

## Organizational form, gender structure of general legal representatives and company profitability: evidence from Serbian companies

### Organizacioni oblik, polna struktura generalnih zakonskih zastupnika i profitabilnost preduzeća: dokazi Srpskih preduzeća

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#### Article info

##### Original scientific paper/ Originalan naučni rad

Received/ Rukopis je primljen:

20 October, 2023

Revised/ Korigovan:

24 November, 2023

Accepted/ Prihvaćen:

25 December, 2023

DOI:

<https://doi.org/10.5937/bizinfo2302047D>

UDC/ UDK:

338.486.4:347.716-055.1/4(497.11)

#### Abstract

*This research paper is part of a wider project in which the influence of various factors on the performance of the company is analyzed. The impact of the gender structure of general legal representatives as well as the form of organization of the company on profitability expressed through the average gross profit margin was studied. The five-year period from 2018 to 2022 was studied, in which data from the profit and loss statements of a total of 192 entities were analyzed. The sample presents six groups classified by the form of organization of companies that can be encountered in business practice. All statistical analyses were carried out in the IBM SPSS 23 program. In the research, the hypotheses about the statistically significant influence of the difference in the gender of general representatives on the profitability of the company were rejected, and the hypothesis about the significant differences in the influence of the form of organization of the company on the profitability expressed by the average gross profit margin, which was accepted. Research into factors that can affect the profitability of the analyzed subjects should enable the making of better management decisions in order to realize better and better performance of the company.*

**Keywords:** company performance, profitability, gross profit margin, organization form

#### Sažetak

Ovaj istraživački rad predstavlja deo šireg projekta u kome se analizira uticaj različitih faktora na performanse preduzeća. Proučavan je uticaj polne strukture generalnih zakonskih zastupnika kao i oblika organizovanja preduzeća na profitabilnost iskazanu kroz prosečnu bruto profitnu maržu. Proučavan je period od pet godina od 2018. do 2022. godine, u kome su analizirani podaci iz bilansa uspeha ukupno 192 subjekta. U uzorku je prezentovano šest grupa klasifikovanih po obliku organizovanja preduzeća koja se u privrednoj praksi mogu sresti. Sve statističke analize sprovedene su u programu IBM SPSS 23. U istraživanju su postavljene hipoteze o statistički značajnom uticaju razlike u polu generalnih zastupnika na profitabilnost preduzeća koja je odbačena i hipoteza o značajnim razlikama o uticaju oblika organizovanja preduzeća na profitabilnost iskazanu prosečnom bruto profitnom maržom koja je prihvaćena. Istraživanja faktora koji mogu da utiču na profitabilnost analiziranih subjekata trebalo bi da omoguće donošenje kvalitetnijih odluka menadžmenta u cilju realizacije boljih i kvalitetnijih performansi preduzeća.

**Ključne reči:** performanse preduzeća, profitabilnost, bruto profitna marža, oblik organizovanja


### 1. Introduction

For many years and decades, the primary goal of every business entity was to make as much profit as possible. Over time, the company's goals have been revised to a certain extent and harmonized with the characteristics and

capacities of the entity in which they are defined. The company should employ organizational skills with a focus on the ability to direct a leadership style that would drive performance (Idris & Moh, 2008). The development of the market leads to the conclusion that improvement represents the continuous development of the company in

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accordance with various forms of innovation. Today, it is more important to focus business on the strategic improvement of business processes and business results of the company, as opposed to the classical goals of creating new products and services (Kodama, 2005).

Gross profit margin is calculated as the ratio between gross profit and sales revenue and is an indicator that is also used as a basis for comparing the company's performance with other entities in its environment. Most often, the gross profit margin is compared to the same one at the branch level, whether it is defined as the best or the average. In any case, on the basis of these comparisons, a clear picture is obtained of where the analyzed subject is in relation to the average or the best company in the branch.

Managers tend to measure the result of their business decisions by the amount of gross profit margin they have achieved. This defines the result of the company's operations, i.e. its profitability, but also the success of the management, because this indicator is often used as a basis for the formation of compensations that are due to them for the achieved result.

