

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**

**NATIONAL TECHNICAL UNIVERSITY  
«KHARKIV POLYTECHNIC INSTITUTE»**

**Department of Management**

**GUIDELINES FOR BACHELOR'S THESIS PREPARATION**

for students pursuing a bachelor's degree in "073 Management"  
within the educational and professional programs  
«Management of Organizations and Administration» and  
«Business Administration»

Kharkiv 2022

Затверджено на засіданні кафедри менеджменту

Протокол № \_\_\_\_\_ від \_\_\_\_\_ 2022 р.

Укладачі: Краснокутська Н.С.,  
Прохоренко О.В.,  
Нащекіна О.М.,  
Ковшик В.І.

Методичні рекомендації з підготовки дипломної роботи бакалавра для студентів спеціальності 073 «Менеджмент» за освітньо-професійними програмами «Менеджмент організацій і адміністрування» і «Бізнес-адміністрування» (англійською мовою) / укл. Н.С. Краснокутська, О.В. Прохоренко, О.М. Нащекіна, В.І. Ковшик – Х.: НТУ «ХП», 2022. – 33 с.

Наведені основні вимоги до тематики, структури і змісту дипломних робіт бакалаврів. Сформульовані вимоги до організації процесу підготовки бакалаврської роботи, надано опис формальних процедур, пов'язаних із отриманням допуску до захисту дипломної роботи, і самої процедури захисту. Надані рекомендації щодо оформлення пояснювальної записки до дипломної роботи у відповідності до стандартів НТУ «ХП» СТЗВО-ХП-2.01-2021 і СТЗВО-ХП-3.01-2021. Наведені приклади оформлення окремих складових роботи, структурних елементів тексту, посилань і додатків.

Рекомендовано для іноземних студентів, що навчаються на бакалаврських програмах за спеціальністю "073 Менеджмент".

## TABLE OF CONTENTS

Introduction .....	4
1 Topics of bachelor’s theses .....	5
2 Thesis advising .....	5
3 Procedures and deadlines .....	5
4 Structure of a bachelor’s thesis .....	7
5 Content of structural components of thesis manuscript .....	8
6 Academic style of writing .....	15
7 General formatting requirements .....	15
8 Formatting of structural components and special elements of text.....	16
8.1 Abstract .....	16
8.2 Table of contents .....	16
8.3 Headings in the main body of the text .....	17
8.4 Special elements of the text .....	17
9 Plagiarism policy .....	21
10 References and citation style guide .....	22
10.1 General remarks on proper referencing and citation .....	22
10.2 Citations in the text .....	23
10.3 List of references .....	23
10.4 Formatting of references to the specific types of sources.....	24
Appendix A Sample Abstract .....	30
Appendix B Sample Table of Contents .....	31
Appendix C Examples of valid bibliographical descriptions.....	32

## INTRODUCTION

This manual is intended to provide guidance for writing a thesis to students pursuing a bachelor degree in Management and studying within the Business Administration or the Management of Organizations and Administration educational programs.

A thesis is the final and essential component of the abovementioned bachelor's programs. It represents a research project to be carried out by a student under the supervision of a faculty member.

Students prepare the thesis in the last (8<sup>th</sup>) semester of their bachelor's degree program. The academic curricula for both programs allocate six credits for the thesis preparation, which is translated into 180 hours of research work.

The major objective of the thesis as a final project is to demonstrate a student's ability to apply theoretical knowledge acquired during the undergraduate studies within the Business Administration or the Management of Organizations and Administration program in practice when analyzing a real-world company and developing recommendations regarding improving the company's operations. Writing the thesis also helps students develop their skills related to planning and managing a research project independently and effectively communicating the project results.

The thesis is defended in front of the State Examination Board consisting of three faculty members of the Department of Management.

This manual lays out the requirements for the topic, structure and content of the thesis; provides instructions for formatting the manuscript based on two standards developed at National technical university "Kharkiv polytechnic institute": CT3BO-XIII-2.01-2021 and CT3BO-XIII-3.01-2021; provides a comprehensive guide to proper citing and referencing; describes procedures related to the thesis submission for approval; points out important deadlines to be met in the process of thesis preparation and submission.

## **1 TOPICS OF BACHELOR'S THESES**

The topics of bachelor's theses can be related to the following areas of management but not limited to them: Strategic Management, Marketing Management, Sales Management, Operations Management, Investment Management, Innovation Management, Human Resource Management, Management of a Company's Competitiveness; Crisis Management, Risk Management, Purchasing and Supply Management, Logistics Management, Business Planning, Business Information Management, Organizational Culture Management.

## **2 THESIS ADVISING**

Every bachelor student is assigned a faculty member as a thesis advisor, who provides guidance and supervision of the preparation of the bachelor's thesis and with whom they discuss the research topic, research methodology, research plan and other aspects of the research project.

A student can expect 18 hours of consultation from the thesis advisor for the entire period of the thesis preparation. These hours include all meetings with the advisor whether online or offline, the advisor's time spent on correspondence with the student, as well as the advisor's reading time of all drafts during the thesis research project.

The student and advisor together develop a schedule for the work on the research project, which specifies what should be completed and by what date. If the student fails to meet the schedule, the advisor is obliged to report the delay to the Head of the department in a written form. If the delay is significant and puts at risk the completion of the thesis project, the Head of the department must officially inform the the Institute Directorate about this problem.

## **3 PROCEDURES AND DEADLINES**

In the 7<sup>th</sup> semester of the bachelor's degree program, upon the call from the Department of Management, students should submit an application requesting the assignment of a particular advisor and official approval of the research topic. Students

who fail to submit such applications on time will be assigned an advisor and topic by the Head of the department.

Students are encouraged to start working on the thesis as soon as they are assigned thesis advisors.

Three weeks prior to the defense date students should present the drafts of their theses at the meeting of the Department of Management. The Head of the department and other faculty members will collectively assess the students' progress and the quality of their manuscripts and give recommendations regarding improving the thesis quality. In case a student fails to present a draft of the thesis or in case of an inadequate quality of the draft, the department will notify the Institute Directorate about the possibility of not awarding the degree to the student. The student will be given another week to submit or improve the draft. If the student fails to demonstrate a substantial progress after this period, he/she will not be admitted to the defense procedure and as a result will be denied the bachelor's degree.

Students who failed to comply with the curriculum requirements, e.g. did not pass some courses, did not do the internship, did not submit a report on the internship and did not receive a grade for the internship, will not be allowed to defend their theses.

