
THE COMPETENCE-BASED APPROACH THROUGH THE PRISM OF ACADEMIC TRAINING IN MANAGEMENT ACCOUNTING

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Abstract: Management accountants' competences are evolving according to the changing socio-economic reality. The practical application of the competence-based approach in this field is a response to the change of attitudes from subject-oriented to competence-oriented education.

The aim of this article is to propose a competence-based learning model for students in management accounting. The application of the developed competence model in the educational process will contribute both to the development of competences, knowledge, skills, values, ethics and attitudes and the realization of future management accountants.

Keywords: competencies, competences, competence-based approach, competence-based learning model, management accounting.

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Introduction

Accounting profession is associated with growing number of challenges in the process of digital transformation. Higher education in accounting is expected to meet the modern requirements of the profession and business and to prepare competent and competitive specialists. The competences of management accountants are also developing according to the changing socio-economic reality. To use the digitalization of business, management accountants must be able to know new ways of managing, analyzing and extracting value from data, applying analytical and critical thinking skills, formulating strategic problems and identifying the most important questions that large data sets can answer (Pavlova, 2020b, p. 140). New economic realities pose new challenges to management accounting education. The practical application of the competence-based approach in this field is a response to the change in attitudes from subject-oriented to competence-oriented education.

This paper presents a research on the competences of specialists in the field of management accounting. Its subject are the conceptual problems of the competence-based approach related to teaching management accounting. It aims to propose a competence-based learning model for students in management accounting. The application of the developed competence model in the educational process will contribute both to the development of competences, knowledge, skills, values, ethics and attitudes and the realization of future management accountants.

1. On the need for a competence-based approach in higher education in the field of management accounting

Competences² are defined as a dynamic set of knowledge, skills, views and attitudes acquired in the learning process. They are mainly related to the behaviour of individuals rather than their knowledge or skills per se, but appropriate behaviour demonstrated in specific learning situations and necessary to achieve results in a specific activity or in a specific professional role.

Knowledge is related to answers to specific questions (e.g. what, when, where, how much, etc.) whereas skills refer to the application of knowledge in practice and attitudes refer to the perception of knowledge demonstrated through learners' behaviour.

² The term "competence" is derived from the Latin "competens, -entis", meaning "able, capable" and in English it is defined as "ability, capacity")

Competence is most often associated with ability, understood as being able to do something, i.e. knowledge-based skill. Competences are abilities that are not innate but rather "developed through efficient learning in an appropriate pedagogical environment and acquisition of significant practical experience" (Zwell, 2000).

Competences can also be considered as personal characteristics that are important for the effective job performance at the assigned position and that can be measured by observing behaviour (Kibanov & Mitrofanova, 2014, p. 156). Therefore, some authors (Widdet, 2008, p. 228) highlight the characteristic of the concept of "competence" as a set of behavioural indicators.

The concept of competences has its history, which dates back to the 1960s and which continues to develop and expand in modern conditions. The educational reforms undertaken in many countries in this century emphasize on the importance of "competence-based education".

The need to classify competencies is justified by the widening of the application of the concept of "competency" in a great number of various fields. On the one hand, competencies can be classified³ as individual (e.g. social, emotional, cognitive, civic and professional competency) and organizational competencies. On the other hand, they can be behavioural, or "soft" (e.g. emotional intelligence, communication, resistance to change, proactivity, teamwork, decision-making skills, achievement orientation, motivation skills, leadership, etc.) and technical, or "hard", i.e. competencies that define specific professional skills and abilities.

A. Hutorski (Hutorski, 2005) distinguishes competencies hierarchically at three levels in terms of the division of educational content into "meta-subject" (for all subjects), "inter-subject" (for a cycle of subjects and educational areas) and "subject" (related to a specific subject) as:

- key competencies – related to the general (meta-subject) educational content.
- general subject competencies – related to a limited scope of educational subject and fields.
- subject competencies – a specific case of a competency from the other two categories that has a specific description and can be developed within a certain subject.

