

THE IMPORTANCE OF INFORMAL EDUCATION FOR THE SUSTAINABILITY OF A COMPETITIVE MARKET POSITION

MANOJLOVIĆ Goran¹,

¹Primary school "Ljubica Radosavljevic Nada", Zaječar (SERBIA) ORCID 0000-0001-8490-9614

E-mail: manojlovicg@gmail.com

ABSTRACT

Rapid changes in science and technology lead to transformations in all segments of society. It is important for society to adapt to and accept these rapid changes. Formal education and the education system in Serbia change periodically. However, such changes are not rapid; they occur gradually and intermittently. This means that the education system cannot keep pace with technological development, resulting in a constant lag. Therefore, it is important to emphasize the significance and application of informal education. This paper will analyze the impact of informal education on the sustainability of a competitive market position.

Keywords: *informal education, sustainability, competitive position*

JEL: *I21*

DOI: *10.5937/intrev2501105M*

UDC: *37.018.48*

005.96

COBISS.SR-ID *172783113*

INTRODUCTION

The education system in Serbia is divided into several successively connected levels, as follows:

- Pre-school education,
- Primary school education (primary schools – 1st and 2nd cycle),
- Secondary school education (secondary vocational schools and high schools),
- High education (colleges and universities).

The education system in the Republic of Serbia represents a type of formal education. Formal education can be obtained in registered institutions such as kindergartens, schools, colleges, and universities. Legislative acts prescribe which knowledge and skills can be acquired through formal education. All of this is defined by the curriculum for each of the above-mentioned segments. Oversight of the education system is conducted by the Ministry of Education. The education system in Serbia must not—and cannot—remain closed; it must be subject to changes and reforms to keep pace with constant changes in the environment. The reform of the education system in Serbia began in 2001 and included both primary and university education. In most cases, this reform has had a negative connotation among educational staff, as they are often unwilling to change something they have developed over many years [4].

We are faced with the fact that the knowledge gained through formal education cannot always be applied in everyday life and work. Innovations, technological changes, and economic growth are inevitable drivers of change. The more we keep up with these factors, the more successful our society will be. Reforms should be accepted and must not be perceived as the imposition of something unwanted or negative. Rather, they should be seen as a solution and a response to the demands of modern times. The sustainability of constant and ongoing change is the foundation for achieving a competitive and leading position. The main shortcoming of formal education is that it changes too slowly to align with the demands and needs of the market [4], [5].

INFORMAL EDUCATION

The shortcomings identified in the segment of formal education should be supplemented. It is important to offer applicable and functional education that can meet the needs of a turbulent environment. In order to enable a quick response to rapid changes in science, technology, and engineering, informal education is introduced. Unlike formal education, which includes legal acts defining its duration and the knowledge, skills, and outcomes to be acquired, informal education is not bound by such regulations. There are no legal provisions specifically governing the implementation and application of informal education. The development of informal education actually depends on the type of institution or company. Informal education and its adoption are based on the shortcomings of formal education. In essence, the role and purpose of informal education are to compensate for the identified and acknowledged deficiencies of formal education. Institutions that recognize the importance of informal education quickly become leaders and manage to respond to the turbulent demands of the market. It enables them to overcome identified shortcomings in a very short time. Such institutions, which are primarily oriented towards informal education, can achieve and maintain competitive and leadership positions [2], [6], [11].

In the 21st century, informal education represents a formal response to all the needs of each workplace, including identified gaps and weaknesses. The application of informal education in today's environment has contributed to the development of market competitiveness and leadership. Turbulence and globalization define market conditions, so employees needed by companies must possess up-to-date knowledge and meet the needs of system transformation, including market sustainability. Informal learning can take place within the organization itself, but also outside of it [7], [8].

Types of informal education (conducted through activities) include:

- Classes,
- Courses,
- Seminars,
- Conferences,
- Trainings.

Informal education can be categorized into two general groups:

- Educational programs,
- Programs related to education [12].
- The main advantages of informal education over formal education are as follows:
- Flexibility (recognizes each individual's prior knowledge),
- No rigid rules (no mandatory standardized regulations),
- Self-initiative (no compulsion to read, listen, etc.),
- Differentiation (each field of study includes informal education),
- No limitations (no restrictions regarding age, previous knowledge, etc.).

Main characteristics of informal education include:

- It occurs outside the formal education system,
- It is voluntary and non-mandatory,
- It is developed by experienced and qualified educators,
- It enhances individual and social learning,
- It enables acquisition of various knowledge and skills, and the development of attitudes and values [8], [11].

