

# Openness of companies in Serbia to creativity, new ideas and innovation

## Отвореност предузећа у Србији за креативност, нове идеје и иновације

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**Abstract:** The subject of research in this paper is the analysis of openness of companies operating in Serbia to creativity, recognition of new ideas and innovations regardless of size, time period of their operation and the level at which they operate. In conditions of strong competition innovating new categories of products/services is an imperative for the survival of the company, as the number of customers in the world who seek innovation in consumption is growing. The research was conducted based on a specially designed questionnaire on a sample of one hundred and thirty-six companies. The initial assumption is that the inadequate commitment of companies to create innovation causes poor competitiveness in both the national and international markets. The purpose of the research is to evaluate the selected characteristics – the level of openness of the company to entrepreneurship and innovation; identification of the importance of employees in the company as indicators of inventiveness and new ideas; and identifying opportunities and additional initiatives that come from outside the company and are important for the lasting survival of their business in the market. The results of the research show the openness of the company to creativity and new ideas that use the function of permanent survival of the company in the market significantly. In this research, the method of comparative statistics, the hypothetical - deductive method, the analytical-deductive and comparative method, and the historical and statistical - descriptive method were used.

**Keywords:** creativity, innovation, business level, length of business, company.

**JEL classification:** L21, O31

**Сажетак:** Предмет истраживања у овом раду је анализа отворености предузећа која послују у Србији за креативност, препознавање нових идеја и иновација независно од величине, временског периода њиховог функционисања и нивоа на коме послују. У условима снажне конкуренције иновирање нових категорија производа/ услуга је императив за њихов опстанак, с обзиром да у свету расте број купаца жељених иновација у потрошњи. Истраживање је реализовано на бази посебно осмишљеног упитника на узорку од стотридесетшест предузећа. Полазна претпоставка је да неадекватна одређеност предузећа за креирање иновација проузрокује лошу конкурентску способност како на националном, тако и на међународном тржишту. Сврха истраживања је вредновање селектованих карактеристика - нивоа отворености предузећа за предузимљивост и иновације; идентификације значаја запослених у предузећу као индикатора инвентивности и нових идеја и; уочавање могућности и додатних иницијатива које долазе изван предузећа важних за трајни опстанак њиховог бизниса на тржишту. Резултати истраживања показују да отвореност предузећа за креативност и нове идеје битно утичу на функцију трајног опстанка предузећа на тржишту. У овом истраживању коришћене су методе компаративне статистике, хипотетско -

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**Кључне речи:** креативност, иновације, ниво пословања, дужина пословања, предузеће.

**ЈЕЛ класификација:** L21, O31

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## Introduction

At present, it is impossible to imagine the business of a company without constant innovation and introduction of creative solutions. In conditions of strong competition and a saturated market, companies that do not innovate stagnate and eventually disappear from the market. Hence, innovation is imperative for companies, given that the number of customers in the world who seek innovation in consumption is growing. The general view is that the long-term development of companies stems from their ability to constantly develop and produce innovative products (Sternberg, 2000). There are different ways in which companies can change and improve their business. A different view of the market and the needs of consumers outside the established norms normi (Perčić et al., 2017) lead to the creation of new product categories. As one of the specific tools of entrepreneurship (Kicová, 2019) innovation aims to offer a new, different meaning of products to customers. In that sense, creativity is the starting point, whether it is connected with invention or with perceiving possibilities discoveries in the field of artificial intelligence (Nica et al., 2018). Together, creativity and innovation by their very nature presume a continuous pursuit of change.

Seeking opportunities for new ideas and chances to be different, to do something in a better, more successful and more efficient way than the existing one is a requirement that is placed before individual companies and the economy as a whole. This can be seen (Djordjević, 2017) through the search for favorable opportunities or through the monitoring of trends and changes in the environment that no one else has noticed or paid attention to, through the introduction of new products/services (Almeida & Miguelb, 2007) or new ways of doing business that impose continuous innovation, and through company growth.

Sources of innovation are mainly located in the manufacturing and service sectors, while other groups of sources (Smith, 2010; Ružić Mosurović, 2012) or favorable opportunities for innovation are found outside a certain activity (individuals, research laboratories, corporations, users, employees, outsiders etc.). In relation to sources, innovations and new ideas usually arise from something unexpected, from demographic and technological (Liu & Jiang, 2016) changes, from new knowledge, etc. The dominant factors in the emergence of innovation are the market and technology (Plamberg, 2004; Almeida & Fernandes, 2007), which ultimately represent the commercialization of an idea.