When planning their work on the bachelor's thesis, students should allow some time for compliance with formalities (Fig. 3.1) related to

- getting the advisor's approval of the thesis: the advisor's signature on the title page and the advisor's written evaluation of the student's work on the thesis (*at least two weeks prior to the defense date*);
- checking the thesis for plagiarism (*at least two weeks prior to the defense date*);
- getting an independent evaluation (review) of the thesis from an assigned faculty member (*at least one week prior to the defense date*);
- checking the thesis for meeting the technical (formatting) requirements (*at least one week prior to the defense date*);
- getting the approval of the thesis by the Head of the Department of Management (*at least four days prior to the defense date*);

- depositing an electronic copy of the final version of the bachelor's thesis into the University library's digital repository (*at least two days before the defense date*).

After getting all the approvals and complying with the formalities, students should submit a hard copy of their properly bound thesis and an electronic copy as a PDF file to the department.

It is the responsibility of the student to make sure that the thesis meets the formatting requirements described in this manual. Before submitting their bachelor's theses to the department, students should contact the faculty member responsible for checking the manuscripts for the compliance with the structure and formatting requirements and get his/her approval (signature on the title page).

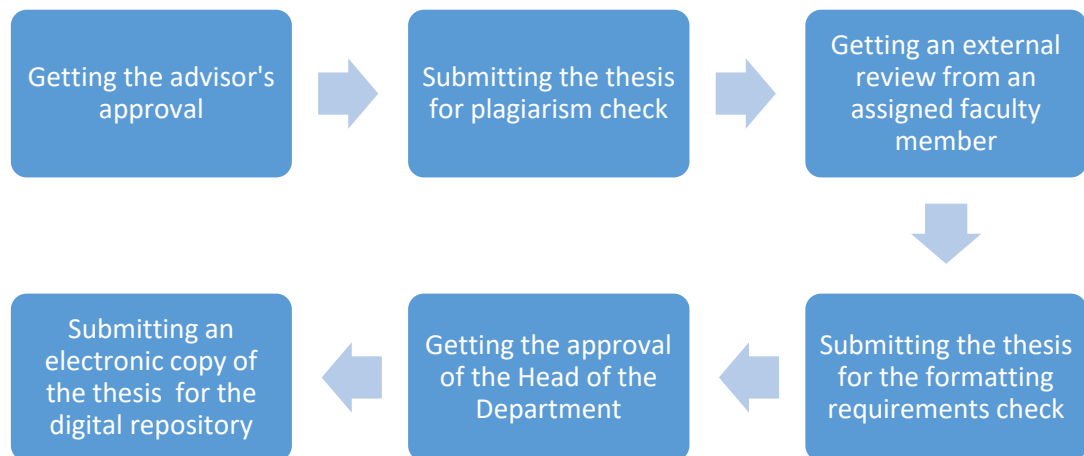


Figure 3.1 – The formal procedures to be completed before the defense

For the defense, students should prepare an oral presentation of the results (a seven- to ten-minute talk accompanied by a PowerPoint presentation) and printouts of the slides for the members of the State Examination Board. After the presentation, the student answers questions of the members of the Examination Board and responds to the criticisms laid out in the review provided by the assigned faculty member.

#### **4 STRUCTURE OF A BACHELOR'S THESIS**

A bachelor's thesis is composed of the following elements:

1) cover page;

- 2) the list of documents related to the thesis;
- 3) the specification of the research project tasks and schedule;
- 4) the manuscript;
- 5) illustrative materials (presentation).

An electronic copy of the thesis prepared as a PDF file should include items 1 through 4. A hard copy should additionally include item 5. The elements in the list above appear in the sequence, in which they should be arranged in the electronic version of the bachelor's thesis and should be bound in the hard copy.

The first three items are preliminary pages, for which standard forms are available. The forms are to be completed in Ukrainian with the help of the thesis advisor.

The fourth item in the list is the thesis per se, the rest are accompanying documents and supplementary materials.

The fifth item represents a printout of the PowerPoint presentation used by the student during the thesis defense. The printout should be placed in a transparent plastic file and bound with the hard copy of the thesis.

## **5 CONTENT OF STRUCTURAL COMPONENTS OF THESIS**

### **MANUSCRIPT**

The thesis manuscript (item 4 in the list of thesis elements described in Chapter 4) includes the following structural components:

- 1) title page;
- 2) abstract;
- 3) table of contents;
- 4) list of symbols and abbreviations (if applicable);
- 5) introduction;
- 6) main body of the text;
- 7) conclusions;
- 8) list of references;
- 9) appendices (if any).



The guidelines as to the content of individual components of the manuscript are given below.

**The title page** is the first page of the thesis. It is included into the total page count but is not numbered. There is a standard form of the title page available as an electronic template. This form is to be filled out in Ukrainian with the help of the thesis advisor.

**Abstract** provides a short description and overview of the thesis. It contains three structural elements:

- 1) information about the size of the manuscript;
- 2) list of keywords;
- 3) summary of the manuscript content.

The information about the size of the manuscript includes the total numbers of pages, figures, tables, references and appendices.

Keywords are words or short phrases that reflect the topic and content of the thesis. The list of keywords usually ranges from 5 to 15 words or short phrases.

A short summary of the manuscript content should include the statement of research goals, object and subject matter of the study (see the explanation in the description of Introduction), a statement of what was done and what results were obtained.

The abstract size should not exceed one page. The abstract should be provided in both English and Ukrainian. A sample abstract (in English) is given in Appendix A.

**The table of contents** lists the structural components of the thesis in the following order:

- introduction;
- headings of chapters in the main body of the text;
- conclusions;
- list of references;
- appendices (if any).

Abstracts are not listed in the table of contents.

The instructions for formatting a table of contents are provided below and a sample table of contents is given in Appendix B.

In the **Introduction** it is necessary

- to justify the importance and relevance of the topic of the thesis;
- to define the object and subject matter of the study;
- to formulate the goal (purpose) and specific tasks of the study. The tasks of the study are particular issues that will be addressed in order to achieve the goal of the study;
- to name the research methods used in the study;
- to specify the types of sources of information used in the thesis;
- to comment on the practical importance of the propositions and recommendations developed in the thesis and potential for their implementation.

The object of the study is a process or phenomenon with which the problem situation studied in the thesis is associated. The subject matter is a property, a constituent, a dimension, a relationship or factors influencing the object's functioning and/or development, theoretical and/or methodological aspects of studying the object etc, on which the study is focused. The object and subject matter are related as the whole and its part.

For example, the object of research can be the process of developing an operations strategy of a company and the subject matter – methodological principles and practical aspects of the development of an operations strategy for a company. Another example: the object of research is the marketing management of a food company and the subject matter is theoretical and methodological approaches to developing a marketing mix for a food company.