Modernization of education is invariably linked to the concept of key competences and for this end nowadays they are considered priority. One of the goals of the Lisbon Strategy for development is for the EU to become a dynamic and competitive economy based on knowledge and competences. The "Lifelong Learning" program established by decision of the European Parliament and the

³ Competences and education, <https://mon.bg> > upload > I-book.

Council of the European Union (EU) was transposed in our country as National Strategy for Lifelong Learning 2008-2013. This strategy defines key competencies as "transferable (core) skills needed by every employee in every situation". At the heart of the European Qualifications Framework for Lifelong Learning (EQF) is the concept of the set of competences necessary for personal development, active citizenship, social inclusion and employability in the 21st century.

The framework describes key competences and identifies a range of transferable, 'soft' skills (e.g. initiative, risk assessment, creativity, critical thinking, controlling emotions, teamwork, problem solving, taking responsibility) that link the personal, social and professional performance of modern people.

For the purposes of this article we use the following EQF definitions:

- competence means "the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development." In the context of EQF skills are described in terms of the degree of responsibility and autonomy. The term "competencies" describes the complex ability to use knowledge and skills for the effective organization of the available resources for achieving professional tasks.

- knowledge means "the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study." In the context of the EQF, knowledge is described as theoretical and/or factual.

- skills means "the ability to apply knowledge and use know-how to complete tasks and solve problems." In the context of the EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

- attitude means "a predisposition and way of thinking about something".

The key competences concept⁴ highlights the results-oriented learning and puts an emphasis on application of knowledge in real-life situations thus pushing the process of education away⁵ from its traditional subject-based

⁴ In 2018, the key competences were set up in the Recommendation of the Council of EU. They comprise language competence, communication competence, mathematical competence and competence in science, technology, and engineering, digital competence, personal, social and learning to learn competence, citizenship competence, entrepreneurship competence, and cultural awareness and expression competence; [https://eur-lex.europa.eu/legal-content/BG/TXT/PDF/?uri=CELEX:32018H0604\(01\)&from=GA](https://eur-lex.europa.eu/legal-content/BG/TXT/PDF/?uri=CELEX:32018H0604(01)&from=GA).

⁵ Competences and education, <https://mon.bg> > upload > I-book.

orientation towards development of key competences integrated across the whole range of subject areas.

The European Qualification Framework was transposed into a National Qualification Framework (NQF) which makes Bulgaria's educational system comparable to the educational systems of the other EU member states. It supports the recognition of diplomas, certificates and other qualification documents and facilitates access to the labour market, etc. It contains nine levels⁶ covering all educational stages and levels of education (from pre-school education to the educational and scientific degree of "doctor") and defines the necessary professional competences for each level with a view to future professional realization.

The existence of a relationship at each of the NQF levels with the corresponding key competencies can be seen both from the description of the expected results such as knowledge and skills and from the acquired specific personally significant key competencies such as learning competencies and communicative and social competencies. In addition, the NQF determines the necessary professional competences for each level with a view to future professional realization.

The concept of "professional competence" in relation to specialists with professional education in a specific scientific field implies the possession of a complete set of qualities. Professional competences can be considered as a specific set leading to the achievement of expected results in mastering a certain profession and the performance of a certain professional role. Among the knowledge and skills to solve standard professional tasks, priority is given to competitiveness, high mobility, sense of responsibility and creative potential, adaptability, habits of cooperation and coordination of one's activity, striving for continuous improvement of a number of professional qualities and etc. (Kolar, 2020)

A number of studies in the field⁷ show that the focus of job interviews is increasingly shifting to acquired competences and factors such as positions held and qualifications are considered less important. Thus the acquired competences serve as a link between education and business, which makes the system of education and the labour market "see eye to eye" (see Fig. 1).

⁶ The EQF levels describe learning outcomes in terms of knowledge, skills, and competences in four groups – responsibility and autonomy, learning competences, communication and social competences, and professional competences.

⁷ Competence and education, <https://mon.bg> › upload › I-book.