The implementation of informal education in an organization must be a general concern of the organization. It is considered a key aspect of human resource development and improvement [17].

The development of human resources is reflected through informal education and the acquisition of knowledge previously identified as missing. Informal education within an organization should be a strategic objective of any successful organization. In other words, it can be defined as learning through work. Embracing informal learning through work leads to the creation of a "learning organization," emphasizing that knowledge should be the primary source of competitive advantage in the economic world [9], [12].

For the long-term survival of an organization, it is crucial to establish a so-called "developmental organization," involving activities such as personnel development, continuous professional training, specializations, seminars, courses, scientific and professional writing, and participation in scientific conferences and symposiums [14].

The additional education and promotion of existing staff within an organization is the most important factor in economic growth. Every employee is obliged to educate themselves continuously throughout their working career. Interest in professional training has increased across all segments of society [13].

Due to the high costs of organizing seminars and time away from work, organizations advise their employees to utilize e-learning. In this way, overall costs are reduced by 50–70%, while time savings range from 35–45% [1], [16].

Informal education within an organization is one of the most important elements of human resource management and development. In an economy marked by uncertainty, informal education becomes a reliable source of competitive advantage. The most successful organizations on the market are those whose employees have spent time "in the classroom" while working. Some organizations even allocate specific periods during the year when employees are required to engage in informal education. Organizations that treat informal education as essential are increasingly becoming educational institutions themselves. Investment in informal education represents the most significant investment in the future of both the organization and the country [7], [10], [18].

Key competences represent a set of integrated knowledge, skills, and attitudes needed by every individual for personal fulfilment and development, participation in social life, and employment.

Also, key competences for lifelong learning include: communication in the mother tongue, communication in foreign languages, mathematical, scientific, and technological competences, digital competence, learning to learn, social and civic competences, sense of initiative and entrepreneurship, cultural awareness, and expression [15].

IMPACT OF INFORMAL EDUCATION ON SUSTAINABILITY OF COMPETITIVE POSITION AT THE MARKET

Many authors have emphasized the importance of education in their works [19]. [Each organization in the market aims to achieve a dominant position relative to its competition. Maintaining a competitive position depends on the following:

- Resources,
- Additional Education of Human Resources,
- Technological Innovations,
- Business System Development,
- Development of New Products,
- Management Quality,
- Quality of Services or Products,
- Prices,
- User Satisfaction with the Product or Service,
- Marketing Strategies,
- Exogenous Growth,
- Regulations,
- Operational Efficiency,
- Complementary Products [12].

Human resources are one of the previously mentioned factors that have an impact on the development of market competitiveness. Human resources within an organization that are developed through informal education are considered an even more important factor influencing the achievement of a competitive and leadership position in the market [3], [9].

Many organizations have long recognized and categorized the factors used to measure organizational success. These factors have been used to define a competitive market position. For instance, the General Electric Company in the USA proposed eight measures of organizational business success in 1952. They are as follows:

1. Profitability measured by remaining income,
2. Position at the market,
3. Productivity – capital and labor; comparison with competitors and internal trends over time,
4. Management of products or services – development of existing and new products,
5. Personal Growth – recruiting and informal education of human resources,
6. Attitudes of Employees – motivation,
7. Public Responsibility – ethics, responsibility in the social community, pollution, safety, information sharing,
8. Balance of Long-Term and Short-Term Goals – whether methods for achieving short-term profit undermine future prospects.

It is evident that Human Resources (HR), especially the informal education of HR, represent one of the key measures of business success in achieving a competitive position in the market. Today, HR are under increasing attention as they represent the foundation for gaining a competitive advantage [12].

An organization that provides informal education should go through the following phases:

1. Determining of Goals,
2. Analyzing of Business and Organization,
3. Defining of Content and Program of Informal Education,
4. Selecting of Training,
5. Monitoring and Analysis.

METHODOLOGY OF THE RESEARCH

The main topic of the research is focused on examining the impact of informal education on improving enterprise performance, based on a sample of employees in hair and beauty salons in the Timočka Krajina region. The aim of the research is to explore the connections and relationships between informal education and the competitive market position in order to improve both.

The theoretical importance of the research is reflected in a better understanding and greater acceptance of informal education by employees, as well as in the optimization of organizational processes.

