## THE IMPORTANCE OF ENTREPRENEURIAL COMPETENCE IN ACTIVITIES

# VERSLUMO KOMPETENCIJOS SVARBA VEIKLOJE

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Summary. Nowadays, globalization deeply touches personal people's lives. The European Parliament and the EU Council Recommendation on lifelong learning define lifelong learning as the knowledge, skills and attitudes necessary for personal fulfilment, successful integration into society and a combination of productive work. One of the priority competences highlighted in the Lifelong Learning Programme and also in the goals of European and Lithuanian education is entrepreneurial competence that has been gaining increasingly stronger educational positions is consolidating different areas. Entrepreneurial competence is one of the success factors in this digital and globalizing world. This competence is applied in different ways and in this paper the importance of entrepreneurial competence is analyzed in four dimensions: job search, keeping the workplace, professional career and participation in community activities.

**Key words:** entrepreneurial competence, entrepreneurship, lifelong learning, job search, workplace, professional career, participation in community activities.

Santrauka. Globalizacija vis giliau ir labiau paliečia asmeninį žmonių gyvenimą. Europos Parlamento ir Europos Sąjungos Tarybos rekomendacija dėl bendrojo visą gyvenimą trunkančio mokymosi teigia, kad Mokymasis visą gyvenimą yra žinių, įgūdžių ir požiūrių, būtinų asmeniniam pasitenkinimui, sėkmingai integracijai į visuomenę ir produktyvaus darbo derinys. Viena iš prioritetinių kompetencijų, akcentuojamų Europos ir Lietuvos švietimo tiksluose, – verslumo kompetencija (toliau-VK), kurios ugdymo pozicijos vis tvirtėja. Šio straipsnio tikslas – ištirti verslumo kompetencijos svarbą veikloje, kuri šiame straipsnyje analizuojama keturiose srityse: darbo paieškoje, darbo vietos išlaikyme, profesinės karjeros siekime, dalyvavime visuomeninėje veikloje.

**Raktiniai žodžiai:** verslumo kompetencija, verslumas, mokymasis visą gyvenimą, darbo paieška, darbo vietos išlaikymas, profesinė karjera, dalyvavimas visuomeninėje veikloje.

#### INTRODUCTION

The National Education Strategy 2013–2022 states that education must respond promptly to the changes in the labour market, to help people orient themselves quickly, to identify their strengths and use them finding workplace, to be able individually manage their career or to choose promising career direction.

Education has to open up and offer various learning opportunities that will help to improve skills on the basis of qualifications and self-improvement; acquiring self-confidence; responsibility for oneself, the community, the state and the environment. The state must give the person another chance in their own country, to help finding a new place in society, to learn

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new roles and acquire new skills. Education should become for adults a way to community, to social, civic, cultural and economic life (National Education Strategy 2013–2022).

In this context, an entrepreneurial competence is becoming an important tool for creation of adult welfare: a job search process, job retention and creation of a successful career. Entrepreneurship competence is one of the important components of lifelong learning, which will help to orientate in knowledge-based society. Adult training and education, in order to develop entrepreneurial competence, is becoming more and more emphasized: "Entrepreneurship more frequently should be applicable for job creation, development of sucesfull career, as well as a tool in the fight against social exclusion" (Key competence for lifelong learning, 2010).

European Entrepreneurship Green Paper on Entrepreneurship in Europe (2002) emphasized the following strengths of entrepreneurial concept, which emphasize the importance of the concept and the need of entrepreneurial competence for socioeconomic context:

- Entrepreneurship contributes to job creation and economic growth;
- Entrepreneurship is essential for competitiveness;
- Entrepreneurship opens up individual personal opportunities;
- Entrepreneurship and public-social interests (The Commission's Green Paper, 2002).

The European Commissioner Androulla Vassiliou, who is responsible for Education, Culture, Multilingualism and Youth, said that "Entrepreneurship education is the future driver of economic growth. It is very important for the development of future entrepreneurs. In order to remain competitive, Europe must invest in people, their skills, their ability to adapt and create innovation." (European Commission press release). Therefore, it it is very important to analyze the importance of entrepreneurial competence; consequently, the **purpose** of the paper is to explore the importance of entrepreneurial competence in activities: job search, keeping the workplace, professional career, participation in community's activities.

