Employee innovation in the context of strategic change implementation in the service sector

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Abstract

Purpose – The purpose of this paper is to determine whether variables – managerial support for innovative ideas, work autonomy, rewards/reinforcements, time availability, organizational barriers, and specific parameters of organizational climate, have an impact on the organizational performance of employees in the service sector of the Republic of Serbia. Additionally, the study will investigate whether there are differences in the perceptions of employees depending on their positions within the organization. Methodology – The sample consists of 105 participants. The study applied reliability analysis, correlation analysis, multiple regression analysis, and the T-test for two independent samples. Findings – Results indicate that managerial support, work autonomy, time availability, organizational barriers, and specific parameters of organizational climate positively influence the organizational performance of employees in companies that have undergone an organizational change process, while rewards/reinforcements do not have an impact. Implications – Meetings should be held to outline how innovations will be assessed, given the significant impact of management support on organizational performance. To enhance employee performance, it is advisable to align the reward system with innovative behavior by offering additional rewards for successfully implemented innovations. Moreover, establishing an “innovation budget” can provide employees with the necessary resources, thereby nurturing a culture of innovation within the organization.

Keywords: innovativeness, organizational changes, work autonomy, managerial support

JEL classification: O35, M14, L84

Inovativnost zaposlenih u uslovima implementacije strategijskih promena u sektoru usluga

Sažetak

Svrha – Ovaj rad za cilj ima da utvrdi da li varijable – podrška rukovodilaca inovativnim idejama; radna autonomija; nagrade/podsticaji; vremenska raspoloživost; organizacione prepreke i specifični parametri organizacione klime, imaju uticaj na organizacione performanse zaposlenih u uslužnom sektoru Republike Srbije. Pored toga, u radu će biti ispitano da li postoji razlika u percepcijama zaposlenih, zavisno od pozicije u organizaciji. Metodologija – Uzorak čine 105 ispitanika. U radu je primenjena analiza pouzdanosti,

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korelaciona analiza, višestruka regresiona analiza i T test za dva nezavisna uzorka. **Rezultati** – Dobijeni rezultati pokazuju da podrška rukovodilaca inovativnim idejama; radna autonomija; vremenska raspoloživost; organizacione prepreke i specifični parametri organizacione klime pozitivno utiču na organizacione performanse zaposlenih u kompanijama koje su prošle proces organizacione promene, dok nagrade/podsticaji nemaju uticaj. **Implikacije** – Preporučuje se organizovanje sastanaka na kojima će menadžment detaljno predstaviti način vrednovanja inovacija, s obzirom na to da podrška menadžmenta ima najznačajniji uticaj na organizacione performanse. Kako bi se unapredila efikasnost zaposlenih, preporučljivo je usklađiti sistem nagrade/podsticanja s inovativnim ponašanjem, kroz dodatno nagrade/podsticanje za uspešno implementaciju inovacija. Pored toga, uspostavljanje „budžeta za inovacije“, može pružiti zaposlenima neophodne resurse, dodatno podstičući kulturu inovacija u okviru organizacije.

**Ključne reči:** inovativnost, organizacione promene, radna autonomija, podrška menadžmenta

**JEL klasifikacija:** O35, M14, L84

1. **Introduction**

Although very complex, numerous types of organizational transformation can be critical to an organization’s long-term success. A key component of successful organizational transformation is effective leadership, communication with employees, and commitment from all members of the organization to ensure acceptance and implementation of change. Innovative employees are more willing to tackle the challenges associated with the transformation process and provide creative solutions to facilitate integration and help the organization adapt to changes. Competent and creative employees play a crucial role in the innovation process, which is especially significant in the service sector. In service businesses, new ideas often come from both employees and customers, rather than from traditional R&D projects. There is a need to enhance research, education, and training in humanities and social science areas related to service innovation, such as innovation management, user-driven innovation, consumer behavior, marketing, new business models, cultural understanding, and communication. Unfortunately, these aspects have been overlooked in transition economies, especially in small firms dominating the business services sector, where employees have limited opportunities for acquiring new knowledge and skills due to their engagement in daily activities (United Nations Economic Commission for Europe, 2011).