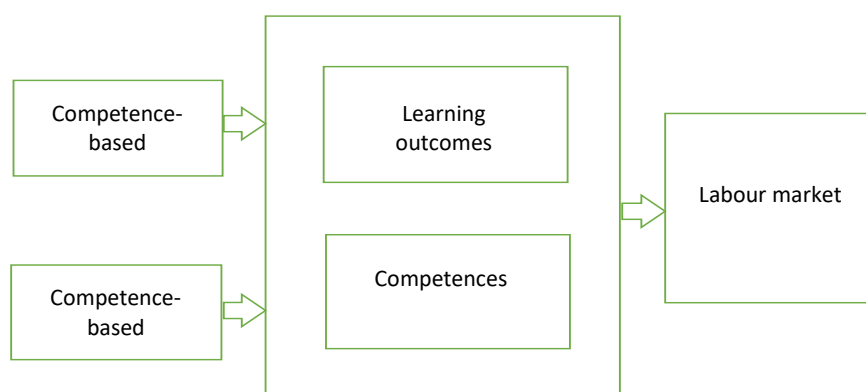


Figure 1. Specialists' competences and the relationship between the system of education and the labour market

In practice, the terms "competence" and "competency" are often used interchangeably. To distinguish them, it is important to note that competence has a broader meaning. It can be defined⁸ as a category including the following components: level of awareness; knowledge; experience and expertise in certain fields; a complex personal resource allowing effective interaction in various areas of the surrounding environment and depending on the degree of possession of the necessary competencies for this purpose. It can be defined as a set of personal qualities of the individual, determined by his experience and by the activities performed in the relevant professional fields. The personal qualities themselves integrate a set of certain values, knowledge, skills, habits and abilities.

As a concept, competences can be considered⁹ in the context of demonstrated behaviour in a specific situation and in the performance of a specific task or role. In other words, competence is "know how" rather than "know what".

From the comparative analysis of the definitions of the concepts "competence" and "competency", it can be concluded that competence is the broader concept that refers to the motivation and attitudes of the person to put into action the acquired knowledge, skills and experience to achieve goals in a given area. As R. Dimitrova points out, the main difference between competence and traditional knowledge and experience is that "competence is integrative, it has a practical orientation and is directly related to one's qualities and value system" (Dimitrova, 2016, p. 211).

⁸ <https://mycompetence.bg/>

⁹ Ibid.

Therefore, competencies are components of one's competence. N. Chomsky also summarizes that competence is "competency in action" (Chomsky, 2005).

The profession of an accountant requires certain competences, knowledge, skills, values, ethics and attitudes the accountant must have and maintain. Accounting education is subject to specific requirements from the International Accounting Education Standards Board (IAESB) of the International Federation of Accountants (Handbook of International Education Pronouncements, 2014). According to the general framework of the IAESB, the main objective of accounting education is to develop competent professional accountants.

The concept of "competence" in the general framework under consideration is defined as the ability to perform a job role according to a defined standard with reference to a work environment. To demonstrate competence in a given role, a professional accountant must possess the necessary professional knowledge, professional skills and professional values, ethics and attitudes.

The professional knowledge underlying the general framework includes those topics that form the subject of accounting as well as other economic disciplines that together form the core body of knowledge for professional accountants.

Professional skills underpinned by the general framework include the various types of abilities required to use professional knowledge, as well as professional values, ethics and attitudes appropriately and effectively in a professional context.

The professional values, ethics and attitudes underlying the general framework include the professional behaviours and characteristics that identify professional accountants as members of the profession. They include the principles of conduct (i.e. ethical principles) that are commonly associated with professional conduct and that are considered important in determining its distinctive features.

The general framework of IAESB specifies the professional skills of professional accountants. It states that professional accountants are required to possess a wide range of skills, including methodological and functional skills, organizational and business management skills, personal skills, interpersonal and communication skills, a variety of intellectual skills and professional judgment skills.

The professional skills of accountants are classified according to IES 3¹⁰ and the Glossary of Terms of IAESB (Handbook of International Education Pronouncements, 2019) as: intellectual, interpersonal and communication, personal, and organizational skills, which require integration and application of

¹⁰ IES 3 Initial Professional Development – Professional Skills (2021)

technical competence, professional skills, and professional values, ethics, and attitudes.