Investigating the level and dynamics of the gross profit margin can reveal very important conclusions. First of all, it enables the definition of the company's position in relation to the competition, but also to indicate whether it is necessary to intervene either in terms of increased income or reduction of costs that affect the cost price. The goal of the management of every company is to make the gross profit margin as high as possible in order to open up a better possibility to settle all other costs of business activity from the higher gross profit.

Analyzes and assessments of the company's efficiency and profitability represent a significant basis for making managerial decisions both at the operational and strategic levels. Precisely because of the importance of these indicators, a significant number of scientists were engaged in defining them and establishing methods that would enable their precise measurement and expression. (Antony & Bhattacharyya, 2010; Kaplan & Norton, 2007; Sardana, 2008; Ssebunya, 2019; Vastola, 2017).

On the other hand, the legal form or organizational form of the company is included in the analysis. In accordance with domestic legislation, a distinction should be made between <sup>1</sup>: private companies (limited partnerships and partnerships) and capital companies (joint stock companies and limited liability companies), of course, there are also cooperatives and entrepreneurs. Public companies, holdings and associations were not the subject of interest in this paper.

The business model, that is, the legal model of the company, represents a conceptual link between strategy, business organization and system. Business models are

subject to external pressure and are therefore constantly subject to changes under the influence and needs of the environment (Osterwalder et al., 2005). We are witnessing turbulent changes in society, they are primarily related to electronic communication technologies that greatly affect new types of connection of organizational units, strategic alliances, inter-organizational connection, types of control, etc. It has been observed that changes in electronic communications significantly influence changes in organizational forms that adapt to the new requirements of the environment (Fulk & DeSanctis, 1995).

In the USA, the undisputedly dominant form of organizing a company was the corporation, that is, the joint-stock company. However, over time, the need and desire of potential owners for forms of organization of companies that imply limited liability of owners according to their stakes is getting stronger. Thus, the limited liability company (LLC) in the USA has become a significant alternative form of organizing a company (Keatinge et al., 1991).

At Aspen, 40 social scientists discussed whether social entrepreneurship is needed in the US. One of the ideas was about a low-profit limited liability company, or LLC. (Murray, 2011). It is precisely with the development of the market that the emergence of hybrid companies that are aligned with the needs of the environment occurs. This is how Certified B Corporations were created, which were verified by the B lab non-profit organization. They do not deal with the realization of the basic goal of traditional corporations embodied in the creation of value for shareholders, but their basic goal of functioning is the creation of value for stakeholders. These are primarily the employees, the local community and the environment. So their philosophy of value creation is completely different compared to a traditional shareholder-focused corporation (Kim et al., 2016). Accordingly, new forms of business entities such as low-profit limited liability companies (LLC), flexible purpose corporations and benefit corporations (Benefit Corps) are emerging (Johnson, 2012; Munch, 2012). We will mention that from the scientific environment, with the knowledge of university professors, business and students trained and competent for entrepreneurship, new modalities, spin-off companies are emerging (Smilor et al., 1990).

We realize that over time and under the influence of innovations on the market, in accordance with the requirements of the environment, new forms of organizing companies and their modalities are created. We can expect this process to continue in the future. In this paper, we will analyze the impact of the 6 forms of organization of companies that are most common in Serbia (limited liability company, joint-stock company, partnership, entrepreneurs and cooperatives) on profitability expressed by the average gross profit margin.

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<sup>1</sup> Law on Business Companies ("Official Gazette of the RS", no . 36/2011, 99/2011, 083/2014 - Dr. Law, 5/2015, 44/2018, 95/2018, 91/2019 and 109/2021)

## 2. Research methodology

The descriptive-empirical method was applied in this research.

The main research questions studied in this paper are:

- Do differences in the gender of the general legal representative affect the profitability expressed through the average gross profit margin?
- Do differences in the way companies are organized affect profitability expressed through the average gross profit margin?

Hypotheses are given that are accepted or rejected during the research based on the obtained results. For this purpose, basic and auxiliary - alternative hypotheses were defined:

- H1.0: There is no significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the gender structure of the general legal representative.
- H1.1: There is a significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the gender structure of the general legal representative.
- H2.0: There is no significant difference between the mean values of profitability results expressed through the average gross profit margin measured in a five-year period in companies that are differentiated based on the form of organization.
- H2.1: There is a significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the form of organization.