Several determinants influence employee innovation in the context of organizational change, affecting the level of performance and enhancing the competitive position of these companies. It can be concluded that innovation plays a critical role today (Smith & Tushman, 2005), and employee innovative behavior is one of the best ways to embrace innovation and ensure the organization’s success (Mytelka & Smith, 2002). Innovative employee behavior has been a subject of research in various fields since it was first introduced as a concept (Scott & Bruce, 1994). It can be defined as the act of generating, promoting, and implementing innovative thinking within an organization, aiming at personal and organizational performance, enabling employees to use innovative thinking, respond promptly and accurately to market and consumer demands (Scott & Bruce, 1994; Woodman et al., 1993). Innovative employee behavior has long been considered a primary way for companies to gain a competitive advantage (Shanker et al., 2017) and improve organizational performance, representing the organization’s ability to efficiently use resources and create outputs consistent with its goals and relevant to its users (Peterson et al., 2003).
As the service sector has expanded, researchers have increasingly focused on uncovering new sources for gaining a competitive edge within the sector, which encompasses a strong emphasis on innovation (Vincenzi & da Cunha, 2021). The complexity and dynamism inherent in many service activities demand a workforce with high adaptability and problem-solving skills, driving a culture of continuous improvement and innovation. Furthermore, the knowledge-intensive aspect of services cultivates an environment of continuous learning and experimentation, nurturing inventive approaches to problem-solving. Consequently, the significance of conducting research within the services sector and the urgency to cultivate novel perspectives on services has never been more apparent. Considering the significance of employee innovation in today’s environment, this study seeks to explore the importance of various factors – such as supervisor support for innovative ideas, work autonomy, rewards, time availability, organizational barriers, and specific aspects of organizational climate – and their influence on organizational performance amidst organizational change. The identified determinants serve as the foundation for observing employees’ innovative behavior. Additionally, the study explores whether there are differences in employee perceptions based on their positions within the organization.

The primary objective of this research is to determine whether the aforementioned determinants have an impact on the organizational performance of employees in the service sector of the Republic of Serbia. Within the framework of a CECI scale, determinants gauge five internal organizational factors that foster corporate entrepreneurship. The primary objective is to assess entrepreneurial behavior within the organization and examine the mechanisms facilitating its diffusion throughout the entire company. The research was conducted in Central Serbia, using the Corporate Entrepreneurial Climate Instrument (CECI) as the foundation. The empirical part of the research included descriptive statistical analysis, reliability analysis, correlation analysis, multiple regression analysis, and the T-test for two independent samples.

To the best of the authors’ knowledge, prior research in this field does not take into account all variables of the CECI model, and the effects of the examined variables are mainly measured in terms of the level of employee innovation. Therefore, the main contribution of this study is testing the impact of all variables of the mentioned model on the organizational performance of companies.

2. Background

2.1. The effects of organizational change

According to Porras and Silver (1991), organizations usually experience change as a result of “an unintentionally generated response” due to internal or external factors. Precisely, organizational change encompasses substantial modifications in the structure, strategies, processes, or culture of companies or institutions. It is frequently instigated to accommodate external influences, enhance performance, navigate market dynamics, or tackle internal issues. Strategic organizational changes represent profound and essential shifts in how an organization functions, strategically implemented to boost efficiency, secure a competitive edge, enhance overall performance, and align with evolving market conditions. The process of organizational transformation is directed towards various categories of change, which can be classified as follows: changes originating from the external environment and changes within the organization (Appelbaum et al., 1998). External changes encompass alterations in competition, government regulations, economic conditions, and technological advancements. Changes may also originate from within the organization itself, such as a new corporate vision or mission, the adoption of new technologies, mergers and acquisitions, and a decline in company morale.
Griffin and Moorhead (2014) described organizational performance as the “extent to which the organization is able to meet the needs of its stakeholders and its own needs for survival”. In other words, organizational performance refers to how well an organization achieves its objectives and fulfills its mission. Due to its numerous perspectives and relevance, organizational performance is chosen as the dependent variable in this research. Researchers reach varied conclusions about the impact of organizational changes, particularly mergers and acquisitions, emphasizing their critical significance for organizational performance. This performance is shaped by diverse employee behaviors, actions, motivations, and decisions. Managerial performance involves addressing daily challenges, monitoring competitive behavior, striving for performance objectives, and adhering to company policies. Assessment of organizational performance considers managerial and subordinate performance, the pursued strategy, and market conditions. Amidst frequent organizational changes in the service sector, both managers and employees play a crucial role in enhancing organizational performance, the key focus of much research in this area.