The goals of the work are related to the object and subject matter of study and should reflect the results that are expected at the end of the project. One should not formulate the goals like, for example “to study the problems of personnel motivation...” because it reflects a process rather than a result and is rather indefinite.

The goals of the work can be stated, for instance, in the following way: to assess the efficiency of the company's operations and develop practical recommendations as to its enhancement.

To show how the goals of work will be accomplished, the student should formulate more specific tasks, which, for example, may include:

- reviewing literature / studying theoretical background / exploring the theoretical framework...;
- performing the industry analysis (analysis of competition / market analysis / strategic analysis...);
- assessing the company's performances (financial situation / marketing activities / competitiveness...),
- developing recommendations (propositions / an investment project / an advertising campaign....),
- assessing the project feasibility (economic viability of the project).

Research methods are certain ways, procedures or instruments that are used for achieving the goals of the study. Research methods may include specific methods of data collection, such as a customer survey, expert interviews, case studies, methods of data processing and data analysis including comparative analysis, graphical method, content analysis, statistical methods, the use of special software, methods of financial analysis and so on.

The types of sources of information used in the work may include textbooks, academic articles, statistical data, internal documents and records of the company under study, legislative sources, the company's website and others.

Commenting on the importance of the results obtained in the work from a practical point of view, one can indicate that the developed project (recommendations) can be implemented in the company for which it was proposed to improve its performances, efficiency, competitiveness and so on.

The introduction should not exceed two pages. It is not divided into subsections and does not contain figures or tables.

**The main body of the text** consists of five chapters related to the topic of the thesis. These chapters should represent a coherent whole, i.e. to be interrelated and logically interconnected. Chapters should not be subdivided into smaller sections.

The **first chapter** of the bachelor's thesis provides a theoretical background of the study and describes its methodological framework. It may contain an overview of the existing theories, ideas, models, classifications, opinions; reflect the major stages or milestones in the development of theoretical views in the corresponding research area; define key concepts related to the research problem in order to avoid any ambiguity in their interpretation. Sometimes it is useful to compare definitions of the key concepts given by different scholars and critically assess them. The literature review should contain not only quotes from different sources but also the juxtaposition, critical analysis, and systematization of different points of view as to the problem studied in the thesis, as well as present the author's point of view.

It is mandatory that the newest theories, views, models be reflected in the theoretical overview. If necessary, the student can refer to classical works that were published in a distant past but this should be done in the context of a chronological overview of the development of theoretical views in the field.

In the first chapter, students should also describe the methods, tools and models which will be used in the work and justify their choice.

Whenever someone else's ideas, data, figures or text are mentioned or used in the thesis, they should be properly cited.

**The second chapter** of the thesis should contain general information about the company chosen for studying the research problem, including information about the company's current activities, the history of the company development, the form of ownership, organizational structure, the number of employees, geographical presence, major performance indicators, market share etc. When giving a general description of the company, one should avoid a plain copying of text from the company's website or the company's charter.

In **the third chapter**, the student should analyze those aspects of the company's operations that are directly related to the topic of the thesis and demonstrate the ability to choose and use appropriate instruments for performing such analysis. It is also important that the student show the ability to collect and process primary and/or secondary data, calculate business metrics, analyze and interpret time series data, detect

trends and outliers. As a result of the analysis, the student should identify the company's problems to be dealt with in the subsequent chapters.

Depending on the topic, in chapter 3 the student may have to analyze in-depth the company's financial situation, organizational structure, marketing activities, innovation or investment activities, human resource management, to assess the company competitiveness, to perform strategic analysis and so on.

In some cases, the content of chapters 2 and 3 may vary, somewhat deviating from what was described above. For example, some topics may require a profound industry (market) analysis as a separate chapter. Then, a general characteristic of the company may be combined with the analysis of more specific, topic-related dimensions of the company's operation. If a thesis deals with business planning, the content of chapters 2 through 5 may follow the logical order of the business plan sections.

Thus, depending on the topic of the thesis, students may analyze not only the company's performances but also the dynamics of production in the industry, total market size, the market shares of key players, the characteristics and scope of competition, the competitiveness factors, key success factors and the driving forces of the industry development, government regulation of the industry and so on. Students should provide statistical data for several recent years with proper references to the data sources.

When performing analysis in chapters 2 and 3, it is not enough to present quantitative data in tables or graphs without any comments. It is even insufficient to describe data in the text (e.g. "As figure 1 shows, the company's sales reached \$170 mln in 2019 and then dropped to \$120 mln in 2020). It is necessary to interpret the data, for example, to explain why a certain performance indicator fluctuates or dramatically increases or steadily falls over time, to identify cause and effect relationships.

In the absence of objective statistical data, the student can seek expert opinions and other qualitative data, for example, when assessing the company competitiveness. If expert methods are used in the work, they should be appropriately described. In

particular, it is necessary to indicate who the experts were, what criteria were used for evaluation, what were the weights of individual criteria and other details.

In **the fourth chapter**, the student develops specific recommendations as to the improvements in management practices aimed at enhancing the performance, effectiveness and efficiency of the company in question and provides a rationale. The propositions should be based, on the one hand, on theoretical ideas and methodological approaches laid out in chapter 1, and, on the other hand, on the results of the analysis performed in chapters 2 and 3. The description of the recommendations should be as comprehensive as possible and address all relevant issues related to their implementation.

**The fifth chapter** should contain a thorough justification of the recommended measures – a feasibility study. For this purpose, the student should estimate the costs of implementing the propositions. Then, depending on the nature of the propositions, it might be necessary to make forecasts of the future sales, market share and other performance indicators, to provide financial feasibility assessment for investment projects, to calculate a break-even point for new products or services, to forecast changes in the company's or product's competitiveness, to estimate other expected results, including possible social impact. The student should compare the estimated costs and projected results and make a conclusion whether the implementation of the recommendations would be justified.

The size of each chapter ranges from 10 to 15 pages. Chapters should not be ended with a figure, table or equation.

In **the conclusions**, the student should summarize the most important results of the work. The conclusions should be written logically, should not contain data or facts that have not been mentioned in the main body of the text. The conclusions should be consistent with the goal and tasks of the thesis formulated in the introduction.

The conclusions section should not describe what *was done* by the student but *state meaningful results*, i.e. show what new knowledge was obtained by the student as a result of quantitative and qualitative data analysis, what was suggested and what were the results of the feasibility study.

The length of the conclusions section should not exceed two pages.

**The list of references** should contain only the sources that were cited in the thesis.

**Appendices** may contain financial statements, detailed tables, the results of calculations, questionnaires used in the work, supplementary materials, such as illustrations, etc.

