

THE ASPECTS OF COMPETENCY IN THE CONTEXT OF EDUCATION SITUATION IN LATVIA

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Abstract. Competency approach is a useful tool for various organisations and, in particular, academic institutions in order to develop qualitative education programme based on the up-to-date skills and behaviours that are currently required from employees. The goal of the research was to identify the main aspects of competencies in the field of higher education in Latvia as a result of which it would be possible to determine the possibilities for competency approach development. The research methods used are as follows: literary review, document analysis, data processing methods, statistical analysis and case study.

The results of the analysis showed that competency-based approaches evolve in academic environment, the development of competency approach influenced significantly the form of study programmes at the University of Latvia, Faculty of Business, Management and Economics. On average, problem solving, communication and information skills of people in Latvia are at an appropriate level while digital and software skills are averagely lower than average in the EU. The results of the research can be applied in the academic field by developing educational programmes that would be based on today's crucial key competencies.

It was concluded that regardless of current difficulties in the field of education, knowledge of foreign languages is a competitive advantage of people of Latvia. Support should be provided to the digital and software skills. As well it is essential that institutions of higher education understand the aspects of competency, because they have to adapt their study process implementation according to new legislation related to competency approach.

Key words: *competency, higher education, competency-based approach, core competencies, skills*

JEL code: I23, J24

Introduction

Nowadays, the competency approach is widely used in both academia and business in order to ensure the competitiveness of learners and businesses in a rapidly changing environment. It is essential to analyse competency approach with the aim to improve its' application in practice. The goal of the research is to identify the main aspects of competencies in the field of higher education in Latvia as a result of which it would be possible to determine the possibilities for competency development in Latvia. To achieve the objective of the research, first, the concept of competency will be defined, then different theoretical aspects of competencies will be identified, the situation of education in Latvia will be analysed as well as a case study will be conducted at the Faculty of Business, Management and Economics of the University of Latvia which uses the competency-based approach in the development of educational programmes. The research methods used in this research are as follows: literary review, document analysis, methods of data processing, statistical analysis and case study.

There is a wide-ranging discussion in literature about the importance of acquiring competencies, but there is still no agreement on what competencies are actually about (Barth et al., 2007). Competencies can be defined as the mobilisation

of knowledge, actions and emotions used to create value (Bendassolli et al., 2016). Rieckmann (2012) defined competencies as the interplay of knowledge, capacities, skills, motives and affective dispositions. Professional competency is specified as the degree to which employees can apply their professional knowledge, skills, motivations and traits to specific working conditions (Kane, 1992). It includes high-level skills such as critical thinking, teamwork, communication and ongoing training (Litchfield et al., 2002). Cognitive, emotional and psychomotor fields play an important role in professional development (Ko, 2012).

The United Nations Industrial Development Organisation (2002) defines competency as a combination of knowledge, skills and behaviour that are practiced for self-improvement. Competencies are the proven ability to responsibly and autonomously use one's knowledge, skills and abilities in a variety of situations, for instance, in work, study, professional and personal development (Chiru et al., 2012).

According to the terminology of the Council of the European Union, competency is a compilation of knowledge, skills and attitudes, where:

- Knowledge is facts and figures, concepts, ideas and theories that have already been identified and support understanding of a particular field or topic;
- Skills are defined as the ability and capacity to perform certain processes and use existing knowledge to achieve results;
- Attitude is described as a person's willingness and intention to act or respond to an idea, person or situation (The Council of the European Union, 2018).

1. Theoretical aspects of competency

Competency models are a useful tool in various organisations and academic programmes to identify the skills and behaviours that are necessary in workplaces. A competency model describes a combination of specific knowledge, skills, special features, motivation, interpersonal relationships, and other personality traits that are required to effectively fulfil responsibilities within an organisation (Kane, 1992; Perdue et al. 2000; Skorková, 2016). Competencies are one of the most important factors in workplaces; therefore, it is essential to have proper understanding of the actual workplace competency requirements in order to develop these key career competencies. The level of professional skills can be assessed by monitoring the specific behavioural skills that are related to work efficiency and which can be improved and enhanced through training and development. Professional competency should also include higher-level skills such as critical thinking and long-term learning resources (Litchfield et al., 2002). The content of the required professional competencies can be integrated into the curriculum providing training for competent professionals to meet different societal demands (Ko, 2012).

Unlike a learning culture that uses a traditional learning approach with strong knowledge acquisition, competency-based education focuses on the students' ability to develop not only important knowledge but also the skills, values and attitudes that are required to address complex issues the learners will face in their future personal and professional careers (Barth et al., 2007; Lambrechts et al., 2013). Factors influencing the effective learning and expression of a student's full creative potential are diverse and include student intelligence, abilities, personality, motivation, cognition and age as well as educational institutions and family environment, courses, faculty, teaching methods, supportive atmosphere and social climate (Ko, 2012). These factors usually contribute to learning. Pinquart, Juang and Silbereisen (2003) concluded that important variables for success in the workplace include student self-efficacy and job satisfaction; therefore, universities should improve the development of the students' self-realisation to help them successfully move to a workplace. So learning strategies and effective learning affect the academic performance and learning outcomes of students.

