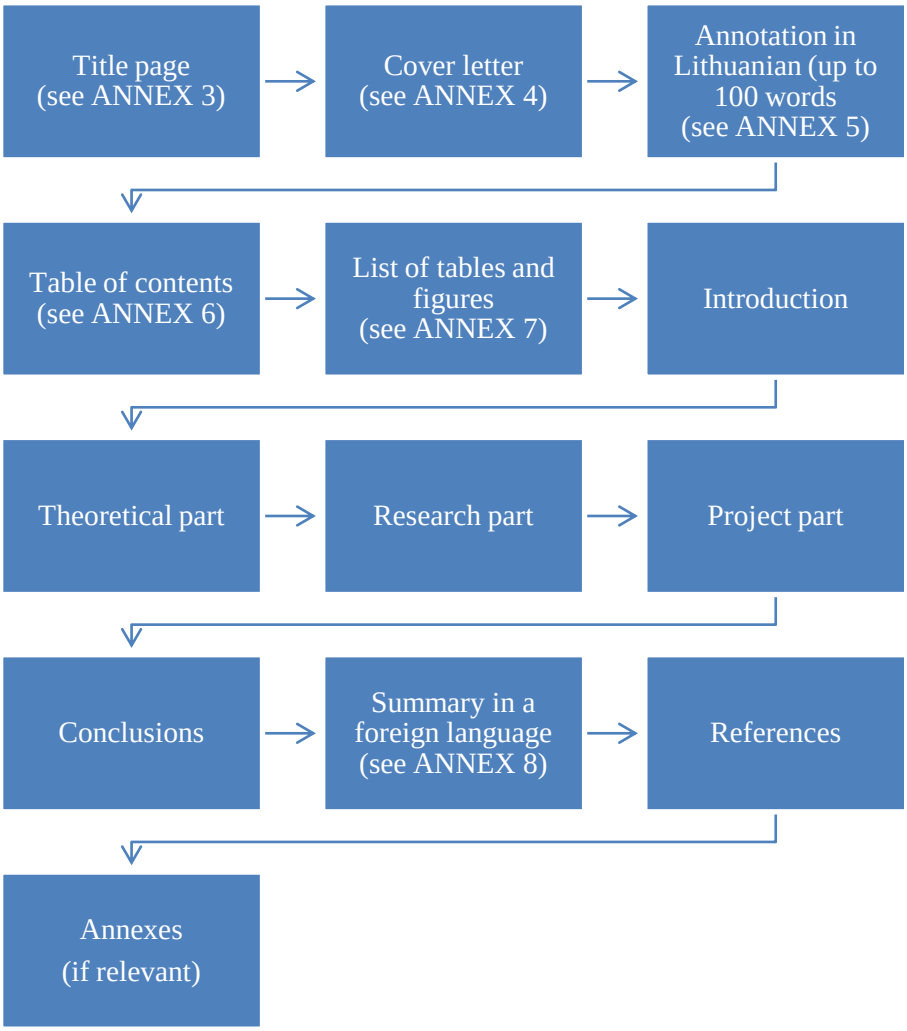


Figure 1.2. Structural elements of Graduation Thesis

Important note! When preparing Graduation Theses, figures in size as seen above (i.e., spanning more than a quarter of a page) are provided in annexes.

Each Graduation Thesis is a unique academic paper, therefore its structure may vary slightly depending on the research problem and the way it is being solved. Possible deviations may be discussed in the related Department, but one of the mandatory formal requirements remains to follow the 1: 1: 1 proportions of the core parts of the Graduation Thesis (theoretical part, research part and project part). A slight deviation (1-2 pages) is allowed.

The introduction of the Graduation Thesis presents the topic of the paper, substantiates its relevance to the organisation and explains its relationship with the delineated research problem. It also introduces the aim of the paper, 3 to 5 objectives that will allow to achieve the aim, and indicates the research methods employed.

Important note! Research problem may either be formulated as a statement or may come in a form of a research question. The introduction (and the whole academic paper in general) should avoid idle talk. It must be written in a scientific style and register, i.e., using impersonal language. It should highlight the key words (topicality, research problem, research aim, research objectives, and research methods). The difficulties encountered by the author when collecting the literature and appropriate source material, when conducting the research and when working on the paper may also be indicated in the introduction. The structure of Graduation Thesis must be briefly presented as well. At the end of the introduction, a sentence indicating that "the Graduation Thesis solves a topical issue relevant to the organization (company or institution)" should be added up.

The theoretical part includes the review, citation and paraphrasing of national and foreign scientific literature and legal acts; it establishes direct links between the current issues discussed in the literature, the topic of the Graduation Thesis and the research problem analysed; it also reveals how the approaches and the solutions to the problem have evolved in recent years and critically evaluates one or another scientific theory. The theoretical part of the paper should mainly focus on modern and innovative problem-solving models or methodologies. It should compare their advantages and disadvantages, select the adequate theoretical model (or develop one's own based on a critical account of the scientific sources) to be employed while conducting the research and while solving the problem identified in the Graduation Thesis. The selection must be justified.

Chapters and sections must be coherent and logically arranged. When working on this part of the Graduation Thesis, it is necessary to refer to the latest national and international literature (a rule of thumb is to use at least 25 sources published in the past 5 years; the inclusion of older literature should be justified). At least one third of references used must be foreign-language sources and at least one fifth of them must be available in online databases, subscribed by Vilniaus Kolegija/ University of Applied Sciences, including "EBSCO Publishing", "EMERALD Management eJournals Collection", "Taylor & Francis", "Passport", "Institute of Hospitality E-library", etc. Techniques of direct quoting, indirect quoting and paraphrasing are described in section 2.2.

In *the research part* the organization must be characterized, and on the basis of actual and statistical data submitted by this organization, the real setting of the research problem should be described. Data collection instruments should be presented and justified (see Figure 1.3, p. 9), research methodology should be explained (including the criteria for participant selection, the

sample size, the duration of the research, etc.) and finally research findings should be discussed and their analysis should be presented.

Quantitative research data should be processed by making use of SPSS, MS *Excel* or other available statistical software. The data presented in tables and figures, should be commented on, interpreted, and discussed.

Qualitative data should be prepared for analysis: (e.g., audio recordings should be transcribed), the data should be categorized, interpreted and visualized. It is possible to use MAXQDA, ATLAS.ti, NVivo and other available qualitative data analysis software.

This part of Graduation Thesis is accomplished by providing a comprehensive summary of research results. It should reveal the student's ability to apply the selected theoretical methodology to solve the research problem identified in the Graduation Thesis, to analyse and assess the research findings.

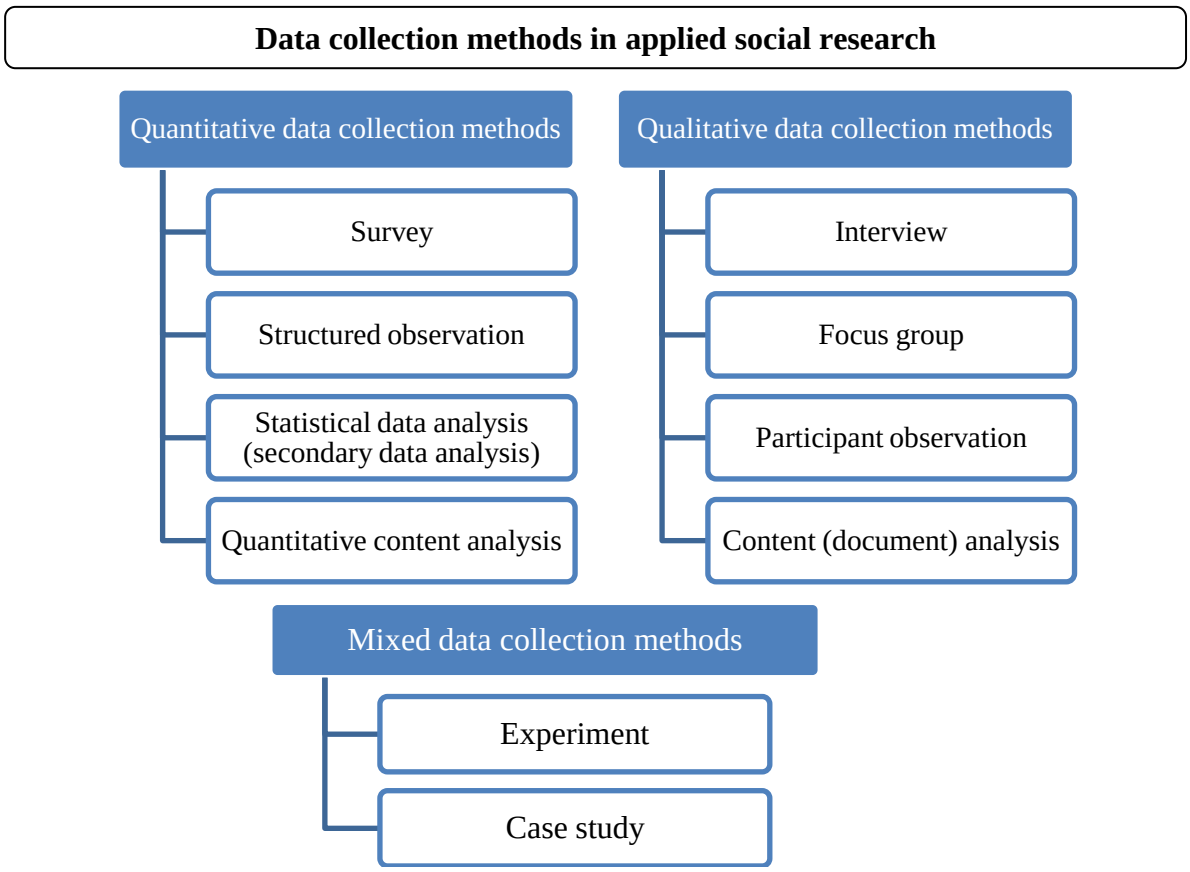


Figure 1.3. Data collection methods in applied social research

Important note! When preparing Graduation Theses, figures in size as seen above (i.e., covering more than a quarter of a page) are moved to annexes.

For detailed description of available research methods, data collection instruments and their significance for applied research, refer to Annex 9.

The project part develops the solution to the problem, resting on the theoretical material (or the theoretical model employed) as well as research results. It provides reasoned proposals on

appropriate methods and techniques, the time-span, the budget, the human and material resources required to tackle the problem; it calculates the payback of the proposals, discusses their efficiency and (or) effectiveness, verifies their practical applicability, etc. In other words, this part of the Graduation Thesis provides a very clear, specific and reasonable explanation on how the aim of the Graduation Thesis will be achieved. Recommendations for the economic justification of the project part of the Graduation Thesis are provided in Annex 10.

The conclusions are formulated in direct relation to the research objectives raised. It is necessary to present at least one related conclusion for one research objective (for example, if 3 research objectives are envisaged in the introductory part, at least 3 related conclusions should be included into the conclusion section of the paper).

The list of references is the bibliographic description of sources and literature used in the Graduation Thesis and listed in an alphabetical order. The bibliography should only compile the sources used (quoted directly, quoted indirectly or paraphrased) within the Graduation Thesis and should be referenced in accordance with APA style bibliographic description standard (please refer to Annex 11 for more information).

Annexes provide a complement to the Graduation Thesis material. These may include examples of documents analysed or questionnaires used, lengthy tables of processed data, oversized complex figures, etc. Annexes must be referred to by a number at the relevant point in the body of the text. The title page of annexes reads "**ANNEXES**", is numbered and contains the list of all the annexes. Each annex should be titled in the right-hand corner of the page (the heading should be written in boldface uppercase letters and followed by a number, e.g., **ANNEX 1**, **ANNEX 2**, etc.). If the annex spans two or more pages, page numbering is required, starting on page 2 with the number 2. *Annexes are not included in page count of the Graduation Thesis.*

The summary concisely describes the essential points covered by the Graduation Thesis in Lithuanian or in English and is at least one page in length. In the summary it is necessary to briefly introduce the main issues of each core part of the paper, to describe the research methodology, to discuss the research results obtained, to present the solutions to the problem delineated in the project part and to draw final conclusions (please refer to Annex 8 for more information).

When developing their Graduation Thesis, students must follow the guidelines set out in the Code of Academic Ethics and the Declaration of Integrity of Vilniaus kolegija/University of Applied Sciences, observe the instructions for registering academic papers as described in Chapter 2 of General Requirements for Academic Papers at Vilniaus kolegija/University of Applied Sciences and obey these current guidelines for the preparation and defence of Graduation Theses.

2. REQUIREMENTS FOR FORMATTING GRADUATION THESIS

2.1. Formatting of text

Formal text formatting requirements are set for the layout of text of the Graduation Theses (see Table 2.1).

Table 2.1. Formal requirements for text formatting

Paper format	A4
Margins	Left – 3 cm Right – 1 cm Top – 2 cm Bottom – 2 cm
Text alignment	Justified
Paragraph indentation	Left – 1.27 cm
Font type (main text, tables and figures)	Times New Roman
Main text	Font size – 12 pt., font style – normal Spacing between lines and paragraphs – 1.5 Spacing before and after paragraphs – 0 pt.
Text formatting for tables and figures	Font size – 10-12 pt., font style – normal Spacing between lines and paragraphs – 1 Spacing before and after paragraphs– 0 pt.
Notes for tables and figures	Text transform – lower case. Font size – 10 pt., font weight – normal Alignment – centered Spacing before and after the note – 6 pt; no blank lines left before and after the note; no period added at the end of the note
Page numbering	Page count begins with the title page; page numbering begins with the table of contents. Page numbering uses Arabic numerals appearing in the footer, centre aligned, without hyphens or periods added. Font size – 10 pt. Footer – 1cm from the page's edge.

Important note! When preparing Graduation Theses, tables in size as seen above (i.e., spanning more than a quarter of a page) are moved to annexes.