The general framework also provides definitions of the terms professional values, ethics and attitudes. They include: commitment to methodological competence, ethical behaviour (e.g. independence, objectivity, confidentiality and integrity), good professional conduct (e.g. due diligence, timeliness, courtesy, respect, responsibility and reliability), pursuit of excellence (e.g. commitment to continuous improvement and lifelong learning) as well as social responsibility (e.g. awareness of and respect for the public interest).

Professional values, ethics and attitudes of accountants are also defined according to IES 3 and the relevant IAESB glossary, namely these are the characteristics that define professional accountants as members of a given profession. These include the principles of conduct (e.g., ethical principles) generally associated with and considered essential in defining the distinctive characteristics of professional behaviour.

In this regard, the concept of "competence" can also be considered through the prism of the understanding of professional qualification. For this purpose, NCPA defines professional qualification as a measure of the degree of mastery of certain knowledge, skills and professionally significant qualities acquired through training or work experience whereas competence – as the ability to perform a specific position, certain functions or roles. Thus competence can be formally certified by means of a diploma, certificate or other official document in accordance with the current legislation..

According to some authors (Maksimova, 2016, pp. 116–118), in order to perform their jobs effectively, business accountants must constantly improve their qualification, monitor regulatory changes in the field of accounting, attend (if possible) specialized workshops and courses and to acquire new skills and abilities. This is also related to L. Spencer's definition of competence: "Competence is the basic quality of an individual that has a causal relationship with effective and/or best performance based on criteria in professional or other situations" (Spencer & Spencer, 2005, p. 384).

According to M. Pavlova, new competences require the development of new approaches to guarantee the future standing of the accounting profession (Pavlova, 2020a, p. 67). N. Kostova summarizes that accountants must be able to "think in perspective", which requires analytical thinking, creative approach to work, ability to see the overall picture in order to support the strategic development of the enterprise, its financial position and market share (Kostova, 2021, pp. 10–11). The abilities to process large amounts of information, make critical judgments, think entrepreneurially, communicate effectively, and adapt quickly to changing conditions are now more important than ever.

The concept of "competence" is defined following two approaches: American and European approach. Following the American approach, some authors (Ivanov & Lukyanova, 2019, p. 15; Kibanov & Mitrofanova, 2014, p. 9) present competences as a description of employee behaviour. This approach aims to determine the main characteristics employees most have and be able to demonstrate through their behaviour and job performance.

The European approach considers competences from a functional perspective as a description of work tasks or expected work outcomes. In this regard, competence can be defined as the ability of employees to act in accordance with the standards adopted by the particular organization. As a result, it can be summarized (Ivanov & Lukyanova, 2019, p. 15) that the European approach focuses on defining the minimum standard that must be achieved by employees, and the American model defines what each individual employee must do to achieve the highest possible efficiency.

In order to specify and evaluate the specific qualities contributing to the successful performance of the functions of the modern accountant, a variety of approaches can be applied both in terms of professional accounting education and in terms of specific economic units. In this regard, N. Ivanov (Ivanov & Lukyanova, 2019, p. 14) proposes the use of a competence-based approach to develop specific competence models.

A competence model is defined as "a complete set of competences (with or without levels) and behavioural indicators" (Whiddett & Holliforde, 2008, p. 12). Individual models may contain a detailed description of standards of conduct for the personnel of a particular department or standards of action leading to the achievement of specific goals, but may also include basic standards of conduct designed to fully describe the business structure or activities aimed at achieving a range of different corporate objectives. The set of details included in the description of the competence model depends on the intended practical application of the particular model.

These methods for development of a competence model provide the following opportunities: to conduct a conventional study of competences, to develop a model of competences with the help of expert groups, to study future publications or individual works (Spencer & Spencer, 2005, p. 384).

