The impact of training on employees' performance in the entrepreneurial environment in Serbia: empirical and statistical findings
Утицај обуке на перформансе запослених у предузетничком окружењу у Србији: емпиријски и статистички налази

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Abstract: The efforts of organizations to improve their business processes, establish market competitiveness, achieve goals more efficiently and increase profitability are mainly made through an attempt to upgrade the performance of employees. Increasing the employees' work performance is directly correlated with the improvement of individual skills, as well as the level of ability to effectively transform new knowledge according to daily work obligations. In this process, synergies should be established between employees, on the one hand, who should be adequately motivated, committed, and focused on the acquisition of new knowledge, and on the other hand, organizations that should provide resources, support, and conditions for effective knowledge transfer from educational process to visible improvement indicators of different employees' performance levels. The purpose of this paper is to investigate the impact of training on increasing the individual and organizational performance of employees in entrepreneurial organizations in Serbia. Additionally, the correlation between the two groups of respondents, managers and non-managerial staff, will be tested, to determine more closely whether there is a distinction in relation to the position held by the respondent, for defined issues.

Keywords: entrepreneurship, work performance, employees training, organizational behavior
JEL classification: L21, L26

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Introduction

Every modern progressive organization strives to ensure its development through a clearly defined business structure, in order to ensure maximum results in achieving competitiveness and profitability (Call & Ployhart, 2021; Stajković et al., 2019). In this process, the segmentation of tasks and responsibilities that employees have must be precisely delegated in order to achieve outcomes that will enable the sustainability of the business venture. Without connecting all stakeholders in the organization effectively, a delay in or complete absence of the accomplishment of goals can happen (Petak, 2021). It is important for all employees to have equal opportunities to develop the necessary knowledge and skills, which will not only be essential in improving work performance further and being in line with organizational goals but also promote a model of behavior that is consistent with organizational culture.

Sung and Choi (2018) state that the goal set by organizations for improving business results means the establishment of continuous models of employee training, which should contribute to creating an environment in which human resources will be able to cope with everyday challenges adequately. This can only be achieved by linking the individuals’ level of knowledge with the expected organizational results. If there is a dispersion between these two factors in any case, there may be an ineffective use of knowledge. To avoid such circumstances, it is necessary for organizations to constantly evaluate the needs and justification of investing in human resources, in order to ensure maximum return visible in the improved work performance (Berber & Lekovic, 2018; Tošović-Stečanović & Bogdanović, 2018).

It is beyond doubt that the systematic planning, development, and analysis of employee performance is an important function of the organization’s business strategy. Organizations conduct various types of activities aimed at improving business processes that are in favor of human factors, material, technological, and all other available resources (Vidović, 2018). Common to all processes is the organizations’ intention to establish the optimal level of work performance of employees, which will allow the effects of training to
have their visible equivalent in the performance level of human resources (Marković et al., 2022). Therefore, organizations should enable employees to make their full intellectual and creative contribution, so that the level of work performance is in line with the expected goals. This primarily refers to creating an organizational culture based on the intellectual capacities of employees and their ability to effectively use their potentials, continuous skills improvement and monitoring of further education needs and active employees’ participation in solving various business challenges (Garg, 2019; Maliranta & Nurmi, 2019).

Given that entrepreneurial organizations in Serbia face challenges in establishing coherence between different groups within the business system, there is a need for research to determine whether there are different views on aspects that affect performance improvement. This involves analyzing the attitudes between employees who are in managerial positions and employees who are in non-managerial positions. To improve activities that contribute to the development of overall organizational performance, it is necessary to test the individual attitudes of respondents and put them in the broader context of the entrepreneurial environment, as a basis for business sustainability in challenging times.

1. Relationship between training activities and performance outcomes

Organizations conduct training to support employees to perform their activities more efficiently and to accept and absorb various market turbulences more easily (Jeong et al., 2019). Implementation and modeling of the training plan are directly related to the previous analysis of organizational and individual needs, to gather sufficient information regarding personal preferences, motivation, level of talent, and experience, to enable realistic and visible improvement of employee performance (Morley et al., 2016). Talent management involves aligning the capabilities and abilities of employees and the goals of an organization (Bartosik & Włocławska, 2021; Tsareva, 2021). The goal is to form a group that enables efficient transfer of knowledge according to everyday business activities and thus ensuring incremental growth of individual and organizational performance (Sung & Choi, 2018).