If the innovation is successful, the question is how much the company will benefit from it in terms of materialization itself, i.e. achieving market advantage or profit (Stanković et al., 2014). Numerous studies have shown that the introduction of institutional innovations affects the positioning of companies in the market (Sokolov-Mladenović, 2020). It is possible that a company misses a chance and makes a profit by not using exceptional innovation in the right way. That is why it is believed that innovation is

ultimately a relative concept, considering that the idea itself does not mean the market success of the company. Being the first on the market brings profit, and all subsequent actors have a smaller market share (Vukajlović & Čurčić, 2016), and thus less profit. This is a key reason why companies strive to develop their innovativeness (Cruz-Ros et al., 2017), as it is an important factor in achieving competitive advantage.

Having in mind the way companies operate in Serbia, it seems that there is significant room for creativity and innovation of products and processes (Rajković, 2015). The concept of open innovation (Janković & Golubović, 2019) contributes to improving the innovation of the SME sector as a key driver of growth of their competitiveness in the knowledge economy. When it comes to product innovations, in addition to engineering, they also require market and design knowledge, depending on the sector in which the company operates (Vujičić et al., 2021). Numerous companies in Serbia are primarily production-oriented and aware of the lack of market knowledge, while there is a small number of companies that are aware of the lack of and need for knowledge in the field of industrial design and marketing (Miletić et al., 2019).

The need for this knowledge is determined by the position in the value chain and the business model that companies use. In general, domestic companies tend to improve existing and develop new products and services. Thus, any intervention (Bojović et al., 2010) that reduces production and administration costs, increases productivity or utilization of equipment (capacity) or time, improves the quality of products/services, raises the level of safety of their use, reduces waste, improves placement etc. is treated as creative intervention.

## 1. Research starting point and methodological approach

The research was conducted with the aim of assessing the openness of companies in Serbia for creativity, new ideas and the creation of innovations, which operate for different periods of time and at different levels of functioning. The study was modeled on the so-called model of open innovation, using relevant methods. In addition to the basic explicative method, a bibliographic speculative method was used in the process of establishing the theoretical foundation of the paper, and during the processing and interpretation of the results, the method of multiple comparison and statistical test was used. Research premise: The openness of the company to creativity and unique ideas necessary for the development of competitive abilities and the level of business as a variable significantly affects the function of the permanent survival of the company (its business) in the market.

The research was conducted on a sample of 136 respondent companies, in order to achieve representativeness of the same. An intentional sample was used for the research. The survey was conducted through an online survey and personal communication. The survey was anonymous and referred only to companies operating in Serbia. Choosing companies as a sample, the crucial factor was the success of their business in the national business framework. The questions from the survey were answered by one respondent from the ownership structure of the company or from the top management of a higher level, from

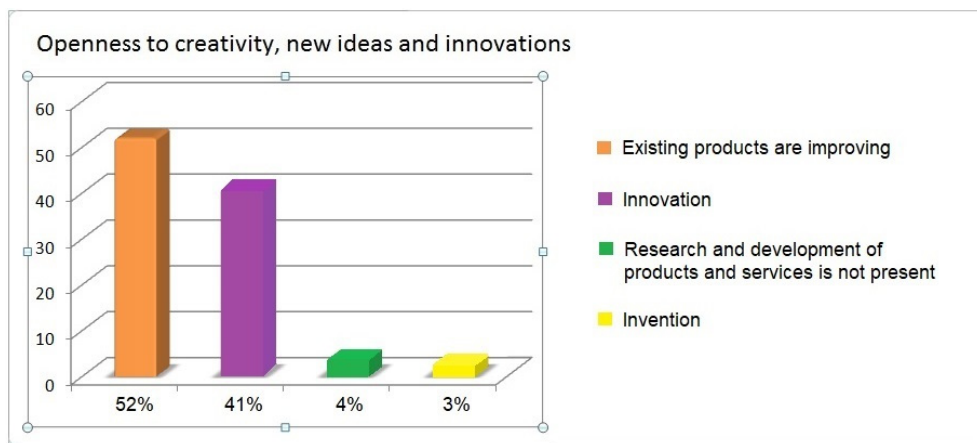
the entire territory of the Serbia. The response rate was 94%. The purpose of the survey was to gather information from company managers regarding what they think about how creative and open their organizations are to specific ideas and innovations, i.e. turning a creative idea into a product/service or process that can be commercialized. The questionnaire consisted of several questions (independent variables): organization size (up to 10 employees – micro organization, from 11 to 50 employees – small organization, from 51 to 250 employees – medium organization, over 251 employees – large organization); the length of business of the organization; the activity of the organization; the business sector of the organization; the level (market) of business organization (local, national, regional, international); etc. The dependent variables in the questionnaire included: the level of openness of the company to creativity, new ideas and innovations either related to invention or related to the perception of market opportunities; employees in the company as sources of creativity and new ideas; and the sources of creativity and new ideas coming from outside the company.