Especially interesting are the practical aspects of N. Ivanov's competence model based on the use of expert groups and intended for application in the following situations: in the selection and evaluation of personnel and more specifically in situations where the organization has a high turnover of employees; in cases of poor performance of the enterprise in strategic aspects; in career planning (the company may need employees with a certain potential, reflected in specific competencies); when organizational changes occur or are planned in the organization (in this case, it is important for

the company to know which employees can contribute to growth, to act effectively in conditions of stress and instability); during long periods of adaptation and training of new employees, etc. (Ivanov & Lukyanova, 2019, pp. 14–21).

The theory is also enriched by a number of other models of management competencies that can be used by organizations for crisis management, effective organizational management, etc. Such is the model of D. Yordanova, which substantiates the relationship between leadership competencies and the stages of crisis management. Within the model's framework of management competencies, various aspects of the role of crisis manager competencies in business organizations are examined (Yordanova, 2020, pp. 134–144).

Conducting new and wide-ranging scientific studies on competences and competencies in business organizations leads to a more precise definition of both the main characteristics of employees and their work tasks or expected performance. The application of competency models in practice aims to achieve higher efficiency in management at organizational level.

2. Competence model for teaching students in the subject area of management accounting

There are many different approaches that are used in vocational training of specialists in various fields. Some of them are established and have long-standing tradition of application. Such are the traditional approaches that are knowledge-oriented (i.e. aimed at mastering certain learning content, focused on subject-based structuring of knowledge, etc.). Other approaches were gradually introduced to the field of education in the second half of the twentieth century. They are based on competences and aim to increase the quality of education and adequately respond to the dynamics of development and expectations of modern society from the educational system.

One of the main reasons for introducing vocational training is the public need for competent specialists with knowledge in various fields, who interact with each other in various situations and have a variety of creative skills and professional and personal qualities. The competence-based approach to learning focuses on the use of knowledge and its practical application. It is defined as "updating the educational content in response to the changing socio-economic reality" (Nazmutdinov & Yusupova, 2013). Its application is a response to the change in attitudes from subject-oriented to competence-oriented learning.

The terms "competence" and "competencies" are also at the core of the competence-based approach. The main emphasis of this approach is the transition from teaching knowledge to mastering key competences. Through the application of the competence-based approach, "the idea not only of the goals

of education, but also of the nature of the construction of the necessary knowledge" is fundamentally changed (Stefanova, 2021). The competence-based approach is focused on achieved results of the training process and the ability to apply specific knowledge at work.

In its essence, the competence-based approach is a set of principles for determining goals, selecting content, organizing the educational process, and evaluating learning outcomes. Its main characteristics are:¹¹ integrated interdisciplinary interaction; practical focus on training; results-orientated; use of innovative approaches and practices in the teaching and learning process.

The competence-based approach implies the use of various inter-disciplinary links in the educational process to define concepts, processes and phenomena, i.e. the separate topics of the learning content are taught across several subjects and thus go beyond the scope of the traditional academic subjects. Therefore, this educational approach is based on interdisciplinary training and is assumed to facilitate the formation of individual key competences and ultimately lead to their integrated acquisition.

In the competence approach, education is associated with "the ability, on the basis of acquired knowledge, to demonstrate skills for solving problems of varying complexity and in unusual situations"¹². This requires providing a real practical context for the learning objectives and developing learning tasks that stimulate critical thinking, teamwork, creativity, entrepreneurship, emotional intelligence, and decision-making as skills that are becoming essential in modern society.

The application of the competence-based approach requires that teaching methodology be transformed from "learning to do something" to "helping to learn to do something". The research of a number of authors (Vasileva-Ivanova, 2014; Nenova, 2005) shows that the application of interactive learning methods within the competence-based approach contributes to achieving outstanding learning outcomes. The essence of the approach is to shift the learning process from learning "ready-made knowledge" to following "the conditions for the emergence of this knowledge" (Nazmutdinov & Yusupova, 2013).

What distinguishes the competence-based approach from the qualification (traditional) approach is the different understanding of the nature of the expected outcomes and educational goals. The qualification approach sets certain knowledge (concepts, facts, rules, etc.) that must be gained by the learners in the training process. The competence-based approach aims to transform knowledge into skills by creating practical situations in a simulated environment. The change in educational goals, in turn, leads to a change in the

¹¹ On the transition from knowledge to skills, <https://mon.bg> › upload › II -book.

