Integration of Gender Aspects into Development of Knowledge Management System in the Entrepreneurial Organizations in Serbia

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A B S T R A C T

For entrepreneurial organizations to be able to successfully develop the business strategy, it is necessary to provide optimal resources for unhindered growth, internal coherence, stability of organizational culture, and competitiveness in the market. At the heart of these processes are employees, who directly influence

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organizational outcomes with their daily efforts, ability, and thinking. Also, the improvement of business functions is necessary for the organization to be competitive with other organizations in the market. In this context, the effectiveness of knowledge management is one of the key aspects in ensuring the development of both individual and group performance. In today’s time of great challenges for entrepreneurs, managing the processes that provide knowledge to both employees and organizations can be a key aspect of business sustainability that is imperative in turbulent circumstances. The purpose of the study was to examine how organizational culture and gender aspects of employees should be put in the function of knowledge management system (KMS). In line with this, this paper attempts to examine the extent to which the processes of improving the knowledge of employees from a gender perspective in entrepreneurial organizations in Serbia are effectively managed. In order for women to realize a greater contribution in entrepreneurial organizations, it is imperative to stimulate the educational process by empowering both women and men to improve their well-being and participate actively in entrepreneurial organizations building. Authors pointed out that when technology and organizational culture are coupled with educational assistance and training, however, adoption improves, and benefits are greater. Finally, they concluded that statistical parameters explicitly show that there are no significant differences on any tested issue, between males and females. This means that their perspective is identical when it comes to the development and use of knowledge management in entrepreneurial organizations.

**KEY WORDS:** entrepreneurship, education, gender, knowledge management, organizational culture

**Introduction**

Imposing new economic and business patterns will create an entirely new set of consequences and decisions (Radovic Markovic et al., 2021). Today's entrepreneurial organizations are focused on permanent changes in consumer expectations and market relations that lead them to transform into flexible business units, with an emphasis on achieving competitive advantage based on knowledge and continuity of improving human resource skills. For this reason, more and more organizations are focusing on identifying, training and retaining employees with "critical knowledge" (Curčić & Matejic, 2021). This type of business orientation affects the acceptance of broad frameworks at the global level, which determines the importance of the role of people as the most valuable resource and its primary impact on the growth and development of the organization. In order
to develop the potential and skills of employees, the organization should provide an environment that will support the generating and adequate use of knowledge to improve business processes, both inside and outside the organization (Dreyer et al., 2021). In the modern world, with technological development, science and education (Milojevic et al., 2021). This means developing, implementing, and handling a knowledge management system. The task of the modern education system should be to teach the listener to learn (Endovitsky et al., 2021). Today's expectations of the organization towards employees go in the direction of developing multi-functional abilities of human resources to more efficiently perform various types of complex tasks. For such realization, organizations need to establish an appropriate knowledge management model, which will provide a long-term continuum of necessary processes for establishing organizational development based exclusively on human resources competencies (Lai et al., 2022).

The process of competence development can be defined as the activity of systemic training of an individual to increase the adaptive capacity to perform various types of practical functions. Business activities and learning are complementary functions that enable employees to expand their capacities within their daily tasks to achieve the planned goals even more efficiently in the future. Active participation of employees in daily business activities is an important aspect in increasing commitment, motivation, and focus towards continuous learning and acquiring new knowledge. In order for the organization to operate successfully and make a profit, it is necessary to constantly control and maintain the career progress and satisfaction of employees, because its success is based on satisfied and advanced human resources (Ilic, 2020). Company staff is a unique competitive resource and source of profit in any organization (Tsareva, 2021). Within business units, some employees show a higher degree of affinity and potential for the acquisition of new knowledge compared to others, which organizations need to recognize and enable this group to develop to maximize individual and group capacity. For quality management of these processes, it is necessary that the organization is nominally committed to the development of a knowledge-based culture, and then to the establishment of knowledge management that will be able to support such aspirations (Iyengar & Montealegre, 2021).