On the one hand, some of the researchers show the negative effects of organizational changes, both on the financial (King et al., 2004) and organizational performance (Correia et al., 2013) of companies that have undergone the process of organizational transformation. The effects of organizational transformation can lead to the improvement in the knowledge base and, consequently, to innovative outcomes (Chen et al., 2021). On the other hand, the high costs associated with the process of organizational transformation, as well as the consequences of integration and cultural adaptation, can result in below-average performance and an unclear effect on innovation (Zhou et al., 2019). Research by Savović et al. (2022) demonstrates that certain dimensions are of particular importance for the corporate culture of acquired firms: innovation, top management communication with employees, autonomy and decision-making, the reward system, and performance orientation. Consequently, a company should establish clear performance requirements and continuous improvement, as well as a transparent and fair employee reward system. It is precisely these dimensions that will be analyzed in this study.

2.2. Hypotheses and research model

Managerial support

As employees are a key element in a company’s innovation process, especially given their daily interaction with procedures, processes, products, and services, providing support for their innovative behavior is essential to any company (Barham et al., 2020; Jankelova et al., 2021). Besides the importance of a pleasant business relationship with colleagues, a crucial factor of employee satisfaction is an open and trusting relationship with management, built through their support (Jakubiv et al., 2022). Managerial support creates an environment in which employees feel that their innovative ideas have value and will be supported, motivating them to contribute to innovation as a predictor of organizational performance. Employee innovative behavior orients all activities related to generating new ideas (e.g., ideas about products, processes, technology). The level of managerial support will depend on the organizational level at which the manager is positioned (Hornsby et al., 2009). It is emphasized that support for innovation is higher at higher organizational levels (Erić Nielsen et al., 2019), considering the different roles and responsibilities that different management levels have in the organization. At the strategic level, managers focus on defining or redefining ways to improve business. The middle management level is based on enhancing the organization’s competitive position, while operational management is focused on key competencies. Overall, support for innovative ideas by supervisors creates a favorable work environment in which employees are often more productive and creative. Therefore,
supervisor support has a direct impact on organizational performance (Khalid, 2020; Ogbonnaya & Valizade, 2016), as well as on other categories of performance, such as productivity and economic growth (Cainelli et al., 2004). Accordingly, the following hypothesis can be formulated:

H₁: Managerial support has a positive impact on organizational performance.

Work autonomy

Work autonomy can be defined as “the practice or set of practices that involve delegating responsibility down the hierarchy, giving employees greater authority to make decisions regarding the performance of their primary task” (Lin et al., 2011). Autonomy enables employees to self-regulate their emotions and behaviors, allowing them to pursue objectives aligned with their individual values. Numerous authors emphasize that work autonomy is one of the key drivers of innovative employee behavior (Akhter et al., 2022; De Spiegelaere et al., 2014; Galván Vela et al. 2021; Hammond et al., 2011). It is important to note that autonomy allows employees to take initiative and experiment with various work approaches and methods. It enables them to generate ideas and further develop them on a small scale of their application (Hammond et al., 2011). Organizations should provide appropriate support and guidance to ensure that autonomy is innovation-oriented. Numerous studies link work autonomy to employee performance (Leach et al., 2005; Muecke & Iseke, 2019), personal development (Zhou et al., 2019), trust in top management, and managerial support for innovative ideas. Accordingly, the following hypothesis can be formulated:

H₂: Work autonomy has a positive impact on organizational performance.

Rewards/Reinforcements

Employee innovation can be supported through various types of compensation, reward systems and employee recognition. In today’s competitive world, it is important to note that compensation is often the biggest motivator (Anthony et al., 2007). People are more motivated to perform their jobs better when they believe they will receive appropriate rewards for their efforts. Organizations can reward employees for their innovative contributions to motivate them to continue generating new ideas. However, it can be observed that financial motivators are not the sole factors in enhancing employee performance, and there is an increasing emphasis on the importance of employee motivation, satisfaction, and a sense of usefulness after the successful completion of tasks. In a study conducted by Gede and Wayan Pradnyantha (2016), a positive impact of the employee reward system on performance and commitment to the job was demonstrated. Lomyati and Tridayant (2023) show an indirect influence of the employee reward system on organizational performance through employee performance. It is important to emphasize that the reward system affects performance only if it is adequate and specially adapted to employees. On the other hand, an inadequate reward system can even have a negative impact on results and performances (Manzoor et al., 2021). Accordingly, the following hypothesis can be formulated:

H₃: Rewards/Reinforcements have a positive impact on organizational performance.