¹² Ibid.

definition of educational content, the selection of educational activities and approaches to evaluating the learning outcomes.

In this regard, the present study aims to propose a competence-based model for teaching students in the field of management accounting. The model is based on the competence-based approach applied to vocational training in management accounting.

The competence-based model¹³ for teaching students in the subject area of management accounting comprises the following building blocks:

- competences and competencies in management accounting and the levels of their acquisition by the students;
- methods for teaching and structuring the learning content of the course in management accounting;
- matrix representation of the relationship between curriculum activities and students' competences;
- assessment of student competences and competencies in the field of management accounting.

The competencies of students who have completed the course in management accounting are summarized in *Table 1*. Their definition is essential for determining the expected degree of their acquisition by students. Undoubtedly, the framing of the level of competencies in the model should correspond to the established management accounting curricula for the relevant educational program¹⁴.

In line with the definition of competences and competency set out in the Handbook of International Education Pronouncements, management accounting competences in their entirety define the competences in this subject area of accounting. From this point of view, for the needs of the developed competence-based model, competences are classified in *Table 2*.

The teaching methods and the framing of the learning content of the management accounting curricula are part of the next main building block of the current competence-based model for training students in the field of management accounting. The applied teaching methods refer to the way of organizing the joint activity of the teacher and the students in the process of acquiring certain knowledge and skills.

¹³ In the present-day higher economic education in Bulgaria there is a competence-based model of training of students in financial control. See Dimitrova, R., Understanding and applying the competence approach in financial control training, *Izvestia, EU - Varna*, Vol 60/№2, 2016, pc. 208–225.

¹⁴ This model complies with the curriculum of the academic course in Managerial Accounting - Part 1 in the Bachelor's degree program of Accounting and Control at the Faculty of Economics of VTU St. Cyril and St. Methodius. The knowledge, skills and competences set in the current curriculum are in accordance with the Qualification Framework of the European Higher Education Area and the National Qualification Framework of the Republic of Bulgaria.

Table 1

Management accounting competencies and degrees of their acquisition by students

<i>Type of competency</i>	<i>Level of acquisition</i>
1. Professional knowledge	<ul style="list-style-type: none"> • structure and fields of application of management accounting • the concept of costs and their classification for the purposes of management accounting • the role of management accounting in decision making • accounting analysis of the relationships between costs, volume, and profit • calculation of cost price; calculation approaches and systems • integration of indirect costs in the cost price of goods and services • budget accounting – definition, approaches and methods • methods for cost dynamics analysis • problems related to acquisition and maintenance of professional competence of modern management accountants
2. Professional skills	<ul style="list-style-type: none"> • to distinguish the scope of management accounting techniques taught • to apply management accounting techniques in management decision making • to use methods and techniques in solving complex management accounting problems • to interpret diverse sources of information to support potential management decisions
3. Professional experience	<ul style="list-style-type: none"> • to apply management accounting techniques in various practical aspects of management accountant's profession • to process and use diverse sources of information in management accounting • to prepare various reports and statements for the management of the organization
4. Career development	<ul style="list-style-type: none"> • to develop and improve the acquired professional knowledge, skills and experience in the field of management accounting • to apply the acquired professional knowledge, skills and experience in practice or in scientific research • to demonstrate interest in management accounting innovations and scope