Although training should be available to all employees, in practice this is often not possible due to limited resources that prevent the
implementation of a collective education process. For this reason, the process of identifying employees with a high level of potential is a key aspect in further retaining the highest quality human resources and their long-term stay in the organization. The individual capacity of employees represents the level of ability and readiness of an individual to effectively adopt and apply new knowledge and continuously upgrade the necessary skills in the future. The development of individual performance further enables the total work result to be greater than the sum of individual results and by combining individual skills new organizational abilities are gained (Fischer et al., 2022). Such skills increase the employee's focus on the learning process and determine the individual as a resource in which there is a justification for investment, and the organization raises the market rating and increases the ability of effective business transformation. The practice has shown that these processes are never separate, but must be combined to achieve the best results, which means that there must be a proactive approach to the training process, both by the employee and the organization.

**Employee Development Process Management as an Aspect of Competitive Advantage**

Substantial empirical evidence can be found in the literature that indicates that learning outcomes come from the firm belief of employees that a certain type of knowledge can help them in their daily work and future activities (Melwani, 2018). Knowledge is considered one of the most important factors of economic development, and the goal of every country should be directed towards building a knowledge-based economy (Dimitrijevic & Mijailovic, 2021). However, without the support of the organization in the implementation of the educational process and the provision of adequate resources necessary for these activities, the effectiveness, purposefulness, and cost-effectiveness of investing in human resources are questioned. The success of an organization is connected to employees’ motivation and satisfaction (Petkovic & Rapajic, 2021).

If the organization does not provide optimal conditions for quality knowledge transfer or if the identified needs for employee skills development are not seen as essential for organizational development, then there is little chance that positive outcomes will occur, both at the individual and organizational levels (Somboorac, Penjišević & Lazović, 2022). The
question that further deepens this topic is, should initiatives to improve knowledge come from the employee himself or the organization?

Several authors claim that it is the responsibility of the organization to provide an educational environment for employees so that they can continuously develop their potential and contribute to the overall success of the organization (Harrison, Leitch & McAdam, 2020). In contrast, there is an opinion that it is the responsibility of the individual to use the resources already available, and that he or she should be the main initiator of the need for continuous development.

To achieve a competitive advantage, the entrepreneur organization must establish an adequate level of planning, implementation, and evaluation of training and development programs for employees (Tošović-Stevanović & Bogdanović, 2018). Competitiveness is an indicator of the position that an analyzed entity occupies in a particular market, its ability to cope with direct or indirect competitors in the right way, but also a key source of creating opportunities for business improvement and long-term success (Milanovic, Nikitovic & Garabinovic, 2020). Competitive advantage can be defined as a unique position that a company develops in comparison to its competition (Markovic, Salamzadeh & Vujicic, 2019). Systematic training planning is an essential prerequisite for obtaining the expected results after its completion. This means that it is necessary to perform quality monitoring of the complete working environment; identification of human resources to be trained and selection of methods and approaches to their development. In the training planning process, it is necessary to define the parameters expressed by the process formula as follows:

\[
\text{Need for training and development (N)} = \text{Expected performance level (EL)} - \text{Existing performance level (eL)} \text{ or } N = EL - eL
\]

Today's activities of entrepreneurial organizations show shortcomings in the training and skills of employees, which can be one of the main causes of low results in the quality and efficiency of job delivery (Miličković et al., 2021).

In such circumstances, it is important to establish a knowledge management (CMS) system, which will be tailored to organizational needs and capabilities. This is an important segment that organizations need to implement in the planned time intervals, and which will guarantee the
development of skills and abilities of human resources by the needs of organizational growth.

The Impact of Employee Training on Changing Values and Attitudes Towards Organizational Processes

An adequate level of commitment, motivation, competence, organizational behavior, etc. is the significant performance of business excellence that contributes to the growth of the organization, increased product quality, and market competitiveness (Arz, 2017). 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 and the requirements in 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. In essence, it should contribute to improving the quality of human resources for performing daily tasks, development of specific skills of employees and changes in attitudes, values, and behavior of employees in the direction of organizational needs.

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 (Lounsbury et al., 2019). In circumstances when employees express a negative attitude towards managers or executives, corporate goals, company products, and other aspects of business, there may be a reduced level of employee performance and delivery of services to the market.