The **object** of the paper is the importance of entrepreneurial competence in activities.

The **methods** applied for the research: analytic literature review, research sources and document analysis and synthesis; the method of data collection is the survey and the methods of statistical data analysis.

#### THE CONCEPT OF ENTREPRENEURIAL COMPETENCE AND THE EXPRESSION

According to Bird (1995), entrepreneurial competences are defined as individual's traits, such as specific knowledge, motives, features, self-images, social roles and abilities. Some entrepreneurial competences can be learned through formal education, other competences are tacit and depend on the individual characteristics and are developed through a person's life, experience, and career (Brownell, 2006). Laguador (2013) proposes to measure entrepreneurial competence highlighting these characteristics: opportunity seeking, commitment to work contract, demand for quality and efficiency, risk taking, goal setting, information seeking, systematic planning and monitoring, persuasion and networking, self–confidence. McBer's and his company's (1989) entrepreneurial competence definition focuses on commitment to work, concern for high quality of work, new opportunities, efficiency orientation, persistence, initiative, systematic planning, information seeking, use of influence strategies, self-confidence, assertiveness, persuasion, problem solving (see Figure 1).

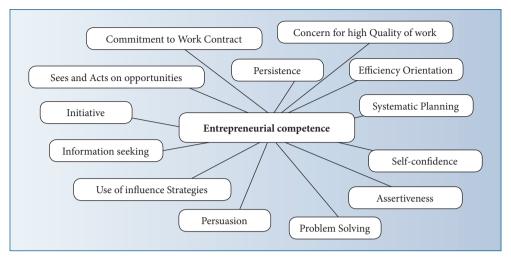


Figure 1. Entrepreneurial competence concept

Entrepreneurship today is one of the most significant and most highlighted human characteristics and skills areas. Green (2013) analysing the abilities and skills between the three essential elements of their characteristics (acquirement, learning, social nature) also indicates the application of the skills and abilities to value-added activities. Exactly the creation of economic value is an essential element of entrepreneurial abilities and skills.

Entrepreneurship is seen as a certain way of behaviour (Drucker, 1985). Entrepreneur recognizes new (market) opportunities, using the intuition, creativity and analytical skills. Dreissena and Zwart (2010) subdivide entrepreneurial competence into four elements interacting with each other – knowledge, internal and external business motivation, skills and personal qualities.

Knowledge is the rational entrepreneurial competence, comprising knowledge of marketing principles, business rules, the management, understanding of the laws of the country, etc. A particularly important element of entrepreneurial competence is the so-called "tacit" knowledge, which is acquired through experience. Motivation depends on ambition, personal values, and other subjective factors. If a person has a lot of knowledge about a particular task and opportunities for the task, he may not necessarily use his knowledge and capabilities, if he lacks motivation to do so. Personal qualities are also a significant component of entrepreneurial competence.

The most common are the focus on results, the self-control, and the tendency to take risks. *Skills* are dynamic and they can be a trained component of entrepreneurial competence, in contrast to personal qualities, which in many cases are stable and difficult to change. These entrepreneurial competence elements, according to Dreissen and Zwart (2010), are expressed and applied in various areas of life; they cannot simply be moved to the business, its organization and management. Susceptibility to innovations, vision for the future, the ability to bring people together for common activities, quick decision making, the ability to sell and ability to take a risks, the ability to communicate, attitude, logical thinking, self-realization, active operation are important in many areas of person's life.

Therefore, entrepreneurship and entrepreneurial competence are expressed in various spheres of human life: professional, social and personal life.

#### ENTREPRENEURIAL COMPETENCE RESEARCH METHODOLOGY

#### SAMPLE AND PROCEDURE

During 2014 a quantitative research was conducted. The data for this research was gathered from the 29 th of April till the 6th of November. The research involved the survey of 857 respondents in employment and unemployment area in Lithuania: 34.6 percent employed, 40.5 percent unemployed, and 24.9 percent of unknown or other status (e.g., pensioners).

The instrument of quantitative research was a questionnaire on entrepreneurial competence.

Statistical analysis methods. The main statistical data processing program used in the analysis was IBM SPSS Statistics, 16 and 22 versions. Mplus program, version 7.3, was used for confirmatory and exploratory factor analyses. Other important statistical methods used were cluster analysis and logistic regression analysis.