The Council of the European Union pays special attention to the identification of competencies. Three challenges have been identified based on competency-oriented education, training and learning in the context of lifelong learning: use of different teaching methods and contexts; support for teachers and other educational staff; and assessment and validation of competency development (The Council of the European Union, 2018). The European Council's recommendations include eight key competencies: literacy competency; multilingual competency; mathematical competency and competency in science, technology and engineering; digital competency; personal, social and learning to learn competency; citizenship competency; cultural awareness and expression competency; entrepreneurship competency.

Literacy competency is the ability to identify, understand, express, create, and interpret concepts, feelings, facts and opinions both orally and in writing as well as the ability to use visual, sound/audio and digital materials in all disciplines and contexts. It includes reading and writing skills as well as understanding of oral information. People need to be able to communicate both in writing and orally and adapt their communication to the situation. Multilingual competency includes the ability to appropriately and effectively use different languages for communication. Mathematical competency is the ability to develop and apply mathematical thinking and insight in order to solve a range of problems in everyday situations. Competency in science refers to the ability and willingness to explain the natural world using knowledge and methodology employed, including observation and experimentation, in order to identify questions and draw evidence-based conclusions. Competencies in technology and engineering are applications of that knowledge and methodology in response to perceived human wants or needs. Competency in science, technology and engineering implies the use of such knowledge and methodology implementing an individual's wishes and needs. Digital competency involves the confident, critical and responsible use of and engagement with digital technologies for learning, at work, and for participation in society. Personal, social and learning to learn competency is the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain stable and manage one's own learning and career opportunities. Citizenship competency is the ability to act as responsible citizens and fully participate in civic and social life based on the understanding of social, economic, legal and political concepts and structures as well as global developments and sustainability. Competency in cultural awareness and expression involves having understanding of and respect for how ideas and meaning are creatively expressed and communicated in different cultures through art or other cultural forms. It involves understanding of how to develop and express one's own ideas, feelings or role and place in society in a variety of ways and contexts. Entrepreneurship competency refers to the ability to act upon opportunities and ideas transforming them into values for others. It is based on creativity, critical thinking and problem solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or financial value (The Council of the European Union, 2018). Many problem-solving techniques are taught at large universities and companies with the aim to promote ideas and enhance creativity (Bertoncelli et al., 2016). It is important to emphasize that entrepreneurship competencies are considered to be of a higher level, including personality traits, skills and knowledge, and can therefore be perceived as the entrepreneur's overall ability to succeed in the job. Using the competency-based approach, the main advantage is that it enables one to explore business features with a long-term impact and closer links with the organisational activity. The six key areas of the entrepreneurship competency are as follows: opportunity competencies, relationship competencies, conceptual competencies, organising competencies, strategic competencies, and commitment competencies (Man et al. 2002).

In general, the competency-based approach is essential because it can effectively improve employee and organisational performance, and has a positive impact on creating genuine competitive advantage in organisations (Carroll, McCrackin, 1998; van Birgelen et al., 2008). It should be noted that the core competencies of a modern workplace include soft skills and hard skills (Alsabbah and Ibrahim, 2013). Both types of skills are taken into account to

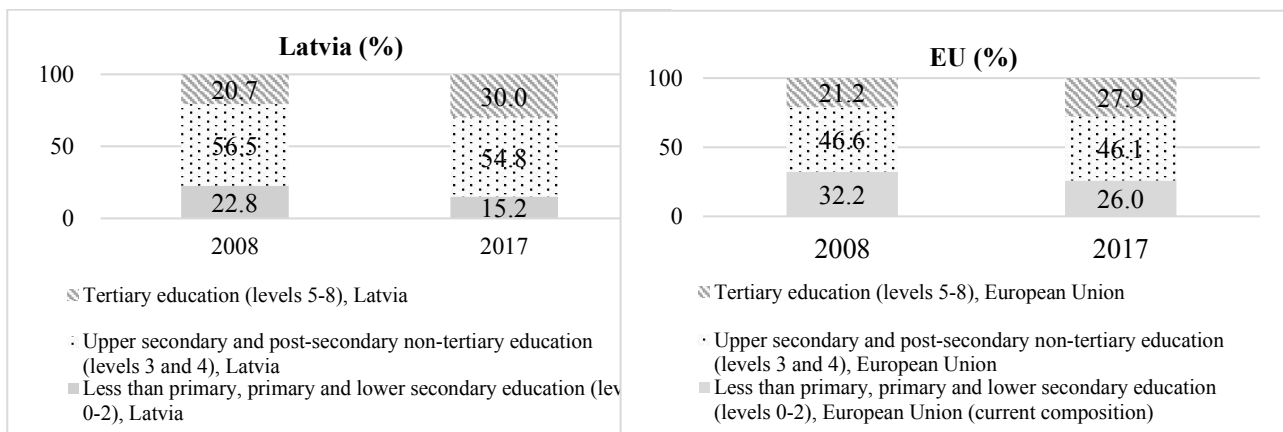
ensure success and organisational efficiency. Soft skills are defined as the interpersonal, human or behavioural skills required to use technical skills and knowledge in the workplace (Weber et al. 2009; De Villiers, 2010). They are often related to emotional skills, and play a greater role in personal behaviour and human relationships management (Renwick and MacNeil, 2002; Rainsbury et al., 2002). Studies have demonstrated a significant importance of soft competencies for successful work (Snyder et al., 2006; Coll and Zegwaard; 2006; Alsabbah and Ibrahim, 2013). Whereas hard skills are skills related to specific technical knowledge and tasks, and such hard skill components as critical thinking and problem solving are important to successfully do the job (Alsabbah and Ibrahim, 2013).