The research was conducted as a cross - sectional study of analytical nature in order to conceptualize the importance of the considered elements. The evaluation of characteristics important for improving the competitiveness of the company, taking into account the answers obtained by the surveyed managers of the company, were processed by ANOVA test and non-parametric  $\chi^2$  test (existence of statistically significant difference for the values of  $\text{Sig} \leq 0.05$ ). In the research part presented in this paper, the primary sources of information and knowledge were mostly used.

## **2. Results and discussion**

The evaluation of endogenous characteristics related to employees in the company as sources of creativity and new ideas, which relate to the company's focus on inventiveness, special ideas and innovations important for improving the competitiveness of companies operating in Serbia, is given in the interaction of variables of different business lengths and business levels.

At the beginning, the degree of research and development in companies in the observed sample was analyzed, and the obtained results show that in 70 companies existing products are being improved, in 56 companies there is innovation, in 4 companies there is invention and in 6 companies there is no product/service research and development. The percentage ratio of research and development activities in companies in the sample is presented in Graph 1.



Graph 1. Measure of research and development in the companies from the sample  
Source: Authors

Respondent companies operating in Serbia were asked to evaluate pre-selected characteristics regarding the improvement of business performance: the level of openness of companies for creativity, new ideas and innovations; employees in the company as sources of creativity and new ideas; and sources of creativity and new ideas coming from outside the company. The starting point is that successful companies need to meet certain conditions and criteria for functioning. Such respondents were expected to evaluate the characteristics within their business with grades from 1 to 5, with 1 being the lowest grade and 5 the highest. The results of the research by individual characteristics are given in Table 1.

Table 1. Evaluation of characteristics of importance for the improvement of the company's business

| The characteristics  | Rates |     |    |      |    |      |    |      |    |      |
|--|-------|-----|----|------|----|------|----|------|----|------|
|  | 1     |     | 2  |      | 3  |      | 4  |      | 5  |      |
|  | Af    | Rf  | Af | Rf   | Af | Rf   | Af | Rf   | Af | Rf   |
| Level of openness companies for creativity, new ideas and innovation       | 2     | 1,5 | 5  | 3,7  | 36 | 26,5 | 45 | 33,1 | 48 | 35,3 |
| Employees in the company as a source of creativity and new ideas           | 3     | 2,2 | 15 | 11,0 | 34 | 25,0 | 39 | 28,7 | 45 | 33,1 |
| Sources of creativity and new ideas coming from the outside of the company | 5     | 3,7 | 31 | 22,8 | 50 | 36,8 | 29 | 21,3 | 21 | 15,4 |

Af - absolute frequencies; Rf - relative frequencies (percentages); S.Vr. - Mean values  
Source: the authors

The business performance rank of the company is shown in Table 2 based on average ratings (mean values - S.Vr) for each characteristic.

Table 2. Rank characteristics

| The characteristics  | Mean | Rates |
|--|------|-------|
| Level of openness companies for creativity, new ideas and innovation       | 3,97 | 5     |
| Employees in the company as a source of creativity and new ideas           | 3,79 | 13    |
| Sources of creativity and new ideas coming from the outside of the company | 3,22 | 22    |

Source: the authors

It can be concluded from the table that the companies included in the sample evaluated (Miletić, 2020, p. 172) the selected characteristics in the following way: the level of openness of companies for creativity, new ideas and innovations with a grade 3.97; employees in the company as sources of creativity and new ideas were also rated 3.97; while the lowest score (3.22) was given to sources of creativity and new ideas coming from outside the company.