Developing entrepreneurship scales. One of the goals of this research was to find out how the research participants evaluate their entrepreneurial competence and to find out what is the role of the development of entrepreneurial competence in striving for employability. The right instrument to measure the entrepreneurial competence of the participants was needed. We decided to choose the "Test for personal entrepreneurial competence" (McBer and Company, 1986), because the instrument was exhaustive, understandable and not too long. The test was developed in 1986, by UP Institute of Small-Scale Industries (UP-ISSI). The author of this test is McBer and his company. The instrument consists of 70 statements that assess a person's entrepreneurial competence by certain characteristics. On the basis of this instrument personal entrepreneurial characteristics are described and identified, i.e., a respondent has to assess how well a particular statement corresponds to his or her own characteristics. Subjects have to evaluate the statements by a 5-point Likert scale, where 5 means "very suitable", 1 – "completely not suitable". For example: "I've been looking for, what I can do"; "I like challenges and new opportunities".

Exploratory and confirmatory factor analyses were used in order to develop entrepreneurship scales from the initial pool of the 68¹ entrepreneurship questionnaire's items. The number of factors was determined using Mplus program and parallel analysis method (Tabachnik, Fidell, 2007, p. 645). Only factors with eigenvalues not less than 95-th percentile of the random eigenvalues obtained from 200 bootstrapped random samples with the same number of variables and the same sample size as original data were retained. Factor model parameters were estimated using robust maximum likelihood method (MLR). Extracted factors were rotated using Direct Oblimin method. Scales were based on the obtained factors. All items with statistically significant loadings in the factor were included into the scale. Scale scores were calculated as averages of the scale items. When calculating scores for cases with some missing values of the items of the scale, these missing values were replaced by averages of items without missing values of the scale, however, only if proportion of missing values in the score did not exceed 25 percent of the number of items in the scale. Reliability of the developed entrepreneurship scales was also tested using Cronbach alpha reliability coefficients, average, minimal and maximal correlations between items of the scale. Our data

Two questionnaire items were rejected because of their dubiuous face validity in Lithuanian version.

rejected the original factor model (as by McBer and Company, 1986) by chi-square test of model fit: c2 (1885) = 4515.5, p < .0001, although values of two other widely used fit measures were good: RMSEA<sup>2</sup> = .042,90.

This indicates that many items of the questionnaire do not belong unambiguously to only one factor, instead, they are distributed between two or more factors. Simple factor model does not hold; more complex models are needed in order to describe relationships between the items properly; more and better discriminating different aspects of the entrepreneurship concept items are probably needed. However, the available data of the current research did not allow using more items, therefore it was decided to construct and use entrepreneurship scales based on the current data. Exploratory factor analysis was performed, six factors were extracted, rotated and had sufficiently clear interpretation. Six entrepreneurship scales were developed based on these factors.

Characteristic of respondents. The average age of respondents was 37.8 years, from 18 to 74. 54.9 percent of the respondents were women and 45.3 percent were men. Most respondents had higher education (41 percent); were married (51.7 percent) and lived in cities (41.1 percent).

The structure of the questionnaire: Entrepreneurial competence questionnaire was made up of five blocks, which consisted of 13 questions (see Table 2) and 168 variables: 1) Assessment of the relevance of Entrepreneurial competence (94 variables); 2) Entrepreneurial competence expression in job search and keeping the workplace (17 variables); 3) Entrepreneurial competence expression in professional career (9 variables); 4) Entrepreneurial competence expression in participation in social activities (10 variables); 5) Entrepreneurial competence educational evaluation (38 variables). The respondents were asked to evaluate personal entrepreneurial competence or how successful they are in specific activities; entrepreneurial competence and the relevance, success in different activities; needs to develop different entrepreneurial competence skills.

## Instrument blocks and their questions (created by author)

Table 1

Instrument block	Questions	Variables
Assessment of the relevance of Entrepreneurial competence	2 questions	94
Entrepreneurial competence expression in job search and keeping the workplace	4 questions	17
Entrepreneurial competence expression in professional career	2 questions	9
Entrepreneurial competence expression in participation in social activities	2 questions	10
Entrepreneurial competence educational evaluation	3 questions	38

Note. The complete questionnaire can be accessed at: http://sbk.vdu.lt/anketos/

 $<sup>^2</sup>$  RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; CFI = Comparative Fit Index.