Time availability

Time availability can be defined as (Kuratko et al., 2005) “determining the workload to ensure that individuals and groups have enough time to implement innovations and that their jobs are structured in a way that supports efforts to achieve the organization’s short-term and
long-term goals” or as “the degree to which employees can embrace innovative efforts in the process of achieving short-term and long-term goals” (Hornsby et al., 2002). It is emphasized that innovation is less likely to occur when there is insufficient time for experimentation (Kuratko et al., 2005) and that teamwork slows down the decision-making process, thereby increasing the necessary time for action. In situations where employees feel time pressure, they may show lower levels of innovative behavior, due to the complexity of the processes and activities involved. Excessive time pressure or a constant focus on routine tasks can stifle creativity and innovation. Providing employees with time, resources, and support to engage in innovative work can lead to a more innovative and adaptive organization (Alpkan et al., 2010; Galván Vela et al., 2021). Opposite to these findings, Agrawal et al. (2018) conducted research on the role of free time in the internal allocation of time and effort in innovative projects in the field of education in the United States and found that the availability of free time positively influences the development of new ideas and projects. Accordingly, the following hypothesis can be formulated:

H₄: Time availability has a positive impact on organizational performance.

Organizational barriers

Organizational barriers are often connected with the concept of “role clarity” and are originally defined as “precise explanations of expected outcomes of organizational work” (Kuratko et al., 2005). Organizational barriers or boundaries (Hornsby et al., 2002) in the context of innovation are precisely defined as business outcomes that are expected, along with the development of mechanisms for evaluating, selecting, and implementing innovations. They can arise between different parts of the organization, as well as within a team, in situations where a team member or team leader attempts to influence the behavior of other team members. When expected business outcomes are clearly defined, that can contribute to increased employee responsibility and engagement, ultimately improving their performance. However, a high degree of rigidity and constraints within the organization can stifle the creativity and innovative behavior of employees. Therefore, it is crucial to find the right balance between setting clear organizational boundaries and encouraging creativity and innovative behavior within the organization. Based on the above, the following hypothesis can be formulated:

H₅: Organizational barriers have a positive impact on organizational performance.

Specific parameters of the organizational climate

Organizational climate can be defined as “a way in which employees perceive the organization and its purpose” (Payne et al., 1971). Organizational climate reflects individual perceptions, recurring behavior patterns, attitudes, and feelings of employees (Griffin & Moorhead, 2014). Shanker et al. (2017) state that when organizations are able to develop an organizational climate that employees perceive as positive, it leads to increased motivation, commitment, and engagement, ultimately enhancing organizational performance. Dimensions of the organizational climate, such as autonomy or freedom have a positive effect on employee innovative behavior. On the other hand, a study conducted by De Jong and Den Hartog (2007) shows that there is no positive relationship between organizational climate and employee innovation. Previous research results indicate that a favorable organizational climate enhances employee satisfaction, as well as workplace performance, particularly innovative organizational climates (Atta et al., 2019), on organizational performance. Accordingly, the following hypothesis can be formulated:
H0: Innovative organizational climate has a positive impact on organizational performance.

A large number of studies directly link individual variables to organizational performance. Ogbonnaya and Valizade (2016) and Khalid (2020) investigate the impact of management support for employee innovative behavior on organizational performance. Leach et al. (2005) associate work autonomy with employee performance. Moreover, there are numerous studies that connect innovative organizational climate with company performance (Atta et al., 2019). Savović et al. (2022) examine the influence of organizational culture, through innovations, communication by top management with employees, autonomy, and the reward system on post-acquisition performance. The relationship between these variables is also examined in the context of organizational climate.

The basis for selecting determinants is the Corporate Entrepreneurial Climate Instrument (CECI) initially developed by Hornsby et al. (2002) and later improved (Hornsby et al., 2009). Statements related to business performance, the dependent variable in the model, were adapted from studies conducted by Vij and Bedi (2016) and Payal et al. (2019).

Figure 1: Research model

![Research model diagram]

Source: Authors’ research

The extent to which employees engage in experimentation, demonstrate individual initiative, and utilize resources not formally allocated to them is influenced by their perception of working conditions, as indicated by Morris et al. (2010). Hence, the literature has recognized entrepreneurial organizational factors as crucial precursors influencing strategic and entrepreneurial practices, which is especially noticeable in bigger enterprises (Casales, 2022). The CECI scale is increasingly utilized for the measurement of corporate entrepreneurship, as evidenced by studies conducted by Hornsby et al. (2009) and Kuratko et al. (2011). Notably, the CECI serves the crucial function of assessing managerial support for corporate entrepreneurship, as emphasized by Hornsby et al. (2009). The scale is also used in the service sector, mostly in the financial (Casales, 2022) and the public sector (Kontić & Vidicki, 2016), but also in service (Ravjee & Mamabolo, 2019) and organizational innovation (Ahmetoglu et al., 2018).
However, there is a limited number of studies that examine the impact of the CECI model variables on organizational performance in the service sector, which is also the gap that this research aims to address. Figure 1 shows the research model.