Recommended s*pacing before* the paragraph after the table is 6 pt; recommended *spacing after* the paragraph before the figure is 6 pt. No blank lines should be added.

The chapters should correspond to the main parts of the Graduation Thesis and should be subdivided into sections and subsections. Every new chapter should begin on a new page. Sections and subsections should be at least one page in length. If these requirements can not be met, dividing of sections into subsections is not recommended.

The requirements for titling and numbering of chapters, sections, subsections as well as tables and figures are presented in Table 2.2 (p. 11).

Table 2.2. Titling of chapters, sections, subsections, tables and figures

Titles	Layout	Comments
Chapter titles	The titles of table of contents, cover letter, annotation, list of tables and figures, introduction, conclusions, summary, bibliography and annexes are not numbered. They are written in 14 pt. size bold face uppercase letters.	The titles are set in centered alignment, with 6 pt. spacing before and after the title; no blank lines are left before and after the title; no period is added at the end of it.
	The titles of theoretical, research and project parts are numbered using Arabic numerals “1.”, “2.”, “3.”, written in 14 pt. size bold face uppercase letters.	
Section titles	The titles of sections are written right after the title of the chapter. They are numbered using Arabic numerals “1.1.”, “1.2.”, “1.3.”, “2.1.”, “2.2.”, “3.1.”, “3.2.”, etc. and are written in 14 pt. size bold face lowercase letters.	
Subsection titles	The titles of subsections are numbered using Arabic numerals “1.1.1.”, “1.1.2.”, “1.2.1.”, “1.2.2.”, “2.2.1.”, “2.2.2.”, etc. and are written in 12 pt. size bold face lowercase letters.	
Table/ figure titles	The titles for tables/ figures should be written in 12 pt. size regular face lowercase letters.	

Important note! When preparing Graduation Theses, tables in size as seen above (i.e., spanning more than a quarter of a page) are moved to annexes.

It is not recommended to set individual words or sentences in a **bold** font throughout the text except for the key words enumerated in the introductory part of the Graduation Thesis. In order to put more emphasis on certain information, regular *italic* font is recommended. Chapters, sections and subsections should not start or end with a table, figure or division. The whole page must be filled with text, tables or figures. The last page of each section or subsection in a chapter must take up at least one third of the page.

2.2. In-text citation and referencing

When developing Graduation Theses and academic papers, various sources of information as well as ideas, methods and research data presented in them are analysed. This is necessary to reveal and cover the research topic in detail. The information obtained can be quoted in several ways: by direct quote, by indirect quote (when quoting a source that is cited in another source) or by paraphrasing the text (**Important note!** The source of any text reviewed and summarized when working on the paper must be indicated).

A direct quote reproduces word-for-word text (or part of it) taken directly from another author’s publication. When quoting directly it is important to enclose the quoted piece of text in quotation marks, to include the author’s last name (or the title of the source if the author is missing), the year and the page number of the publication. The citation data must follow the quote or may

come as an in-text reference (General Requirements for Academic Papers at Vilniaus kolegija/University of Applied Sciences, 2019). Direct quoting is recommended for definitions where the accuracy of the thought is vital.

Direct quotes should be short (fewer than 40 of the author's exact words). If certain parts of the text (sentences or words) are omitted within the quote, the omitted places must be marked with single angle quotation marks <...>. Examples of direct quotes are presented in Table 2.3.

Table 2.3. Examples of direct quoting

According to Patwa et al. (2020), "in a circular economy, recycling turns waste into a useful factor of production" (p. 153).
Patwa et al. state that "in a circular economy, recycling turns waste into a useful factor of production" (2020, p. 153).
"In a circular economy, recycling turns waste into a useful factor of production" (Patwa et al, 2020, p. 153).
In 2020 Patwa et al. noted that "in a circular economy, recycling turns waste into a useful factor of production" (p. 153).
"strictly react and announce to the ethics Committee about students' dishonesty cases, such as plagiarism, <...> buying a paper work and giving it in to the member of the academic community for assessment, presenting the same assessed paper work with the intention of accounting for another course" (Vilniaus kolegija/University of Applied Sciences the Code of Academic Ethics, 2015, p. 3).

Important note! The direct quote cannot be distorted; it must be presented exactly as it appeared in the original source, including punctuation, even grammatical errors.

An indirect quote is when a cited piece of text is taken from an outside original source and used in a second piece of writing. This type of quote should only be used when the original source is unavailable. When quoting indirectly, it is important to indicate the name of the original author, whereas the reference should include the name of the author of the secondary source preceded by the words "as cited in". Only the secondary source should be listed in the reference page (General Requirements for Academic Papers at Vilniaus kolegija/University of Applied Sciences, 2019).

EXAMPLE: Ball states that a loyal employee is an employee who knows the values of the organization, supports them and follows them in making decisions (as cited in Veršinskienė and Večkienė, 2007).

Paraphrasing is restating a piece of information read in your own words (not word-for-word). It is the most commonly used method of citation, when summarizing the text taken from one or several sources. When conveying the text in your own words, it is important to indicate the author's name and the year of publication, without including the page number (General Requirements for Academic Papers at Vilniaus kolegija/University of Applied Sciences, 2019).

It is important to note that a paraphrase should not distort the substance of the original text. Examples of paraphrasing are provided in Table 2.4 (p. 13).

Table 2.4. Examples of paraphrasing

Original text	Paraphrased text
Sharing information on major social media platforms such as Facebook, Twitter, and Instagram allows you to quickly reach your target audience.	Social media advertising is a powerful way to reach the potential customers (Pavardenis, 2018).
Entrepreneurs who start a business to serve both self-interests and collective interests by addressing unmet social and environmental needs are usually referred to as sustainable entrepreneurs.	Sustainable entrepreneurs are ready to serve not only self-interests, but collective interests by addressing unmet social and environmental needs too (Hoogendoorn, Van der Zwan, & Thurik, 2019).

When using both metods: direct quotation and paraphrasing it is necessary to include the name of the author of the source cited. The author's name can be indicated in two different ways: in parentheses following the cited sentence or in the sentence, followed by the year of publication in parentheses. When referring to the authors in a sentence, certain words or phrases are often used: *according to*, *as mentioned by*, they *claim*, they *state*, *in their analysis* and so on. It should be noted that the names of the authors of the cited sources are given in original language, i.e., the way they are indicated in the bibliography, e.g., Velasquez, Горяев, Navrátilová. Examples of submitting references to authors' names are given in Table 2.5.

Table 2.5. Examples of in-text citation of sources with the name of the author

Source	Rules and examples	Comments
Single author	Text text (Druker, 2019). Research object was analysed by Grilauskaitė (2020). Ciulla (2020) provides two arguments. Text text text (Гонтар, 2020).	Quoting the same author in the same paragraph repeatedly does not require a repeated inclusion of the year.
Two authors	Text text (Paulauskienė & Venevičienė, 2020). Text text (Kenneth & Traver, 2019).	Symbol "&" should be used for describing the source published in any language.
Three- five authors	First citation: Pauragaitė, Kniūkštaitė & Jonuševičienė (2020) text text. Text text (Lukošius, Erminas, Alšauskas & Gotautienė, 2020). Text text (Nobles, Mattison & Matsumura, 2018), (Arcese, Valeri, Poponi & Elmo, 2020). Next citation: Pauragaitė et al., 2012, Lukošius et al., 2020, (Nobles et al., 2018), (Arcese et al., 2018).	Abbreviation "et al." should be used for describing the source published in nay language.
Six and more authors	(Melnikas et al., 2020) (Ulrich et al., 2018)	

It is allowed to list only the first author's name followed by "et al." for a piece of text quoted only once (i.e., it is not necessary to include the names of all the authors).

The same issue may be addressed by authors sharing the same name or it may be discussed by multiple authors in several scientific publications sharing the same year of release, therefore to avoid confusion it is essential to clearly indicate which source is being referenced in text by assigning letters "a", "b", "c". It may turn up by examining various sources that different authors or groups of authors share the same or very similar ideas and thoughts. In such a case references to all the sources relied on should be indicated at the end of the paragraph. (**Important note!** If different

positions are presented, it is necessary to indicate the name of the author or a group of authors for each piece of information and to compare them). The related examples are provided in Table 2.6.

Table 2.6. Examples of in-text citation of sources with several authors sharing the same name or several sources discussing the same issue

Source	Rules and examples	Comments
Authors sharing the same last name	(J. Kazlauskienė, 2017), (L. Kazlauskienė, 2015).	Initials should be included in the in-text citations for authors sharing the same last name.
Quoting several sources	Referring to several sources sharing the same author: Research conducted by Kulakauskaitė (2018a) showed that…..., subsequently the author (2018b) analysed….. Text text (Melnikas, 2019a, 2019b).	If several sources sharing the same author and the same year of publication are quoted, lowercase letters *a*, *b*, *c*, etc. should be added after the year of publication. These letters should be included in the bibliography as well.
	Referring to different authors discussing the same issue (Kaptein, 2015; Kenneth & Traver, 2019; Nobles, Mattison & Matsumura, 2018)	The authors' names should be listed alphabetically according to the order they appear in the source.

It happens that when preparing a Graduation Thesis, one has to cite sources that do not have specific authors, to refer to the group or organization as an author of the source or to cite legislative acts. Please refer to Table 2.7 for related examples.

Table 2.7. Examples of in-text citation of sources with no author provided

Source	Rules and examples	Comments
Group authors (company or organization)	First citation: (European Commission [EC], 2020); (World Tourism Organization [WTO], 2020). Second citation: (EC, 2020); (WTO, 2020).	The second and subsequent citations of this kind of source should only include the official acronym or abbreviation.
No author	The article "Sustainability in Today's Organization" (orig. „Darnumas šiandienos organizacijoje") (*Business* (orig. *Verslas*), 2018) reviews... In book *Healthy Thoughts* (orig. *Sveikos mintys*) (2017)	If the source does not have an author, the first 2-5 words of its title and the year of publication are indicated. Titles of books, journals, newspapers and reports should be italicized; titles of articles, chapters or Web pages should be enclosed in quotation marks. **Important note!** The original title should be provided in parentheses indicating "orig." for non-English or translated sources.
Legal references	Constitution of the Republic of Lithuania (2016) indicates... The Labour Code of the Republic of Lithuania (2020) provides... Rules for Preparation of Documents (orig. Dokumentų rengimo taisyklės, 2020) recommends...	The year of the current (recast) version should be indicated. For in-text references with official translation unavailable, it is recommended to include the title in English followed by parenthesized title in the original language (as in the reference list the title is provided in the original language, followed by its translation in English in brackets).

The principles of academic ethics must be observed in the study process. Therefore, when preparing Graduation Theses it is obligatory to quote and / or refer to documents, figures, tables, etc. (for more information refer to Section 2.2). The list of references should only compile the sources used (quoted directly, quoted indirectly or paraphrased) within the Graduation Thesis and should be referenced in accordance with APA style bibliographic description standard (for more information refer to Annex 11). **Important note!** All sources mentioned in the text of the paper must be listed in the list of references. Accordingly, all sources included into the list of references should be referred to in the text of the Graduation Thesis.

Information used in Graduation Thesis without acknowledging the sources of information or acknowledging them incorrectly is considered plagiarism. Plagiarism is expropriating another author's ideas and representing them as one's own. Citation errors, when the source is indicated incorrectly, is also considered a violation of academic ethics (Vilniaus kolegija/University of Applied Sciences the Code of Academic Ethics, 2015). Cases of plagiarism are investigated in accordance with the procedure established by Vilniaus kolegija/University of Applied Sciences. Typical cases of plagiarism include:

- someone else's text presented without quotation marks: inverted commas or other kind of differentiation from the whole text (e.g., a separate paragraph)
- someone else's idea, illustrative material or data retold or cited without indicating sources of information.

Important note! Cases of plagiarism, expropriation of other people's academic papers or instances of erroneous citation must be reported to the Committee of Academic Ethics of Vilniaus kolegija/University of Applied Sciences. Sanctions will be imposed for dishonest academic behaviour, coming in a form of personal or public warning, or disciplinary punishment provided by laws of the Republic of Lithuania or by documents regulating the procedure of studies at Vilniaus kolegija/University of Applied Sciences.

2.3. Formatting of tables and figures

Visual representation of the data in figures and tables allows the author of the Graduation Thesis to effectively present condensed information for the audience. Tables are suitable for communicating numerical (financial) data and textual information. Figures may come in a form of diagrams, graphs, charts, photographs, etc.

All tables and figures within the Graduation Thesis should be numbered and titled. The number and the title of the figure should be written below the figure; the number and the title of the table should appear before the table and should be written in 12 pt. regular, lower case, capitalized letters, centered. Tables and figures should relate to the chapters and should be hierarchically

numbered in compound Arabic numerals (digits separated by a dot), following the words “Table” or “Figure” (e.g. the second table in the third chapter should be numbered Table 3.2, while the fourth figure in the second chapter should read Figure 2.4).

The titles of the tables and figures should be informative and should directly relate to the content depicted. The title should clearly indicate the type of data, the target group (age, gender, area of residence, education, etc.) and the time span it represents. The period is not written after the title of the table or the figure. The titles of tables and figures should not come in a form of a question, moreover, in case the data was obtained while conducting one’s research within organization (company, institution), the statement “compiled by the author” should not be added.

Figures and tables should be clear and legible and should not span more than one third of the page. Tables and figures that cover more than one third of the page should be provided in the annexes. Multiple tables or figures can be presented on one page. A table or a figure should not be split over multiple pages.

Presentation of tables. Each part of a table (a column or a row) should have a heading (heading box) written in the singular, capitalized, except for the subheadings that make up a single sentence with a heading. Headings of tables should be kept clear and brief. Vertical and long entries should be avoided in headings. Columns and rows should not be left blank. The entries in the columns should be written in 10-12 pt. size regular font letters; notes (if relevant) should be written below the tables in 10 pt. size regular font letters. The headlines of columns and rows should be left-aligned, while the numeric values should be centered so that their digits (hundredths, tenths, units, tens, hundreds, etc.) should appear in one line. An example of table layout is given in Table 2.8.