Table 2

Student competences acquired within the management accounting course

<i>Types of competence</i>	<i>Competence characteristics</i>
1. Functional	<ul style="list-style-type: none"> • use of management accounting tools in carrying out projects and tasks; • develop skills for collecting and classifying financial and non-financial data for solving specific management accounting cases; • processing, analyzing and assessing accounting and non-accounting information for taking specific management decisions; • applying the acquired knowledge and skills in new or unknown conditions of economic turbulence; • demonstration skills for analyzing of information in a broader and inter-disciplinary aspect.
2. Organizational	<ul style="list-style-type: none"> • developing skills for clear and understandable formulation and communication of ideas, problems, and decisions to specialists in economics and management accounting; • expressing attitude towards and understanding of problems through methods based on qualitative and quantitative descriptions and assessment; • being able to manage administratively complex professional processes involving teams and resources; • creativity and initiative in the fields of finance and management; • organizing activities for implementation of projects and tasks; • preparing various reports and statements related to management accounting.
3. Digital	<ul style="list-style-type: none"> • developing data-processing skills; • developing data analysis skills; • developing digital collaboration skills; • developing skills for coordination of technological processes; • developing skills for using intelligent systems.
4. Personal and communication	<ul style="list-style-type: none"> • developing team-working skills; • developing skills for coordinating team activities towards a common goal;

	<ul style="list-style-type: none"> • assessing training needs to improve the team's performance; • developing leadership qualities and skills to argument tolerantly their opinion; • developing skills for adequate reaction in a competitive environment.
5. Ethical values and attitudes	<ul style="list-style-type: none"> • showing a broad personal outlook, understanding and solidarity of others; • adopting the principles of professional accounting ethics; • understanding and adherence to the principles pertaining to management accounting; • adopting tolerant and ethical behavior in implementing of projects and tasks; • personal professional development and willingness to accumulate work experience.

Specifically, teaching methods include a description of teacher's and students' roles and their interaction in the learning process. The activities of management accounting teachers and students are subject to differentiation from the point of view of the number of classes assigned to the discipline in terms of lectures and workshops.

The teaching methods used the management accounting course are subject to continuous improvement in terms of faculty performance. The set of applied teaching methods is the result of the symbiosis of the knowledge, skills and experience of teachers in the field of teaching management accounting. The main teaching methods in relation to the course content can be presented in terms of the necessary competences as shown in *Table 3*.

Lectures can have the following specific goals: to introduce the main aspects of the subject; to visualize the learning content; to summarize the learning content on a given topic; to draw the attention of learners to a specific problem, etc. When specific problems are addressed during a lecture, then the presentation is problem-oriented and aims to propose solutions.

Table 3

Teaching methods used in the course of management accounting

<i>Teaching methods</i>	<i>Activities of teachers and students in the context the course content</i>	<i>Competences</i>
Lecture (explanations, presentations, visualization, problem solving, etc.)	<p>The lectures are structured according to the learning content and the course syllabus:</p> <ul style="list-style-type: none"> • structure and fields of application of management accounting • the concept of costs and their classification for the purposes of management accounting • the role of management accounting in decision making • accounting analysis of the relationships between costs, volume, and profit • calculation of cost price; calculation approaches and systems • integration of indirect costs in the cost price of goods and services • budget accounting – definition, approaches and methods • methods for cost dynamics analysis • problems related to acquisition and maintenance of professional competence of modern management accountants; 	<ul style="list-style-type: none"> • functional; • organizational; • ethical values and attitudes.
Discussion (focused on certain problems, etc.)	Appropriate for each topic both in lectures and workshops.	<ul style="list-style-type: none"> • personal and communication; • organizational; • functional; • ethical values and attitudes.
Problem solving, case studies and tests	Appropriate for workshop classes. The teacher should organize the activity provide explanations,	<ul style="list-style-type: none"> • functional; • organizational; • digital;

	correct errors, monitor students' progress etc.	<ul style="list-style-type: none"> • personal and communication; • ethical values and attitudes.
Role plays	Appropriate for workshop classes.. The teacher should organize the activity explain the requirements, rules and constraints, provide consultations, monitor students' progress and provide feedback.	<ul style="list-style-type: none"> • functional; • organizational; • personal and communication; • ethical values and attitudes; • digital.
Course assignments and other self-study tasks	Appropriate for self-study and teamwork assignments. The teacher should explain the requirements and assessment criteria, provide consultations and give recommendations.	<ul style="list-style-type: none"> • personal and communication; • organizational; • functional; • ethical values and attitudes; • digital.