Quality implementation of training activities is in the function of adequate preparation that supports educational activities and thus enables the achievement of goals that satisfy the individual and the organization. The objectives of each training process should be presented to all participants, as well as what kind of outcomes in terms of improving skills, knowledge, or behavior is expected of them after completing the training. When the goals are set based on real needs and by the individual capacities of the employee, the possibility of forming a model and content of education that will be understandable and achievable for all participants in the process, regardless of their position in the organization (Guan & Frenkel, 2019).
To achieve the maximum effect of educational programs, it is necessary to perform a quality situational analysis of employee training needs, then determine the methodology and content by which the training process will be implemented, and the final component is to ensure efficient transfer according to daily business activities (Hecht et al., 2020). Successful incorporation of new knowledge into the tasks set before employees is an important factor that should lead to increased levels of work performance and greater self-confidence, but also reduced employee turnover due to increased satisfaction with the way the organization invests in them.

Adequate levels of commitment, motivation, and competence of employees are significant performances of business excellence that contribute to the growth of the organization, profitability, and market competitiveness (Gabler et al., 2018). An important role in this is played by educated human resources who, with their knowledge, manage to respond to all the requirements of the organization, but also to those that come from the external environment. The implementation and development of the continuous training process is a key value in achieving these goals. The training process can have different implications at the individual level regarding its purpose and goals (Szabó et al., 2019). At its core, it should contribute to improving the quality of human resources for the performance of daily tasks, developing the specific skills of employees, and changing the attitudes, values, and behavior of employees in the direction of organizational needs (Lounsbury et al., 2019; Ahmed et al., 2018).

In addition, it is necessary to understand that employees have a special attitude toward different types of business activities, which is one of the basic factors in creating forms and models of organizational behavior. In circumstances where employees express a negative attitude towards managers or executives, organizational goals, company products, and other aspects of the business, there may be a reduced level of work performance and delivery of the organization's services to the market (Ivanović-Dukić et al., 2021). The business system of entrepreneurial management has the character of the operational functioning of the organization, and with the adequate connection of vertical and horizontal directions, a new space is opened for work performance management in the direction of increasing positive outcomes (Kessler et al., 2020). The goal is to ensure the homogeneity of the organizational structure and the efficiency of responding to all business challenges.

2. Research procedure and methodological approach

In order to review the opinions and attitudes of employees in different positions in the organization (line managers, employees) related to the impact of training on skills development and performance improvement, as well as shaping the desired behavior of employees, primary research was created with following questions:

Q1: To what extent has the training influenced the expansion of knowledge and skills of employees?

Q2: How and to what extent did the training influence the shaping of employees' attitudes and behaviors in line with organizational values?
Q3: How and to what extent did the training affect the improvement of employees' work performance, in order to achieve the strategic goals of the organization more efficiently?

Data were collected by survey method. The research sample is a non-random sample, a deliberate sample (purposive sampling) of employees in entrepreneurship organizations in the territory of Serbia. The research was conducted in the period from June to October 2021. The pilot study included 20 respondents, while the final number of respondents was 123. Open-ended questions where respondents had to write their opinion and expectations will be treated qualitatively. Closed-ended questions in the questionnaire from the point of view of measurement are of the scale, ordinal and nominal types. Respondents rated their attitudes on a scale of 1 to 7, where 1 - Not at all, and 7 - I totally agree. In order to obtain answers to the research questions, measures of central tendency (Mean, Median, Mode, Q1-first quartile, Q3-third quartile), dispersion measures, symmetry measures, and correlation analysis were calculated. Parametric and nonparametric techniques (Independent-Samples T-Test, Mann-Whitney U-Test) were used to test the hypotheses.

3. Statistical findings

As previously mentioned, 123 respondents participated in the research, 31 (25.2%) respondents in the position of line managers and 92 (74.8%) respondents in the position of employees. The structure of respondents in relation to gender is 59 (48%) female and 64 (52%) males. Viewing the structure of respondents and position in Table 1, it can be observed that there is no significant difference in this segment.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Count</td>
<td>Count</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line manager</td>
<td>Female</td>
<td>16</td>
</tr>
<tr>
<td>Line manager</td>
<td>Male</td>
<td>15</td>
</tr>
<tr>
<td>Employee</td>
<td>Female</td>
<td>43</td>
</tr>
<tr>
<td>Employee</td>
<td>Male</td>
<td>49</td>
</tr>
<tr>
<td>Total</td>
<td>Female</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>Male</td>
<td>64</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>123</td>
</tr>
</tbody>
</table>