For the purposes of this work, the financial reports and other relevant data of 200 companies were analyzed. After the first analysis, it was established that some crucial data were missing for some companies, so by eliminating such cases from the sample, 192 valid subjects were recorded. Data from the balance sheet, income statement and cash flows were analyzed for all subjects from the sample. Most of the information and factors were collected in a database that was created on the basis of publicly available data, primarily from the Agency for Business Registers, but also from other sources that are considered credible. The financial reports covered a period of five years, from 2018. to 2022. For the purposes of this paper, the profitability of the company was studied, as well as the influence of certain factors on its movement. The study was conducted on the basis of the gross profit margin coefficient, which is the main dependent variable in this research, and the influence of independent variables, the gender structure of general legal representatives and the form of organization of the company was studied. Processing of the collected data was carried out in IBM SPSS 23 (Statistical Program for Social Sciences).

## 3. Analysis of research results

Table 1. shows the demographic structure of the sample. In the initial part of the analysis, information related to the sample itself will be presented. The sample includes a total of 192 companies representing 141 male general legal representatives, or 73.4% of the sample, and 51 female representatives, or 26.6% of the total sample.

**Table 1.** Demographic structure

|  | N=192     |         |
|--|-----------|---------|
|  | Frequency | Percent |
| Gender   |           |         |
| Male   | 141       | 73.4    |
| Female   | 51        | 26.6    |
| The age of gen. legal representative - grouped |           |         |
| <= 34  | 7         | 3.6     |
| 35 - 44  | 39        | 20.3    |
| 45 - 54  | 69        | 35.9    |
| 55 - 64  | 62        | 32.3    |
| 65 - 74  | 9         | 4.7     |
| 75+  | 6         | 3.1     |
| Legal form - form of organization              |           |         |
| Entrepreneur                                   | 40        | 20.8    |
| LLC  | 80        | 41.7    |
| Joint stock company                            | 23        | 12.0    |
| Cooperatives                                   | 16        | 8.3     |
| Limited partnership                            | 17        | 8.9     |
| Partnership                                    | 16        | 8.3     |
| Classification of companies by size            |           |         |
| Micro  | 79        | 41.4    |
| A little                                       | 88        | 45.8    |
| Medium   | 20        | 10.4    |
| Big  | 5         | 2.6     |

Source: Author's calculation based on IBM SPSS 23

The sample includes legal representatives whose age ranges from 25 to 84 years. Legal representatives are classified by age into 6 groups, namely: <= 34 years, 7 representatives, or 3.6% of the sample, in the second group are representatives aged 35-44, a total of 39 representatives, or 20.3%, in the third group are representatives aged 45-54, of which 69 or 35.9%, in the fourth group there are representatives aged 55-64, of whom there are 62 or 32.3% of the total sample, in the fifth group there are representatives aged 65-74, who there are 9 or 4.7% of the total sample and in the sixth group are representatives aged 75 and over, of which there are 6 or 3.1% of the total sample.

In the following, the characteristic of the organizational or legal form of the company is selected from the sample. In the sample there are 40 entrepreneurs or 20.8%, limited liability companies 80 or 41.7%, joint stock companies 23 or 12.0%, cooperatives 16 or 8.3%, limited partnerships 17 or 8.9% and partnerships 16 which makes 8.3% of the total sample.

The companies from the sample are classified by size, so that in the sample there are 79 micro-companies, or 41.1%, small companies, 88, or 45.8%, medium-sized companies, 20, or 10.4%, while there are 5 large companies, which makes 2, 6% of the total sample.

**Normality Test - Explore**

At the beginning of the research, it is desirable to conduct tests on the normality of the distribution using the Explore

method in SPSS. The data in Table 2. Case Processing Summary shows that a sample of 192 companies was analyzed and that it refers to the average gross profit margin from 2018 to 2022.