By summarising this section, nowadays the competency-based approach plays an important role in both business and academic sectors. Competencies are a very broad concept influenced by many factors. And, as mentioned above, education and professional qualifications also have a positive impact on professional competencies. Therefore, the educational situation in Latvia will be analysed in the next section.

2. Analysis of the situation in the education field and competency factors in Latvia

Over the last 10 years, the total number of educational institutions in Latvia has decreased by 187 units (an 11% decrease). In the academic year 2017/2018, there were 54 higher education institutions and colleges in Latvia, 46 vocational education institutions, 775 general education schools and 642 pre-school educational institutions. The greatest relative decrease was observed in the number of vocational education institutions, and only the number of pre-school educational institutions increased (Central Statistical Bureau of Latvia, 2018). Analysing the number of students, it can also be concluded a declining trend. In the academic year 2008/2009, there were 495 794 students in Latvia, whereas in the academic year 2017/2018 – 421 809. So, in a 10-year period, the number of students decreased by 73 985 or 14.9%. In general, the number of educational institutions was decreasing not as fast as that of the students. Also, the number of inhabitants in Latvia decreased significantly over the last 10 years (by 11%). In the academic year 2017/2018, there were 81 602 students of higher education in Latvia (a 34.9% decrease over the last 10 years). But the number of universities decreased by 10%. These data shows that there is a significant decrease in the number of students in Latvian higher education institutions and colleges since the number of students drops much faster than the number of universities. In Latvia, there are 28 528 vocational education institution students (a 26.5% decrease over the last 10 years). In the academic year 2017/2018, there were 215 053 schoolchildren in Latvia (a 13.8% decrease over the last 10 years) and 96 626 children in all pre-school educational institutions (a 17.6% increase over the last 10 years) (Central Statistical Bureau of Latvia, 2018). So the positive trend is only the number of pre-school institutions and the number of children therein.

According to the composition of population of Latvia by education level, it can be concluded that in 2017 the highest proportion of people or 54.8% in Latvia had secondary education or vocational qualification which, according to the European Qualifications Framework (EQF), corresponds to levels 3-4. In 2008, this figure was 56.5%. Over the last 10 years, the proportion of people with primary education significantly decreased – from 22.8% to 15.2% which is also associated with a decrease in the birth rate in the country (Eurostat, 2018; Central Statistical Bureau of Latvia, 2018). On the other hand, the proportion of people with tertiary education which corresponds to levels 5-8 according to the EQF increased by 9.3% (from 20.7% to 30%). In total, 30% of the population with higher education is a considerable number. On average, the European Union (EU) has a fairly similar distribution, but in 2017 – 26% of the population had less than primary or primary education which is by 10.8% higher than in Latvia, 46.1% had secondary education or vocational qualification which is by 8.7% lower than in Latvia, and 27.9% – higher education (please see Fig.1).

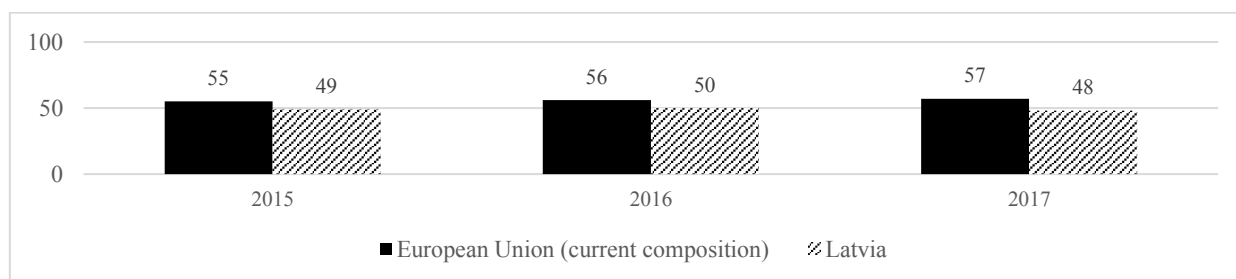


Source: authors' construction based on Eurostat data

Fig. 1. Population by educational attainment level in Latvia and EU (15-64 years), percentage of individuals