The practical significance lies in the improvement and assurance of organizational work quality, along with the achievement of a dominant position in a turbulent market.

The research sample consists of employees from hair and beauty salons located in the territory of the Timočka Krajina region (a total of 127 respondents). Data were collected through a questionnaire created specifically for this purpose. It included 38 questions divided into three groups, related to the importance of informal education (in general, for the user, and personal). Surveyed employees were asked to indicate their level of agreement with the given statements using a five-point Likert scale (1 – totally disagree, 2 – disagree, 3 – neutral, 4 – agree, 5 – totally agree).

The data collected from the questionnaires were processed using the software package SPSS AMOS Version 23. The research was conducted using the CFA method within a structural model.

RESEARCH AND RESEARCH RESULTS

Among the total number of respondents, 74% were female, and 26% were male. The average age of male respondents was 43 years, while the average for female respondents was 34 years. This study applied structural modeling (Structural Equation Modelling – SEM). This method is considered highly significant in the field of social sciences, particularly in management and marketing. It is also a method that is more flexible with respect to data distribution requirements. SEM is a hybrid method that combines factor analysis and path analysis. SEM includes two sub-models: the measurement model and the structural model. The first model allows estimation of the extent to which observed variables represent a latent (unobservable) variable, while the structural model provides an estimation of the strength of mutual relationships between observable and unobservable constructs.

The validity of the measurement model was assessed using confirmatory factor analysis. The Cronbach's Alpha coefficient was used to estimate the reliability of each latent group. Its value ranged between 0.5 and 0.7. The closer the value is to 1, the higher the internal consistency among the items in the model. The Cronbach's Alpha coefficient values ranged from F2 – 0.591, through F3 – 0.895, to F1 – 0.945, indicating good internal consistency of the data.

Table 1 presents the estimates of construct validity and reliability. It includes the following indicators: CR – Composite Reliability, AVE – Average Variance Extracted, MSV – Maximum Shared Squared Variance, Max R – Maximal Reliability, F1 – General importance of informal education, F2 – Personal effect of informal education, F3 – Importance of informal education for users, * <0.05 and ** <0.01 .

Table 1: Estimation of Viability and Reliability of the Construct

<i>Number of Variables</i>	<i>Construct</i>	<i>CR</i>	<i>AVE</i>	<i>MSV</i>	<i>Max R</i>	<i>F₁</i>	<i>F₂</i>	<i>F₃</i>
12	<i>F₁</i>	0.732	0.685	0.144	0.713	0.683		
12	<i>F₂</i>	0.843	0.621	0.501	0.793	0.286**	0.749	
14	<i>F₃</i>	0.823	0.695	0.481	0.740	0.363**	0.252* *	0.752

Recommended values for CR and AVE are 0.6 and 0.5, respectively, and they are considered aligned with the recommended thresholds. Therefore, the existence of convergent validity of the measurement model can be confirmed. Discriminant validity can be assessed based on the values in the MSV column. It is concluded that discriminant validity is established when the MSV values are lower than the corresponding AVE values. Hence, the discriminant validity of the tested measurement model was confirmed.

The validity of the construct implies whether operational measures correctly reflect (or do not reflect) the construct. It can be based on subjective assessment or on convergent validity (the extent to which indicators of the construct converge or share a large portion of variance).

In order to obtain convergent validity of the measured constructs, it is important for the composite reliability (CR) of the construct in the model to be greater than 0.7, for the average variance extracted (AVE) to be greater than 0.5, and for the CR value to be greater than the corresponding AVE value. According to the presented results, this requirement was also fulfilled.

Evaluations of the model's goodness (appropriateness, fit) were conducted using goodness-of-fit indexes. These indexes indicate how well the theoretical model, adopted by the researcher, aligns with the collected and observed data. So far, research has primarily used absolute and incremental indexes of goodness. Absolute goodness indexes include the chi-square test (χ^2), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Root Mean Square Error of Approximation (RMSEA), and Root Mean Square Residual (RMR). The obtained values for these indexes are presented in Table 2.

Table 2: Estimated Values of Derivatives and Values from the Developed Model

Indicator	Recommended Values	Values from the Developed Model
χ^2/df	$\leq 3,00$	0.556
RMSEA	$\leq 0,08$	0.111
RMR	$\leq 0,05$	0.233
GFI	$\geq 0,9$	0.904
AGFI	$\geq 0,9$	0.945
NFI	$\geq 0,9$	0.913
CFI	$\geq 0,9$	0.949

Fitting measures have shown that the model adequately describes the collected and analyzed data. Not all values fall within the recommended limits of fitting measures. However, for certain values, the model is still considered acceptable.