#### **EMPIRICAL RESEARCH AND THE MAIN RESULTS**

Entrepreneurial competence self-assessment. During this research it was very important to find out how the research participants evaluate their entrepreneurship. They were asked, "How do you think, how much you are enterprising?" Most of the survey participants evaluated themselves as medium enterprising (43.9 percent). 20.2 percent of the research participants see themselves as enterprising persons. A very similar percentage of survey participants rate themselves as very enterprising (6.0 percent) or completely not enterprising (7.5 percent).

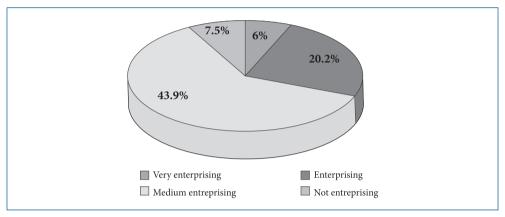


Figure 2. Entrepreneurial competence self-assessment

Analysing the relationship between the study participants' own assessment of entrepreneurship (the question "How do you think, how much are you enterprising?") and the entrepreneurial scales results there was seen a fairly close relationship. These respondents who assess themselves as enterprising or very enterprising also confirm in the entrepreneurial scales results that their entrepreneurship is relatively high. This trend was observed in all six received scales, the difference was only found in connectivity strength. The strongest correlation with their entrepreneurship has been observed with assessment scales for new opportunities, relationship in activities and the planning and organization factors (see Table 2). The weakest correlation emerged with the Initiative and activity factor. These results might have occurred because of this factor Cronbach alpha.

### Factor correlations with the entrepreneurship assessment

Table 2

Spearman's rho	New Opportuni- ties	Persua- sion	The pursuit of quality	The initia- tive and activity	Relations (in activities)	Planning and orga- nizing
How do you think, how much are you enterprising?	411**	399**	246**	102**	444**	−.355**
N	663	665	663	666	663	664

**Note:** All correlations statistically significant at p < .001

#### THE IMPORTANCE AND EXPRESSION OF ENTREPRENEURIAL COMPETENCE

*The importance of entrepreneurial competence.* This research sought to determine the importance of entrepreneurial competence in four areas of adult life:

- 1. professional activities and work challenges;
- 2. career aspirations;
- 3. performation of public duties;
- 4. personal development.

The survey results show that mostly participants of the study evaluated entrepreneurial competence as very important (35.5 percent) or important (43.6 percent) in the following areas of life. Only a very small part of the survey participants said that entrepreneurial competence is not important (17.4 percent) or not relevant (3.5 percent) at work, seeking career, in social and in personal activities.

The importance and expression of entrepreneurial competence in four adult's life dimensions. In the research the respondents were also asked to evaluate the importance of entrepreneurial competence in four adults' life dimensions: job search, keeping the workplace, professional career, participation in communities activities. The results show that entrepreneurial competence is important in various dimensions: job search, keeping the workplace, professional career, participation in community's activities.

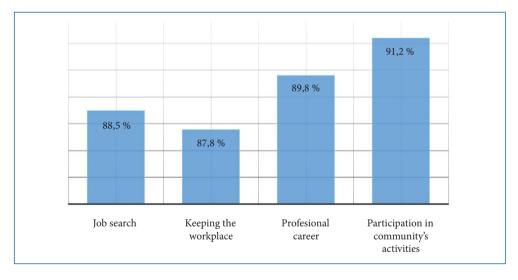


Figure 2. Percentages of respondents who think that entrepreneurial competence is important in these activities

The results showed that 88.5 percent of the study participants stressed the importance of job search. Most respondents of the study say that keeping the workplace is very important for them (87.8 percent). Importance of professional career is also acknowledged by the vast majority of respondents (89.8 percent). The results show that 91.2 percent of the study respondents say that entrepreneurial competence helps them and could be useful in participation in community's activities (See Fig 2).

Another way to compare the importance of entrepreneurial competence in different dimensions is to ask how much predictive power the entrepreneurship scales add when added to other variables, first of all demographic, in predicting the importance of some activity dimension to the respondents.