Table 2.8. UAB “N” inventory turnover (thsd. EUR) for 202X-202Y

Item	**Inventory turnover**		**Inventory turnover (increased + decreased -) %**	**Inventory turnover ratio (%) for 202X**
	202X	**202Y**		
B	202	174	-13.86	19.10
C	22	28	+27.27	3.07
D	230	324	+40.87	35.56
E	178	192	+7.86	21.08
F	242	146	-39.67	16.03
G	37	47	+7.07	5.16
Total	911	911	–	100.00

Importante note! AB, UAB, MB, etc. are not translated into English.

Tables are included in the main body of the paper, immediately below the paragraph in which they are referred to or on the subsequent page. If the table or figure does not fit under the paragraph, it should be moved to the next page of the paper indicating the number of the page it

should be referred to. For example, “see Table A (p. X)” ir “see Figure B (p. Y)”. The text should further be written below the table.

The information provided in the table should only summarize, but not duplicate the information provided in the text.

If the table is based on external source or sources, the word “Source” should be added below the title of the table in 10 pt centered font (see Table 2.9).

Table 2.9. Title of the table

Source: Eurostat (2020).

Notes: .....

Presentation of figures. All illustrations in the Graduation Thesis are referred to as Figures. These include charts, graphs, various diagrams and other visual material. Figures should be prepared using available software and should be included either in the main body of the paper or in its annexes.

In-text figure should be placed immediately after the sentence it was first mentioned in. It should be noted that any figure is considered intellectual property, therefore author’s permission should be obtained for the use of it in an academic paper. If the author’s permission cannot be obtained, the student should reproduce the figure and indicate the external source (its full bibliographic description and the specific page) on the basis of which it was created. The source should be provided below the title of the figure (see Figure 2.1).

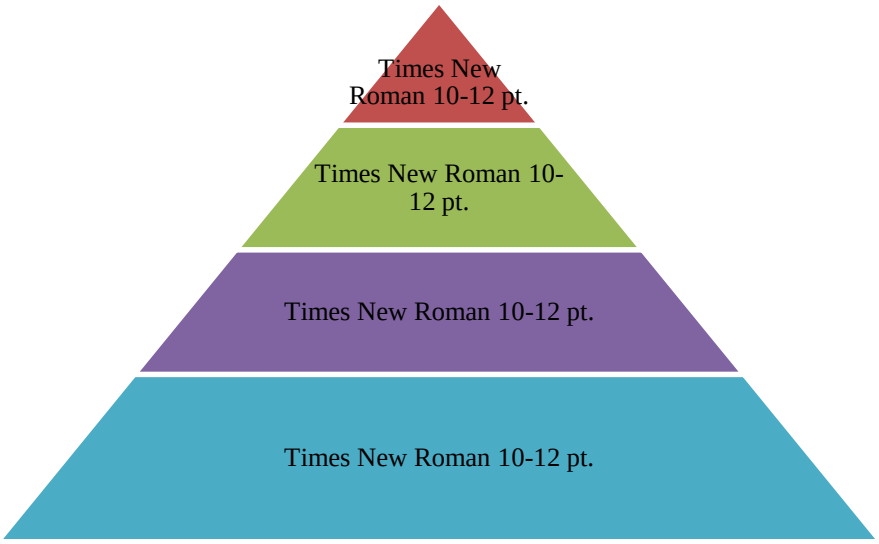


Figure 2.1. Sequential steps in a pattern

Source: Surname, N. (2015). Title of article. *Title of publication*, 4(4), p. 499.

Designed by the author

If the figure is based on multiple sources, or if it comes from the source, supplemented by other sources, it is sufficient to provide the names of the authors, the year of publications or other sources (see Figure 2.2).

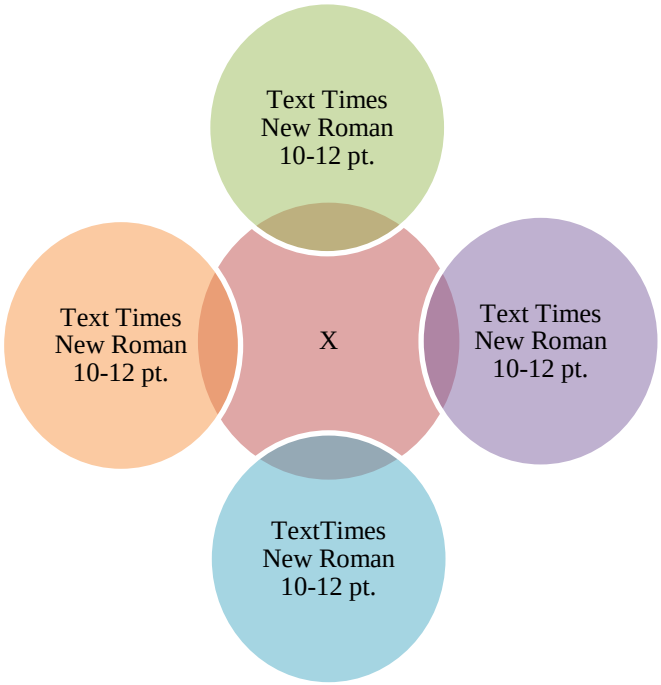


Figure 2.2. The relation of x with other sciences

Source: designed by the author, according to: Pavardenis, (2017); Pavardenė, 2018; Pavardenytė and Pavardenienė, 2019; Surname, 2020.

Types of charts. The author of the paper should determine the most suitable type of chart to represent the required data (see Figure 2.3).

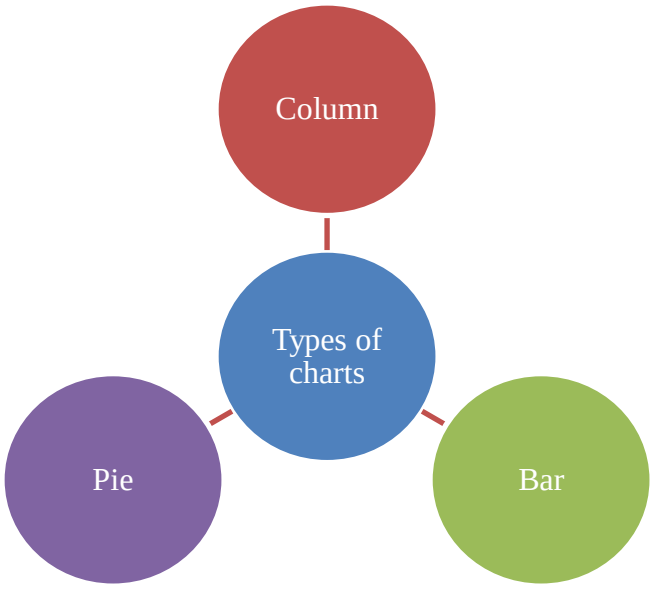


Figure 2.3. Types of charts

The following are guidelines for selecting the right type of charts.

Characteristics of column charts (see Figure 2.4):

- they are used to compare the values across several categories;
- the labels (textual information) for the categories to be compared are provided on the horizontal axis (the labels should have an equal distance between one other);
- the order of the worksheet data on the horizontal axis is not important (switching any columns in the chart will not distort it, therefore they can be sorted as desired);
- the labels for categories on the horizontal axis are short;
- the number of categories to be compared is quite small: up to eight, i. e. the chart should fit on the description page. The chart with more than eight columns (even stretched across the entire width of the page) will be difficult to interpret.

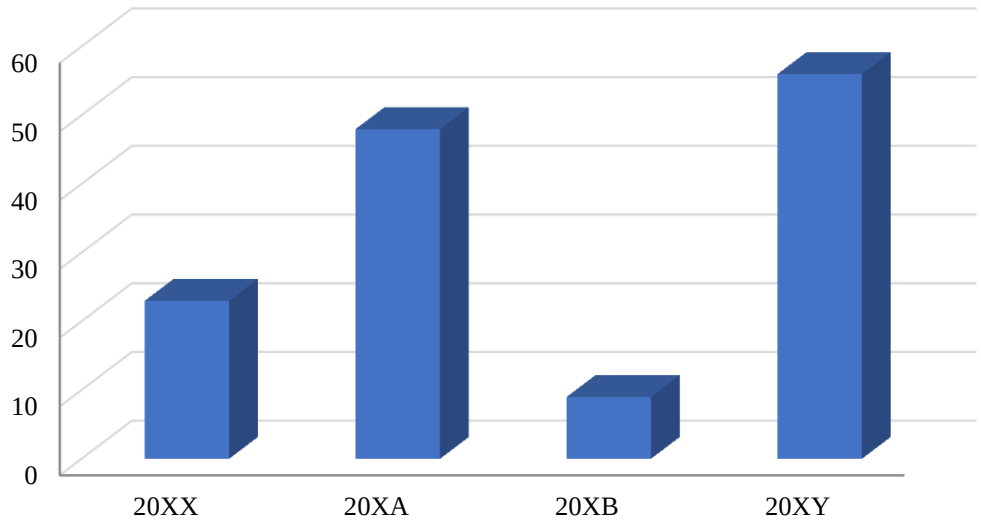


Figure 2.4. UAB “X” profitability performance (thsd. EUR) in 20XX-20XY

Characteristics of bar charts (see Figure 2.5, p. 20):

- they are used to compare the values across several categories (e.g. when more than one category is selected or when categories are scored);
- the labels (textual information) for the categories to be compared are provided on the vertical axis;
- the values on the vertical axis are usually arranged in ascending or descending order (making the data in the chart easier to interpret);
- the labels for the categories on the vertical axis may be long (provided that the chart fits on the descriptive page);
- the number of categories to be compared may be large (provided that the chart spans not more than one third of the page).

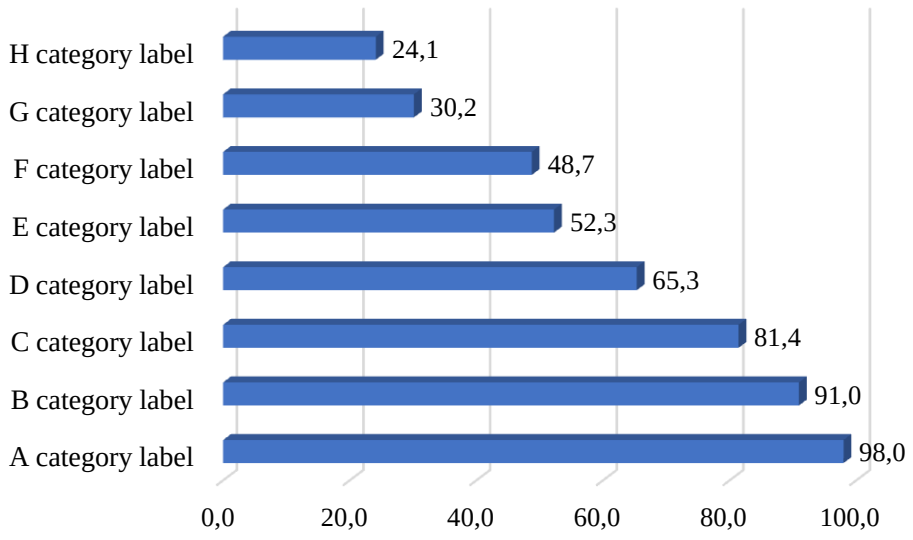


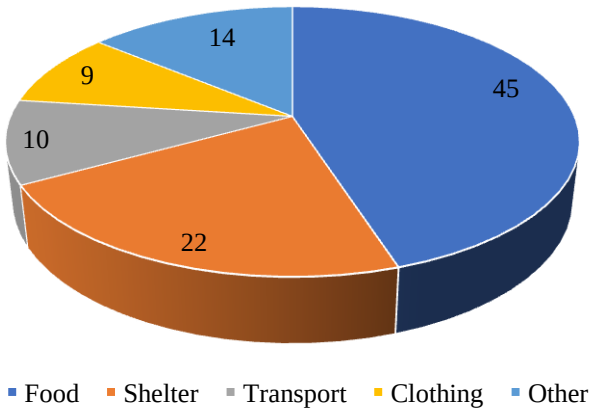
Figure 2.5. Factors influencing UAB "X" customer satisfaction % (N = 199)

Important note! If the figure summarizes research data, research sample must be indicated in parentheses (see Figure 2.5).

Characteristics of pie charts (see Figure 2.6):

- they are only used to compare the amounts of several categories (x %) relative to the total value of all categories (100%);
- the number of categories to be compared is limited to 4-5 (i.e., all the pie chart slices should be easy for the eye to distinguish);
- if the category consists of multiple variables with small values, these can be combined into one category under the label "Other" in a pie chart. This category should not account for more than 20% of the chart. In such a case, it is important to indicate what constitutes the "Other" group.

When displaying data in any type of charts, it is necessary to specify the value of each column, bar or slice of the chart in absolute numbers or percentages.



Other: variables A, B, C, D

Figure 2.6. Analysis of consumer expenditures in city X in 20..., % (N = 199)

Important note! A pie chart should only be used only if the respondents are given a single answer option. Tables and figures should be discussed in the text.

3. DEFENCE AND EVALUATION OF GRADUATION THESIS

3.1. Graduation Thesis defence

Graduation Theses are defended orally at a meeting of the Defence Committee on the day, scheduled for the Graduation Thesis defence at the Defence Committee meeting. The schedule is prepared by the Department in charge of the study programme, and approved by the Dean of the Faculty. The schedule is announced no later than 2 weeks before the defence of Graduation Theses at the Defence Committee meeting.

Not later than 2 weeks before the defence of Graduation Theses at the Defence Committee meeting, Graduation Thesis Defence Committee, (hereinafter Committee), consisting of at least 5 persons, is compiled under the Dean's proposal and by Rector's Order. At least half of the members of the Committee should be representatives of employers and social partners with at least a Master's degree. One of the representatives of employers is appointed Chairman of the Committee by order of the Rector.