Figure 1 shows the research model (construct).

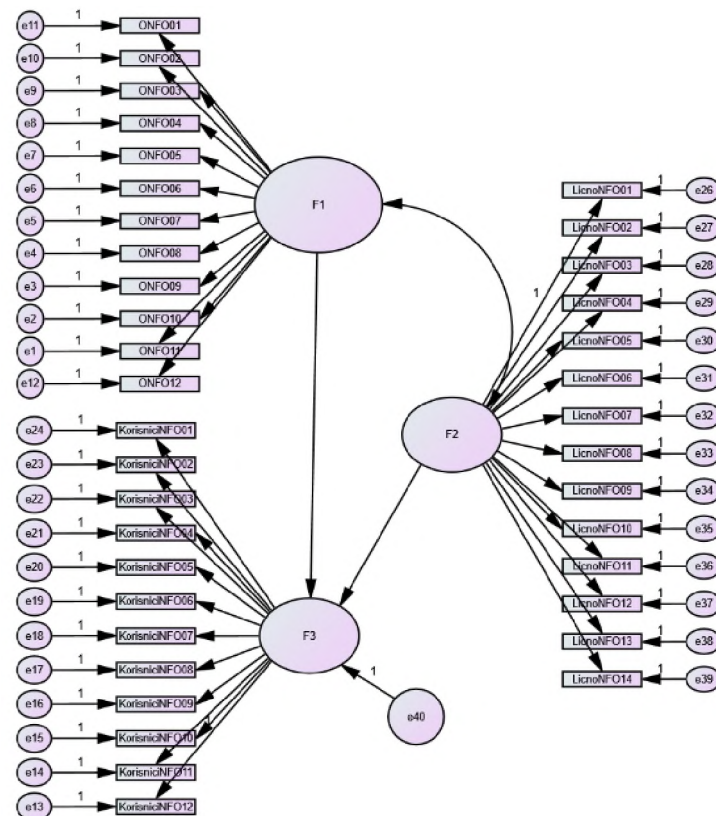


Figure 1: Research Construct

Table 3 presents the standardized regression values with exact probability levels.

Table 3: Standardized Regression Values with Exact Probability

			Estimate	S.E.	C.R.	P	Label
F3	<---	F1	-,155	,043	-,525	,599	par_37
F3	<---	F2	,880	,060	3,539	,002	par_38
ONFO11	<---	F1	,171				
ONFO10	<---	F1	,674	,773	3,029	,002	par_1
ONFO09	<---	F1	-,491	,618	-2,947	,003	par_2
ONFO08	<---	F1	,815	,716	3,059	,002	par_3
ONFO07	<---	F1	,869	,915	3,065	,002	par_4
ONFO06	<---	F1	,695	,615	3,035	,002	par_5
ONFO05	<---	F1	-,040	,307	-,687	,492	par_6
ONFO04	<---	F1	,049	,311	,838	,402	par_7
ONFO03	<---	F1	-,054	,343	-,916	,360	par_8
ONFO02	<---	F1	,039	,343	,674	,500	par_9
ONFO01	<---	F1	,007	,315	,128	,899	par_10
ONFO12	<---	F1	,196	,494	2,330	,020	par_11
KorisniciNFO12	<---	F3	,030				
KorisniciNFO11	<---	F3	-,043	3,705	-,446	,655	par_12
KorisniciNFO10	<---	F3	-,036	3,273	-,418	,676	par_13
KorisniciNFO09	<---	F3	,844	66,148	,540	,589	par_14
KorisniciNFO08	<---	F3	,593	43,598	,539	,590	par_15
KorisniciNFO07	<---	F3	,800	54,684	,540	,589	par_16
KorisniciNFO06	<---	F3	,759	55,199	,540	,590	par_17
KorisniciNFO05	<---	F3	,718	50,060	,540	,590	par_18
KorisniciNFO04	<---	F3	,836	63,238	,540	,589	par_19
KorisniciNFO03	<---	F3	,695	51,529	,539	,590	par_20
KorisniciNFO02	<---	F3	,079	5,784	,506	,613	par_21
KorisniciNFO01	<---	F3	,521	30,227	,539	,590	par_22
LicnoNFO01	<---	F2	,673				
LicnoNFO02	<---	F2	,729	,079	12,040	***	par_23
LicnoNFO03	<---	F2	,125	,079	2,213	,027	par_24
LicnoNFO04	<---	F2	,189	,071	3,348	***	par_25
LicnoNFO05	<---	F2	,081	,075	1,435	,151	par_26
LicnoNFO06	<---	F2	-,043	,083	-,767	,443	par_27
LicnoNFO07	<---	F2	,030	,080	,526	,599	par_28
LicnoNFO08	<---	F2	,203	,081	3,598	***	par_29
LicnoNFO09	<---	F2	,670	,079	11,200	***	par_30
LicnoNFO10	<---	F2	,151	,076	2,685	,007	par_31
LicnoNFO11	<---	F2	,555	,079	9,460	***	par_32
LicnoNFO12	<---	F2	,622	,085	10,491	***	par_33
LicnoNFO13	<---	F2	,740	,085	12,189	***	par_34
LicnoNFO14	<---	F2	-,003	,088	-,059	,953	par_35