# THE RELATIONSHIP OF ENTREPRENEURIAL COMPETENCE TO THE IMPORTANCE FOR THE RESPONDENTS IN JOB SEARCH, KEEPING THE WORKPLACE, PROFESSIONAL CAREER AND PARTICIPATION IN COMMUNITY'S ACTIVITIES

In this section of the study we aimed to determine how demographic variables (age, gender, education, place of residence), employment status (unemployed (1) vs. employed (0)) and entrepreneurial competence aspects (the six developed scales) are related to the four activity dimensions: a) job search; b) keeping the workplace; c) professional career, d) participation in communities activities. Four logistic regressions were made with dependent variables indicating the importance of each dimension for the respondent: important (1) vs. unimportant (0). The results showed the importance of entrepreneurial competence of these four dimensions.

*Job search*. Only for this dimension all entrepreneurial scales were found statistically non-significant.

Keeping the workplace. The results showed that increasing scores of pursuit of quality (odds ratio, abbr. or = .940), initiative and activity (or = .909), and planning and organization skills (or = .925) mean increasing of the probability that keeping workplace is important (See Table 3). Increasing scores of seeing new opportunities (or = 1.07) and entrepreneurship relations (or = 1.11) reduce the probability that keeping workplace is important. p < .01 in all these cases (See Table 3).

Keeping the workplace

Table 3

The variable	Regression coefficient (B)	p – value	Odds ratio	95% CI (Confidence interval)	
				Lower	Upper
New Opportunities	.063	.001**	1.07	1.026	1.106
Persuasion	036	.065	.964	.928	1.002
The pursuit of quality	062	.002**	.940	.904	.977
The initiative and activity	095	.000**	.909	.879	.941
Relations (in activities)	.106	.000**	1.11	1.063	1.163
Planning and organizing	078	.000**	.925	.888	.963

<sup>\*\*</sup>Note: All correlations statistically significant at p < .001

*Professional Career.* Statistically significant regression coefficients were found for age, education, planning and organizing scale. Higher educational level (or = .821, p < .001) increases the probability of importance of the professional career. With increase of age (odds ratio = .97, p = .013) the probability that professional career is important decreases (See Table 4).

#### **Professional career**

Table 4

The variable	Regression coefficient (B)	p – value	Odds ratio	95% CI (Confidence interval)	
				Lower	Upper
Age	.027	.013**	0.97	1.006	1.050
Gender	072	.780	.930	.561	1.544
Residence place	.058	.638	1.060	.832	1.352
Education	197	.007**	.821	.712	.946
New Opportunities	021	.939	.979	.562	1.704
Persuasion	005	.697	.995	.971	1.020
The pursuit of quality	020	.120	.980	.956	1.005
The initiative and activity	.000	.980	1.000	.974	1.028
Relations (in activities)	008	.512	.992	.970	1.015
Planning and organizing	002	.915	.998	.971	1.027

<sup>\*\*</sup>Note: All correlations statistically significant at p <.001

Participation in community's activities. The results demonstrate that the unemployed are substantially less inclined to participate in community activities (or = .66, p < .05). As for entrepreneurship scales, the only significant scale was entrepreneurship relations: improving them increases the probability of participation in community's activities (or = 1.03, p < .01) (See Table 5).

Participation in community's activities

Table 5

The variable	Regression coefficient (B)	p – value	Odds ratio	95% CI (Confidence interval)	
				Lower	Upper
Age	011	.189	.989	.972	1.006
Gender	280	.151	.756	.515	1.108
Residence place	.097	.313	.907	.751	1.096
Education	.075	.175	.928	.833	1.034
Unemployed/ Employed	.421	.044**	0.66	1.011	2.297
New Opportunities	.015	.141	.985	.966	1.005
Persuasion	.019	.052	.981	.962	1.000
The pursuit of quality	.018	.103	1.019	.996	1.041
The initiative and activity	004	.656	.996	.981	1.012
Relations (in activities)	030	.008**	1.03	.950	.992
Planning and organizing	002	.815	.998	.977	1.018

<sup>\*\*</sup>Note: All correlations statistically significant at p < .001

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An interesting question is how importance of entrepreneurial competence differs in various domains of work and life, e.g., in these four areas of activity which were analysed in our study. It is not possible to observe these differences directly because there were no such questions in the questionnaire used in the study. However, some attempts to highlight these possible differences are possible using the answers of the respondents to questions about specific activities related to these domains (how entrepreneurial competence helps them in these activities) and using the results of logistic regression.