Before the defence of Graduation Theses at the Defence Committee meeting, the following documents should be submitted for the Committee: 1) all the Graduation Theses to be defended on the scheduled day, 2) reviews (feedback) provided by Graduation Thesis supervisors (see Annex 12), 3) Graduation Thesis reviews (see Annex 13), 4) Graduation Thesis evaluation criteria, 5) the Dean's order, allowing students to defend their Graduation Theses in the Committee meeting 6) the list of students. The minutes of the Committee meeting are taken by the secretary appointed by Rector.

When defending their Graduation Theses students should comply with the following regulations: 7 – 10 minutes should be devoted to introducing the problem of the Graduation Thesis, presenting its solutions and their economic justification and up to 20 minutes to answering questions of the Committee members. It falls under responsibility of the student to select forms and measures necessary for his/ her Graduation Thesis defence. One day before Graduation Thesis defence in the Committee meeting, the student must inform the administrator of the Department whether additional IT equipment will be needed to defend his/ her Graduation Thesis.

The aim of Graduation Thesis defence in the Committee meeting is to convince the Committee and the audience that the proposed way of problem solution is appropriate.

3.2. Graduation Thesis evaluation

Committee members are invited to familiarise themselves with students' Graduation Theses 1 – 2 days before the defence of Graduation Theses at the Defence Committee meeting. The papers

are evaluated using a ten-point grading scale, resting on evaluation criteria for Graduation Thesis content and presentation (see Table 3.1).

Table 3.1. Requirements for Graduation Thesis content and presentation

Requirements for content	**Requirements for presentation**
• relevance of the topic; • coherence of research problem, aim and topic; • depth of the analysis; • soundness of research methods; • thoroughness of research; • validity of results; • originality and creativity of proposals; • practical value of proposals; • connection between theoretical, research and project part; • validity of conclusions and proposals.	• adequate selection of information for presentation; • credibility; • reasoning; • visualisation; • language fluency; • time management; • attention control; • validity of answers to questions.

After the defence, Graduation Theses are evaluated in a closed meeting of the Committee. Each member of the Committee puts a grade for the paper presented. The final evaluation of Graduation Thesis is grade average, calculated on the basis of evaluations given by all members of the Committee as well as the reviewer.

Graduation Thesis evaluation formula:

Graduation Thesis = (X1 + X2 + ... + Xn + R) : (n + 1), where X is the grade given by the member of the Committee, R is the grade given by the reviewer, n is the number of Commmittee members.

Students get acquainted with the final evaluation of their Graduation Theses individually, at the end of the Committee meeting. Information on the achieved level of the Graduation Thesis (see Annex 14) is provided by the Chairman of the Committee

The Committee's decision on the evaluation of Graduation Theses is final and is not open to appeals.

If a student sees the potential breach of Graduation Thesis defence procedure, which might have affected evaluation of his/her Graduation Thesis, he/she is entitled to submit a written request to the Dean no later than next business day after his/ her Graduation Thesis defence.

If a student was not able to prepare and defend his/ her Graduation Thesis in due time for valid circumstances (illness, childbirth, emergency, death of a family member), the defence of his/ her Graduation Thesis may be adjourned till the next Committee meeting under the student's request and Dean's order.

If a student failed to complete his/ her Graduation Thesis in due time, did not appear for his/ her Graduation Thesis defence without valid reasons or failed to defend it, he/ she is excluded from the list of students.

REFERENCES

1. APA - Referencing Guide. (2020). Retrieved from https://libguides.murdoch.edu.au/APA

2. APA Style (7th Edition). (n. d.). Retrieved from https://owl.purdue.edu/owl/research_and_citation/apa_style/

3. Bitinas, B., Rupšienė, L. & Žydžiūnaitė, V. (2008). *Kokybinių tyrimų metodologija*. II dalis. Klaipėda: S. Jokužio leidykla.

4. Creswell, J. W. & Creswell, D. J. (2018). *Research design: qualitative, quantitative, and mixed method approaches*. Publisher: Sage Publications.

5. Gaižauskaitė, I. & Mikėnė, S. (2014). *Socialinių tyrimų metodai: apklausa*. Vilnius: MRU.

6. Gaižauskaitė, I. & Valavičienė, N. (2016). *Socialinių tyrimų metodai: kokybinis interviu*. Vilnius: MRU.

7. Kardelis, K. (2017). *Mokslinių tyrimų metodologija ir metodai: edukologija ir kiti socialiniai mokslai: vadovėlis* (6-asis patais. ir papild. leid. ed.). Vilnius: Mokslo ir enciklopedijų leidybos centras.

8. Kost, Ch. P. (2015). *Student quick reference success guide to writing in the APA 6th edition style*. Presto, PA: Kostservices.

9. Kumar, R. (2019). *Research Methodology: a step by step guide for beginners* (fifth edition). Publisher: Sage Publications.

10. Noveslkaitė, A. (2012). *Socialinio tyrimo terminija: tyrimo strategija, tyrimo dizainas, tyrimo planas, tyrimo procesas*. Vilnius, VU KHF. Retrieved from https://www.knf.vu.lt/dokumentai/failai/katedru/filosofu/socialinio_tyrimo_terminija.pdf

11. Procedure of Studies at Vilniaus kolegija/University of Applied Sciences, approved by resolution No ATN-5 of the Academic Board of 04 May 2016 (amendments approved by the resolution of the Academic Board No ATN-6 of 21 June 2019).

12. Republic of Lithuania Law on Science and Studies (Official Gazette., 2009, No. 54-2140).

13. Tracy, S. J. (2019). *Qualitative Research Methods: Collecting Evidence, Crafting Analysis, Communicating Impact*. Publisher: Wiley Blackwell.

14. Vilniaus kolegija/University of Applied Sciences the Code of Academic Ethics, approved by resolution No ATN-10 of the Academic Board of 2 December 2015.

15. Vilniaus kolegijos baigiamųjų darbų (projektų) rengimo ir gynimo tvarkos aprašas [Graduation Thesis (Project) Preparation and Defence Procedure Description at Vilniaus

kolegija/University of Applied Sciences], patvirtintas 2020 m. birželio 16 d. Vilniaus kolegijos Akademinės tarybos nutarimu Nr. AT N – 5.

16. Vilniaus kolegijos bendrieji studijų rašto darbų reikalavimai [Requirements for Academic Papers at Vilniaus kolegija/University of Applied Sciences], patvirtinti 2019 m. gruodžio 11 d. Akademinės tarybos nutarimu Nr. AT N-9.

ANNEXES

ANNEX 1. Steps for preparing Graduation Thesis

ANNEX 2. Sheet of Graduation Thesis topic registration

ANNEX 3. Graduation Thesis title page

ANNEX 4. Cover letter

ANNEX 5. Annotation

ANNEX 6. Table of contents

ANNEX 7. List of tables and figures

ANNEX 8. Summary

ANNEX 9. Applied research

ANNEX 10. Recommendations for the economic justification of Graduation Thesis project part

ANNEX 11. List of references in accordance with APA style bibliographic description standard

ANNEX 12. Graduation Thesis supervisor's review

ANNEX 13. Graduation Thesis review

ANNEX 14. Achievement levels for learning outcomes

ANNEX 1

STEPS FOR PREPARING GRADUATION THESIS

Steps	Deadlines	Actions
Selection of research field and its problematic areas	On the dates specified in the Step-by-Step Plan for Graduation Thesis Preparation, but not later than 1 month before the beginning of the Graduation Thesis preparation	A student selects one problematic area in a particular research field from a list available in the GRADUATION THESIS section in VLE "Moodle". The selected problematic area of a research field should correspond to the interests of the organization (company, institution) where the final practice was performed; this should help the researcher to obtain the necessary data to analyse the problem, to receive advice and consultations from the organization (company, institution). If a student is inclined to relate his/ her Graduation Thesis to building his/ her business or developing a marketing plan for a new company, etc., he/she is entitled to dissociate his/ her Graduation Thesis from the final practice; he/ she has the right to offer the research field for his/ her Graduation Thesis, provided it corresponds with the study programme and is approved by the head of the Department in charge of the study programme.
Selection of Graduation Thesis supervisor	On the dates specified in the Step-by-Step Plan for Graduation Thesis Preparation, but not later than 1 month before the beginning of the Graduation Thesis preparation	Resting on the selected research field and its problematic area, the student selects the Graduation Thesis supervisor (an expert in that particular field) from the list available in VLE "Moodle" or the supervisor may be appointed by the head of the Department supervising his / her study programme.
Formulation of the topic	On the dates specified in the Step-by-Step Plan for Graduation Thesis Preparation, but not later than 1 month before the beginning of the Graduation Thesis preparation	The topic is formulated after identifying the current specific problem situation of the organization (company or institution, where the final practice was performed or where the student works). The topic is discussed with the Graduation Thesis supervisor; research aim and objectives are raised (the formulated topic should directly relate to the research problem and aim, i.e., coherence between research problem, aim and topic is mandatory).
Registration of the topic at the Department	On the dates specified in the Step-by-Step Plan for Graduation Thesis preparation and in revised schedules made public at least one week before the date of the registration	The completed sheet of Graduation Thesis topic registration (see Annex 2) is submitted to the Department in charge of the study programme observing the ways and terms specified in advance. The wording of the topic in English must comply with the requirements of standard language. The student is fully responsible for the correct translation of Graduation Thesis topic into Lithuanian.

Steps	Deadlines	Actions
Graduation Thesis preparation	Till the defence of Graduation Thesis in the Department	Graduation Thesis is prepared according to the formulation of the topic approved by the order of the Dean of the faculty and in consultation with the Graduation Thesis supervisor (the theoretical aspects of the selected topic are analysed, the current situation in the problem area of the organization is explored, original, realistic and applicable proposals are designed, their economic substantiation is presented, conclusions are formulated).
Graduation Thesis review (first and second stage) and trial defence at the Department	On the dates specified in the Step-by-Step Plan for Graduation Thesis Preparation and in revised schedules made public at least one week before the revision or defence date	2 stages of Graduation Thesis reviews are envisaged: for the first review a student submits the introduction, the theoretical and the research parts of his/ her Graduation Thesis; for the second review he/ she provides a fully prepared Graduation Thesis. Graduation Thesis submitted for each stage of the review must be confirmed by the Graduation Thesis supervisor (by e-mail, notifying the head of the Department that the student is allowed to participate in the review, or by signing the printed version of Graduation Thesis). Graduation Thesis is submitted for the defence at the Department and oral defence of the paper is subsequently conducted. This gives ground for the Committee to reject or allow the student to proceed to Graduation Thesis defence in public. Permission to defend Graduation Thesis in public is confirmed by order of the Dean. Graduation Thesis supervisors either participate in Graduation Theses defence at the Department in person or provide a written review (by email) indicating the strengths and weaknesses of Graduation Thesis.
Graduation Thesis authenticity (originality) check	On the dates specified in the Step-by-Step Plan for Graduation Thesis Preparation	A student uploads the electronic version of his/ her Graduation Thesis (PDF format) into the VLE “Moodle” and submits it for authenticity check. The check report is presented to the Graduation Thesis supervisor. If plagiarism is detected, the supervisor informs the head of the Department, the Dean and notifies the Committee of Academic Ethics.
Registration of Graduation Thesis at the Department for defence at the Defence Committee meeting	On the dates specified in the Step-by-Step Plan for Graduation Thesis Preparation and in revised schedules made public at least one week before the registration date	The fully completed paper is submitted for registration (unless indicated differently). This includes 1 printed version of the Graduation Thesis signed by the author and by the supervisor of the Graduation Thesis, supervisor’s review (see Annex 12) and 1 electronic version of the paper sent to the administrator of the Department or uploaded to VLE “Moodle”. Failure to deliver Graduation Thesis (including its electronic version and supervisor’s review on time shall result in denying the registration and defence at the Defence Committee meeting.

Steps	Deadlines	Actions
Familiarising the student with the review of the Graduation Thesis	On the dates specified in the Step-by-Step Plan for Graduation Thesis Preparation, but not later than 1 day before defence at the Defence Committee meeting	Students receive their Graduation Thesis review by email. Getting acquainted with the review in advance gives the authors chance for adequately answering the reviewers' questions during the defence at the Defence Committee meeting.
Graduation Thesis defence at the Defence Committee meeting	On the dates specified in the Step-by-Step Plan for Graduation Thesis preparation	Oral defence of Graduation Theses is conducted in the presence of the Committee of 3 or 5 members: social partners representing organizations (companies, institutions) and faculty representatives.

ANNEX 2

VILNIAUS KOLEGIJA/ UNIVERSITY OF APPLIED SCIENCES
FACULTY OF BUSINESS MANAGEMENT
THE SHEET OF GRADUATION THESIS TOPIC REGISTRATION

Student .....
(name, surname, telephone, e-mail)
Academic group .....