A discussion on a set of problems as a method in economic education is widely used for active learning. It is suitable for any topic both during a lecture and during a seminar class. The essence of a discussion is a dialogue between the teacher and the students, through which a set cognitive task is carried out step by step through a system of questions, answers, comments or discussion - introducing or learning a new concept, formulating definitions, highlighting features, etc. All learners participate in the discussion by considering the problems and looking for and formulating solutions. The function of a discussion is to stimulate and guide the independent cognitive activity of the students. The conditions for the effectiveness of a discussion are:

- preliminary preparation of the teacher - excellent knowledge of the educational content, options and forms for its presentation, different ways of formulating the definitions, different ways of solving a given task or preparing a given project, etc.;
- teacher's ability to formulate and reformulate questions concisely and precisely, to arrange and systematize them logically and consistently, without being ambiguous or overly suggestive;
- the organization of the discussion - the questions should be clearly formulated, asked to the whole audience; after each question the moderator should pause for a while and then designate a specific student or students to formulate the answer. If the given answer is correct, this should be clearly confirmed by the teacher and/or the learners. If the answer to the question is

wrong, the teacher should ask guiding questions or give counter-examples so that the students can find their mistakes and correct them. If they cannot find the right answer themselves, the teacher should direct them through appropriate questions. The discussion on a given problem ends when the correct answer is reached, which must be announced and/or written down;

- positioning the discussion in the structure of the topic and the time assigned according to the syllabus;
- summary by the teacher of the main knowledge and skills obtained through the discussion;
- adapting the structure, organization and duration of the discussion to the individual cognitive abilities and competences of the learners.

Various home assignments help students not only acquire knowledge but also develop skills for independent learning. This method is used at all stages of the management accounting course. It is suitable for assignment of both independent (individual) and team tasks.

Usually, from the point of view of the teacher's activities, this method is used in the following sequence: update of the necessary knowledge, motivational activity and simulation of a problem situation; instructions on how to use the learning materials and other literary sources; checking the results of independent work; corrections depending on the results.

A matrix showing the relationship between the activities described in the course curriculum and students' competences is a logical continuation in the construction of the competence-based model. Such a matrix is illustrated in *Table 4*.

The evaluation of the competences and competencies of students in the field of management accounting implies knowledge of the various evaluation criteria and systems, means of learner motivation, etc. For the purposes of the current model, it is important that the assessment within the course be complex in nature and formed from the individual elements laid down in the developed curriculum.

The successful implementation of any competence-based learning model depends on its integration into the overall training course of future accounting specialists.

Table 4

Example of a matrix presentation of the relationship between management accounting curriculum activities and students' competences

Activities \ Competences	Applying the acquired knowledge and skills in new and unfamiliar circumstances	Use of management accounting tools in carrying out projects and other tasks .	Skills for collecting and classifying financial and non-financial data for solving specific management accounting cases	Processing, analyzing and assessing information for taking specific management decisions	Preparing various reports and statements	Demonstrating initiative and organizational skills	Showing attitude and understanding of specific problems	Being able to express ideas, problems and solutions clearly and comprehensively	Data processing and analysis skills	Digital cooperation skills	Team-working skills	Leadership and argumentation skills	Ability to act adequately in a competitive environment	Awareness of and willingness to adhere to professional accounting ethics	Understanding and adherence to the principles pertaining to management accounting	Adopting tolerant and ethical behaviour in implementing of projects and tasks	Personal professional development and willingness to accumulate work experience
Lecture	✓		✓	✓				✓						✓	✓		✓
Discussion	✓	✓		✓		✓	✓	✓		✓	✓	✓	✓	✓	✓		✓
Problem solving, case studies, etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Role play games	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Home assignments	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

MA* – management accounting

Conclusion

Competences act as a link between education and business. In the context of digital transformation, the focus shifts to the level of knowledge and innovation capabilities. The development of knowledge and skills is underpinned by the quality of education and vocational training and by the cooperation of universities and the private sector. In this regard, the improvement of the competence-based approach in management accounting training will contribute to the formation of competent specialists in this field.

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