#### CONCLUSIONS

Entrepreneurship competence is the combination of knowledge, skills and values that is applicable purposefully for the added value creation in the context of Economic activities. Entrepreneurial competence content and structure integrate the knowledge and skills that enable to act effectively, to take the initiative, to take responsibility for one's own and other activities and for the results. Entrepreneurship enables self-employment, creating the new jobs, professional and personal development.

Entrepreneurial competence in professional activities, career aspirations, performation of public duties or personal development in most cases was rated as important or very important. This indicates that respondents consider that entrepreneurial competence could help them to be more active, more creative, to better perform their work tasks or activities and achieve professional and personal development.

The majority of the study respondents agree that entrepreneurial competence is important in job search, keeping the workplace, professional career and participation in community's activities: from 87.8 percent (keeping the workplace) to 91.2 percent (participation in community's activities).

Using logistic regression analysis, we found that the probability of importance of keeping the workplace increases with increasing pursuit for quality, initiative and activity, planning and organization abilities; this probability decreases with increasing ability to see the opportunities and with improving relations with other people necessary for entrepreneurship. As to the probability of importance of professional career, we found that it increases with increasing ability of planning and organization. As to the probability of importance of professional career, we found that it increases with increasing of education, but this probability decreases with the increasing age. Analysing the participation in community's activities it was found that the probability of importance of participation in community's activities, we found that it increases with increasing ability of relations (in activities). Also the results showed that the unemployed are substantially less inclined to participate in community activities.

When added to demographic variables, entrepreneurial competency abilities (in total) improved prediction of importance of professional career most; to a lesser extent, they also improve prediction of importance of keeping the workplace.

#### **REFERENCES**

- Bird B. (1995). Towards a theory of entrepreneurial competency. *In Advances on Entrepreneurship, Firm Emergence and Growth*. Eds. J. A. Katz, and R. H. Blockhouse. Greenwich (p. 51–72). Conn: IAI Press.
- Brownell J. (2006). Meeting the competency needs of global leaders: A partnership
- Approach. Human Resource Management. Vol. 45, No. 3, p. 309–336.
- Driessen M. P., Zwart P. S. (2010). The entrepreneurial Scan Measuring Characteristics and Traits of Entrepreneurs. Available at: http://www.entrepreneurscan.com/wp-content/uploads/2010/10/E-Scan-MAB-Article-UK.pdf.
- Drucker P. F. (1985). Innovation and Entrepreneurship: Practice and Principles. New York, USA: HarperBusiness.
- European Commission Press release. Entrepreneurship education on the increase. Available at: http://europa.eu/rapid/press-release\_IP-12-365\_en.htm.
- Green F. (2013). Skills and Skilled Work. An Economic and Social Analysis. Oxford: Oxford University Press.
- Key competence for lifelong learning (2010). European Reference framework. Available at:
- http://www.britishcouncil.org/sites/britishcouncil.uk2/files/youth-in-action-keycomp-en.pdf.

- Laguador J. M. (2013). A correlation study of personal entrepreneurial competency and the academic performance in operations management of business administration students. *International Journal of Academic Research in Business and Social Sciences*. May 2013, Vol. 3, No. 5, p. 61.
- Lithuanian progress strategy, Lithuania 2030. Available at: http://www.lrv.lt/bylos/veikla/2030. pdf.
- McBer and Company (1986). Entrepreneurship and small-enterprise development. Submitted to The United States Agency for International Development. Washington, D.C.20523. Boston, Massachusetts
- Tabachnik B. G., Fidell L.S. (2007). *Using Multivariate Statistics* (5th ed.). Pearson Education, Inc., p. 607–675.
- The commission's green paper: entrepreneurship in europesession, 2002–03 34th Report. Available at: http://www.publications.parliament.uk/pa/ld200203/ldselect/ldeucom/142/142.pdf.
- The questionnaire on entrepreneurial competence. Available at: http://sbk.vdu.lt/anketos/.
- Test for personal entrepreneurial competence. Available at: http://www.scribd.com/doc/39034324/Test-for-Personal-Entrepreneurial-Competencies.
- The National Education Strategy 2013-2022. Available at: http://www.smm.lt/web/lt/strategija.

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