Graduation Thesis supervisor .....
(name, surname, telephone, e-mail)

Graduation Thesis topic:
In English .....
In Lithuanian .....
Graduation Thesis completion date .....
Graduation Thesis problem .....
.....
Graduation Thesis aim .....
Graduation Thesis objectives:
1. .....
2. .....
3. .....
4. .....
5. .....
Graduation Thesis preliminary content plan:
INTRODUCTION
1.THEORETICAL PART (enter the title corresponding the Graduation Thesis topic)
1.1. .....
1.2. .....
1.3. .....
2. RESEARCH PART (enter the title corresponding the Graduation Thesis topic)
2.1. .....
2.2. .....
2.3. .....
3. PROJECT PART (enter the title corresponding the Graduation Thesis topic)
3.1. .....
3.2. .....
3.3. .....
CONCLUSIONS

Student ……..……...
(signature) *(name, surname)*

Graduation Thesis supervisor …….
(signature) *(name, surname)*

Topic registered:

..... Head of Department .....
(signature, date) *(name, surname)*

ANNEX 3

VILNIAUS KOLEGIJA /UNIVERSITY OF APPLIED SCIENCES (14 pt)

FACULTY OF BUSINESS MANAGEMENT (14 pt)

Study programme title (code XXXXXXXXX) (12 pt)

TITLE (20 pt)

Graduation Thesis (14 pt)

Student	Signature	Name Surname
Supervisor	Signature	Name Surname

Vilnius, 2020

ANNEX 4

COVER LETTER

Graduation Thesis "_____",

developed by _____ is prepared for defence.
(name and surname of the student)

_____	_____	_____
(date when defended in the Department)	*(signature)*	*(name and surname of the supervisor)*

Graduation Thesis registered in _____ Department

_____	_____	_____
(date when registered in the Department)	*(signature)*	*(name and surname of the head of the Department)*

Graduation Thesis received for reviewing:

_____	_____	_____
(date)	*(signature)*	*(name and surname of the reviewer)*

ANNEX 5

ANNOTATION

Vilniaus kolegija/University of Applied Sciences Faculty of Business Management ..... Department	Total number of pages ……..

Graduation Thesis

Title .....

.....

.....

Author .....

Graduation Thesis analyses .....

Key words:

xxx, ..., ..., ..., ...

ANNEX 6

TABLE OF CONTENTS (example)

INTRODUCTION 5

1. CHAPTER OF THEORETICAL PART 7

1.1. First section of the chapter 7

1.1.1. Subsection 7

1.1.2. One more subsection 10

1.2. Second section 12

1.2.1. Subsection 12

1.2.2. One more subsection 14

1.3. Substantiation of selected theoretical model 15

2. CHAPTER OF RESEARCH PART 19

2.1. First section of the chapter 19

2.2. Second section 23

2.2.1. Subsection 24

2.2.2. One more subsection 25

2.3. Third section 27

2.4. Summary of research part 31

3. CHAPTER OF PROJECT PART 33

3.1. First section of the chapter 33

3.1.1. Subsection 34

3.1.2. One more subsection 35

3.1.3. One more subsection 36

3.2. Second section 37

3.3. Third section 39

3.4. Fourth section 42

CONCLUSIONS 45

SANTRAUKA / SUMMARY 47

REFERENCES 48

ANNEXES 50

ANNEX 7

LIST OF TABLES AND FIGURES (example)

LIST OF TABLES

Table 1.1. Classification of the marketing mix 14
Table 2.1. Demographic characteristics of the respondents by their gender.....16
Table 2.2. Demographic characteristics of the respondents by their age 17

LIST OF FIGURES

Figure 2.1. UAB “N” service management model.....16
Figure 2.2. Measuring quality of UAB “N”customer service 25
Figure 2.3. Changes in the sales of services at UAB “N” in 20XX-20XY 43

ANNEX 8

SANTRAUKA *

SUMMARY**

Autoriaus vardas, pavardė / Author's Name and Surname ……..……

Studijų programa / Study Programme …….

BAIGIAMOJO DARBO PAVADINIMAS / TITLE OF GRADUATION THESIS

Temos aktualumas. / Relevance of Graduation Thesis. .....

Problema. / Problem. .....

Baigiamojo darbo tikslas. / Aim of Graduation Thesis. .....

Darbo uždaviniai. / Objectives of Graduation Thesis. .....

Tyrimo metodai. / Research Methods. .....

Tyrimo rezultatai. / Research Results. .....

Problemos sprendimo būdai. / Methods of Problem Solution. .....

Išvados. / Conclusions. .....

*Santrauka gali būti pateikta lietuvių kalba. Apimtis ne mažiau kaip vienas puslapis
** Summary can be provided in English. At least one page

ANNEX 9

APPLIED RESEARCH

Applied research	Data collection methods	Data collection instruments	Characteristics	Purpose
<u>Quantitative research</u> **Aim:** to search for external features, measure their frequency and magnitude, to discover laws, rules and trends **Sample size:** large (N = 400, N = 1000 or calculated according to a formula for each specific case) **Permissible margin of error:** 3% **Sampling strategies:** probability, non-probability. **Data analysis methods:** statistical	**Surveys** (telephone, mail, Internet, social media)	Questionnaires	Allows the researcher to collect data by submitting questions in a form of a questionnaire. Principles to be observed: • obtaining voluntary informed consent to participate in the study; • ensuring anonymity of the participants and confidentiality of collected data; • avoiding potential harm to participants.	To analyse people's needs, attitudes and opinions.
	Observation (structural)	Observation report (table), video camera	Allows the researcher to collect primary data by observing and recording people's behaviour, objects, and events.	To collect and analyse social information, people's behaviour, etc.
	Experiment	Combination of methods can be employed, including questionnaire, observation report, etc.	Allows the researcher to deliberately control and manipulate the conditions that determine the events of his/ her interest.	To analyse people's behaviour and responses to stimuli. In social sciences quasi-experiments are frequently applied when the procedures of classical experiment are not followed.
	Statistical data analysis (secondary data analysis)	Evaluating primary data collection instrument	Allows the researcher to process and analyse various statistical data, indicators, publicly available previous research data, to provide conclusions and recommendations.	To investigate data collected by others, to analyse official statistics.
	Quantitative content analysis	Text selection criteria	Allows the researcher to determine presence and intensity of certain themes, words or their combinations within the source of selected qualitative data.	To identify the most frequently used words, their combinations, contexts.

Applied research	Data collection methods	Data collection instruments	Characteristics	Purpose
<u>Qualitative research:</u> **Aims:** systematic study of a situation, event, case, individual or group in the natural environment in order to understand the research phenomena and to provide an interpretive, holistic explanation arising from the analysis of situations. **Sample size:** small (N = 5; N = 15); information is collectd until saturation. **Sampling strategy:** non-probabiltiy **Data analysis methods:** data are analyzed by interpreting text, content.	**Interview** (structured, unstructured)	Questionnaire, interview guide	Allows the researcher to obtain the information necessary for the research tasks through his/ her initiated interview with an informant.	To collect more detailed information on research object.
	Focus group	Discussion plan, questionnaire	Allows the researcher to collect information focused on a specific topic in an organized, discussion (small in size: 8-12 people), led by a moderator.	To gain understanding on differences in attitudes and opinions; to reveal influencing factors; to listen to various opinions, ideas, comments.
	Participant observation	Observation protocol (plan)	Allows the researcher to be or to become a member of an observed group and to get involved (partially or fully) in the group's activities.	To gain understanding and knowledge on social situation.
	Content (document) analysis	Tables of meaning units, categories, etc.	Allows the researcher to collect and analyse data in textual, visual or audio form (documents, photos, etc.)	To identify the thematic categories on the basis of which a systematic assessment of the research phenomenon is presented.
	Case study	Optional, resting on research aim	Allows the researcher to conduct a detailed, in-depth study of one case based on as many sources of social information as possible. A variety of social research methods can be employed too.	To investigate a real case, a phenomenon or a situation which can later be turned into patterns of behaviour or examples to follow.

ANNEX 10

RECOMMENDATIONS FOR THE ECONOMIC JUSTIFICATION OF THE PROJECT PART OF THE GRADUATION THESIS

It is recommended to analyse each project proposal resting on the following questions: (a) who will implement the proposal? What kind of staff will be needed? Will the staff be paid? How much? (b) Will the implementation of the proposal require any products? If yes, how much will the manufacturing (acquisition) of the products cost? (c) What else will be required to implement the proposal? What additional services will be required to be procured?

In business there are no internal resources free of charge - everything costs money. If the planned task will be performed by an employee of the company, he/ she will devote his/ her time to perform the task, and will inevitably have to be paid for it. If a company organizes a contest with prizes (the company's products), the production of these prizes will still incur additional costs. If the company offers a discount to attract customers, this discount will mean lost profit, hence the expenses towards the project.

Value added tax (VAT) is paid to the state by the final consumer and is not included in the company's finances. All intermediate costs (e.g. those of project budget or service delivered) calculated by the company must be reported exclusive of VAT. Final statement of expenditure may be submitted both: exclusive and inclusive of VAT, however, it is not recommended to submit only VAT inclusive sums.

The total price of the service or product is calculated by summing up all costs (exclusive of VAT), profit margin (exclusive of VAT) and by eventually adding VAT (see Figure 1).

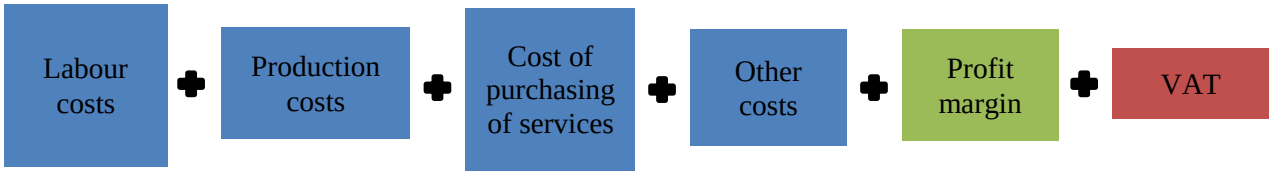


Figure 1. Steps for total price calculation

Depreciation and labour costs are calculated internally, which means that all sums received are exclusive of VAT. Table 1 illustrates the conversion of amounts exclusive and inclusive of VAT (tables of similar calculations are not provided in Graduation Theses).

Table 1. Converting amounts exclusive and inclusive of VAT

Amounts exclusive of VAT	**Amounts inclusive of VAT**
1000.00 EUR	1210.00 EUR
1000 = 1210 / 1.21	1210 = 1000 ×1.21
If the amount inclusive of VAT is known and that exclusive of VAT is not	*If the amount exclusive of VAT is known and that inclusive of VAT is not*

Tables or figures provide only the summary of information. Any table or figure must be referred to and discussed in the main text. For example, the information presented in a table may reflect the calculation logic, indicate the components and the final result, however the whole situation, the main calculations and the results must be presented, described and discussed in the main text.

1. ESTIMATING PROJECT COSTS

1.1. Cost of depreciation

Depreciation of used fixed assets should only be calculated in case of a long-term project or when a project requires relatively large capital investments (acquisition of buildings or equipment, when the value of acquisition makes a significant proportion of the total cost structure).

EXAMPLE: In order to develop its business, a logistics company plans to purchase 10 new trucks for EUR 70.000, aiming to use them for 5 years, and then sell for EUR 20.000. The project proposed in the Graduation Thesis is planned to be implemented for 3 years. In order to calculate the value of the vehicles to be included in the project costs, it is recommended to use a simple principle: (70.000 – 20.000) × 10 / 5 × 3 = 300.000 EUR.

1.2. Cost of labour

Labour costs must <u>always</u> be calculated, as there will be at least one person in charge of the project. Additional staff may not be required if the company plans to purchase all other services from other companies. In such a case, only the cost of purchasing the services will be calculated, not the cost of labour.

Gross (i.e., inclusive of all taxes), but not *net* (also known as "take home") earnings must be calculated. Since 2019, almost all the taxes on labour are included in the contractual salary (also known as "salary on paper") in Lithuania, therefore it is enough to include the data of the company, Sodra or other official sources, without adding anything extra. Employer surcharges make just a few percent and thus can be ignored.

Labour costs can be calculated in two ways:

(a) on the basis of a monthly salary (proposed if the duration of the project is calculated in months or if the employee participates during the whole project period);

(b) on an hourly basis (proposed if the duration of the project is less than a month, or if specific or short-term work is performed).

Several people may be employed to perform the same activity; in such a case several posts are calculated. It is also possible that the employee engaged in the planned project may simultaneously be involved in other projects too. For example, a project manager may implement

several different projects at the same time. The cost of such an employee is then calculated in parts (based on the respective part of the workload).

EXAMPLE 1 (hourly): During the project implementation, the company intends to release several promotional articles on the Internet. Articles are to be developed by the company's PR specialist (another option: a specialist can be hired to this). It is estimated that it will take 20 hours for an employee to write all the articles. The average price per hour is 7 EUR. In addition, the company plans to update its website and launch a mobile application. The company has an IT specialist to perform this task (another option: the company will hire a specialist). It is planned that the relevant work will take 45 hours. The average price per hour is 11 EUR. The cost calculation is presented in Table 2.

Table 2. Calculating hourly costs

Duties (tasks to be performed)	**Working hours**	**Average price per hour, EUR**	**Total labour costs, EUR**
Article writing	20	7.00	140.00
Programming	45	11.00	495.00

It should again be taken into consideration that the table provides only summary information. All cost calculations should briefly be explained in the main text.

EXAMPLE 2 (monthly): the estimated project period is 3 months. The project manager will oversee the project, but in addition to this, he/she will simultaneously lead three more projects. Consequently, he/ she will be able to devote only a quarter of his full-time workload (0.25 FTE) to the planned project. In addition to this, the project will require two advertising specialists. Their services are only scheduled for the second month of the project. The monthly salary of the project manager (inclusive of all taxes) is 2200 EUR, the average salary of an advertising specialist (inclusive of all taxes) is 1750 EUR. The cost calculation is presented in Table 3.

Table 3. Calculating monthly costs

Position	**FTE**	**Monthly salary, EUR**	**Working period in months**	**Total labour costs, EUR**
Project manager	0.25	2200.00	3	1650.00
Advertising specialist	2.00	1750.00	2	7000.00

It should again be taken into consideration that the table provides only summary information. All cost calculations should briefly be explained in the main text.

1.3. Cost of purchasing or manufacturing goods (services)

The general principles for calculating the costs of acquiring or manufacturing goods and services are similar. Usually they are simplified to the following logic of accounting: the quantity of units is multiplied by the price. There can be different units of measurement: units of output,

kilograms, litters, square meters, seconds of TV or radio broadcast, etc. It is possible that several operations will required to estimate the total number of units, however the final principle still remains the same: multiply the price by the quantity of units.