Note: *** indicates a value less than 0.001. For the purpose of saving space in the document, the table uses abbreviations for the survey questions.

CONCLUSION

Values of the Cronbach Alpha coefficient have shown the internal consistency of the data, allowing latent indicator values to be identified. The validity of the construct implies that the operationalized measures reflect the construct, and that the construct indicators converge and share a significant portion of variance.

Fitting measures have shown that not all values fall within the recommended fit dimensions. However, the model is still considered acceptable for certain indicators.

According to the processed research data and the previously presented tables, it can be concluded that there is a significant connection between the overall importance of informal education and the benefit for users (positive correlation). Customer satisfaction is the result of the personal satisfaction of the service provider.

F_1 and F_3 – since service providers overestimated the benefits for users, it is concluded that there is no positive correlation in this part of the research, as users were not surveyed. This means that service providers gave themselves more favorable ratings and, in effect, responded to questions on behalf of the users. Therefore, mutual variance was not identified in this case.

The conclusions will include comments only on indicators that were statistically significant in the model for all three groups of factors. Additionally, full variable names from the survey will be presented.

Common variables: *Question No. 6* – Statistically, it is important that the organization provides informal education for its employees. In the absence of organizational support for gaining informal knowledge and skills, the employee will not be motivated to work (Estimate = 0.695, $P = 0.002$). *Question No. 7* – Acceptance of personal characteristics of employees during the selection of informal education is statistically significant, as personal characteristics help them select appropriate training (Estimate = 0.895, $P = 0.002$). *Question No. 8* – Acceptance of employee suggestions directed to management regarding the selection of informal education programs is statistically significant, as it allows for acquiring the truly missing knowledge and skills (Estimate = 0.815, $P = 0.002$). *Question No. 9* – Motivation and encouragement of employees to acquire informal knowledge is statistically significant, as they must keep up with changes in the environment in order to maintain a learning organization (Estimate = -0.491, $P = 0.003$). *Question No. 10* – Satisfaction with the organization's recognition of informal education as a strategic tool for acquiring knowledge is statistically significant, as this is a key condition for achieving knowledge and competitive advantage (Estimate = 0.674, $P = 0.002$).

Personal variables: *Question No. 2* – An increased possibility of new employment after undergoing informal education training is statistically significant, as it helps individuals gain a broader range of knowledge and improve employment opportunities (Estimate = 0.729, $P < 0.001$). *Question No. 4* – Acquiring missing new knowledge and skills is statistically significant, as it contributes to more successful job performance (Estimate = 0.189, $P < 0.001$). *Question No. 8* – Obtaining necessary certificates after certain training is statistically significant, as it is one of the ways to attract potential clients (Estimate = 0.203, $P < 0.001$). *Question No. 9* – An increase in income after training is statistically significant, as newly acquired knowledge and skills that are immediately applicable in practice lead to higher earnings (Estimate = 0.670, $P < 0.001$). *Question No. 11* – Training programs that enhance confidence at work are statistically significant, as they increase productivity within the organization (Estimate = 0.555, $P < 0.001$). *Question No. 12* – Participation in informal education programs is statistically significant, as it helps address previously identified deficiencies (Estimate = 0.622, $P < 0.001$). *Question No. 13* – A lower likelihood of job loss after participating in certain forms of informal education is statistically significant, as employees acquire new knowledge and skills that help them perform their jobs better (Estimate = 0.740, $P < 0.001$).