Table 1: Structure of respondents in relation to gender and position in the organization

Source: the authors' calculation
With a probability of 95%, the authors claim that the respondents’ ages move in the interval (35.05, 37.24). By the look at the age of the respondents, the average age of the line manager is 39.68, the median is 38, while the average age of the employee is 34.96 and the median is 35. In terms of employees’ education level, 45.16% of line managers have a university degree, while 26% of line managers have college and Master's diplomas. The most common level of education of respondents in the employee position is university degree, 46.74%, while 35.87% of respondents in the same position have college education.

Regarding the variable on the impact of training on increasing skills and abilities of employees, respondents rated it 4.65, the median 5, skewness -0.102, so it can be noted that there is no asymmetry, 25% of respondents give a grade of 4 or less, and 75% give a grade of 5 or less, i.e., Interquartile Range is 1. The coefficient of variation is 28.22%, which indicates that the variability is relatively weak. If the variable is observed in relation to the position that the respondents hold, the situation is completely different. Line managers give an average score of 3.61, the median is 4, 3.25% of respondents give a score of 3 or less, and 75% a score of 4.5 or less. Skewness is 0.235, i.e., the variable shows a small positive asymmetry. Respondents in the employee position give an average grade of 5, the median is also 5, 24% give a grade of 4 or less and 75% give a grade of 6 or less, and skewness is -0.162, i.e., weak negative asymmetry.
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Graph 2: My work knowledge increased after the training

Source: the authors' research

The T-test of independent samples compared the results of upgrading knowledge and skills after completing the training, in relation to the position of line managers and employees. There was a significant difference between line managers (Mean = 3.61, SD = 1.116) and employees (Mean = 5.00, SD = 1.186); t (121) = -5.714, p = 0.000 (both sides). The difference between mean values by groups (Mean Difference -1.387, 95% CI: -1.868 to -0.906) was large,

\[ \eta^2 = \frac{t^2}{t^2 + (N_1 + N_2 - 2)} = \frac{(-5.714)^2}{(-5.714)^2 + (31 + 92 - 2)} = 0.2125 \]

(Cohen, 1988). The position percentage of the respondents explains the 21.25% variance of the increase in knowledge after the training. In relation to gender, no statistically significant difference was observed, t (121) = 0.773, p = 0.441 (both sides).

As regards opinion on the impact of training on the formation of business attitudes and values in accordance with the organizational culture, respondents rated an average score of 4.75, the median is 5.2; 25% of respondents give a score of 4 or less, and 75% give a score of 6 or less. Skewness is 0.012, which means that the variable does not show asymmetry. The coefficient of variation is 25.38%, i.e., variability is relatively weak. Looking at the variable in relation to the position, the line managers give an average grade of 3.94, the median is 4, 25% of respondents give a grade of 3 or less, while 75% of respondents give a grade of 5 or less. Skewness is 0.351, i.e., the asymmetry is moderately positive, and the coefficient of variation is 25.33%, which means that the variable shows relatively weak variability. The employees give an average score of 5.04, the median is 5,
25% of respondents give a score of 4 or less, and 75% of respondents give a score of 6 or less, skewness is -0.131, which means that the variable shows a small negative asymmetry and relatively low variability, with a coefficient of variation of 22.78%.

Graph 3: The training had a positive impact on shaping my business attitudes and values in line with the organizational culture

The T-test of independent samples compared the results of opinion on the impact of training on the formation of business attitudes and values in accordance with the culture of the organization of line managers and employees. There was a significant difference for line managers (Mean = 3.94, SD = 0.998) and employees (Mean = 5.04, SD = 1.148); \( t \) (121) = -4.797, \( p = 0.000 \) (both sides). The difference between the mean values by groups (Mean Difference -1.108, 95% CI: -1.565 to -0.651) was large,

\[
\eta^2 = \frac{t^2}{t^2 + (N_1 + N_2 - 2)} = \frac{(-4.797)^2}{(-4.797)^2 + (31 + 92 - 2)} = 0.1598
\]

where the percentage of respondents explains the 15.98% variance of the impact of training on design business attitudes and values in line with the culture of the organization. In relation to gender, no statistically significant difference was observed, \( t \) (121) = -0.162, \( p = 0.872 \) (both sides).