## **6 ACADEMIC STYLE OF WRITING**

The bachelor's thesis should be written using the academic style of writing. The specificity of this style is determined, on the one hand, by the goals of academic communication – to clearly and unambiguously state facts and explain them, convey complex ideas and concepts, and, on the other hand, by the characteristics of the target audience – professionals, who are qualified enough to understand information laden with terms and want to obtain objective, well-organized and accurate information based on hard data.

The main characteristics of the academic style of writing are

- 1) an extensive use of terminology;
- 2) logical ordering of information (usually from general to specific);
- 3) clarity and unambiguity;
- 4) precise word choice;
- 5) conciseness;
- 6) formal tone;
- 7) consistency in style;
- 8) avoiding the use of “I” and “my” pronouns, using “we” and “our” instead.

## **7 GENERAL FORMATTING REQUIREMENTS**

The manuscript should be typed on A4 size paper (297 mm × 210 mm) with the left, top and bottom margins of at least 20 mm and the right margin of at least 10 mm. Both the left and right margins should be justified.

The font Times New Roman is recommended for all elements of the text including tables and figure captions, footnotes and citations. The font size is 14 pts. Font type

and font size should be consistent throughout the text. Smaller font size (12 pts) may be appropriate for some elements of the text, such as tables, footnotes, etc.

The 1 ½ line spacing should be used throughout the text with no extra space between paragraphs. The first line of a paragraph should be indented 1 cm. The indentation should be consistent throughout the text.

The page numbers in Arabic numerals should be placed in the upper right corner of the page. The first page is the title page of the manuscript. It counts but is not numbered.

Paragraphs ending pages of text should contain at least two lines of text. Otherwise, they should be moved to the top of the following page. New pages of text should not begin with the last line of a paragraph carried over from the previous page but contain at least two lines of the paragraph that starts on the previous page.

Each structural component of the text (abstract, table of contents, list of symbols, introduction, conclusions, list of references, and appendices) starts on a new page. The titles of structural components are typed in capital letters, boldface and centered.

Formatting requirements for special elements of the thesis, such as abstract, table of contents, headings, tables, equations, figures, references, and appendices will be described below.

## **8 FORMATTING OF STRUCTURAL COMPONENTS AND SPECIAL ELEMENTS OF TEXT**

### **8.1 Abstract**

The structural elements of the abstract should be separated from each other by a single-spaced blank line. The abstract size should not exceed one page.

The pages of the abstracts are not numbered and are not included in the total page count. See a sample abstract in Appendix A for more details.

### **8.2 Table of contents**

The heading TABLE OF CONTENTS should be typed in capital letters boldface at the top margin and centered.



One single-spaced line should be left between the heading and the first entry. In the rest of the table of contents, a 1 ½ line spacing should be used.

All entries should be aligned with the left margin.

If a heading takes up more than one line, it should be broken up about three-fourths of the way across the page and the rest should be typed on the next line and aligned with the beginning of the textual part of the heading on the previous line.

Page numbers listed in the table of contents should line up on the right margin with leaders (series of periods) filling out the space between the end of the entry and the page number.

A sample of the table of contents is given in Appendix B.

### **8.3 Headings in the main body of the text**

Chapters should have headings and be numbered using Arabic numerals. No period is placed at the end of the heading as well as at the end of the chapter number.

The headings of chapters are typed in capital letters, boldface and centered. One single-spaced line should be left between the heading of a chapter and the following text. It is recommended that a new chapter be started on a new page.

### **8.4 Special elements of the text**

#### **8.4.1 Equations**

Equations are placed on a separate line and centered. One blank line should be left before and after the line with an equation. After the equation, a comma should be placed.

The explanation of quantities and coefficients that enter an equation, if they were not introduced earlier in the text, should start on the next line after the equation with the word “where”. The explanation of each quantity should start on a new line and end with a semicolon. The last explanation ends with a period.

At the end of the explanation of a quantity, one should indicate the units of measurement, if any, after a comma. For constant quantities, the value should be given.

The line spacing between an equation and the explanation as well as between the explanation and the following text should be the same as in the text (1 ½).

The main equations to which the author of the thesis refers should be numbered. The first part of the equation number is the number of the chapter, the second part, separated by a period, is the consecutive number of the equation within that chapter. The number of an equation is placed at the right margin of the line with the equation and contained in round brackets.

A sample equation (8.1) is given below.

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1+i)^t}, \quad (8.1)$$

where  $NPV$  is the net present value of future cash flows, USD;  
 $CF_t$  is the cash flow in time period  $t$ , USD;  
 $n$  is the total number of time periods;  
 $i$  is the discount rate.

#### 8.4.2 Tables

All tables should be referred to in the text. A table can be placed immediately below the text in which it is referred to, on a separate page or in an Appendix.

Tables should have captions and be numbered.

Table 8.1 is an example of table formatting.

Table 8.1 – The positions of Nestle Global in international CSR-related rankings in 2019 and 2020 (compiled on the basis of [87])

Rankings where listed	Organization that produces ranking	Position of Nestle Global	
		2019	2020
1	2	3	4
Brands Most Criticized by Activist Groups	Sigwatch	4	1
Brands Most Praised by Activist Groups	Sigwatch	9	2
Sustainable Brand Index in the Netherlands	Sustainable Brand Index		90
Behind The Brands Ranking, Food Companies	Oxfam International	1	3

End of Table 8.1

1	2	3	4
Responsible Supply Chain Management Benchmark	VBDO	5	6
Green Ranking Global Top 100	Newsweek	83	65
The Brand Footprint Global Ranking Top 50	Kantar Worldpanel	13	15
The World's Top 50 Most Attractive Employers	Universum	31	34
Global 100 Most Sustainable Corporations	Corporate Knights	50	
Global CR RepTrak 100	RepTrak (Reputation Institute)	89	

The table caption starts after a 1 cm paragraph indent with the word “Table” followed by the table number, a space, en-dash, another space and then the title of the table. The number of a table consists of two parts separated by a period: the first designating the chapter in which it appears and the second indicating the consecutive number of the table in that chapter.

The table caption is placed above the table. If the table title is longer than one line, it is continued on the next line and starts right under the table title (not number!) on the first line. It is recommended that a blank line be left before and after a table.

The font size inside tables can be smaller than 14 pt (e.g. 12 pt).

The height of rows in a table should be no less than 8 mm.

A table can be continued on the next page(s). In this case, on the page where the table starts, in the row immediately below the table header, one should assign numbers to the columns.

At the top of the next page, after a paragraph indent one should type “Continuation of Table ...” or “End of Table....”, depending on whether the table ends on this page or is still to be continued on the next one. Instead of reproducing the header of the table

on the next page(s), one should indicate the corresponding numbers of columns in the first row.

### 8.4.3 Figures

All figures should be referred to in the text before them. A figure is placed after it is mentioned in the text for the first time.