The quality of education is also influenced by expenditure on education. According to the data of the Central Statistical Bureau of Latvia, from 2010 to 2015, expenditure on education increased in Latvia on a regular basis amounting to EUR 1473.4 mln in 2015 of which the largest part or 88.1% was state expenditure on education, but by 2015 the 2008 amount of EUR 1,573.5 mln was not reached. In 2015, state expenditure on education accounted for 5.3% of GDP (Central Statistical Bureau of Latvia, 2018).

Digital skill statistics characterises digital competencies as one of the key competencies defined by the EU Council. According to official EU statistics, a smaller proportion of people in Latvia have basic or above basic overall digital skills than in the EU (please see Fig.2). In 2017, 48% of Latvia's population had basic or above basic general digital skills, while in the EU this indicator reached 57%. In the 2015-2017 period, the change of this indicator was small – within 1-2 percentage points. In addition, in 2017, 49% of Latvia's population had basic or above basic software skills, whereas in Europe this proportion was 60% (Eurostat, 2018).

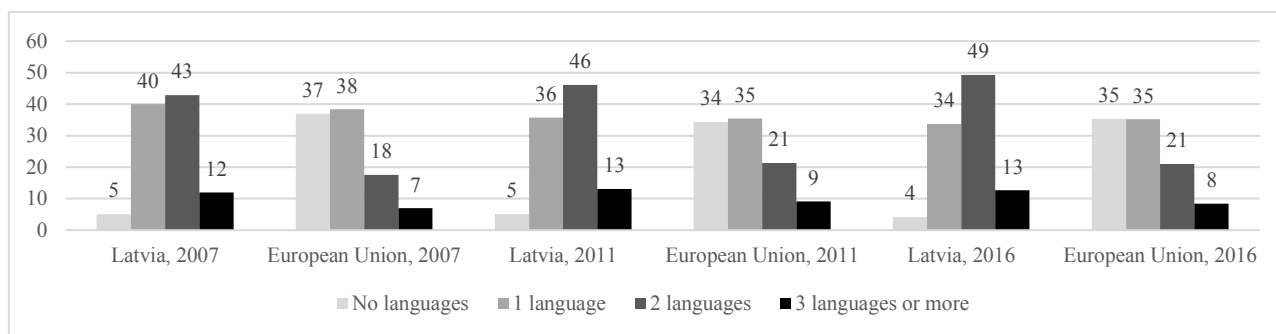


Source: authors' construction based on Eurostat data

Fig.2. Individuals who have basic or above basic overall digital skills in 2015-2017 (percentage of individuals)

As it has already been mentioned before, multilingual competency includes the ability to effectively and appropriately use different languages, and is also one of the core competencies of the EU Council. According to the data of the year 2016, the majority of Latvia's population (49.3%) knew two foreign languages, and this proportion increased by 6.4% over the last 10 years. 33.7% knew one foreign language and 4.2% knew only their mother tongue. 12.7% knew at least three foreign languages which is an important share, and since 2007 it has increased by 0.7% (Eurostat, 2018). Compared to the EU average data, in 2016, the majority or 35.3% of EU population did not know any foreign language, 35.2% knew one foreign language, 21% knew two foreign languages, and 8.4% knew at least three foreign languages (please see Fig.3). In Latvia, foreign language knowledge is broader than that in the EU. Such significant differences are related both

to the historical and geographical situation in Latvia. Therefore, the multilingual competency is a competitive advantage of Latvia.



Source: authors' construction based on Eurostat data

Fig.3. Number of foreign languages known in Latvia and EU in 2007, 2011 and 2016 (Percentage of individuals)

Similarly, according to the data of the year 2017, in Latvia communication (64% of individuals who have above basic communication skills), information (73% of individuals who have above basic information skills) and problem solving (64% of individuals who have above basic problem solving skills) skills are well advanced exceeding the EU average level (Eurostat, 2018).

In the following section, an example of a particular educational institution applying the competency-based approach - the Faculty of Business, Management and Economics of the University of Latvia - will be investigated according to the case study method.