EXAMPLE 1: A company intends to open a new outlet for goods. Among other costs, the company plans to rent sales equipment and related computer software to achieve this goal. The price of the annual license of the business management software VALDA is 985 EUR. The company estimates it will need 5 electronic cash registers KASA (yearly rental price for one register is 360 EUR) and 10 barcode scanners KODAS (yearly rental price for one scanner is 100 EUR). The calculations are presented in Table 4.

Table 4. Calculating the cost of purchased goods

Equipment	**Measurement**	**Quantity**	**Cost per unit, EUR**	**Amount, EUR**
Business management software VALDA	software	1	985.00	985.00
Electronic cash registers KASA	unit	5	360.00	1800.00
Barcode scanner KODAS	unit	10	100.00	1000.00
			Total:	**3785.00**

EXAMPLE 2: A company uses racks and pallets to store its goods. Detailed investigation showed it has at least 270 m^2 of unused warehouse space. It was estimated it can additionally hold 3 racks rows, 80 racks in each row (240 racks in total). There are 11 pallets in one rack. To fill the unused space, the company contacted storage equipment suppliers and received three proposals (see Table 5). *Proposal A*: The average price for a rack is 173 EUR. The total cost of delivery and installation of all necessary racks is 6400 EUR. *Proposal B*: The average price for a rack is 197 EUR, including the prices of delivery and installation services. *Proposal C*: The average price for a rack is 201 EUR, including the price of delivery and installation services.

Table 5. Calculating the cost of purchasing goods and services

Proposal	**Number of racks units**	**Price per unit, EUR**	**Price of installation, EUR**	**Total amount, EUR**
Proposal A	240	173.00	6400.00	47920.00 (*240 × 173.00 + 6400.00*)
Proposal B	240	197.00	0.00	47280,00 (*240 × 173.00*)
Proposal C	240	201.00	0.00	48240.00 (*240 × 201.00*)

Important note. Calculations and specifications in parentheses as seen in the table above should be left out in a similar table of a Graduation Thesis. All the calculations should be discussed in the main text.

The information provided in the table is summarized by providing convincng arguments as to which of the proposals should be accepted by the company.

When compiling summary tables on expenditure, it is important to ensure the displayed items can stand alone, without having to read any additional information on the page. Table 6 is a simple example featuring a summary table on expenditure where the total cost consists of two components: price and quantity.

Table 6. Summary table on expenditure. Example 1

Expenditure	**Price per unit, EUR**	**Required quantity in units**	**Price, EUR**
Creating a video	200.00	3	600.00

Table 7 provides an example of an extended summary table on expenditure whereby the total cost is estimated by multiplying the price and two components of the quantity.

Table 7. Summary table on expenditure. Example 2

Expenditure	**Measurement unit**	**Price per unit, EUR**	**Length of the TV commercial, s**	**Number of commercials**	**Total sum, EUR**
TV commercial	s (*second*)	75.00	10	35	26250.00

To achieve the most optimal costs, it is important to compare the proposals of different suppliers and to provide convincing arguments as to which of the proposals should be accepted.

1.4. Cost of promotional sales and games

Games, contests, sweeptakes, etc. cost money too. Their organization and management, winnings and prizes, etc., cost money. Even if the prize of such a game is a product or service provided by the company itself, it will still costs the company to produce or provide it. The best (and easiest) way is to calculate the prize pool based on the (average) price of the product or service in the market.

Various promotions and offers that seem to cost nothing at first glance are actually *a loss of profit* for the company. They must also be included into the project costs.

EXAMPLE 1 (contest): a company providing SPA services plans to run a contest for “Sauna lovers”. It intends to publish a related promotional photo on Facebook and Instagram. To enter the contest and to win the prize, social network users will be required to like and share the post. Each week, a winner will be randomly selected (4 winners in total). The prize of the contest is a package of sauna complex services for two. The usual price of such a package is 56 EUR. Since the winners will be provided with a free service, the price of the service must be included into the costs of the company. In this particular case: 4 × 56.00 = 224.00 EUR (4 complexes, 56.00 EUR each).

EXAMPLE 2 (sales promotion): in order to attract more customers, the company announces a promotion: “Buy 3 tickets, get the fourth one free”. In such a way, the company is hoping to attract 1000 additional participants of the event. 750 of them will buy tickets, 250 will receive gifts.

The price of one ticket is 13.00 EUR. Again, the service will provided, but some of the participants will receive it for free. Unrealized gains must be included in the project costs. In this current case: 250× 13.00 = 3250.00 EUR (250 tickets for 13.00 EUR).

EXAMPLE 3 (gifts): a cosmetics company plans to launch a new product. As part of its advertising campaign, it plans to distribute 1000 samples of the new product. The production cost of one sample is 0.65 EUR, which means that such a promotional campaign will cost at least 0.65× 1000 = 650.00 EUR for the company.

1.5. Cost of staff training

Costs of staff training may come under two types: the first one is related to the cost of organizing the training, while the second one estimates the working time lost during the training (i.e., no-added-value for the company).

The accounting of the costs falling under the first type depends on whether the training is organized by the company itself or whether it is purchased from another organization. Provided the training is organized by the company itself, organizational costs must be calculated. These may include the rent of premises and equipment (multimedia, etc.), necessary material (paper, pens, handouts, etc.), lunch and /or coffee breaks, remuneration of the training manager and training organizer. If a company buys training from another company, in majority of cases all costs are already included into the training price. In such a case it is enough to include the training price into the costs.

EXAMPLE 1 (when the training is organized by the company itself). The company intends to organize team building training for its 20 employees. A one day training event (8 academic hours) will be planned. A homestead with a conference hall will be rented for the event (rental price per day is 150 EUR). In addition, two lecturers will be hired (hourly rate 10 EUR). They will need a range of training tools at a total cost of 37 EUR. Lunch and three coffee breaks are also envisaged. Lunch will cost 12 EUR per person, furshet - coffee break - 50 EUR per person. Table 8 provides estimates of all the enumerated costs.

Table 8. Calculating the costs of staff training
(when the training is organized by the company itself)

Type of cost	Quantity in units	Cost per unit, EUR	Total cost, EUR
Rent of premises	1	150.00	150.00
Remuneration of lecturers	16 *(2 lecturers × 8 hours)*	10.00	160.00
Training material	1	37.00	37.00
Lunch	22	12.00	264.00
Coffee breaks	3	50.00	150.00
Remuneration of training manager	2	8.00	16.00
		Total:	**777.00**

The calculation of costs falling under the second type, i.e., of the working time lost during the training (or in other words, of no-added-value for the company) can be conducted in two ways. Provided it is an industrial company, the no-added-value may be calculated as the value of output not produced during the period of training. Another alternative is to simply calculate the salaries of the employees participating in the training, paid during the period of training (see Table 9).

Table 9. Calculation of the working time lost during the training of participating employees

Type of cost	Number of employees	Working hours lost per employee	Average hourly wage, EUR	Total cost, EUR
Working time lost	20	8	6.50	1040,00 ($20 \times 8 \times 6.50$)

The aforementioned example suggests that 20 employees participating in training will not perform their direct full-time duties (8 hours). Given that the average hourly wage is 6.50 EUR, the total expenditure for the training day will be 1040.00 EUR.

2. ESTIMATING POTENTIAL BENEFITS OF THE PROJECT

Sometimes, in very rare cases, potential benefits of a project may be neglected. Such cases may include the proposals, articulating certain morality issues. Let us say the project intends to run an advertising campaign aimed at improving the company's image after a company-related scandal. Usually, the potential benefits of a project are of two types. The measures proposed in the project should: (1) increase the company's revenue; (2) reduce the company's costs.

2.1. Possible increase in sales

It goes without saying that it is difficult (if not impossible) to forecast precisely the increase in sales of goods (services), because no one knows what the future holds. Moreover, it is very difficult to evaluate whether the increase in sales of goods (services) should be treated as an outcome of the proposed measures, or whether it is to be ascribed to other changes in the market. Nevertheless, sales can be predicted in several ways:

a) by using historic analogy, based on past sales results of similar practices (for example, when opening a new store or agency, statistics on sales of goods (services) provided by shops or agencies recently opened under similar conditions may be used);

b) by using historic analogy, based on past sales results of the same unit, and by using statistical forecasting techniques (e.g. linear equation, logarithm forecasting, etc.).

In the case of the latter, knowledge of spreadsheets or other statistical software (e.g., EXCEL, ACCESS, SPSS, etc.) would be advantageous. Figure 2 is an example of company's sales forecast calculated by using the EXCEL spreadsheet software.

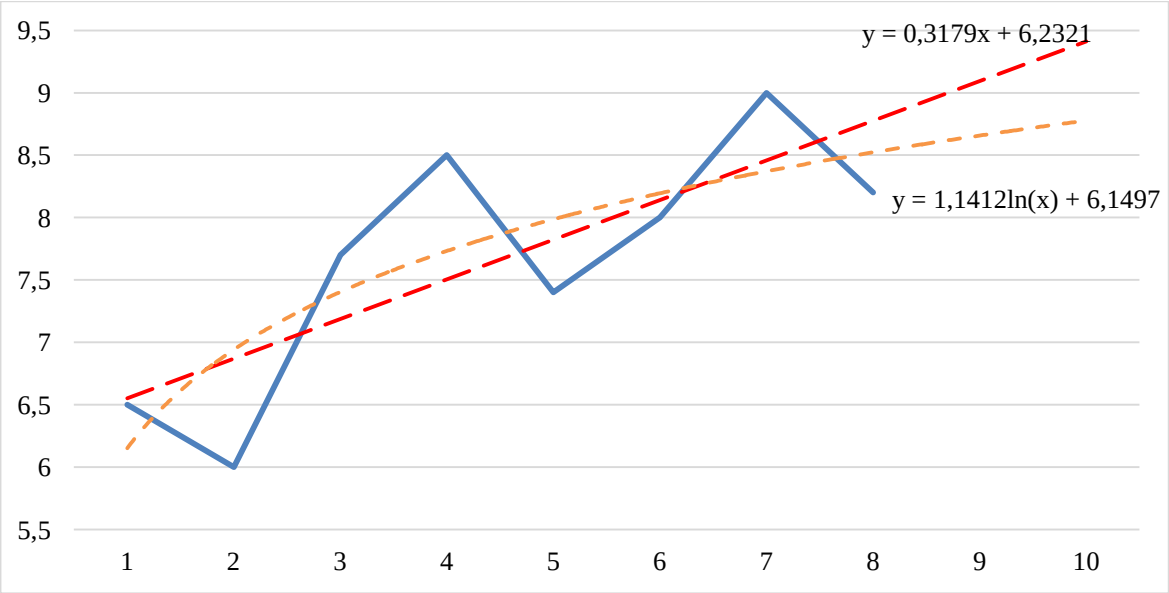


Figure 2. Sales forecast for UAB "N"

Figure 3 in turn illustrates the forecast of GDP growth performed by making use of SPSS statistical software platform.

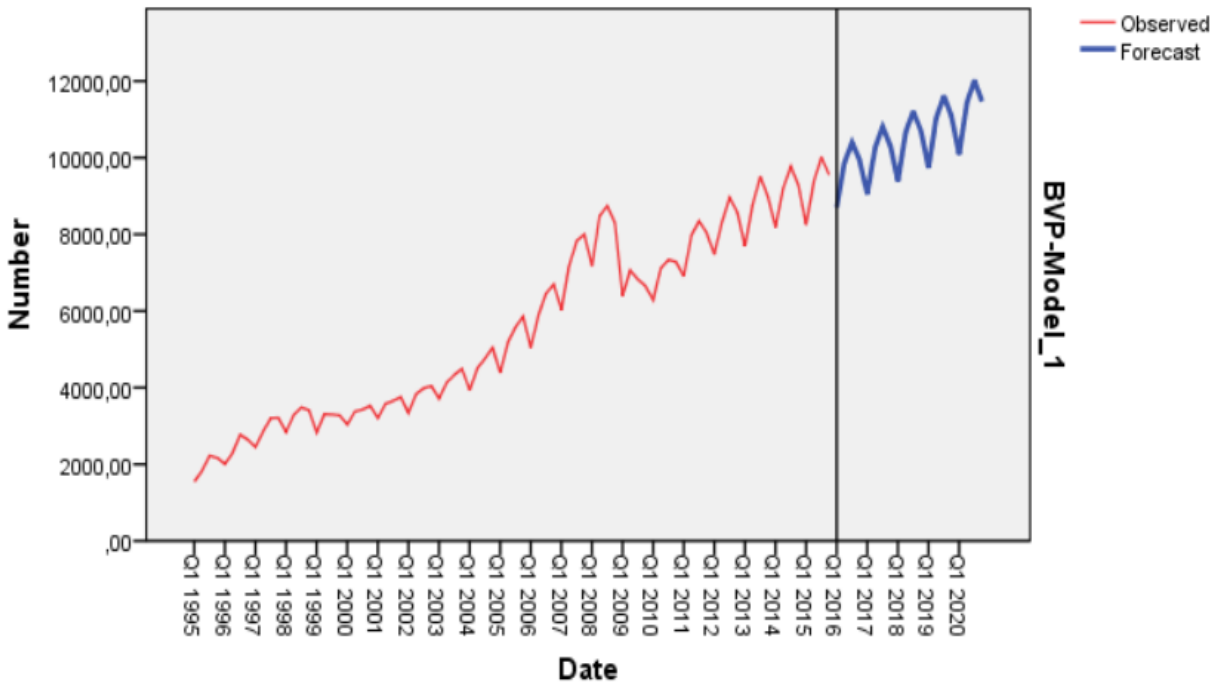


Figure 3. Forecasting quarterly GDP growth

In any case, when predicting sales, it must be remembered that no forecast is 100 per cent accurate. It is therefore recommended to base the forecasts on at least three scenarios:

(1) realistic forecast;

(2) optimistic forecast;

(3) pessimistic forecast.