Relation of the training impact on the work performance quality, the respondents rated a high average score of 4.87, the median is 5, where 50% of respondents gave a grade of 6, and 7.25% of respondents gave a grade of 4 or less, while 75% of respondents gave a
grade of 6 or less. The mode is 5, skewness is -0.360, which indicates medium negative asymmetry, and variability is relatively weak, while the coefficient of variation is 25.34%.

However, by looking at the rating in relation to the position, they are completely different. Line managers rated it with an average score of 3.61, the median is 4, Mode is also 4, 25% of respondents give a rating of 3 or less, 75% a rating of 4 or less, Skewness is 0.024, and there is no asymmetry, and the coefficient of variation is 30.6%. Employees give an average score of 5.29, the median is 5, mode 5, 25% of respondents give a score of 5 or less, and 75% give a score of 6 or less, with skewness -0.028, which also means no asymmetry and the coefficient of variation is 18.28%. In Graph 4, it can be seen that the variable has outliers, but for the line managers’ position, they are higher than the maximum value of 5, while for the employees’ position they are lower than the minimum value of 4.

The T-test of independent samples compared the results of examinations on the impact of training on the work performance quality for line managers and employees. There was a significant difference between line managers (mean = 3.61, SD = 1.086), and employees (mean = 5.29, SD = 0.967); t (121) = -8.112, p = 0.000 (both sides). The difference between the mean values by groups (mean difference -1.681, 95% CI: -2.091 to -1.270) was very large.
In terms of percentage, the position of the respondents explains 35.22% of the variance. In relation to gender, no statistically significant difference was observed, $t(121) = 0.244$, $p = 0.808$ (both sides).

For questions about the effects of training and its connection with the strategic goals of the organization, respondents rated with an average score of 4.39, while the median is 5 as much as the mode. The variable shows a medium negative asymmetry, skewness is -0.448, and variability is relatively weak with a coefficient of variation of 27.32%. 25% of respondents give a score of 4 or less, and 75% of respondents give a score of 5 or less. It is very interesting to point out that only in this case did the respondents in the position of line manager give a higher average score than the respondents in the position of employees and it is 4.55, the median is 5, the mode is also 5, while variable shows a small negative asymmetry, skewness is -0.156 and for the observed group of respondents has no outliers data. Respondents in the employees’ position give an average score of 4.34, Median is 4 and mode is 5, and the variable shows a medium negative asymmetry, Skewness is -0.405, and Graph 5 shows that for this group of respondents the variable has outliers data.

For the connection of the training with the strategic goals of the organization, there was no statistically significant difference in relation to the position of respondents, line managers ($Me = 5.0$, $n = 31$) and employees ($Me = 4.0$, $n = 92$), $U = 1326.50$, $z = -0.559$, $p = 0.549$, magnitude of impact is very small,

$$r = \frac{z}{\sqrt{N}} = \frac{0.559}{11.091} = 0.05$$

Graph 5: Training is related to the strategic goals of the organization

Source: the authors’ research

For the connection of the training with the strategic goals of the organization, there was no statistically significant difference in relation to the position of respondents, line managers ($Me = 5.0$, $n = 31$) and employees ($Me = 4.0$, $n = 92$), $U = 1326.50$, $z = -0.559$, $p = 0.549$, magnitude of impact is very small,
Slightly higher mean rank is held by respondents who are in the position of line managers. In relation to the gender of the respondents, no statistically significant difference was observed (p_value for Mann-Whitney U test is 0.508).

In Table 2 it can be noticed that there are no significant linear relationships between the observed variables: My work knowledge increased after the training; The training had a positive impact on shaping my business attitudes and values in line with the organizational culture; The training affected the quality of my work performance; Training is related to the strategic goals of the organization, but nonlinear forms of connectivity are not excluded. For variables, the training had a positive impact on shaping my business attitudes and values in line with the organizational culture and the training affected the quality of my work performance, moderate positive linear connection is observed.