3. Application of the competency-based approach at the Faculty of Business, Management and Economics of the University of Latvia – Case study

Within the framework of the research, the methods of document analysis and case study were applied, and five bachelor study programmes implemented at the Faculty of Business, Management and Economics of the University of Latvia (FBME) were analysed. The authors analysed the annexes of diplomas, accreditation documentation, competency descriptions in programme development documentation, published descriptions on official website of the University of Latvia as well as programme study results mentioned in the e-study environment of the University of Latvia. Totally were examined 107 pages of documents related to the competency descriptions. Documentation of the FBME's course and programme descriptions was developed in accordance with The Cabinet of Ministers Regulations No. 322 'Regulations on the Classification of the Latvian Education' adopted in Riga on 13 June 2017. The Regulations define the classification of education in Latvia, including descriptors of knowledge, skills and competencies corresponding to the levels of the Latvian Qualifications Framework (LQF) (Cabinet of Ministers of Latvia, 2017). As in the research were analysed bachelor study programmes corresponding to the LQF level 6, the authors reviewed the descriptors of the knowledge, skills and competencies corresponding to this level which were determined by Cabinet Regulations No. 322 (Please see Table 1).

Table 1

Descriptors of knowledge, skills and competencies corresponding to LQF level 6 (Cabinet of Ministers of Latvia, 2017)

LQF level	Knowledge (knowledge and understanding)	Skills (ability to use knowledge, communication, general skills)	Competency (analysis, synthesis and evaluation)
6	Basic and specialised knowledge of the relevant scientific field or profession, understanding of their key concepts and regularities; critical understanding of this knowledge.	Ability to carry out professional, artistic, innovative or research activities, formulate and analytically describe information, problems and solutions in their field of science or profession, to explain and reasonably discuss them; ability to independently structure one's learning, show a scientific approach to problem solving, take responsibility and initiative, work individually, in a team or manage other people's work, make decisions and find creative solutions.	Ability to independently acquire, select and analyse information and use it, make decisions and solve problems in the relevant scientific field or profession, demonstrate understanding of professional ethics, evaluate the impact of one's professional activity on the environment and society, and participate in the development of the relevant professional field.

Thus, according to Latvian legislation, the knowledge, skills and competencies to be acquired are determined separately in the results of each educational level, but, according to the EU Council's recommendations, competency is a combination of knowledge, skills and attitudes. The EQF level results determined by knowledge, skills, responsibility and autonomy are presented in Table 2. In the context of the EQF, knowledge is described as theoretical and/or factual; skills are cognitive, which include logical, intuitive and creative thinking, and practical applications that involve the use of methods, materials, tools and instruments; responsibility and autonomy is the student's ability to independently and responsibly apply knowledge and skills (European Commission, 2018).

Table 2

Descriptors Defining Levels in the European Qualifications Framework (EQF) (European Commission, 2018)

EQF level	Knowledge	Skills	Responsibility and autonomy
The learning outcomes relevant to level 6	Advanced knowledge of a field of work or study, involving critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups

Within the framework of the research, the FBME's bachelor study programmes analysed are as follows: Accounting, Analysis and Audit; Economics; Financial Management; International Economics and Commercial Diplomacy; International Economic Relations. The document analysis explored the competencies of mentioned programmes as set out in diploma supplements, FBME's documentation, and published materials. Based on the analysis of the mentioned texts, a summary of competencies to be acquired under the programmes was developed (please see Table 3).

The results of the analyzed FBME's study programmes were divided into three blocks in accordance with The Cabinet of Ministers Regulations No. 322 'Regulations on the Classification of Education in Latvia'. According to the FBME's documentation: knowledge is defined as a systematic set of information or conclusions characterised by breadth, depth, awareness, operability; skills are the ability to apply knowledge, communication, general skills in the exercise of a task or