To eliminate such side effects, it is necessary to establish a clear knowledge management system and select an appropriate training model that will change the attitudes of employees to develop the organizational climate and change the behavior, as well as improve overall organizational performance.

Research Method

Improvement, transformation, and reform is a systemic approach that should include the total resources that an organization has at its disposal, point out (Ivanović & Penjišević, 2019). In this regard, to review the opinions and attitudes of employees related to the quality of knowledge
management in entrepreneurial organizations in Serbia, primary research was created, and the following research questions were defined:

Q1: To what extent does the organization effectively and systematically manage the knowledge of employees?

Q2: To what extent did the training influence the shaping of business attitudes and values of female and male employees in line with the organizational culture?

Q1: How and to what extent did the training affect the work performance?

Data were collected by survey method. The research sample is a sample with a deliberate approach of employees in entrepreneurial organizations on the territory of the Republic of Serbia. The research was conducted in the period from October 2021 to February 2022. The pilot study included 15 employees, while the final number was 92.

Open-ended questions where respondents had to write their opinion, 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 attitudes and opinions on a scale of 1 to 7, where 1 - Not at all, and 7 - Absolutely. 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 techniques (Independent-Samples T Test, One-Way ANOVA) were used to test the hypotheses.

**Research Results and Analysis**

As previously noted, the total number of respondents was 92, of which 43 (46.7%) were female and 49 (53.3%) were male. The structure of the level of education is as follows: 11 (12.0%) respondents finished a high school, 33 (35.9%) a college, 43 (46.7%) with a University Degree, and 5 (5.4%) with a Master. The average work experience of employees is 9.88 years, the median is 9 years (i.e., 50% of employees have work experience of 9 years or less). When observing the length of work experience among gender, the average work experience of male respondents is 9.09 years with a median of 8 years, while the average work experience of female respondents is 10.79 years with a median of 9 years. Work experience in relation to the level of education is given in Figure 1.
Variable *The training had a positive impact on shaping my business attitudes and values in line with the organizational culture* has an average score of 4.76, Median 5 (50% of respondents give a score of 5 or less), Mode 5, Skewness is 0.012 and can be said that variable has no asymmetry. The coefficient of variation is 25.38% (series data are homogeneous, and variability is relatively weak), Q1 = 4 (25% gives a score of 4 or less), Q3 = 6 (75% gives a score of 6 or less), IQR = 2.

One-Way ANOVA explored the impact of education level on shaping business attitudes and values in line with organizational culture. Regarding the level of education, 4 groups can be seen (group 1: High school, group 2: College, group 3: University Degree, and group 4: Master). No statistically significant difference was found $p = 0.216$ (> 0.05). Subsequent comparisons using the Tukey HDS test indicate that there is no difference between individual groups either (all $p$ _value (Sig.) are greater than 0.05).

Table 1 shows that the highest average score for the question of the importance of training in forming and shaping business attitudes and values in an organizational culture given by respondents with a master's degree, with a minimum score of 5 and a median of 6, which practically means that 50% of employees with a master's degree gives a grade of 7.
The training had a positive impact on shaping my business attitudes and values in line with the organizational culture.