3. Research methodology and sample structure

The research was conducted in the Central Serbia region from September 2nd to September 15th, 2023. The sample consists of 105 participants, segmented based on the following characteristics: gender, age, years of work experience, educational background, position in the organization, and type of organization. Table 1 displays the sample structure, from which it can be concluded that the sample consists mainly of female participants (53.7%), aged between 30 and 50 years (48.8%), with 5 to 10 years of work experience (47.5%), and have a high level of education (50%). A significant portion of the participants did not hold managerial positions (72.5%). The participants were mainly surveyed in banks (55.2%), specifically in branches in Kraljevo, Kragujevac, and Belgrade (AIK Bank, NLB Komercijalna Banka, Eurobank Direktna, and Raiffeisen Bank), as well as in IT sector companies (44.8%) in Kragujevac (Comtrade, Endava, LionEight, AAA Freight, and Qubitsoft), which have undergone specific organizational changes in recent years.

Table 1: Sample structure

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Number of participants</th>
<th>Percentage of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47</td>
<td>55%</td>
</tr>
<tr>
<td>Female</td>
<td>58</td>
<td>44.8%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 30 years</td>
<td>39</td>
<td>37.1%</td>
</tr>
<tr>
<td>From 30 to 50 years</td>
<td>47</td>
<td>44.8%</td>
</tr>
<tr>
<td>Over 50 years</td>
<td>19</td>
<td>18.1%</td>
</tr>
<tr>
<td><strong>Years of work experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 years</td>
<td>37</td>
<td>35.2%</td>
</tr>
<tr>
<td>From 5 to 10 years</td>
<td>46</td>
<td>43.8%</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>22</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>26</td>
<td>26%</td>
</tr>
<tr>
<td>College/University</td>
<td>40</td>
<td>50%</td>
</tr>
<tr>
<td>Master’s studies</td>
<td>14</td>
<td>17.5%</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial</td>
<td>22</td>
<td>27.5%</td>
</tr>
<tr>
<td>Non-managerial</td>
<td>58</td>
<td>72.5%</td>
</tr>
</tbody>
</table>

Source: Authors’ research

The research was conducted using an online survey carried out over the internet. Each of these CECI dimensions and organizational performance was measured through a set of measurement items, which utilized a Likert scale with five ordinal choices (1 – strongly disagree; 5 – strongly agree). The questionnaire consists of 49 statements grouped into 7 factors.
4. Results

The statements were grouped into factors, and a reliability analysis was conducted, as shown in Table 2. From the Cronbach’s alpha coefficient values, it can be concluded that all factors are reliable, as the coefficient value for each factor exceeds the threshold of 0.7 (Nunnally, 1978). The highest degree of internal consistency of statements occurs in the case of factor “Managerial support” (highest Cronbach’s alpha coefficient value - 0.955), while the lowest degree of internal consistency of statements is observed in the case of factor “Organizational Barriers” (lowest Cronbach’s alpha coefficient value - 0.722).

Table 2: Results of the factor analysis

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean</th>
<th>St. dev.</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial support</td>
<td>3.595</td>
<td>0.929</td>
<td>0.955</td>
</tr>
<tr>
<td>Work autonomy</td>
<td>3.825</td>
<td>0.719</td>
<td>0.894</td>
</tr>
<tr>
<td>Rewards/Reinforcements</td>
<td>3.809</td>
<td>0.686</td>
<td>0.794</td>
</tr>
<tr>
<td>Time availability</td>
<td>3.627</td>
<td>0.645</td>
<td>0.765</td>
</tr>
<tr>
<td>Organizational boundaries</td>
<td>3.799</td>
<td>0.671</td>
<td>0.722</td>
</tr>
<tr>
<td>Specific parameters of organizational climate</td>
<td>3.5733</td>
<td>0.724</td>
<td>0.761</td>
</tr>
<tr>
<td>Organizational performance</td>
<td>3.7583</td>
<td>0.751</td>
<td>0.913</td>
</tr>
</tbody>
</table>

Source: Authors’ research

The next analysis applied in the study was a correlation analysis (Table 3). The aim was to determine the degree of quantitative agreement of variations in the formed variables. Based on the obtained results, it can be concluded that the highest degree of correlation occurs between factors “managerial support” and “organizational performance” due to the highest Pearson correlation coefficient value of 0.846. It can be said that there is a high correlation between this pair of variables. The lowest value of the Pearson coefficient, which is 0.274, is observed in the relationship between the “organizational barriers” and “perceived performance” factors, indicating the lowest degree of correlation between these two factors, or a weak correlation.