Table 2: Correlations of performance measures

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std. Deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My work knowledge increased after the training</td>
<td>4.65</td>
<td>1.312</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The training had a positive impact on shaping my business attitudes and values in line with the organizational culture</td>
<td>4.76</td>
<td>1.208</td>
<td>.315**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. The training affected the quality of my work performance</td>
<td>4.87</td>
<td>1.234</td>
<td>.194*</td>
<td>.413**</td>
<td>-</td>
</tr>
<tr>
<td>4. Training is related to the strategic goals of the organization</td>
<td>4.39</td>
<td>1.199</td>
<td>.041</td>
<td>.064</td>
<td>.112</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: the authors’ research

4. Discussion and conclusion

The results of this research have led to several important insights, which can be guidelines in the direction the entrepreneurial environment in Serbia should move if it wants to effectively and long-term manage the process of increasing employee performance. Without a systematic investment in increasing the knowledge and skills of employees, organizations may find themselves in a position of losing a competitive edge, as well as reducing market share and profitability. Looking at the gender structure of the respondents in this research, it can be seen that the number of males and females in managerial positions is similar, which is a significant shift in entrepreneurial opportunities in Serbia in the last 10 years. Such a relationship implies that there is a balance in opportunities for both genders, with fewer restrictions and barriers than before.

On the other hand, the analysis of defined research questions led to the following indicators. Considering the primary question, to what extent the training affects the increase
of skills and knowledge, it can be seen that there is a significant difference in the answers between the two groups of respondents. In this context, parameters for line managers are next (mean=3.61, SD=1.116), while employees report (mean=5.00, SD=1.186). This shows that employees in non-managerial positions are significantly more satisfied with the training outcomes than managers. Such a relationship may be associated with an inadequate methodology in selecting the educational programs for managers. Entrepreneurs must understand the distinction in training needs between different levels in the organization, so as not to reduce the outcome of the educational process, as can be seen in this case.

Regarding the connection between training and changes in attitudes and values of respondents, there was again a significant difference in the attitudes of employees (mean=5.04, SD=1.148), and line managers (mean=3.94, SD=0.998). In addition to its primary task of increasing knowledge and skills, the training also had the function of developing business attitudes that are transferred to the culture of the organization. This type of outcome is directly related to the quality of the educational process and the connection with the real needs of the workplace. This only confirms that training in entrepreneurial organizations is more tailored to employees than managers, which may increase their satisfaction and motivation, and the transfer of new values is more efficiently incorporated for this group of respondents.

When it comes to the correlation between training outcomes and improving the work performance, it can be seen that there is a significant difference in the attitudes of respondents, where employees express the following parameters (mean=5.29, SD=0.967), while this level for line managers is (mean=3.61, SD=1.086). Again, employee attitudes are significantly more positive in terms of the impact of training on job performance development than in the case of line managers. This level of response can be directly related to the quality of educational design, which connects current and future workplace needs with the training program. If managers believe that training does not significantly affect the increase in work performance, then will be a strong ineffectiveness of investing in human resources. On the other hand, employees who are not in managerial positions show a high degree of agreement that some type of training has had a positive impact on the quality of work performance.

Regarding the relationship between training and strategic goals of the organization, there is no significant difference in the attitudes of respondents, which employees express through the following parameters (Me=4.0, n=92), while for the line managers is (Me=5.0, n=31). It is indicative that this is the only case where line managers show a higher degree of agreement in relation to employees. This shows that nominally, managers support the training process, which aims to make it easier to achieve business results. This may also be related to greater knowledge of the strategic goals that managers have in relation to employees. When employees clearly understand how their work fits into the strategic goals of the organization, then the level of motivation and commitment to the training process increases significantly, which should be one of the main activities in the training preparation process.
By analyzing the correlations of performance measures, it is found that there is no significant linear relationship between the above issues, except at a moderate level for statements, the training had a positive impact on shaping my business attitudes and values/the training affected the quality of my work performance, which is 413 **. It can be interpreted that training has a greater impact on shaping the attitudes and values of the individual, in the direction of motivation and commitment, than on improving structural skills.

The above analysis implies that training in the entrepreneurial environment in Serbia is more adapted to employees who are not in managerial positions and that it is conducted in a way that partially improves work performance, but with significant room for improving methodology and outcomes that will have a stronger impact on organizational results. Regarding line managers, the situation is significantly more unfavorable, which is reflected in the fact that the training designed for them does not contribute enough to the development of essential skills to improve work performance, but also other aspects of organizational behavior. Entrepreneurs' understanding that training must be tailored to different parameters of the workplace, the position held by the employee, and future business needs, opens a new valorization perspective of investment in human resources with a visible impact on their work performance in growing organizational potential.

References