Table 1: Descriptives of Highest Level of Education of Participants

<table>
<thead>
<tr>
<th>Highest Level of Education of Participants</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>Mean 5.00</td>
<td>0.270</td>
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<tr>
<td></td>
<td>Median 5.00</td>
<td></td>
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<tr>
<td></td>
<td>Variance 800</td>
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<tr>
<td></td>
<td>Std. Deviation 894</td>
<td></td>
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<tr>
<td></td>
<td>Minimum 4</td>
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<tr>
<td></td>
<td>Maximum 7</td>
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<tr>
<td></td>
<td>Range 3</td>
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<tr>
<td></td>
<td>Interquartile Range 1</td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>Mean 5.12</td>
<td>0.208</td>
</tr>
<tr>
<td></td>
<td>Median 5.00</td>
<td></td>
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<tr>
<td></td>
<td>Variance 1422</td>
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<tr>
<td></td>
<td>Std. Deviation 1193</td>
<td></td>
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<tr>
<td></td>
<td>Minimum 3</td>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Interquartile Range 2</td>
<td></td>
</tr>
<tr>
<td>University Degree</td>
<td>Mean 4.88</td>
<td>0.180</td>
</tr>
<tr>
<td></td>
<td>Median 5.00</td>
<td></td>
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<tr>
<td></td>
<td>Variance 1391</td>
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<tr>
<td></td>
<td>Std. Deviation 1179</td>
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<tr>
<td></td>
<td>Interquartile Range 2</td>
<td></td>
</tr>
<tr>
<td>Master</td>
<td>Mean 6.00</td>
<td>0.316</td>
</tr>
<tr>
<td></td>
<td>Median 6.00</td>
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<tr>
<td></td>
<td>Variance 500</td>
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<tr>
<td></td>
<td>Std. Deviation 707</td>
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<tr>
<td></td>
<td>Interquartile Range 1</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors, results of primary research
Figure 2: The training had a positive impact on shaping my business attitudes and values in line with the organizational culture

Source: Authors, results of primary research

Variable The organization effectively and systematically manages the knowledge of employees has an average score of 4.54, Median 5, Mode 5, coefficient of variation 24.96% (variability is relatively weak), and Skewness is -0.405 which indicates medium negative asymmetry, Q1 = 4 (25% gives a grade of 4 or less), Q3 = 5 (75% gives a grade of 5 or less), IQR = 1.

One-Way ANOVA explored the impact of knowledge management by the organization. In relation to the level of education, 4 groups were identified (group 1: High school, group 2: College, group 3: University Degree and group 4: Master). No statistically significant difference was found p = 0.181 (> 0.05). Subsequent comparisons using the Tukey HDS test indicate that there is no difference between individual groups either (all p_value (Sig.) are greater than 0.05).

The variable Training and education are related to the job requirements (Q13) has an average grade of 5.76, Median 6 (50% of employees give a grade of 7), Mode 6, Skewness is -0.014 and it can be seen that the variable has no asymmetry and the coefficient of variation is
14.76 % (variability is relatively weak), Q1 = 5 (25% gives a grade of 5 or less), Q3 = 6 (75% gives a grade of 6 or less), IQR = 1.

Figure 3: Training of employees are related to the job requirements in relation to the level of education

One-Way ANOVA explored the impact of training and education on job requirements. Regarding the level of education, 4 groups were identified (group 1: High school, group 2: College, group 3: University Degree, and group 4: Master). No statistically significant difference was found p = 0.074 (> 0.05). Subsequent comparisons using the Tukey HDS test indicate that there is no difference between individual groups either (all p_value (Sig.) are greater than 0.05).

In Table 2 can be seen that there are no significant linear relationships between the observed variables: The training had a positive impact on shaping my business attitudes and values in line with the organizational culture; The organization effectively and systematically manages the knowledge of employees and Training and education are related to the job requirements.
Table 2: Correlations

<table>
<thead>
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<th>Mean</th>
<th>Std. Deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>The training had a positive impact on shaping my business attitudes and values in line with the organizational culture</td>
<td>5.04</td>
<td>1.148</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization effectively and systematrical manages the knowledge of employees</td>
<td>4.46</td>
<td>1.113</td>
<td>-.050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and education are related to the job requirements</td>
<td>5.76</td>
<td>0.843</td>
<td>.079</td>
<td>.223*</td>
<td></td>
</tr>
</tbody>
</table>

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

Source: Authors, primary research results

Impact of Training on Shaping Business Attitudes and Values Between Genders

The Independent-Samples T Test compares the results of examining the positive impact of training on shaping business attitudes and values in line with organizational culture for males and females. There was no significant difference in results between males (M = 5.04, SD = 1.172) and females (M = 5.05, SD = 1.133); t (90) = 0.024, p = 0.981 (both sides). The difference between the mean values of the variable by groups (mean difference = 0.006, 95% CI: -0.473 to 0.485) was very small (η2 = 0.004).