Table 3: Correlation matrix

<table>
<thead>
<tr>
<th>Var.</th>
<th>MS</th>
<th>WA</th>
<th>R/R</th>
<th>TA</th>
<th>OB</th>
<th>OK</th>
<th>OP</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS</td>
<td>1</td>
<td>0.731**</td>
<td>0.756**</td>
<td>0.686**</td>
<td>0.489**</td>
<td>0.622**</td>
<td>0.846**</td>
</tr>
<tr>
<td>RA</td>
<td>0.731**</td>
<td>1</td>
<td>0.643**</td>
<td>0.485**</td>
<td>0.274**</td>
<td>0.524**</td>
<td>0.705**</td>
</tr>
<tr>
<td>R/R</td>
<td>0.756**</td>
<td>0.643**</td>
<td>1</td>
<td>0.597**</td>
<td>0.437**</td>
<td>0.682**</td>
<td>0.744**</td>
</tr>
<tr>
<td>T/A</td>
<td>0.686**</td>
<td>0.485**</td>
<td>0.597 **</td>
<td>1</td>
<td>0.515**</td>
<td>0.450**</td>
<td>0.704</td>
</tr>
<tr>
<td>OB</td>
<td>0.489**</td>
<td>0.274**</td>
<td>0.437**</td>
<td>0.515**</td>
<td>1</td>
<td>0.511**</td>
<td>0.590**</td>
</tr>
<tr>
<td>OK</td>
<td>0.622**</td>
<td>0.524**</td>
<td>0.682**</td>
<td>0.450**</td>
<td>0.511**</td>
<td>1</td>
<td>0.742**</td>
</tr>
<tr>
<td>OP</td>
<td>0.846**</td>
<td>0.705**</td>
<td>0.744**</td>
<td>0.704**</td>
<td>0.590*</td>
<td>0.742**</td>
<td>1</td>
</tr>
</tbody>
</table>

** The correlation coefficient is significant at the 0.01 level

Source: Authors’ research

Table 4 shows the results of the multiple regression analysis, measuring the intensity of the impact of the observed variables on the intention of future usage. Considering the value of the coefficient of determination (R² = 0.837), it can be concluded that 83.7% of the variance in organizational performance is explained by the given model. Since the VIF values are less than 5 (Field, 2000) for all factors, it can be inferred that there is no multicollinearity issue, and the data are suitable for conducting the regression analysis.
The multiple regression analysis revealed that managerial support has a statistically significant positive impact on organizational performance ($\beta = 0.351; p < 0.05$), confirming the first hypothesis. Work autonomy also has a statistically significant positive impact on organizational performance ($\beta = 0.170; p < 0.05$), confirming the second hypothesis. The results indicate that rewards and reinforcements do not have a statistically significant impact on organizational performance ($p > 0.05$), leading to the rejection of the third hypothesis. Time availability has a positive impact on organizational performance ($\beta = 0.179; p < 0.05$), confirming the fourth hypothesis. Similarly, this is the case with the factors of organizational barriers ($\beta = 0.132; p < 0.05$) and specific parameters of organizational climate ($\beta = 0.274; p < 0.05$), confirming both the fourth and fifth hypotheses. Multiple regression analysis results are presented as a Figure 2.

![Figure 2: Research results](image)

Table 4: Regression analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>$\beta$</th>
<th>$T$</th>
<th>Sig.</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial support</td>
<td>0.351</td>
<td>4.340</td>
<td>0.000</td>
<td>3.932</td>
</tr>
<tr>
<td>Work autonomy</td>
<td>0.170</td>
<td>2.737</td>
<td>0.007</td>
<td>2.329</td>
</tr>
<tr>
<td>Rewards/Reinforcements</td>
<td>0.018</td>
<td>0.259</td>
<td>0.796</td>
<td>2.984</td>
</tr>
<tr>
<td>Time availability</td>
<td>0.179</td>
<td>3.006</td>
<td>0.003</td>
<td>2.122</td>
</tr>
<tr>
<td>Organizational boundaries</td>
<td>0.132</td>
<td>2.536</td>
<td>0.013</td>
<td>1.632</td>
</tr>
<tr>
<td>Specific parameters of organizational climate</td>
<td>0.274</td>
<td>4.542</td>
<td>0.000</td>
<td>2.186</td>
</tr>
</tbody>
</table>