**Table 2.** Case Processing Summary

|   | Valid |         | Cases Missing |         | Total |         |
|---|-------|---------|---------------|---------|-------|---------|
|   | N     | Percent | N             | Percent | N     | Percent |
| Average gross profit margin from 2018 to 2022 | 192   | 100.0%  | 0             | 0.0%    | 192   | 100.0%  |

Source: Author's calculation based on IBM SPSS 23

Arithmetic mean is 0.553491, using Trimmed mean which discards 5% of the upper and lower data, a new mean value of 0.560849 is obtained. The median is 0.649195, while the variance is 0.105, the standard deviation is 0.3242746, the minimum is 0.0000 and the maximum result is 1.0546. Skewness is -0.501 which means that it is a negative asymmetry, with Kurtosis it is a similar situation -1.192 which indicates an exterior that is more elongated while the negative sign indicates that their higher values are pulled more to the right. In order to calculate the normality of the distribution, it is necessary to express the standardized Skewness and the standardized Kurtosis. The standardized Skewness is 2.862857 while the standardized Kurtosis is 3.41547278. The obtained data are higher than the reference value of 1.96, which points to the fact that the null hypothesis cannot be accepted, which would state normal distribution.

In the continuation of the work, the Test of Normality was performed, namely: the Kolmogorov - Smirnov test, while the other is the Shapiro - Wilk test. The criterion for accepting the normality of the distribution implies that the result of these two tests is greater than  $\alpha = 0.05$ . The result of both tests is sig 0.000, therefore  $P < 0.05$ , on the basis of which the normality of the distribution cannot be established, and the null hypothesis is rejected as such. This distribution in the sample in the social sciences is considered common. In order to obtain good results in these conditions, the sample should be larger than 30 subjects (Pallant 2017). With large samples, even minor

deviations can be statistically significant (Soldić-Aleksić, 2018). It is accepted as a general assumption that large samples with groups of more than fifteen cases give acceptably good  $p$ - value results even when the normal distribution is violated (Wilcox, 2010). In the continuation of the work, the development of adequate parametric techniques will be started.

**T-Test**

T Test was conducted for two groups of companies. In the first group of 141 subjects, the general legal representatives are male, while in the second group there are 51 subjects in which the general legal representatives are female.

The following hypotheses were put forward:

H1.0: There is no significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the gender structure of the general legal representative.

H1.1: There is a significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the gender structure of the general legal representative.

**Table 3.** Group Statistics

|  | The gender of the general legal representative |      |                | Std. Error |          |
|--|--|------|----------------|------------|----------|
|  | N  | Mean | Std. Deviation | Mean       |          |
| Average gross profit margin from 2018 to 2022. | Male   | 141  | .546019        | .3321037   | .0279682 |
|  | Female   | 51   | .574148        | .3037687   | .0425361 |

Source: Author's calculation based on IBM SPSS 23

Table 3. Group statistics shows data indicating that the average gross profit margin influenced by male legal representatives is  $N=141$ ,  $M=0.546019$ ,  $SD=0.3321037$  std. error 0.0279682 for legal representatives female  $N=51$   $M=0.574148$   $SD=0.3037687$  std. error 0.425361.

We analyze the result of the Leveness test, it shows  $F=1.532$  and  $sig.=0.217$ , Sig. is greater than 0.05, which indicates equality of variances.

**Table 4.** Independent Samples Test

|  |                             | t-test for Equality of Means |        |                 |                 |                       |                         |          |
|--|-----------------------------|------------------------------|--------|-----------------|-----------------|-----------------------|-------------------------|----------|
|  |                             | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval |          |
|  |                             |                              |        |                 |                 |                       | Lower                   | Upper    |
| Average gross profit margin from 2018 to 2022. | Equal variances assumed     | -.530                        | 190    | .597            | -.0281296       | .0530870              | -.1328452               | .0765860 |
|  | Equal variances not assumed | -.553                        | 96.159 | .582            | -.0281296       | .0509072              | -.1291774               | .0729182 |

Source: Author's calculation based on IBM SPSS 23

In Table 4. Independent Samples Test, the result of the t-test of independent samples is shown, which should show us whether there are significant differences in the realized average gross profit margin for the period from 2018 to 2022 in companies run by male and female general representatives. half. The data in the table, for equal variances,  $P=0.597$  on both sides, indicates that there are no significant differences because  $p>0.05$ .