As an overall conclusion, it can be stated that greater satisfaction is achieved through the personal aspect of each individual, as he or she can provide better service through increased knowledge and personal fulfillment. This, in turn, improves the quality of the service itself and enhances competitiveness in the market.

LITERATURE

- [1] Aleksandrov S., Aleksandrov R., Miodragović G., Pecić Lj. (2016). Značaj primene učenja na daljinu u neformalnom obrazovanju, Informacione tehnologije, obrazovanje i preduzetništvo ITOP 16, Tehnički fakultet Čačak, UDK:37.018.43 str. 225-233.
- [2] European Communities. (2007). Key competences for lifelong learning: European reference
- [3] Đorđević Boljanović, J., Dobrijević, G., Đoković, F. (2017) Razvoj zaposlenih: uloga IT u 360° povratnim informacijama, International Scientific Conference on Information Technology and Data Related Research SINTEZA 2017, april, 2017, str. 447 – 451., DOI: 10.15308/Sinteza-2017-447-451, ISBN: 978-86-7912-657-3
- [4] Jerković I., Gavrilov-Jerković V., Mihić I., Mihić V., Petrović J., Zotović M. (2011). Dometi reforme u obrazovanju, XVII Skup trend razvoja: “Evropa 2020: Društvo zasnovano na znanju”, Paper No. A2.2-5, pp. 1-4 Kopaonik, 07.- 10.03.2011.
- [5] Jerković, I. (2001). Kvalitetno obrazovanje – razvijeno društvo. (Reforma obrazovanja u Srbiji – da li je poslednja?). Norma, Sombor, 3, str. 197-204.
- [6] Kuka, E. (2011) Koncept neformalnog obrazovanja, Život i stil, 58(27) str. 197-203.
- [7] Marjanović M. (2003). Neformalno obrazovanje - nevidljiva snaga društva, Beograd
- [8] Matijević M. (2009). Informalno učenje odraslih u novom (multi) medijskom okruženje, Andagoški glasnik, 13(2), str. 105-111
- [9] Mubarak, . S., Wiwin, S., & Salam, R. (2020). Determinants of Job Satisfaction and Employee Performance of Informal Education Institution in Pare English Village. Journal of Human Resources and Labor Studies, 8(2), 12-23. <https://doi.org/10.15640/jhrmls.v8n2a2>
- [10] Park, ., & Choi, W. (2016). The effects of formal learning and informal learning on job performance: the mediating role of the value of learning at work. Asia Pacific Education Review, 17(2), 279-287. <https://doi.org/10.1007/S12564-016-9429-6>
- [11] Pavićević M., Petrović D. (2015). Razlike između formalnog, neformalnog i informalnog obrazovanja, Zbornik radova Učiteljskog fakulteta, str. 103-113 UDK: 37.018.48 37.013.31 COBISS.SR-ID 218372876.
- [12] Radovanović V. (2011). Organizaciono ponašanje, Univerzitet u Kragujevcu, Tehnički fakultet Čačak, Beograd - Čačak.
- [13] Ristivojević M. (2009). Reinženjering srednjeg stručnog obrazovanja za područje rada mašinstvo i obrada metala, AGM knjiga, Beograd.
- [14] Sajfert Z., Nikolić M. (2007). Proizvodno poslovni sistemi, Univerzitet u Novom Sadu, Tehnički fakultet “Mihajlo Pupin”, Zrenjanin.
- [15] Zakon o osnovama sistema obrazovanja i vaspitanja (“Sl.glasnik RS” broj 8/2017, 27/2018 - dr. zakon, 10/2019, 27/2018 - dr. zakon, 6/2020, 129/2021 i 92/2023)
- [16] Stanković Ž. (2006). Razvoj tehnologije učenje na daljinu, Nastava i vaspitanje br. 2, pp 169-181.
- [17] Veljović A. (2009). Upravljanje razvojem preduzeća, Univerzitet u Kragujevcu, Tehnički fakultet Čačak, Čačak.
- [18] Tof V., Savić Tof T. (2012). Značaj obuke i obrazovanja u organizacijama, II Naučni stručni skup Preduzetništvo, inženjerstvo i menadžment, PIM2, str. 141-150.
- [19] Čurčić M., Nikolić I.(2021) Knowledge management as a determinant of job satisfaction, Trendovi u poslovanju, vol. 9, iss. 2, pp. 64-74

Article history:

Received 1 March 2024

Accepted 11 October 2024