Source: Authors’ research

Finally, in order to determine if there are statistically significant differences in respondents’ attitudes regarding the given variables, an independent samples T-test was conducted for two independent samples (Table 5). The criterion by which respondents’ attitudes were grouped is their position in the organization, more precisely, whether the position is managerial or not. Based on the results of the analysis shown in Table 5, it can be said that there is a statistically significant difference in respondents’ attitudes when it comes to two factors, rewards/reinforcements ($p = 0.059 < 0.1$) and time availability ($p = 0.021 < 0.1$), where in
both cases (considering the mean value), the attitudes of employees in managerial positions are more favorable.

Table 5: T-test for two independent samples

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sig.</th>
<th>Mean</th>
<th>St. deviation</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rewards/Reinforcements</td>
<td>0.059</td>
<td>3.619</td>
<td>0.680</td>
<td>managerial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.893</td>
<td>0.677</td>
<td>non-managerial</td>
</tr>
<tr>
<td>Time availability</td>
<td>0.021</td>
<td>3.437</td>
<td>0.464</td>
<td>managerial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.709</td>
<td>0.703</td>
<td>non-managerial</td>
</tr>
</tbody>
</table>

Source: Authors’ research

5. Discussion

The research results demonstrate that support from managers for innovative ideas is the most significant predictor of organizational performance, thus confirming the first hypothesis. Numerous prior studies demonstrate the importance of managerial support for improving both organizational (Khalid, 2020; Ogbonnaya & Valizade, 2016) and financial performance (Cainelli et al., 2004). Providing support to employees is especially critical given their daily interactions with products and services. The obtained results strongly suggest that management plays a pivotal role in fostering innovation within a company (Barham et al., 2020). Consequently, it can be concluded that managerial support is one of the most crucial predictors of employee innovative behavior, an observation echoed by numerous researchers (Barham et al., 2020; Jankelova et al., 2021). Demonstrating initiative on the part of managers, offering support and encouragement to employees, as well as providing financial support, will lead to more innovative employee behaviors, which will positively impact organizational performance.

According to the results, work autonomy is a significant factor that positively influences employee organizational performance, confirming the second hypothesis. The level of freedom and the degree of employees’ abilities and responsibilities in their roles will lead to an enhancement of their innovation and organizational performance. These findings align with the results of numerous prior studies that investigated the link between work autonomy, innovation, and organizational performance (Akhter et al., 2022; De Spiegelaere et al., 2014; Hammond et al., 2011). The results of these studies emphasize the importance of work autonomy in stimulating creativity and innovation among employees. Other authors (Leach et al., 2005; Muecke & Iseke, 2019) highlight the positive impact of work autonomy on enhancing organizational performance. The consistency of these findings with the obtained results underscores the pivotal role of work autonomy in shaping more efficient and innovative organizations. In summary, these conclusions underline the importance of providing employees with a greater degree of freedom in performing their tasks, as a means of enhancing their innovativeness and, consequently, their performance in dynamic market conditions.

Based on the obtained results, it can be concluded that rewards and reinforcements do not have a statistically significant impact on organizational performance, leading to the rejection of the third hypothesis. These results are contradictory to numerous study results in which are rewards prioritized as essential motivators for employees that lead to improvements in their performance (Lomyati & Tridayant, 2023; Varma, 2017). Thus, there is a need for a deeper understanding of this discrepancy. One possible explanation for the disparity in results is that the current reward system may not be adequate or sufficiently tailored to employees’ needs, consistent with the findings of a study by Manzoor et al. (2021).
Furthermore, there may be a misalignment between financial and non-financial incentives, further complicating the role of rewards and reinforcements in employee motivation. Understanding different types of rewards in the specific organizational context and how they can be better adapted to employees’ needs, may be crucial for future efforts of enhancing organizational performance through reward systems.

Regression analysis results demonstrate that there is a positive influence of available time on organizational performance, confirming the fourth hypothesis. The results obtained align with those of a study by Agrawal et al. (2018), which highlights the positive impact of leisure time on the development of innovative projects in the field of education. In contrast to the obtained results (Alpkan et al., 2010; Galván Vela et al., 2021), they refute the association between available time and innovation, indicating that there is no positive correlation regarding the innovative performance of entrepreneurial endeavors. Therefore, the results emphasize the importance of structuring work tasks to provide employees with not only the means to perform their tasks efficiently but also to express their innovation and consider the broader context of organizational changes. This highlights the need for a flexible approach to work organization and time management to create conditions for innovative and creative problem-solving and ultimately improve organizational performance.