It is also necessary to analyze the size of the influence of this independent variable - the gender of the general legal representative on the dependent variable, that is, the average gross profit margin in the period from 2018 to 2022.

$$Eta\ kvadrat\ (Cohen,\ 1988) = \frac{t^2}{t^2 + (N_1 + N_2 - 2)} = 0,001476 \quad (1)$$

The guidelines for the interpretation of the obtained results by (Cohen, 1988) are: 0.01 = low impact, 0.06 = moderate impact and 0.14 = high impact. Within the framework of the t-test, the size of the influence of the gender difference of the general legal representative of the company on the profitability expressed by the average gross profit margin is calculated. The level of this impact is 0.001476 or 0.14% and falls into the category of "small impact".

Conclusion: T-test of independent samples compared the results of the company through the coefficient of the average gross profit margin in the period 2018 to 2022 under the influence of male and female general legal representatives. There was no significant difference in men ( $M=0.546019$ ,  $SD=0.3321037$ ), i.e. women ( $M=0.5574148$ ,  $SD=0.3037687$ ;  $t(190)=-0.530$ ,  $p=0.597$  (two-sided), the difference between the means (mean difference = features by groups  $-0.0281296$ , 95% CI: from  $-0.1328452$  to  $0.0765860$ ) was very small, (Eta square is 0.001476).

Based on the obtained results, the hypothesis H1.0 is accepted: There is no significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the gender structure of the company's general legal representative.

#### *One-way analysis of variance of different groups with post-tests - Oneway*

Table 5. Descriptives show what is studied by one-factor ANOVA of different groups with post-tests. Within this part of the research, we study whether the results of measuring the profitability of the company through the average gross profit margin differ among entrepreneurs, LLCs, joint-stock companies, cooperatives, limited partnerships and partnerships.

Based on the research question, the basic H.2.0 and auxiliary hypothesis H.2.1 were formed.

H2.0.: There is no significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the form of organization.

H2.1.: There is a significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the form of organization.

In a sample of 192 entrepreneurs, there are 40 entrepreneurs, 80 LLCs, 23 joint-stock companies, 16 cooperatives, 17 limited partnerships, and 16 partnerships. and the maxima of the measurement results.

**Table 5. Descriptives**

Average gross profit margin from 2018 to 2022.

|                     | N   | Mean    | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min   | Max    |
|---------------------|-----|---------|----------------|------------|----------------------------------|-------------|-------|--------|
|                     |     |         |                |            | Lower Bound                      | Upper Bound |       |        |
| Entrepreneur        | 40  | .633963 | .3071208       | .0485601   | .535740                          | .732185     | .0000 | .9650  |
| LLC                 | 80  | .586665 | .3070511       | .0343294   | .518334                          | .654995     | .0000 | .9500  |
| Joint stock company | 23  | .415652 | .3172001       | .0661408   | .278485                          | .552820     | .0000 | .8780  |
| Cooperative         | 16  | .802561 | .2328272       | .0582068   | .678497                          | .926626     | .2181 | 1.0546 |
| Limited partnership | 17  | .440837 | .2593625       | .0629046   | .307485                          | .574189     | .0336 | .8712  |
| Partnership         | 16  | .255209 | .3097035       | .0774259   | .090180                          | .420239     | .0034 | .7104  |
| Total               | 192 | .553491 | .3242746       | .0234025   | .507330                          | .599651     | .0000 | 1.0546 |

Source: Author's calculation based on IBM SPSS 23

A test of Homogeneity of Variance was conducted, in which the result, Levene's Statistica, was 2.116, while sig was 0.065. Therefore, the homogeneity of the variance is not disturbed, which is also confirmed by the value of  $p>0.05$ .

Table 6 of the ANOVA shows sums of squares, their deviations from the mean value, degrees of freedom between different groups and the same groups. The most important data is sig=0.000, which states a statistically significant difference between the mean values of the dependent variable in six groups formed by the form of

organization of the company  $P<0.05$ . Given that a statistically significant difference has been established, it is possible to proceed with subsequent tests.