Figures should be numbered. The number of a figure includes the chapter number and the consecutive number of the figure in that chapter separated by a period.

The figure caption should be placed under the figure and centered. The figure caption starts with the word “Figure” followed by the figure number, a space, en-dash, another space and then the title of the figure.

It is recommended that one blank line be left between a figure and the text before and after the figure.

If a figure is based on the information from another source, the reference to that source should be provided in square brackets.

Figures should be of good quality and clearly readable.

The sample figure 8.1 shows how a figure should be placed in the text and how a figure caption should be formatted. The number of reference in the brackets is arbitrary.

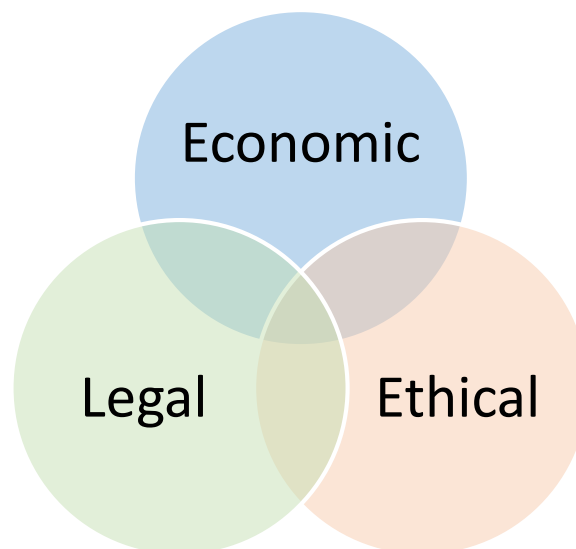


Figure 8.1 – The three-domain model of corporate social responsibility [19]

#### 8.4.4 Conclusions

Conclusions are placed at the end of the main body of the text. They should start on a new page and be one- to two-page long.

#### 8.4.5 References

The reference section should contain the list of properly described sources of information and data used in the thesis. All sources in the reference list should be referred to in the main body of the text. The most common sources of information include articles in scientific journals and other editions, books, statistical databases, electronic resources.

A detailed description of the requirements to citing and referencing with examples will be given in chapter 10 of this manual.

#### 8.4.6 Appendices

Appendices contain supplementary materials, which are either too large to be placed in the main body of the text (e.g. detailed data tables) or provide illustrations of secondary importance.

Appendices are placed at the end of the thesis after the list of references.

The word “APPENDIX” is typed uppercase, boldface and centered at the top of the page. Appendices are labeled with capital letters (A, B...) consecutively in alphabetical order.

An appendix should have a heading, which is placed under the label and centered. One blank line should be left between the label and the heading. The heading is typed lowercase with the first letter capitalized, boldface.

## **9 PLAGIARISM POLICY**

Plagiarism refers to presenting someone else’s ideas, data, figures, text, etc. as one’s own original work. Plagiarism is a form of cheating. Ethical academic writing assumes giving proper references to the work of others. The thesis must represent the student’s own results and be written by the student him/herself. If students, when doing their research, draw on someone else’s theories, models, ideas, statistical data etc., all the sources must be properly acknowledged and cited.

Students should be aware that special software will be used to detect plagiarism in the thesis. Students whose plagiarism will be exposed will be penalized. At best, they will have to rewrite their theses. In the most severe cases they will not be allowed to defend their theses and thus will not be awarded the degree.

## **10 REFERENCES AND CITATION STYLE GUIDE**

### **10.1 General remarks on proper referencing and citation**

In writing scientific and educational papers, it is important to reference all sources properly to avoid using information without acknowledgment of its author and original publication. These references must be consistent and include necessary components that allow identifying the source among millions of existing scientific papers, books, or web pages.

One of the common problems students face during their thesis preparation is using proper in-text citation and reference styles. In scientific articles and books, it is possible to see bibliographies and references formatted in different ways. Usually, they contain the same elements (authors, title, publication year, etc.) but in a different order and use different delimiters (commas, periods, slashes, dashes, parentheses, etc.). These styles are established by publishers and journal guidelines or local standards. It is crucial, in the writing of a new paper, to avoid mixing several citation styles. So, it is impossible to directly copy bibliographical descriptions from journal websites, book covers, repository pages, or Google Scholar.

According to the local standards for preparation of scientific and educational works at NTU “KhPI,” students have to use the State standard of Ukraine DSTU 8302:2015 “Information and documentation. Bibliographic references. General requirements and rules of composition” (ДСТУ 8302:2015). It is based on the previous standard (DSTU GOST 7.1:2006) and contains some significant simplifications that allow creating more readable references, similar to the examples of common international citation styles.

The following information and examples cover the basics of using the standard for bibliographies preparation in student papers and describe the simplest form of

references. For the complete details and possible options in the bibliographies formatting, please refer to the original standards.

## 10.2 Citations in the text

In the text, whenever any information from an external source appears (in direct or indirect form), it must be accompanied by a reference to the source. According to the standard, since the thesis papers obligatorily include the section with a numbered list of references, the in-text citations do not include any source properties, like author names. They indicate only the index number of the source in the list.

The numbers are placed in square brackets “[ ]” and can be separated by a semicolon “;” if it is necessary to mention multiple works of the same author or several different sources supporting some fact or statement. If the reference relates to the source of a list of items, it is recommended to place it before the list, after the introductory phrase.

“This concept was investigated in the works by M. Johnson [1], J. Smith [2], and W. Addams [3; 4] ...”

“... created by the author on the basis of [5]”

“... as mentioned in some papers [6; 7; 10], this is ...”

“Modern management trends include the following [4]: ...”

Referring to a specific statement, definition, or fact mentioned in a large document, it is possible to include a page number separated with a comma “,” and using the abbreviation “p.” (in Ukrainian – “c.”):

“M. Porter defines this concept as ... [3, p. 231]”

“... later confirmed by other researchers [17, p. 65].”

Numbers are assigned to the bibliography items in the order of their appearance in the text. In the case of repeating the reference, it is required to use the same number.

## 10.3 List of references

The list of references is placed as a separate section, after the main body of the thesis, according to the general requirements and guidelines. All items in the list start

from the new line and are numbered using numbers without dots or other delimiters except for space or tabulation symbol:

1 Kaplan R. S., Norton D. P. *The Balanced Scorecard: Translating Strategy into Action*. Brighton : Harvard Business Review Press, 1996. 348 p.

2 Lambert D. M., Cooper M. C. *Issues in Supply Chain Management*. *Industrial Marketing Management*. 2000. Vol. 29, No. 1. P. 65–83.