Table 3

Summary of the FBME's Programme Competencies

Programme	Summary of competencies to be acquired
Accounting, Analysis and Audit	<p><u>Hard competencies:</u></p> <ul style="list-style-type: none"> - Preparation of specific accounting documents and reports; - Application of modern information technologies in accounting data processing; - Preparation, analysis and evaluation of the results of a company, identification of problems and preparation of proposals; - Risk assessment and application of audit methods and techniques in practice; - Ability to practically show comprehensive professional knowledge and skills in solving topical issues in accounting, auditing and taxation. <p><u>Soft competencies:</u></p> <ul style="list-style-type: none"> - Creative, problem-solving attitude to work; - Ethical attitude towards colleagues, partners, clients and other people; - Ability to show initiative and take responsibility; - Careful attitude to the environment and nature; - Desire for continuous development and improvement.
Economics	<p><u>Hard competencies:</u></p> <ul style="list-style-type: none"> - Company cost and tax calculations, budgeting and financial reporting, bookkeeping; - Analysing and evaluating the company's financial position and efficiency, offering solutions to improve performance; - Knowledge of the possibilities of banking services, exchange rate changes and currency risk reduction; - Development of the company's internal control systems and application of audit methods; - Orientation in investment portfolio design and management; - Use of econometric modelling and mathematical methods, interpretation of results as well as application of forecasting methods; - Applying theoretical knowledge in solving practical tasks to improve the performance of an enterprise as well as in decision making; - Ability to independently analyse and evaluate the economic processes taking place in the country, the internal and external environment of business and its development tendencies both in Latvia and in the world in general; - Ability to identify changes in social and economic environments and their processes, and to make independent decisions about current economic and business problems; <p><u>Soft competencies:</u></p> <ul style="list-style-type: none"> - Understanding the importance of professional ethics, assessing the impact of one's professional activities on the environment and society.
Financial Management	<p><u>Hard competencies:</u></p> <ul style="list-style-type: none"> - Knowledge of banking, financial and investment planning and management, state budgeting, financial and tax issues; - Knowledge of corporate finance and accounting issues, financial risk assessment and insurance issues; - Business and institutional accounting, planning, financial and economic analysis, decision making; - <i>Intellectual competencies:</i> to solve professional issues and problems using the theoretical basics and skills acquired, to continue own further education and improve professional qualification; - <i>Academic competencies:</i> to evaluate and use in one's professional field statistical and mathematical methods, practical approaches to solving financial management problems, to acquire, select and process information and to use the latest research and achievements of the economic sector in one's practical activities, to carry out creative, research and educational work in economics. - <i>Practical competencies:</i> to apply the acquired theoretical knowledge and practical skills in solving financial management problems, risk management, to make and substantiate decisions in the field of professional competence, to work independently and in a team, to develop and implement projects. <p><u>Soft Competencies:</u></p> <ul style="list-style-type: none"> - Respect for professional ethics.
International Economics and Commercial Diplomacy	<p><u>Hard competencies:</u></p> <ul style="list-style-type: none"> - Analysis and forecast of international economic processes; - Understanding the role of commercial diplomacy in international trade and financial transactions; - Ability to navigate the global economic environment and make informed decisions in the context of global competition; - Applying theoretical knowledge and skills to issues and problems related to international economics and business diplomacy. <p><u>Soft Competencies:</u></p> <ul style="list-style-type: none"> - Ability to participate in international negotiations, contracting, defending national or corporate interests; - Understanding the importance of professional ethics, assessing the impact of one's professional activities on the environment and society.
International Economic Relations	<p><u>Hard competencies:</u></p> <ul style="list-style-type: none"> - Application of the acquired theoretical knowledge in international economic relations issues, their analysis, finding the optimal solution of problems and forming the image of an organisation; - Knowledge of international law, policy and modern international economic processes; - External communication departments, external relations departments of organizations and personnel management capabilities; - Ability to assess and compare different situations in the field of international economic relations at national, organisational and business level, to assess their potential consequences, including legal consequences.

Source: authors' construction based on FBME documentation, published information of the University of Latvia

profession; competence is the ability to apply knowledge and skills in the usual/changing situation, the ability to act ethically when working in the professional field. Each programme identifies job opportunities and potential positions after graduation allowing a potential student to immediately assess his or her career opportunities.

The analysis showed that the understanding of knowledge, skills and competences at the faculty in question is uniform. The wording of obtainable competencies in the FBME's documents drawn up at different times is similar but not identical which is explained by the fact that their characteristics are updated according to the requirements and market trends. In some situations, competencies were identified as skills or knowledge related to the fact that skills and knowledge are part of the competencies and naturally overlapping. In the Financial Management programme, there is a specific distinction between intellectual, academic and practical competencies. Similarly, the study programmes identify soft and hard competencies; the soft competences are less mentioned than hard competencies, and they are not mentioned in the International Economic Relations programme. Both specific competencies characteristic of a particular programme and the general ones are identified. Specific skills are related to the EU-defined mathematical competency and competency in science, technology and engineering. The programmes also emphasise digital competency, personal, social and learning competency, citizenship competency and entrepreneurship competency related to creativity, critical thinking and problem solving with the aim of planning and managing projects. Less emphasis is placed on the competency of cultural awareness and expression related to the specificity of the direction of the faculty analysed. Programme learning outcomes do not mention multilingual, literacy skills that are generally acquired at primary and secondary school levels. Particular emphasis is placed on the importance of professional ethics which is in line with the description of competencies contained in The Cabinet of Ministers Regulations No. 322 as well as on the attitude developed in several programmes which is part of the competencies. Emphasis is placed on the competencies related to problem solving and critical thinking, and communication skills are determined through the ability to participate in discussions.

In general, in creating the results of the programmes, the FBME follows the requirements of Latvian legislation and updates them in line with trends. It is positively assessed that the FBME's concepts of competencies, knowledge and skills are specifically defined as these terms have several definitions and can be understood differently depending on the context. Therefore, they should always be defined so that programme directors understand these concepts equally. The FBME uses competence-based education that focuses on the students' ability to develop not only important knowledge but also the skills, values and attitudes that are required to address complex issues that students will face in their future personal life and professional career. Thus, the FBME adapts to the development of the competency-based approach.