The realistic forecast is calculated be employing one of the two aforementioned methodologies: historical analogy or statistical forecasting techniques. The second forecast scenario is called optimistic because it is calculated by adding 20-25% to the first option. Finally, the pessimistic forecast should be taken into consideration too. It is calculated by subtracting 20-25% from the first option.

2.2. Possible decrease in sales

It should be noted that a company does not necessarily have to increase revenue to gain higher profits. It can optimize its processes, thus reducing costs.

EXAMPLE: For a logistics company, it takes an average of 8 minutes to complete one order. The average hourly wage of a staff member in charge of registering and supervising orders is 6.50 EUR. Approximately 5000 orders are placed per year. In order to improve the processes, the company plans to create a new module for the program it currently uses. It will alleviate the process of entering or uploading data in certain fields, as the system will transfer all the data to a *Microsoft Word* file template. The latter will only have to be sent. The module would use the same address selection procedure as it is being used when entering a new order into the system, i.e., when an employee starts entering the supplier's name or address, the system will automatically suggest the available options. In such a way, the managers will no longer have to search for the required addresses by going through old orders, copying or repeatedly re-entering them. It is predicted that after implementing this function, it will take an average of 3 minutes to place one order. The calculations of the described example can be presented in a form of a table (see Table 10).

Table 10. Calculating possible decrease in sales

Position	**Unit of measurement**	**Currently used order management system**	**Updated order management system**	**Difference**
Average time of managing an order	minute (hour)	8 (0.133)	3 (0.05)	5 (0.083)
Average number of orders managed per year	unit	5000	5000	---
Wages	EUR/hour	6.50	6.50	---
Yearly cost	**EUR**	**4322.50**	**1625.00**	**2697.50**

It is important to note that the well-known principle of estimating costs is used in this current case: the total amount is the product of multiplying the quantity and the price. Although the units of measurement used are different, they are compatible with each other. By multiplying the quantities available and the wages in each case, the difference is calculated. The difference obtained is the expected reduction in costs.

3. ESTIMATING THE TOTAL RESULT OF THE PROJECT

The total result of a project can be calculated in several ways:

- by comparing total costs and expected benefits;
- by calculating the break-even point;
- by calculating the payback period.

Comparing total costs and expected benefits is the most versatile method to be safely employed in majority of cases. Its essence is very simple: when calculating the total costs of a project, these are compared with the expected benefits of the project, i.e., the total cost of the project is subtracted from the expected revenue growth.

The break-even point is the volume of sales (in quantitative and / or monetary terms) when all the company's costs (variable and fixed) become equal to the company's total revenue. Having reached the break-even point, companies start operating profitably. This method of analysing project results becomes relevant when a new activity, a new product or a new service is offered. The break-even point is calculated in two ways:

a) according to the standard formula of break-even point $Q = \frac{F}{P-V}$ *(where Q is the amount of units to be sold in order to reach the break-even point; F is fixed costs; P is sales price; V is variable costs of one unit)* the minimum amount of units to be produced over a period of time (e.g. in one a year) in order to start making a profit, is calculated.

b) according to the formula $M = Q \times P$ *(where M is minimum sales amount at the break-even point, Q is minimum amount of production at the break-even point, P is average sales price)* the monetary value of the break-even point is calculated.

The payback period is calculated provided the project is of an investment nature, e.g., when it proposes to purchase new equipment or improve processes, etc. In such a case, the total cost of the project is calculated and divided by the amount of expected benefits over a specified period of time (e.g. per one year):

$$The\ payback\ period = \frac{total\ costs}{expected\ benefit}$$

EXAMPLE 1 (*comparison of total costs and expected benefits*): it was estimated after calculating the total costs of the project, that if the company produces and sells 1000 units of its production, its total costs will make 8770.00 EUR (4250.00 EUR of fixed costs plus 4520.00 EUR of variable costs per 1000 units (4.52 EUR per unit)). If it produces and sells 1300 units (optimistic scenario), the total costs will make 10126.00 EUR (4250.00 EUR of fixed costs plus 5876.00 EUR variable costs of 1300 units (4.52 EUR per unit)). And finally, if the company produces and sells 750 units (pessimistic scenario), its total costs will make 7640.00 EUR (4250.00 EUR fixed costs

plus 3390.00 EUR variable costs of 750 units (4.52 EUR per unit)). The average unit selling price is 10 EUR (exclusive of VAT). A summary of calculating the expected total result of the project is presented in Table 11.

Table 11. Summary of calculating the expected total result of the project

Position	Optimistic scenario	Realistic scenario	Pessimistic scenario
Number of units	1 300	1000	750
Expected benefits of the project, EUR	13 000.00	10 000.00	7 500.00
Expected costs of the project, EUR	10 126.00	8 770.00	7 640.00
Expected result	**2 874.00**	**1 230.00**	**-140.00**

It should be taken into consideration that under the pessimistic scenario, the outcome of the project may be negative. This means that in an unfavourable situation, the project may become unprofitable. However, such a forecasting result in the Graduation Thesis is acceptable, as the company can assume a certain degree of risk. The project cannot be carried out if the result of the realistic scenario is negative.

EXAMPLE 2 (*calculation of break-even point*). The estimated fixed costs of the company make 1 191.81 EUR. The average variable cost per item is 25.08 EUR. The average selling price of the product is 40.13 EUR. The quantity of product units to be sold to reach the break-even point $Q = \frac{1\,191.81}{40.13-25.08} = 79.2$ units. Consequently, in order to start making a profit, the company must sell at least 80 units of the product in question. This means that the company's turnover must be at least 3 210.40 EUR (80 units × average price of 40.13 EUR).

EXAMPLE 3 (payback period calculation): it is assumed that updated software will allow to optimize the processes for a company and save 2697.50 EUR per year. The total cost is estimated at 15000.00 EUR (programming alone will cost 14550.00 EUR, while training the staff to work with the updated program will cost EUR 450.00). The payback schedule can be presented in form of a table, as shown in Table 12.

Table 12. Calculating the payback period

Period (in years)	Annual savings, EUR	Payback residual value, EUR
0	---	- 15 000.00
1	2 697.50	- 12 302.50
2	2 697.50	- 9 605.00
3	2 697.50	- 6 907.50
4	2 697.50	- 4 210.00
5	2 697.50	- 1 512.50
6	2 697.50	+ 1 185.00

This means that the project should pay back within 15 000.00 / 2 697.50 = 5.56 years (within 5 years and 7 months, to be more exact).

It should be taken into consideration that tables and figures (charts) provide only summary information, therefore specifications and explanations in the main text are obligatory.

ANNEX 11

COMPILING THE REFERENCE LIST IN ACCORDANCE WITH APA STYLE BIBLIOGRAPHIC DESCRIPTION STANDARD

All sources mentioned in the text of the paper must be listed in the list of references. Accordingly, all sources included into the list of references must be referred to in the main text of the Graduation Thesis. The list of references is provided at the end of the paper before the annexes.

Layout. The list of references should come on a separate page, numbered in Arabic numerals, using a 1.27 cm indent, 12 pt. size text and 1.5 line spacing (0 pt. before and after).

Ordering. Bibliographic descriptions of sources are arranged in alphabetic order by the last name of the author. When the author of a work is unknown, the source title is moved to the author's position. Sources written in *Latin* characters are listed first, followed by alphabetically ordered sources written in *Cyrillic* (e.g., in Russian). All sources of information included into the list of references should be written in the original language.

If the title of source with no author begins with **an article** (*a, an, the, der, die*, etc.), the title is alphabetized by the second word.

Works by the same author are arranged by their publication date in ascending chronological order, e.g., 2010, 2015, 2018, etc.

Works by the same author **with the same publication date** are arranged alphabetically by title, by adding **lowercase letters** *a*, *b*, *c*, etc. immediately after the year of publication, e.g., Longo, V. (2019a).

When developing academic papers, it is recommended to make use of reference management software, including *RefWorks*, *Zotero*, *Mendeley*, *EndNote*, etc. These tools help to store bibliographic records, to insert properly formatted in-text quotations and to compile reference lists in accordance with the preferred style of bibliographic description.

Important note! The bibliography compiled with the help of the aforementioned tools should be carefully reviewed; if any errors are identified, they should be corrected according to the APA style bibliographic description standards.

Print books, in accordance with APA style bibliographic description requirements, are described by indicating the last name of an author (authors), the year of publication, italicized title of the book, and the publisher (location and publishing house).

The titles of books, book chapters and other larger works (films, albums, etc.) are italicized. In Lithuanian titles, the first word of a subtitle following a colon or dash is written in lowercase letters, while **in English** - in **uppercase**. For example, the same title will read *Dokumentų valdymo normos ir tvarkyba: mokomoji knyga* in Lithuanian and *Communicating project management: A*

participatory rhetoric for development teams in English. If the title of the information source in English name is made up of hyphenated words, all the words are capitalized, e.g., *Natural-Born-Cyborgs*.

Digital books are described in the same way as printed books, additionally including DOI (digital object identifier, assigned to an online document) at the end of the description. If DOI is unavailable, the Web address is provided following the words "Retrieved from".

When describing articles in journals, newspapers and other periodicals in accordance with the rules of the APA bibliographic description, the author of the article, year of publication, title of the article, title and volume (issue) of the periodical are indicated, as well as the page numbers for the article.

The title and volume number of the periodical should be italicized. More detailed numbering should be run in parentheses, italicized. When specifying the page numbering for an article, the letter "p" should not written. The title of the periodical must be indicated as written by the publisher.

Important note! When writing the titles of periodicals in English, all the key words in the title are capitalized.

Digital periodicals are described in the same way as print ones, with an additional reference to the Web address at the end of the description. The Web address is preceded by the words "Retrieved from". If the publication is associated to DOI, it is indicated at the end of the description without the note "Retrieved form". If the bibliographic description ends with an online link, no full stop is required.

Table 1. Examples of locating sources in the reference list

Source	***Basic rules and examples***	***Comments***
Referencing books and their chapters		
Single author	Gylys, B. (2018). *Bitonomija: įvadas į pirmą milijoną internetu*. Vilnius: Alma littera.	
Two authors	Samuilova, A. & Lieponienė, J. (2018). *Programos STEKAS PLIUS praktinis taikymas: studijų knyga*. Vilnius: BMK leidykla. Holland, J. & Leslie, D. (2018). *Tour operators and operations: Development, management and responsibility*. Wallingford, Oxfordshire: CABI.	Symbol "&" should be used for the source published in any language.
Three-seven authors	Gavelis, V., Gylys, P., Mačiekus, V., Minkevičienė, N., Paliulytė, R., Ulvidienė, E. & Urbšienė, L. (2017). *Makroekonomika*: *Vilniaus universiteto vadovėlis*. Vilnius: Vilniaus universiteto leidykla. Heinze, A., Fletcher, G., Rashid, T., & Cruz, A. (2020). *Digital and social media marketing: a results-driven approach*. Abingdon: Routledge.	Symbol "&" should be used for the source published in any language.
More than seven authors	Snieška, V., Baumilienė, V., Bernatonytė, D., Čiburienė, J., Dumčiuvienė, D., Juozapavičienė, A., .	The surname of the sixth author should be followed by a comma, an

Source	*Basic rules and examples*	*Comments*
	. . Urbonas, J. (2011). *Makroekonomika: vadovėlis ekonominių specialybių studentams*. Kaunas: Technologija.	ellipsis (three dots with a single space on either side) and finally by the surname of the last author. The bibliographic list should not include more than seven authors.
Reprinted book	Nekrašas, E. (2012). *Filosofijos įvadas* (3-ioji patais. ir papild. laida). Vilnius: Mokslo ir enciklopedijų leidybos centras. Holcombe, J., & Holcombe, C. (2017). *Survey of operating systems* (5th ed.). New York, N.Y.: McGraw-Hill.	
Group authors (company or organization)	Lietuvos dietologų draugija. (2004). *Dietinio maisto saugos vadovas: geros higienos praktikos taisyklės asmens sveikatos priežiūros, socialinės globos ir rūpybos įstaigose.* Vilnius: Homo liber. Lietuvos bankas. (2018). *Lietuviškos kolekcinės ir proginės monetos (1993–2018).* Vilnius: Autorius. OECD. (2020). *OECD Business and Finance Outlook 2020: Sustainable and Resilient Finance*. Paris: OECD Publishing, https://doi.org/10.1787/67289eb2-en	
Edited book or collected works	Norkus, A. (Sud.). (2018). *Diabetinė nefropatija*. Kaunas: Medicininės informacijos centras. Galinienė, G. & Deveikis, S. (Red.). (2012). *Viešieji ir privatūs aktyvai: transformacijų, efektyvaus naudojimo ir vertinimo aspektai: konferencijos, vykusios Vilniuje, Vilniaus universitete 2012 m. spalio 19 d., mokslo darbai.* Vilnius: Vilniaus universitetas. Agarwal, S., et al. (Eds). (2018). *Special interest tourism: Concepts, contexts and cases*. Wallingford, Oxfordshire: CABI.	If the book is compiled by **more than two editors**, only the name of the main editor may be indicated followed by “et al.”.
No author	*Lietuvos Respublikos Konstitucija: oficialių dokumentų tekstai su pakeitimais ir papildymais iki 2012 m. sausio 01 d.* (2012). Kaunas: Judex spauda.	
Article or chapter in a book	Logminas, V. (2010). Lietuvos paukščiai. Iš *Visuotinė lietuvių enciklopedija* (T. XVII, p. 638-640). Vilnius: Mokslo ir enciklopedijų leidybos institutas. Pučėtaitė, R. (2015). Organizacijų etikos samprata ir jos efektyvumo prielaidos. In R. Pučėtaitė, A. Novelskaitė & R. Pušinaitė (Sud.), *Organizacijų etika, novatoriškumas ir darniosios inovacijos: monografija*, (p. 24–40). Vilnius: Akademinė leidyba. Armstrong, D. (2019). Malory and character. In M. G. Leitch & C. J. Rushton (Eds.), *A new companion to Malory* (pp. 144-163). D. S. Brewer.	This order is used to describe articles or chapters in monographs, encyclopaedias, collections of articles, or conference proceedings. The title of the article is written in regular (non-italic) font. It is followed by the prefix “In”, a comma, the name of the author and the title of the book. The title of the book is italicised. The pages of the article are indicated in parentheses. Note that when describing an article or chapter of a book, the initials of the author of the book are written before the surname and are not separated by a comma.
Multivolume works	Antanavičius, J. (Red.). (2000). *Muzikos enciklopedija* (T. 1-3). Vilnius: Lietuvos muzikos akademija.	