3 Stadtler, H. *Supply Chain Management and Advanced Planning*: Heidelberg: Springer-Verlag, 2005. 558 p.

The general principle of creating the bibliographical description of an information source is to provide all necessary information in the following order:

- authors;
- work title;
- information about publication (e.g., journal) or a parent item (e.g., book) the work is a part of (if applicable);
- specific information about the publication: book's publisher, journal's issue or volume number, etc.
- physical characteristics: number of pages, web page URL, etc.

## 10.4 Formatting of references to the specific types of sources

### 10.4.1 General guidelines on citing different types of sources

The components of the bibliographical description are different for the different types of publications. The examples provided in this section illustrate how to format the most popular sources: books, book chapters, scientific journal articles, conference papers, web resources. Other resources can usually be cited as these types.

For example, company annual reports can be cited as books if they contain information that they were printed, or as internet resources if published online without all properties of a printed book. Similarly, newspapers are periodical publications like scientific journals, but they usually have online versions, so it is possible to choose the citation style as both types of references describe the source properly.

Proceedings of conferences (abstracts) are referenced as book chapters with an indication of the the date and place of the conference.



Laws and normative documents can be referenced as official publications in the parliament’s newspapers (e.g., Відомості Верховної Ради України) or as online resources.

For scientific articles, it is preferable to describe them as journal publications, even if they are available online. Their description may be accompanied by an optional URL or a DOI identifier if it is known.

The descriptions of the sources have to be formed using the language of the sources, and it is not needed to translate or transliterate titles, author names, etc.

#### 10.4.2 Books

A typical bibliographical description of a book contains elements in four blocks (fig. 10.1): authors (shown here as blue area<sup>1</sup>), book title (green), publication details (yellow), physical properties (orange).

Blocks are separated with a period “.”, excluding the cases if the block’s content ends with a period. For example, the author’s initials end with a period, so the second period is unnecessary.

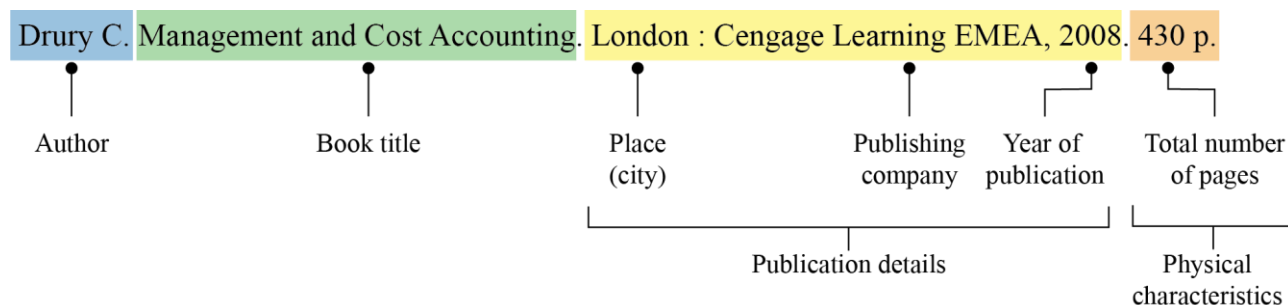


Figure 10.1 – Typical reference to a book

Author names consist of the last name and initials separated with a space. Multiple authors are listed in the same order as in the source, separated by commas “,”. Usually, up to three authors are listed. If necessary, according to the latest standard, it is possible to include more than three authors or to use abbreviation “et al.” (Latin for “and others”) or Ukrainian “та ін.”.

Kotler P.  
Christopher M. O., Kwasira J.

<sup>1</sup> Colors here are used for the convenience of reference structure understanding and are not used in documents!

Kaplan R. S., Norton D. P.  
 Kreinovich V., Quintana C., Lea R., et al.

If it is important, the book title may optionally contain a book type (textbook, monograph, instruction manual, etc.), separated by a colon with spaces around “ : ”.

Inventory Analytics : monograph.  
 Logistics and Supply Chain Management : textbook.

In the information about the publisher, the location and company’s name are separated using a colon with spaces “ : ”. The information about the publisher may be written using only the company name without the location or the location without the company name if one of them is not provided on the book cover. For example, it is common in the case of international publishing houses or electronic books. Year of publication is an obligatory item.

Physical properties of the book may include not only the total number of pages but also the volume number (“Vol.”, or Ukrainian “Т.”). Different properties are separated with a period as usual blocks.

Vol. 5. 235 p.  
 188 p.  
 Vol. 3. 480 p.

Some books were written by too many authors or are just compilations of multiple works. For example, encyclopedias and dictionaries often mention only an editor or members of the editorial team. Descriptions of such books contain no authors block, but the book title is accompanied by so-called “information about responsibility”. It is separated by a slash “ / ” symbol and usually contains an editor’s name and role (“edited by”, “ed. by”, or in Ukrainian “за редакцією”, “за ред.”):

Management / edited by F. J. Smith.  
 Information technologies in management / ed. by A. Cooper, H. Simpson

#### 10.4.3 Book chapters

Book chapters are, basically, just a small piece in a larger publication that may have separate unique features. If the whole book is written by the same authors, use the

book referencing described above. But if the chapter has different authors, it is worth mentioning that in the reference. In general, the description is similar to the book's one with several differences (fig. 10.2).

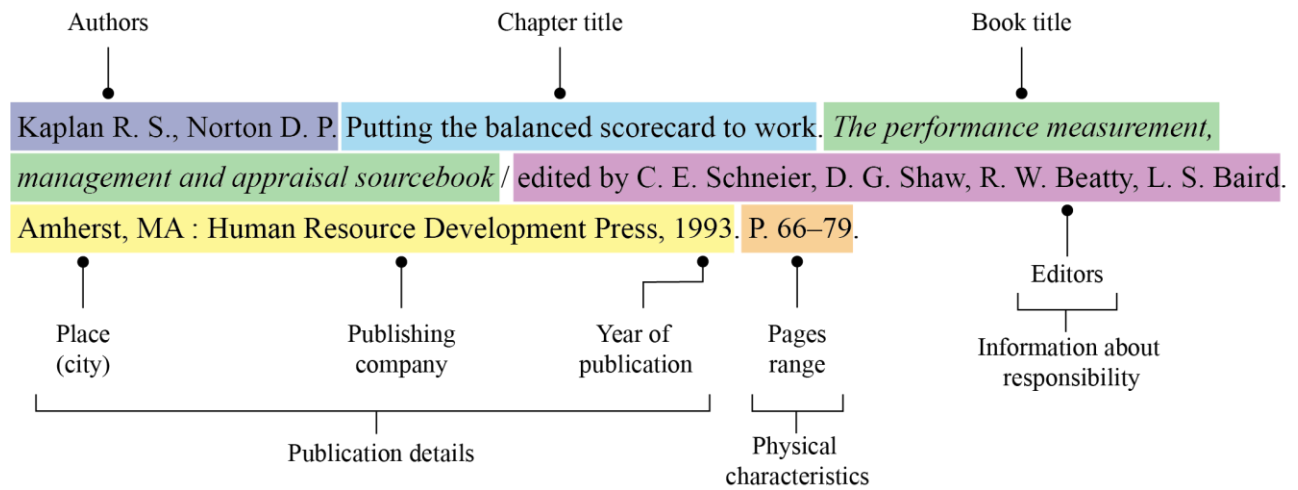


Figure 10.2 – Typical reference to a book chapter

The description of the book chapter has two title blocks: for the chapter title and for the book title. They are separated by a period, as usual. The title of the whole book can be written in italic font.