Further, a two-factor analysis assessed how the length of business and the level of business (local, national, regional and international) affect the disproportions in the business characteristics of the company (its business in the market), as an imperative to maintain a competitive advantage. The value of 0.05 is taken as the level of significant difference (for all values of  $\text{Sig} \leq 0.05$  there is a statistically significant difference).

The mean values of the assessments of the company's openness to creativity, new ideas and innovations that operate for different periods of time and at different levels specifically for each level and length of business are given in Table 3. The standard deviation (Std. Deviation) represents the deviation of the mean value of the assessment, and N the number of respondents in the sample. It can be seen that the openness of companies for creativity, new ideas and innovations is best assessed among those who operate in the international market, and within this group companies that operate from 11 to 20 years ranked this characteristic the highest.

Table 3. Mean value of assessments of the company's openness to creativity, new ideas and innovations

| Business level  | Length of business of the company | The mean value of the rates | Std. Deviation | N  |
|-----------------|-----------------------------------|-----------------------------|----------------|----|
| Local market    | From 6 to 10 years                | 3.50                        | .577           | 4  |
|                 | From 11 to 20 years               | 5.00                        | .000           | 3  |
|                 | From 21 to 30 years               | 4.75                        | .463           | 8  |
|                 | From 31 to 40 years               | 1.00                        | .000           | 2  |
|                 | Over 40 years                     | 4.06                        | 1.345          | 17 |
| National market | Up to 5 years                     | 4.29                        | .488           | 7  |
|                 | From 11 to 20 years               | 4.00                        | .000           | 2  |
|                 | From 21 to 30 years               | 3.67                        | .866           | 9  |
|                 | From 31 to 40 years               | 3.00                        | .816           | 10 |

|                      |                     |      |       |     |
|----------------------|---------------------|------|-------|-----|
|                      | Over 40 years       | 3.00 | .000  | 2   |
|                      | Up to 5 years       | 3.00 | .000  | 4   |
|                      | From 6 to 10 years  | 3.50 | .826  | 34  |
| Regional market      | From 21 to 30 years | 4.00 | .000  | 2   |
|                      | From 31 to 40 years | 3.75 | .463  | 8   |
|                      | Over 40 years       | 4.50 | .577  | 4   |
|                      | Up to 5 years       | 4.33 | 1.000 | 9   |
|                      | From 6 to 10 years  | 4.13 | .757  | 23  |
| International market | From 11 to 20 years | 4.27 | .704  | 15  |
|                      | From 31 to 40 years | 4.50 | .798  | 12  |
|                      | Over 40 years       | 4.29 | .845  | 21  |
|                      | Up to 5 years       | 3.00 | .000  | 3   |
|                      | From 6 to 10 years  | 3.64 | 1.027 | 11  |
| Total                | From 11 to 20 years | 4.15 | .884  | 62  |
|                      | From 21 to 30 years | 4.29 | .488  | 7   |
|                      | Over 40 years       | 4.09 | .668  | 23  |
|                      | Up to 5 years       | 4.13 | .833  | 32  |
|                      | From 6 to 10 years  | 4.09 | .971  | 43  |
|                      | From 11 to 20 years | 3.00 | .000  | 5   |
|                      | From 21 to 30 years | 3.58 | 1.238 | 26  |
|                      | From 31 to 40 years | 3.97 | .950  | 136 |

Source: the authors

The significance of the interaction between the length of business of the company and the level of business is given in Table 4. In the column Business level / Business length Sig = 0.000, which is less than 0.05, so it can be stated that there are significant disparities in the assessments of the company's openness to creativity, new ideas and innovations. Thus, the impact of the interaction of business levels and business length is statistically significant.

After the analysis of the comprehensive impact, an assessment of individual impacts was made. The Sig column for the business level is 0.008, which is less than 0.05, so it can be concluded that the business level of the company has a significant impact on the assessments of their openness to creativity, new ideas and innovations. In the Sig column for the length of business, the value Sig = 0.000 < 0.05 is seen, so it can be concluded that the length of business also significantly affects the differences in grades. It follows that the level of business and the length of business play a significant role in the disproportion in assessing the openness of the company to creativity, new ideas and innovations.