Conclusions, proposals, recommendations

The research conclusions are as follows:

1. In general, the individual's competencies have a significant impact on performance and job satisfaction, and the use of the competency-based approach has significant advantages over the traditional learning approach.
2. The European Council pays special attention to the identification of competencies defining and developing eight key competencies. All core competencies are related to the ability to understand, express information and ideas, adapt to the circumstances, appropriately and effectively use knowledge in order to solve a range of problems in everyday situations and draw evidence-based conclusions as well to fully participate in civic and social life. They are related to the application of knowledge and skills in response to perceived human wants or needs.
3. Over the last 10 years, the total number of educational institutions and students in Latvia has decreased. The greatest relative decrease was observed in the number of vocational education institutions, and only the number of pre-school educational institutions and the number of children therein increased. In general, the number of educational institutions decreased not as fast as that of the students.
4. On average, problem solving, communication and information skills of people of Latvia are at an appropriate level while digital and software skills are averagely lower than average in the European Union.

5. Regardless of current difficulties in the field of education, knowledge of foreign languages is a competitive advantage of Latvia's people in the international market.

6. According to normative acts of Latvia competencies are related to the ability to demonstrate understanding of professional ethics, evaluate the impact of one's professional activity on the environment and society, but in official documents of the European Union competency is related to analysis, synthesis and evaluation.

7. It is essential that higher education institutions understand the aspects of competency because they have to adapt their documentation and study process implementation according to new legislation related to the competency-based approach. Development of the competency-based had a significant impact on the form of study programmes and course descriptions at the FBME.

8. The FBME implements competency-based education that focuses on the students' ability to develop not only important knowledge but also competencies related to problem solving, critical thinking and communication skills. The analysed FBME programmes particularly emphasize the importance of professional ethics, highlight the importance of responsibility and perfection in line with EU guidelines but rarely define the resulting attitude as part of competencies.

9. The FBME competencies defined in programmes descriptions are more focused on hard skills rather than on soft skills. Both types of skills should be taken into account to ensure organisational efficiency.

10. In the FBME programme descriptions are included mathematical competency and competency in science, technology and engineering. The programmes also emphasise digital competency, personal, social and learning competency, citizenship competency and entrepreneurship competency. Less emphasis is placed on the competency of cultural awareness and expression related to the specificity of the direction of the faculty analysed. Programme learning outcomes do not mention multilingual and literacy skills.

11. As skills and knowledge are part of the competencies, the competencies naturally overlapped with skills or knowledge in the FBME programme descriptions.

The research recommendations are as follows:

1. In Latvia support should be provided to the digital and software skills that are less developed than the average in the European Union.

2. As entrepreneurship competencies are considered to be of a higher level, and can be perceived as the entrepreneur's overall ability to succeed in the job, these group of key competencies should be studied in detail in further research.

3. Educational institutions of Latvia should develop basic and above basic digital and software skills that are averagely lower than average in the European Union.

4. The FBME should pay more attention on soft skills, cultural awareness and expression, values and attitudes development that are required to address complex issues.

5. The FBME should examine the possibility to include the multilingual competency in the competencies to be acquired under the programmes, thus developing this competitive advantage.

6. The research carried out covers one faculty of higher education institution which limits the generalisation of conclusions on the use of the competency-based approach in educational institutions. Further research should develop the scope of the study by comparing the experience of several Latvian higher education institutions in applying the competency-based approach in the study programmes of different levels with that of other Baltic States. Content analysis method should be used for comparing the same programme descriptions of different universities to make conclusions about strengths and weaknesses of study programme descriptions in particular academic institution. This way, it would be possible to arrive on conclusions on best practice.