Manufacturing and logistics information systems. *Encyclopedia of Information Science and Technology*.

Performance management processes. *Managing Performance: Performance Management in Action*.

Also, the total number of pages is replaced with the corresponding pages range of the chapter with the capital letter “P.” (Ukr. “C.”) in front:

P. 45-85.

P. 1235-1321.

Often, a book chapter description can mention editors of the book too.

In case of reference to conference proceedings, it is important to indicate the type of publication (conference proceedings or as stated on the title page), as well as the place and date of the conference.

*International Conference on Operations Management and Research* : conference proceedings (Mysuru, India, January 21-22, 2016)

*International MultiConference of Engineers and Computer Scientists: conference proceedings (Hong Kong, March 16-18, 2011)*

#### 10.4.4 Journal articles

Journal articles are prevalent sources of information for scientific and educational works. They are also parts of parent publications (journals, collections) and are formatted very similarly to book chapters (fig. 10.3).

The difference is that there is no publishing company and place in the publication details block (only the year). Also, there is one more block with the issue number because journals are periodical publications. Issue numbers are formatted using a “№” symbol. Some journals also have a volume number that must be mentioned, similarly to the book volume.

It is possible to mention the DOI identifier of the article, if available, as the last block of the article’s description.

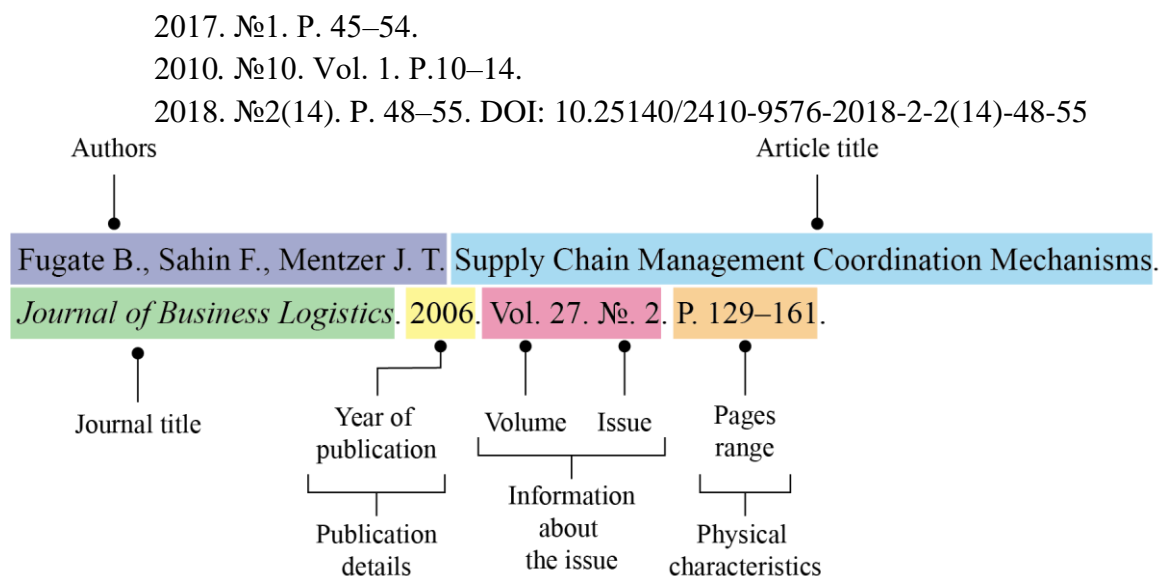


Figure 10.3 – Typical reference to a journal article

If an article is officially published online, it is possible to add URL information similarly to other internet resources (see below).

#### 10.4.5 Internet resources

Many information sources for student papers are available today as internet resources: annual reports of companies, market research data, state statistics, e-books, etc. They also must be referenced in the bibliography properly.

The description of a webpage usually should contain the same elements that allow to clearly identify the resource as any other publication: authors, title, responsibility information, year.

Unfortunately, not all web resources provide information on authors or editors, so the descriptions should mention at least a title (fig. 10.4).

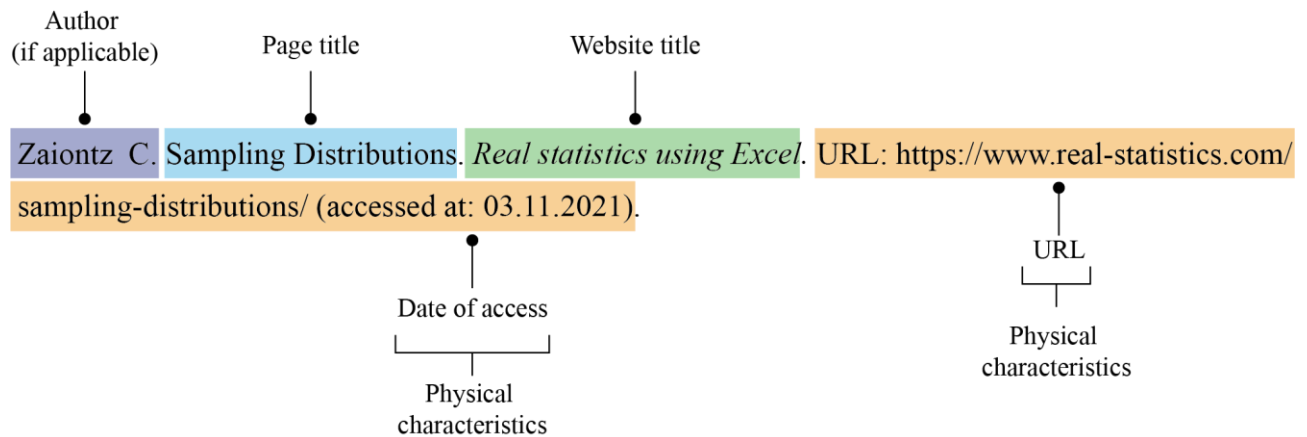


Figure 10.4 – Typical reference to an internet resource

It is possible to combine an article or blog post title with the website’s title similarly to an article in a journal description.