Table 4. The impact of the interaction of variables Business level and Length of business on the assessment of openness to creativity, new ideas and innovations

| Variables                           | Df | Mean Square | F     | Sig. |
|-------------------------------------|----|-------------|-------|------|
| Business level                      | 3  | 2.296       | 4.120 | .008 |
| Length of business                  | 5  | 4.874       | 8.747 | .000 |
| Business level / Length of business | 10 | 3.010       | 5.402 | .000 |

Source: the authors

It was also evident that individual influences of business level and length of business differ. The subsequent Tukey test established which companies, depending on the level of business, differ in grades. The test results show that the evaluations of individual companies that operate for a different period of time also differ significantly. Table 5 shows that there are significant differences between the ratings of companies operating at the national and regional level and the ratings of companies operating at the national and international level.

Table 5. Comparative analysis of different levels of business operations regarding the assessments of openness to creativity, new ideas and innovations

| (I) The level of business of the company | (J) The level of business of the company | Mean value of the difference (I-J) | Standard Error | Error significance (Sig) | 95% Confidence interval |             |
|--|--|------------------------------------|----------------|--------------------------|-------------------------|-------------|
|  |  |                                    |                |                          | Lower limit             | Upper limit |
| Local market                             | National market                          | .56                                | .222           | .062                     | -.02                    | 1.14        |
|  | Regional market                          | -.07                               | .239           | .991                     | -.69                    | .55         |
|  | International market                     | -.09                               | .204           | .975                     | -.62                    | .45         |
| National market                          | Local market                             | -.56                               | .222           | .062                     | -1.14                   | .02         |
|  | Regional market                          | -.63(*)                            | .202           | .012                     | -1.16                   | -.11        |
|  | International market                     | -.65(*)                            | .159           | .001                     | -1.06                   | -.23        |
| Regional market                          | Local market                             | .07                                | .239           | .991                     | -.55                    | .69         |
|  | National market                          | .63(*)                             | .202           | .012                     | .11                     | 1.16        |
|  | International market                     | -.01                               | .182           | 1.000                    | -.49                    | .46         |
| International market                     | Local market                             | .09                                | .204           | .975                     | -.45                    | .62         |
|  | National market                          | .65(*)                             | .159           | .001                     | .23                     | 1.06        |
|  | Regional market                          | .01                                | .182           | 1.000                    | -.46                    | .49         |

Source: the authors

Table 6 suggests that there is a particular difference in the assessments of companies operating up to 5 years and those operating from 31 to 40 years, companies operating from 6 to 10 years and those operating from 31 to 40 years, companies operating from 11 to 20 years and those operating from 31 to 40 years, and companies operating from 21 to 30 years and those operating from 31 to 40 years.

Table 6. Comparative analysis of different lengths of business operations regarding the assessment of their openness to creativity, new ideas and innovations

| (I) Length of business of the company | (J) Length of business of the company | Mean value of the difference (I-J) | Standard Error | Error significance (Sig) | 95% Confidence interval |             |
|---------------------------------------|---------------------------------------|------------------------------------|----------------|--------------------------|-------------------------|-------------|
|                                       |                                       |                                    |                |                          | Lower limit             | Upper limit |
| Up to 5 years                         | From 6 to 10 years                    | .20                                | .322           | .990                     | -.73                    | 1.13        |
|                                       | From 11 to 20 years                   | .16                                | .311           | .995                     | -.74                    | 1.06        |
|                                       | From 21 to 30 years                   | .19                                | .304           | .988                     | -.69                    | 1.07        |