Eta square expresses the influence of the independent categorical variable on the dependent variable, in our case it expresses the influence of the legal form of the company or the organizational form of the company on the average gross profit margin or profitability. We have proved that the influence exists and that this influence is at the significance level of 0.1701 as per the scale (Cohen, 1988) represents a very high impact.

**Table 6.** ANOVA

Average gross profit margin from 2018 to 2022

|                | Sum of Squares | df  | Mean Square | F     | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 3.416          | 5   | .683        | 7.624 | .000 |
| Within Groups  | 16.668         | 186 | .090        |       |      |
| Total          | 20.084         | 191 |             |       |      |

Source: Author's calculation based on IBM SPSS 23

Eta square expresses the influence of the independent categorical variable on the dependent variable, in our case it expresses the influence of the legal form of the company or the organizational form of the company on the average gross profit margin or profitability. We have proved that the influence exists and that this influence is at the significance level of 0.1701 as per the scale (Cohen, 1988) represents a very high impact.

### Post Hoc Tests

After verifying that there is a significant difference between the mean values of the dependent variable in the six groups formed by the form of organization of the company  $P < 0.05$ , it is necessary to analyze and determine where exactly those differences are located, that is, between which groups.

Table 7. Multiple Comparisons shows precisely between which groups there are statistically significant differences. Thus, the mean values of the results in the form of the average value of the gross profit margin from 2018 to 2022 are statistically significantly different between the first group (entrepreneurs) and the sixth group (partnership), then between the second group (LLC) and the sixth group (partnership), then the third group (joint-stock company) and the fourth group (cooperative). The mean values of the results for the fourth group (cooperatives) differ from the third group (joint-stock companies), the fifth group (limited partnership) and the sixth group (partnership). The fifth group (limited partnerships) differs from the fourth (cooperatives). Finally, the sixth group (partnerships) differ from the first group (entrepreneurs), the second group (DOO) and the fourth group (cooperative). The magnitudes of the differences are presented in table no. 10 and in all mentioned cases  $P < 0.05$ .