The Independent Samples Test compares the results of an organization’s knowledge management test between male and female respondents. There was no significant difference in results between males (M = 4.57, SD = 1.080) and females (M = 4.33, SD = 1.149); t (90) = -1.057, p = 0.293 (both sides). The difference between the mean values of the variable by groups (mean difference = -0.246, 95% CI: -0.708 to 0.216) was very small (Conhen, 1988):

\[
\eta^2 = \frac{t^2}{t^2 + (N_1 + N_2 - 2)} = \frac{(-1.057)^2}{(-1.057)^2 + (43 + 49 - 2)} = 0.0123
\]

The Independent-Samples T Test compared the results of the connection between training and job requirements in relation to the gender of the respondents. There was no significant difference in results between males (M = 5.73, SD = 0.908) and females (M = 5.79, SD = 0.773); t (90) =
0.316, \( p = 0.753 \) (both sides). The difference between the mean values of the variable by groups (mean difference = -0.246, 95% CI: -0.708 to 0.216) was very small.

Discussion

This research highlighted several key points, which entrepreneurs should see as guidelines, in further understanding the development of knowledge management practices.

*The training had a positive impact on shaping my business attitudes and values in line with the organizational culture* has an average score of 4.76, Median of 5 (50% of respondents give a score of 5 or less), which leaves significant room for improvement this aspect in the process of educating employees. Entrepreneurs should understand that the training process is not exclusively the acquisition of new knowledge needed for everyday work. It is an opportunity for employees to share their experiences with other individuals in education, to understand the connection between their work and organizational results, but also to strengthen trust and belonging to the organization that enabled them to develop their capacities.

The following tested variable *The organization effectively and systematically manages the knowledge of employees* has an average score of 4.54, Median 5, Mode 5, and a coefficient of variation of 24.96%. As in the previous case, the ambivalence of the respondents on this issue can be stated. This is a sign that employees do not recognize the organization's sufficient investment in systematic knowledge management processes. This can be one of the factors of slow organizational growth, but also the leaving of quality human resources to competing organizations where they will have more opportunities to develop their potential.

And the last tested variable, *Training and education are related to the job requirements* (Q13) has an average grade of 5.76, Median 6 (50% of employees give a grade of 7), Mode 6, Skewness is -0.014. Although it can be said that this segment is relatively satisfactory, it still could not be characterized as completely successful. The positive side of this level of response is that there is a tendency of satisfaction when it comes to the connection between training and job requirements. It can be stated that nominally, entrepreneurial organizations establish a methodology of education that is related to the daily business activities of employees. However, in the long run, this cannot be fully valorized, unless, in addition
to the educational nature, the training does not affect changes in other aspects of the organizational behavior of employees, such as motivation, satisfaction, and sense of belonging, self-actualization, promotion, etc.

Analysis of the impact of training on shaping business attitudes and values between genders showed that there are no statistically significant differences between them. However, these findings are very significant to see the potential perception and intention between women and men when it comes to knowledge management.

Conclusion

Considering the attitudes between the genders regarding the tested variables, can be concluded that statistical parameters explicitly show that there are no significant differences on any tested issue, between males and females. This means that their perspective is identical when it comes to the development and use of knowledge management in entrepreneurial organizations. Such data may imply fewer gender differences in the availability of training and the possibility of developing the competencies that organizations provide to their employees without unfair or discriminatory practices.

In addition, an important factor in this research is the examination of the correlation between the tested variables, which explicitly shows that there is no linear connection between these aspects. This implies crucial conclusions. The first is that there is no clear knowledge management system in entrepreneurial organizations in Serbia and that the choice of education methodology is not closely related to the strategic guidelines that such a knowledge system should provide. In addition, education does not provide additional value for employees, except for the primary goal, which should be related to increasing the adaptive capacity of organizational citizen behavior of employees.

Although entrepreneurship in Serbia, as well as globally, faces great challenges in terms of business survival, it must be understood that systematic investment in the development of employee skills, as well as their stronger connection with the organization in turbulent times, is one of the most important aspects which could mitigate the negative consequences of the current market circumstances.
References


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