|                     |                     |          |      |       |       |      |
|---------------------|---------------------|----------|------|-------|-------|------|
|                     | From 31 to 40 years | 1.29(*)  | .437 | .044  | .02   | 2.55 |
|                     | Over 40 years       | .71      | .318 | .232  | -.21  | 1.63 |
| From 6 to 10 years  | Up to 5 years       | -.20     | .322 | .990  | -1.13 | .73  |
|                     | From 11 to 20 years | -.04     | .204 | 1.000 | -.63  | .55  |
|                     | From 21 to 30 years | -.01     | .193 | 1.000 | -.56  | .55  |
|                     | From 31 to 40 years | 1.09(*)  | .368 | .043  | .02   | 2.15 |
|                     | Over 40 years       | .51      | .214 | .169  | -.11  | 1.13 |
| From 11 to 20 years | Up to 5 years       | -.16     | .311 | .995  | -1.06 | .74  |
|                     | From 6 to 10 years  | .04      | .204 | 1.000 | -.55  | .63  |
|                     | From 21 to 30 years | .03      | .174 | 1.000 | -.47  | .54  |
|                     | From 31 to 40 years | 1.13(*)  | .359 | .026  | .08   | 2.17 |
|                     | Over 40 years       | .55      | .197 | .068  | -.02  | 1.12 |
| From 21 to 30 years | Up to 5 years       | -.19     | .304 | .988  | -1.07 | .69  |
|                     | From 6 to 10 years  | .01      | .193 | 1.000 | -.55  | .56  |
|                     | From 11 to 20 years | -.03     | .174 | 1.000 | -.54  | .47  |
|                     | From 31 to 40 years | 1.09(*)  | .353 | .029  | .07   | 2.11 |
|                     | Over 40 years       | .52      | .185 | .067  | -.02  | 1.05 |
| From 31 to 40 years | Up to 5 years       | -1.29(*) | .437 | .044  | -2.55 | -.02 |
|                     | From 6 to 10 years  | -1.09(*) | .368 | .043  | -2.15 | -.02 |
|                     | From 11 to 20 years | -1.13(*) | .359 | .026  | -2.17 | -.08 |
|                     | From 21 to 30 years | -1.09(*) | .353 | .029  | -2.11 | -.07 |
|                     | From 31 to 40 years | -.58     | .365 | .612  | -1.63 | .48  |
| Over 40 years       | Up to 5 years       | -.71     | .318 | .232  | -1.63 | .21  |
|                     | From 6 to 10 years  | -.51     | .214 | .169  | -1.13 | .11  |
|                     | From 11 to 20 years | -.55     | .197 | .068  | -1.12 | .02  |
|                     | From 21 to 30 years | -.52     | .185 | .067  | -1.05 | .02  |
|                     | From 31 to 40 years | .58      | .365 | .612  | -.48  | 1.63 |

Source: the authors

The mean values of the ratings of employees as a source of new ideas are given in Table 7 for each level and length of business. The standard deviation (Std. Deviation) represents the deviation of the mean value of the assessment, and N the number of respondents in the sample. It can be seen that companies that operate at the regional level, and within them those that have been operating from 21 to 30 years, have best rated employees as a source of new ideas.

*Table 7. Mean value of employee ratings in the company as a source of new ideas*

| Business level       | Length of business of the company | Mean  | Std. Deviation | N  |
|----------------------|-----------------------------------|-------|----------------|----|
| Local market         | From 6 to 10 years                | 3.00  | 1.155          | 4  |
|                      | From 11 to 20 years               | 5.00  | .000           | 3  |
|                      | From 21 to 30 years               | 3.75  | .463           | 8  |
|                      | Over 40 years                     | 5.00  | .000           | 2  |
|                      | Total                             | 3.94  | .966           | 17 |
| National market      | Up to 5 years                     | 4.71  | .488           |    |
|                      | From 6 to 10 years                | 4.00  | .000           | 2  |
|                      | From 11 to 20 years               | 2.89  | 1.269          | 9  |
|                      | From 21 to 30 years               | 2.90  | 1.370          | 10 |
|                      | From 31 to 40 years               | 4.00  | .000           | 2  |
|                      | Over 40 years                     | 3.50  | 1.732          | 4  |
|                      | Total                             | 3.47  | 1.331          | 34 |
| Regional market      | From 6 to 10 years                | 3.00  | .000           | 2  |
|                      | From 11 to 20 years               | 3.75  | 1.165          | 8  |
|                      | From 21 to 30 years               | 5.00  | .000           | 4  |
|                      | Over 40 years                     | 4.33  | 1.000          | 9  |
|                      | Total                             | 4.13  | 1.058          | 23 |
| International market | From 6 to 10 years                | 3.87  | 1.125          | 15 |
|                      | From 11 to 20 years               | 3.92  | .900           | 12 |
|                      | From 21 to 30 years               | 4.10  | .889           | 21 |
|                      | From 31 to 40 years               | 3.00  | .000           | 3  |
|                      | Over 40 years                     | 3.27  | .786           | 11 |
|                      | Total                             | 3.81  | .955           | 62 |
| Total                | Up to 5 years                     | 4.71  | .488           | 7  |
|                      | From 6 to 10 years                | 3.65  | 1.071          | 23 |
|                      | From 11 to 20 years               | 3.69  | 1.176          | 32 |
|                      | From 21 to 30 years               | 3.84  | 1.090          | 43 |
|                      | From 31 to 40 years               | 3.40  | .548           | 5  |
|                      | Over 40 years                     | 3.81  | 1.132          | 26 |
| Total                | 3.79                              | 1.089 | 136            |    |