Source	*Basic rules and examples*	*Comments*
E-book retrieved from the Internet	FitzGerald, B., Stol, K., Minör, S., & Cosmo, H. (2017). *Scaling a software business: The digitalization journey*. Switzerland: Springer Nature. doi:10.1007/978-3-319-53116-8 Sinkevičius, V., Birmontienė, T., Miliuvienė, J., Vilkelis, G., Novikovas, A., Bilevičiūtė, E., . . . Šaltinytė, L. (2019). *Lietuvos teisė, 2018: esminiai pokyčiai*. Vilnius: Mykolo Romerio universitetas. Retrieved from://ebooks.mruni.eu/product/lietuvos-teis-2018-esminiai-pokyiai	
E-book retrieved from the databases	Grebow, D., & Gill, S. J. (2018). *Minds at work: Managing for success in the knowledge economy*. Alexandria, VA: Association For Talent Development. Retrieved from EBSCOhost http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1625438&site=ehost-live Association, American Payroll. (2018). *The guide to successful electronic payments*. Retrieved from Skillsoft https://bild.skillport.com/skillportfe/main.action?assetid=139233	When describing an e-book retrieved from a database, the hyperlink is preceded by the database title.
E-book chapter or article	Simanavičienė, Ž., Pocius V. & Simanavičius, A. (2017). Ekonominis saugumas ir šalies konkurencingumas. Iš *Visuomenės saugumas ir darni plėtra: Visuomenės saugumo aktualijos ir probleminiai klausimai*. Retrieved from https://ebooks.mruni.eu/product/visuomens-saugumas-ir-darni-pltra-saugumo-aktualijos-probleminiai-klausimai	
Articles from online encyclopedias and dictionaries	Jakubčionis, A. Vasario 16 Aktas. (2018). Iš *Visuotinė lietuvių enciklopedija*. Retrieved from https://www.vle.lt/Straipsnis/Vasario-16-Aktas-99920	
KINDLE books	Hatala, M. (2019). *APA style basics: Writing student papers in psychology and the social sciences* [Kindle version]. Retrieved from https://www.amazon.com	
Referencing periodicals		
Articles in print scientific journals (single, two, three or more authors)	Pečiūrienė, A. (2017). Fostering of business and management students learning in accounting courses. *Journal Advances in Higher Education, 4*, 69-78. Bučienė, R., Ulvidienė, E. & Valentukevičienė, S. (2015). Studentų verslumo ir kūrybiškumo ugdymas Vilniaus kolegijos Ekonomikos fakultete. *Mokslo taikomieji tyrimai Lietuvos kolegijose, 2*(11), 17-27.	
Articles in an electronic journal	Davulis, G. (2016). The system of Lithuanian business enterprises and macroeconomic efficiency of its elements. *US-China Foreign Language, 14*(3), 250-255. Doi:10.17265/1539-8080/2016.03.008	
Articles in a magazine	Katkevičius, A. (2018, birželis). Nuo ego sistemos – prie ekosistemos. *Verslo klasė, 3,* 24-29.	
Articles in a newspaper	Micevičiūtė, G. (2018 m. spalio 8 d.). Padangas galima perdirbti netgi į kurą. *Lietuvos Rytas*, p. 8-9.	When describing newspapers, the letter “p” should precede the page numbers.

Source	*Basic rules and examples*	*Comments*
Articles in an electronic newspaper	Bružauskas, V. (2019 m. Balandžio 2 d.). Ilgalaikio turto amortizavimo apskaitos politikos pasirinkimas. *Apskaitos, audito ir mokesčių aktualijos.* Retrieved from http://aktualijos.lt/straipsniai /ilgalaikio-turto-amortizavimo-apskaitos-politikos-pasirinkimas	
Articles retrieved from a database	Sfakianaki, E., & Kakouris, A. (2019). Lean thinking for education: Development and validation of an instrument. *International Journal of Quality & Reliability Management.* Emerald Insight. Retrieved from doi: 10.1108/IJQRM-07-2018-0202. Briegel, J. (2019). The effects of the tax cuts and jobs act on small businesses. *Journal of Financial Service Professionals, 73*(1), 48-55. Retrieved from EBSCOhost http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=133676643&site=ehost-live	The hyperlink is preceded by the database title and "Retrieved from".
No author	How to launch your career in project management: Project management can be a rewarding and challenging career, but where do you start? (2018, February 27). *Management Today. https://www.prescience.com.au/how-to-launch-your-pm-career/*	
Referencing other sources of information		
Legal acts	Constitution of the Republic of Lithuania (Adopted by citizens of the Republic of Lithuania in the Referendum of 25 October 1992). Retrieved 09-12-2020 from https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.21892 Labour Code of the Republic of Lithuania. 14 September 2016. No XII-2603, the Republic of Lithuania. Retrieved 09-12-2020 from https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/da9eea30a61211e8aa33fe8f0fea665f?jfwid=-k3id7tf7e Dokumentų rengimo taisyklės [Rules for Preparation of Documents] 2011 m. liepos 4 d. Nr. V-117, pakeitimas 2011-07-16. Retrieved 09-12-2020 from https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403753/HTRzpowbFZ	The retrieval date of the legal act should be indicated. It is necessary to provide the English title of the legal act in brackets if its valid version is only available in the original language (i.e., if there is no official translation).
Acts of government	Lietuvos Respublikos švietimo ir mokslo ministerija [Minister of Education, Science and Sport of the Republic of Lithuania] (2018). *Valstybinė švietimo 2013–2022 metų strategija*. Vilnius: Švietimo ir mokslo ministerijos Švietimo aprūpinimo centras.	
Dissertations and Master's theses retrieved from the Internet (databases)	Kairys, A. (2010). *Laiko perspektyva: sąsajos su asmenybės bruožais, amžiumi ir lytimi* (doctoral dissertation, Vilnius university). Retrieved from eLABa https://vk.lvb.lt/primo-explore/fulldisplay?Docid=ELABAETD1737777&context=L&vid=VK&search_scope=LABTALL&isFrbr=true&tab=default_tab&lang=lt_LT	
Online lecture notes	Kuodis, R. (2007). Mikroekonomikos teorijos paskaitos [PDF document]. Retrieved from	

Source	*Basic rules and examples*	*Comments*
and presentation slides	http://www.ekonomika.org/Mikro/PPT/1p_Ivadas.pdf	
Web page (organization as author)	Lietuvos bankų asociacija [Association of lithuanian banks]. (n. d.) Nuostatų dėl pinigų plovimo prevencijos išaiškinimas. Retrieved from https://www.lba.lt/lt/nuostatu-del-pinigu-plovimo-isaiskinimas	If no date is provided on the source, letters "n.d." should be used in parenthesis
Web page (individual author)	Bukotienė, I. (2018 m. lapkričio 13 d.). Pasaulinė diabeto diena 2018: diabetas susijęs su kiekviena šeima. Retrieved from http://www.smlpc.lt/lt/neinfekciniu_ligu_profilaktika/ligu_profilaktika/ pasauline_diabeto_diena_2018_diabetas_susijes_su_kiekviena_seima.html	
Online documents and reports	Blaževičienė, K. (2019 m. vasario 4 d.). *Bibliotekos veikla 2018*. Retrieved from https://biblioteka.viko.lt/media/uploads/sites/25/2016/10/Veiklos-ataskaita-u%C5%BE-2018-m..pdf	
Blogposts	Ažugiridienė, G. (2018 m. spalio 10 d.). Maitintis sveikai yra paprasta [blogpost]. Retrieved from http://guodos.pastebejimai.lt/2018/10/10/geriau-tegu-maistas-jungia-ne-skiria/	
Graphic data (interactive maps, etc.)	Klaipėdos miesto savivaldybės aplinkos monitoringo informacinė sistema. (2018). [chart, 2004-2012 data]. *Zooplanktono biomasė*. Retrieved from http://www.monitor. ku.lt/index .php?m =vgraph	
(Downloadable) software	Automated trading bot [Computer software]. (2018). Vilnius: Blockchain analytics. Smith, J. (2014). Comprehensive Meta-Analysis (Version 2) [Computer software]. Englewood, NJ: Biostat. Retrieved from http://www.comprehensive.com	
***YouTube* video or video blog**	Viskas kas rūpi [Everything we care about] (2018 m. gegužės 3 d.). Apie gyvai: Gabrielius Liaudanskas-Svaras – pankas su legaliais ginklais [video]. Retrieved from https://www.youtube.com/watch?v=xy9rZAcnNY4irlist= RDxy9rZAcnNY4irstart_radio=1irt=5	
TV programme	Jakilaitis, E. (Producer and host). (2016 m. gruodžio 5 d.). *Dėmesio centre* [TV programme]. Vilnius: Media 3. Retrieved from https://www.lrt.lt/mediateka/irasas/157365/demesio-centre	

For more examples, please check:

- APA Style (7th Edition). (n. d.). Retrieved from https://owl.purdue.edu/owl/research_and_citation/apa_style/
- APA - Referencing Guide. (2020). Retrieved from https://libguides.murdoch.edu.au/APA

ANNEX 12

VILNIAUS KOLEGIJA/ UNIVERSITY OF APPLIED SCIENCES

FACULTY OF BUSINESS MANAGEMENT

..... DEPARTMENT

GRADUATION THESIS SUPERVISOR'S REVIEW

Study programme title: ……., state code …….

Student ……..

(name, surname)

Title of the Graduation Thesis

……....

…….....

Contribution and initiative of the student; consistency and coherence of Graduation Thesis, etc. (at least 50 words)

…….....

…….....

…….....

…….....

…….....

…….....

…….....

Supervisor …… …….....

(signature) (name, surname)

.....

(workplace)

.....

(position)

.....

(date)

ANNEX 13

VILNIAUS KOLEGIJA/ UNIVERSITY OF APPLIED SCIENCES
FACULTY OF BUSINESS MANAGEMENT
.....DEPARTMENT
GRADUATION THESIS REVIEW

Title of the Graduation Thesis .....

Author of the Graduation Thesis .....
(name, surname)

Reviewer .....
(name, surname, workplace, position, academic rank, academic degree)

Relevance of the topic of the Graduation Thesis, coherence of research problem, aim and objectives:

Evaluation of the theoretical part (presentation of theoretical background; ability to conduct in-depth analysis of contemporary and innovative problem solution models or methodologies):

Evaluation of the research part (ability to select, justify and employ research methods; ability to analyse, interpret and summarize data):

Evaluation of the project part (relevance, originality, creativity, economic validity and practical applicability of proposals):

Coherence of theoretical, research and project part:

Conclusions (relevance, logic and validity of conclusions; their relations with research aim and objectives; ability to summarize)

Strengths of the Graduation Thesis:

Weaknesses of the Graduation Thesis:

Significance of the Graduation Thesis (practical applicability):

Linguistic form and style of the Graduation Thesis:

Questions to the author of the Graduation Thesis (1 - 5):

Evaluation of the Graduation Thesis (in ten-point grading system) .....
(grade)

.....
(name, surname. signature)

ANNEX 14

THE LEVELS OF ACHIEVEMENTS IN LEARNING OUTCOMES

An excellent level of achievement

The description of the level of achievements in learning outcomes	**The criteria for determining the level** of achievements in Graduation Thesis	The number of assessments of the evaluated Graduation Thesis	The number of assessments	
			Assessment "10 and 9" **occurring not less than**	Assessment "8 and 7"
An excellent achievement level is assigned to a student who: knows the latest sources, theories and principles of the course unit (field), and is able to generate and develop new ideas; can apply knowledge and deal with complex and non-standard issues within the study field and areas related to it; is able to independently collect, evaluate and interpret data and make decisions based on them; is able to logically convey information, ideas, problems and solutions while communicating with specialists of his/her field of studies and other fields; has learning skills necessary for further studies and independent learning	A student is considered to have reached the excellent achievement level of informal criteria in Graduation Thesis if not less than four-fifths (80 percent) of the assessments are at excellent level, while others- not less than at typical level	6	5	1

A typical level of achievements

The description of the level of achievements in learning outcomes	**The criteria for determining the level** of achievements in Graduation Thesis	The number of assessments of the evaluated Graduation Thesis	The number of assessments	
			Assessment "10, 9, 8 and 7" **occurring not less than**	Assessment "6 and 5"
A typical achievement level is assigned to a student who: knows his/her main course unit (field) theories and principles, and can justify the essential study field achievements; is able to apply knowledge, deal with standard issues within the study field and areas related to it; can independently collect, evaluate and interpret his / her study field data, necessary for making decisions; is able to convey the normal study field information, ideas, problems and solutions; has learning skills necessary for further studies and self-learning	A student is considered to have reached the typical achievement level of informal criteria in Graduation Thesis if not less than three-quarters (75 percent) of the assessments are at typical or excellent level, while others – at the threshold level	6	5	1

A threshold level of achievements

A threshold level of achievements is assigned to a student who: knows his/her main course unit (field) theories and principles; is able to apply the knowledge while solving simple study field problems; may participate in the collection, evaluation and interpretation of his/her study field data, required for decision-making; is able to convey the main study field information, ideas, problems; has self-learning abilities	A student is considered to have reached a threshold achievement level of informal criteria in Graduation Thesis, if his/her achievements are **below the typical level**.