Bibliography

- Alsabbah, M. Y. A., Ibrahim, H.I., 2013. *Employee Competence (Soft and Hard) Outcome of Recruitment and Selection Process*. American Journal of Economics, 3(5C): 67-73.
- Barth, M., Godemann, J., Rieckmann, M., Stoltenberg, U., 2007. *Developing Key Competencies for Sustainable Development in Higher Education*. International Journal of Sustainability in Higher Education, Vol. 8 No. 4, 416-430.
- Bendassolli, P.F., Borges-Andrade, J.E., Gondim, S.M., Makhamed, Y.M., 2016. *Performance, Self-regulation, and Competencies of Entrepreneurs in Brazilian Creative Industries*. Brasil: Psicologia: Teoria e Pesquisa Vol. 32 n. esp., 1-9.
- Bertoncelli, T., Mayer, O., Lynass, M., 2016. *Creativity, Learning Techniques and TRIZ*. Procedia CIRP, 39, 191–196.
- Cabinet of Ministers of Latvia, 2017. Regulation on the Classification of the Latvian Education. [Online] Available at: <https://likumi.lv/doc.php?id=291524> [Accessed 27 November 2018]
- Carroll, A., McCrackin, J., 1998. *The Competent Use of Competency-Based Strategies for Selection and Development*. Performance Improvement Quarterly, 11, 45-63.
- Central Statistical Bureau of Latvia, 2018. *Education Statistics*. [Online] Available at: www.csb.gov.lv [Accessed 11 November 2018]
- Chiru, C., Ciuchete, S.G., Lefter (Sztruten), G.G. and Paduretu (Sandor), E., 2012. *A Cross Country Study on University Graduates Key Competencies. An Employer's Perspective*. Procedia - Social and Behavioral Sciences 46, 4258 – 4262.
- Coll, R. K., Zegwaard, K. E., 2006. *Perceptions of Desirable Graduate Competencies for Science and Technology New Graduates*. Research in Science & Technological Education, Vol. 24, Issue 1, 29-58.
- De Villiers, R. 2010. *The Incorporation of Soft Skills into Accounting Curricula: Preparing Accounting Graduates for Their Unpredictable Futures*. Meditari Accountancy Research, Vol. 18, No. 2, 1-22.
- European Commission. *Descriptors Defining Levels in the European Qualifications Framework (EQF)*. [Online] Available at: <https://ec.europa.eu> [Accessed 27 December 2018]
- Eurostat, 2018. *Education and Training Statistics*. [Online] Available at: <https://ec.europa.eu/eurostat> [Accessed 7 November 2018]
- Kane, M.T., 1992. *The Assessment of Professional Competence*. Evaluation and the Health Professions 15, 163–182.
- Lambrechts, W., Mula, I., Ceulemans, K., Molderez, I., 2013. *The Integration of Competences for Sustainable Development in Higher Education: An Analysis of Bachelor Programs in Management*. Journal of Cleaner Production, Vol. 48, 65-73.
- Litchfield, R.E., Oakland, M.J., Anderson, J., 2002. *Promoting and Evaluating Competence in On-line Dietetics Education*. Journal of the American dietetic association 102, 1455–1458.
- Ko, W.H., 2012. *A Study of the Relationships among Effective Learning, Professional Competence, and Learning Performance in Culinary Field*. Journal of Hospitality, Leisure, Sport & Tourism Education 11, 12–20.
- Ko, W.H., 2012. *The Relationships among Professional Competence, Job Satisfaction and Career Development Confidence for Chefs in Taiwan*. International Journal of Hospitality Management, Vol. 31, Issue 3, 1004-1011.
- Man, T.W.Y., Lau, T., Chan, K.F., 2002. *The Competitiveness of Small and Medium Enterprises - A Conceptualization with Focus on Entrepreneurial Competencies*. Journal of Business Venturing, 17, 123–142.
- Perdue, J., Ninemeier, J., Woods, R. 2000. *Competencies Required for Club Managers*. The Cornell Hotel and Restaurant Administration Quarterly, 41(2),79–85.
- Pinquart, M., Juang, L.P., Silbereisen, R.K., 2003. *Self-efficacy and Successful School-to-work Transition: Alongitudinal Study*. Journal of Vocational Behavior, 63, 329–346.
- Rainsbury, E., Hodges, D. L., Burchell, N., & Lay, M. C., 2002. *Ranking Workplace Competencies: Student and Graduate Perceptions*. Asia-Pacific Journal of Cooperative Education, 3(2), 8-18.
- Renwick, D., and MacNeil, C.M., 2002, *Line Manager Involvement in Careers*, Career Development International, Vol. 7, No.7, 407-414.
- Rieckmann, M., 2012. *Future-oriented Higher Education: Which Key Competencies Should Be Fostered through University Teaching and Learning?* Futures 44 (2), 127-135.
- Skorková, Z. 2016. *Competency Models in Public Sector*. Procedia - Social and Behavioral Sciences 230, 226 – 234.

- The Council of the European Union, 2018. *Council Recommendation on Key Competences for Lifelong Learning*. Brussels, 1-29.
- Snyder, L. A., Rupp, D. E., Thornton, G. C., 2006. *Personnel Selection of Information Technology Workers: The People, the Jobs, and Issues for Human Resource Management*. J. J. Martocchio (Ed.), Research in personnel and human resources management, Vol. 25, 305-376.
- The University of Latvia, 2018. *Information about Study Programmes*. [Online] Available at: www.lu.lv [Accessed 29 December 2018]
- United Nations Industrial Development Organization, 2002. *UNIDO Competencies: Strengthening Organizational Core Values and Managerial Capabilities*. Vienna, Austria: UNIDO, 1-25.
- van Birgelen, M. J. H., Wetzels, M. G. M., van Dolen, W. M., 2008. *Effectiveness of Corporate Employment Web Sites: How Content and Form Influence Intentions to Apply*. International Journal of Manpower, 29(8), 731-751.
- Weber, M. R., Finley, D. A., Crawford, A., Rivera, D., 2009. *An Exploratory Study Identifying Soft Skill Competencies in Entry-level Managers*. Tourism and Hospitality Research, Vol. 9, 4, 353-361.