*Source: the authors*

The influence of the relation between the length of business and the level of business of the company on the evaluations of employees as a source of creativity and new ideas is given in Table 8. In the column Business level / Business length, Sig = 0.004, which is less than 0.05, so it can be concluded that there are noticeable disparities in the evaluations of

employees as a source of creativity and new ideas. The impact of the interaction between the level of business and the length of business is statistically significant.

After assessing the overall impact, the individual impacts are assessed. In the Sig column, the value for the business level is  $\text{Sig} = 0.121 > 0.05$ , which means that the business level of the company does not have a significant impact on the ratings of employees as a source of creativity and new ideas. In the Sig column for the length of business, the value of 0.083 is seen, which is also higher than 0.05, so it is concluded that the length of business does not significantly affect the differences in grades.

Table 8. The impact of the interaction of variables Business level and Length of business on the ratings of employees as a source of creativity and new ideas

| Variables                           | Df | Mean Square | F      | Sig. |
|-------------------------------------|----|-------------|--------|------|
| Business level                      | 3  | 4.528       | 4.865  | .003 |
| Length of business                  | 5  | 2.311       | 2.483  | .036 |
| Business level / Length of business | 10 | 9.626       | 10.340 | .000 |

Source: the authors

Based on this, it can be concluded that the level of business and length of business play a significant role in differences in the ratings of employees as a source of creativity and new ideas observed through the joint influence of variables, while individual influence of variables is not significant.

## Conclusion

The results of the research confirmed the assumption that the openness of the company to creativity and new ideas necessary for the development of competitive abilities in relation to the level and length of business as variables significantly affect the permanent survival of the company in the market. The openness to creativity, new ideas and innovations important for the development of the company's competitiveness was evaluated with a score 3.97; employees in the company as sources of creativity and new ideas were rated 3.79; while the sources of creativity and new ideas coming from outside the company were rated 3.22. It can be further concluded from the results of this study that in 52% of the companies in the sample already existing products are improved, in 41% of companies operating at the national and regional level there is innovation, in 4% of companies there is invention, and in 3% of companies operating in the local market from 6 to 10 years research and development of products and services is not present.

The two-factor assessment determined the influence of the length of business and the level of business on the disproportions in the characteristics of the functioning of the company as a precondition for maintaining a competitive advantage. It can be seen that openness to creativity, new ideas and innovations is best rated in companies operating in the international market, and among them in companies operating from 11 to 20 years. The impact of the interaction between the business level and the length of the business is statistically significant, given that  $\text{Sig.} = 0.000 < 0.05$ , which indicates that there are significant differences in the assessments of the company's openness to creativity, new

ideas and innovations. The assessment of individual impacts shows that the level of business of the company is  $\text{Sig.} = 0.008 < 0.05$ , which indicates that the level of business has a significant impact on the evaluation of the company's openness to creativity, new ideas and innovations. The value for the length of business is  $\text{Sig.} = 0.000 < 0.05$ , so it can be concluded that the length of business significantly affects the differences in grades. Thus the level of business and the length of business play an important role in the rating disproportion regarding the openness of the company to creativity, new ideas and innovations.

For the relation between the level of business and the length of business of the company  $\text{Sig.} = 0.004 < 0.05$ , which indicates that there are significant differences in the evaluations of employees as a source of creativity and new ideas. Regarding individual influences,  $\text{Sig.}$  for business level  $\text{Sig.} = 0.121 > 0.05$ , which means that the level of business of the company does not have a significant impact on employee ratings as a source of creativity and new ideas. For the length of business, the value  $\text{Sig.} = 0.083 > 0.05$ , so it is emphasized that the length of business does not significantly affect the differences in grades.

Finally, it can be stated that the variables level of business and length of business observed through their joint influence have a significant impact on the imbalance in the evaluations of employees as a source of creativity and new ideas, while the individual influence of the variables is negligible.

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