Based on the results, it is evident that there is a positive relationship between organizational barriers and organizational performance, thus confirming the fifth hypothesis. It can be concluded that organizational boundaries influence employees. It is crucial that a clear relationship exists between employees’ work performance and the standards by which it is evaluated, along with open communication from management regarding results achieved and clearly defined rules, standards, and procedures for their evaluation. Setting clear expectations for employees leads to an enhancement of their performance and, consequently, the organization’s overall performance. The research results demonstrate that a positive relationship exists between specific parameters of organizational climate and organizational performance, thus confirming the sixth hypothesis. A favorable organizational climate, especially one that fosters innovation (Atta et al., 2019) and nurtures a culture of trial and error, offers employees an opportunity to express their innovative abilities, even in the context of organizational changes (Savović et al., 2022). In an ever-changing environment, organizations that encourage an innovative organizational climate and cultivate a culture of trial and error enable faster and easier adaptation to new conditions. This approach can enhance organizational performance because it encourages continuous learning and adaptation. High flexibility in job tasks and job definition offers employees freedom in performing their daily tasks, allowing for more innovative behaviors. If management nurtures a climate that promotes innovation, there is greater openness to new ideas, risk acceptance, experimentation, continuous learning, and adaptation, creating an opportunity for further enhancing organizational performance.

6. Conclusion

Contemporary market trends and increased competitiveness emphasize the growing importance of employees and their innovativeness in achieving adequate business results. To ensure innovative behavior among employees, it is important to create a stimulating work environment, provide the necessary resources, receive support from all levels of management, and create a favorable organizational climate. With appropriate treatment of employees, it is possible to minimize the negative effects of organizational changes and encourage their innovativeness.

The conducted research has both theoretical and practical implications. Primarily, the research allows for the expansion of existing knowledge about determinants of innovative
behavior among employees. The goal is to determine whether the mentioned variables have an impact on the organizational performance of employees in the service sector. Additionally, the aim is to examine whether there is a difference in employee perceptions depending on their position in the organization. The major contribution of the study lies in testing the effects of all variables on organizational performance, particularly in the context of companies that have undergone organizational changes.

The practical implications of the research are as follows. Since the results show the greatest impact of management support on organizational performance, it is suggested to organize meetings where management will outline how innovations will be evaluated. The company’s management needs to define clear goals regarding innovative employee behavior and illustrate how innovations align with broader strategic objectives of the organization.

It is advisable for the employee reward system to be directed towards innovative behavior to have effects on employee performance. Connected with standards and procedures, it is proposed that management clearly defines the link between the reward system and innovations. For instance, a certain monetary bonus could be awarded to an employee if their initiative is accepted, with an additional amount if the initiative is successfully implemented. This approach nurtures the “trial and error” system and generates innovative ideas with a realistic possibility of implementation. Additionally, the organization can create an “innovation fund” or budget that provides employees with access to resources for implementing their innovative ideas.

To stimulate innovative behavior, it is necessary to provide employees with a higher degree of freedom and allow them to independently carry out tasks. This can be achieved over time through an adequate mentoring system, enabling both employees and managers to demonstrate innovative initiatives.

For the development of innovative ideas, besides a stimulating environment, there needs to be sufficient time. The suggestion to management is to “shorten” one working day at the end of the workweek for informal brainstorming meetings where employees can encourage each other to think innovatively. Time availability may include dedicated time for working on innovation projects or flexible working hours. The company can allow employees to spend a certain percentage of their working time on innovative problem-solving projects without affecting their regular tasks.

The conducted research has several limitations. The primary limitation is the size and structure of the sample, which is not sufficiently representative, considering that the research was conducted only in Central Serbia and encompasses a relatively small number of respondents employed exclusively in the service sector. Additionally, the effects of independent variables were measured on one dependent variable—organizational performance. Therefore, future research could include respondents from neighboring countries to compare with this study. It is also possible to include employees from other sectors and compare between types of activities. Furthermore, it is possible to analyze these variables on employee satisfaction or other performance categories, representing the dependent variable of the model. Additionally, segmenting respondents based on gender or age structure could reveal differences in attitudes and intentions among employees belonging to different groups.

**Conflict of interest**

The authors declare no conflict of interest.
References