Portfolio Management. *Investopedia*.

Annual reports. *Inditex*.

Technical analysis. *Wikipedia, the free encyclopedia*. 2021.

The obligatory element is the internet address, or the URL (Universal Resource Locator), that is added after the previous description blocks. After the URL, in parentheses “( )”, it is needed to mention the date when the resource was accessed because web pages can be changed. The formulation is “accessed at: ...” or “access date: ...” (Ukr. “дата звернення: ”). Also, the URL section can be added after any other publication available online. Theoretically, any other resource type (book, article, law, conference paper, etc.) can be in electronic form on the internet.

URL: <https://openstax.org/details/books/principles-management> (accessed at: 22.11.2021)

URL: <http://blogs.kpi.kharkov.ua/v2/vdik/> (accessed at: 10.09.2021)

URL: <https://zakon.rada.gov.ua/laws/main/322-08> (дата звернення: 20.10.2021)

The examples of valid bibliographical descriptions are given in Appendix C.

## **APPENDIX A**

### **Sample Abstract**

#### **ABSTRACT**

The bachelor's thesis contains 87 pages, 15 figures, 20 tables, 51 references, 1 appendix

*Keywords:* COMPETITIVENESS, COMPETITIVE POSITION, COMPETITIVE ADVANTAGE, CONFECTIONERY MARKET, PRODUCT QUALITY

The goal of the work is to assess the competitiveness of “Yummy Sweets” Inc. in the confectionery market and to develop recommendations as to its enhancement.

The research object is the process of managing the competitiveness of “Yummy Sweets” Inc.

The subject matter of the research is theoretical, methodological, and practical aspects of the company's competitiveness management.

In the thesis, the theoretical and methodological frameworks for managing a company's competitiveness were explored, the market performance of “Yummy Sweets” Inc. was analyzed and the competitive position of the company relative to its competitors was assessed.

Based on the results of the analysis, specific measures for improving the company's competitiveness were proposed, the costs of the implementation of the suggested measures were estimated and their expected effect on the company's competitiveness was predicted. The implementation of the recommendations will allow “Yummy Sweets” Inc. to improve its market standing, which determines the practical value of this work.

## APPENDIX B

### Sample Table of Contents

#### TABLE OF CONTENTS

Introduction.....	3
1 Theoretical and methodological aspects of managing a company’s competitiveness .....	15
2 General description of “Yummy Sweets” Inc and its performances .....	30
3 Assessment of the competitive position of “Yummy Sweets” Inc in the confectionery market .....,.....	42
4 Propositions as to the enhancement of the company’s competitiveness .....	55
5 Feasibility study of the proposed project .....,.....	64
Conclusions.....	80
List of references.....	82
Appendix A The financial statements 2020 of “Yummy Sweets” Inc. ....	85

## APPENDIX C

### Examples of valid bibliographical descriptions

#### Books

- Kotler P., Pfoertsch W. B2B brand management: Heidelberg: Springer, 2006. 374 p.
- Gabriellova T., Lytvynenko S., Ivannikova V. Cargo Science and Logistics. Kyiv: Condor, 2020. 268 p.
- Kolbin V. V. Decision Making and Programming: World Scientific, 2003. 757 p.
- Hugos M. H. Essentials of Supply Chain Management: New York: John Wiley & Sons, 2011. 354 p.
- Kumar S. A., Suresh N. Operations management: New Delhi: New Age International, 2009. 277 p.

#### Book chapters with specific authors

- Yuan X.-M. Impact of Industry 4.0 on Inventory Systems and Optimization. *Industry 4.0 - Impact on Intelligent Logistics and Manufacturing*. IntechOpen, 2020. P. 27–38.
- Heskes T., Kappen H. On-line learning processes in artificial neural networks. *Mathematical Approaches to Neural Networks*. Amsterdam : Elsevier, 1993. Vol. 51. P. 199–233.
- Agolla J. E. Smart Manufacturing: Quality Control Perspectives. *Quality Control - Intelligent Manufacturing, Robust Design and Charts*. IntechOpen, 2021. P. 1–15.
- Kaplan R. S., Norton D. P. Putting the balanced scorecard to work. *The performance measurement, management and appraisal sourcebook* / edited by C. E. Schneier, D. G. Shaw, R. W. Beatty, L. S. Baird. Amherst, MA : Human Resource Development Press, 1993. P. 66–79.
- Aro-Gordon S., Gupte J. Contemporary Inventory Management Techniques: A Conceptual Investigation. *International Conference on Operations Management and Research* : conference proceedings (Mysuru, India, January 21-22, 2016). Mysuru : SDMIMD, 2016 P. 21–22.

#### Journal articles

- Lander L. J., Parkin T. R. Counterexample to Euler's conjecture on sums of like powers. *Bulletin of the American Mathematical Society*. 1966. Vol. 72. № 6. P. 1079–1080.
- Fugate B., Sahin F., Mentzer J. T. Supply Chain Management Coordination Mechanisms. *Journal of Business Logistics*. 2006. Vol. 27. №. 2. P. 129–161.



Rowley, J. Using case studies in research. *Management research news*. 2002. Vol. 25. №. 1. P. 16–27.

Maghlaperidze E., Kharadze N., Kuspliak H. Development of Remote Jobs as a Factor to Increase Labor Efficiency. *Journal of Eastern European and Central Asian Research (JEECAR)*. 2021. Vol. 8, №. 3. P. 337–348.

Miranda, S. R. Preferred leadership styles by gender. *Journal of Management Development*. 2019. Vol. 38. № 7. P. 604–615. DOI: <https://doi.org/10.1108/JMD-01-2019-0034>.

### **Websites and internet resources**

Gwet K.L. Cohen's Kappa paradoxes make sample size calculation impossible. *K. Gwet's Inter-Rater Reliability Blog*. 2021. URL: <https://inter-rater-reliability.blogspot.com/2021/08/cohens-kappa-paradoxes-make-sample-size.html> (accessed 15.10.2021).

Кодекс законів про працю України, №322-VII, від 12.10.1971, ред. від 14.08.2021. *Верховна Рада України*. URL: <https://zakon.rada.gov.ua/laws/main/322-08> (дата звернення: 10.11.2021)

Operations Management / edited by M. Schiraldi. IntechOpen, 2013. URL: <https://www.intechopen.com/books/3216> (accessed at: 21.11.2021).

Hofstede Insights. National Culture. URL: <https://www.hofstede-insights.com/models/national-culture/> (accessed at: 03.12.2020).