**Table 7.** Multiple Comparisons – Tukey HSD test

| (I) Form of organization - legal form | (J) Form of organization - legal form | Mean Difference (IJ) | Std. Error | Sig.  | 95% Confidence Interval |             |
|---------------------------------------|---------------------------------------|----------------------|------------|-------|-------------------------|-------------|
|                                       |                                       |                      |            |       | Lower Bound             | Upper Bound |
| 1. Entrepreneur                       | 2. LLC                                | .0472979             | .0579705   | .964  | -.119638                | .214233     |
|                                       | 3. Joint stock company                | .2183103             | .0783372   | .064  | -.007274                | .443895     |
|                                       | 4. Cooperative                        | -.1685989            | .0885514   | .403  | -.423597                | .086399     |
|                                       | 5. Limited partnership                | .1931258             | .0866711   | .230  | -.056458                | .442710     |
|                                       | 6. Partnership                        | .3787533 *           | .0885514   | .000  | .123755                 | .633752     |
| 2. LLC                                | 1. Entrepreneur                       | -.0472979            | .0579705   | .964  | -.214233                | .119638     |
|                                       | 3. Joint stock company                | .1710124             | .0708274   | .157  | -.032947                | .374971     |
|                                       | 4. Cooperative                        | -.2158968            | .0819827   | .094  | -.451979                | .020186     |
|                                       | 5. Limited partnership                | .1458279             | .0799481   | .453  | -.084396                | .376051     |
| 3. Joint stock company                | 6. Partnership                        | .3314554 *           | .0819827   | .001  | .095373                 | .567538     |
|                                       | 1. Entrepreneur                       | -.2183103            | .0783372   | .064  | -.443895                | .007274     |
|                                       | 2. DOO                                | -.1710124            | .0708274   | .157  | -.374971                | .032947     |
| 4. Cooperative                        | 4. Cooperative                        | -.3869092 *          | .0974541   | .001  | -.667544                | -.106274    |
|                                       | 5. Limited partnership                | -.0251845            | .0957488   | 1.000 | -.300909                | .250540     |
|                                       | 6. Partnership                        | .1604430             | .0974541   | .569  | -.120192                | .441078     |
|                                       | 1. Entrepreneur                       | .1685989             | .0885514   | .403  | -.086399                | .423597     |
| 5. Limited partnership                | 2. LLC                                | .2158968             | .0819827   | .094  | -.020186                | .451979     |
|                                       | 3. Joint stock company                | .3869092 *           | .0974541   | .001  | .106274                 | .667544     |
|                                       | 5. Limited partnership                | .3617247 *           | .1042711   | .008  | .061459                 | .661990     |
|                                       | 6. Partnership                        | .5473522 *           | .1058392   | .000  | .242571                 | .852133     |
| 6. Partnership                        | 1. Entrepreneur                       | -.1931258            | .0866711   | .230  | -.442710                | .056458     |
|                                       | 2. LLC                                | -.1458279            | .0799481   | .453  | -.376051                | .084396     |
|                                       | 3. Joint stock company                | .0251845             | .0957488   | 1.000 | -.250540                | .300909     |
| 6. Partnership                        | 4. Cooperative                        | -.3617247 *          | .1042711   | .008  | -.661990                | -.061459    |
|                                       | 6. Partnership                        | .1856274             | .1042711   | .481  | -.114638                | .485893     |
|                                       | 1. Entrepreneur                       | -.3787533 *          | .0885514   | .000  | -.633752                | -.123755    |
|                                       | 2. DOO                                | -.3314554 *          | .0819827   | .001  | -.567538                | -.095373    |
|                                       | 3. Joint stock company                | -.1604430            | .0974541   | .569  | -.441078                | .120192     |
| 6. Partnership                        | 4. Cooperative                        | -.5473522 *          | .1058392   | .000  | -.852133                | -.242571    |
|                                       | 5. Limited partnership                | -.1856274            | .1042711   | .481  | -.485893                | .114638     |

Dependent Variable: Average gross profit margin from 2018 to 2022.

\* The mean difference is significant at the 0.05 level.

Source: Author's calculation based on IBM SPSS 23

Conclusion of one-factor ANOVA of different groups with subsequent tests on the influence of the form of organization of the company on profitability expressed by the average gross profit margin. Business entities are

divided into 6 groups: 1: entrepreneurs, 2: limited liability companies, 3: joint stock companies, 4: cooperatives, 5: limited partnerships and 6: partnership companies. A statistically significant difference was found at the  $p < 0.05$

level, in the results of 6 groups  $F(5,186)=7,624$ ,  $p=0,000$ . Eta squared = 0.1701. Post hoc comparisons using Tukey's HSD test show that the mean of group 1 ( $M=0.633963$ ,  $SD=0.3071208$ ) is significantly different from group 6 ( $M=0.255209$ ;  $SD=0.3097035$ ), group 2 ( $M=0.586665$ ;  $SD=0.3070511$ ) to be significantly different from group 6 ( $M=0.255209$ ;  $SD=0.3097035$ ), group 3 ( $M=0.415652$ ;  $SD=0.3172001$ ) to be significantly different from group 4 ( $M=0.802561$ ;  $SD=0.2328272$ ), group 4 ( $M=0.802561$ ;  $SD=0.2328272$ ), to be significantly different from group 3 ( $M=0.415652$ ,  $SD=0.3172001$ ), 5 ( $M=0.440837$ ;  $SD=0.2593625$ ), 6 ( $M=0.255209$ ;  $SD=0.3097035$ ), group 5 ( $M=0.440837$ ;  $SD=0.2593625$ ) to be significantly differs from group 4 ( $M=0.802561$ ;  $SD=0.2328272$ ), group 6 ( $M=0.255209$ ;  $SD=0.3097035$ ) to be significantly different from group 1 ( $M=0.633963$ ;  $SD=0.3071208$ ), 2 ( $M=0.586665$ ;  $SD=0.3070511$ ), 4 ( $M=0.802561$ ;  $SD=0.2328272$ ).

Based on the obtained results, the null hypothesis H.2.0 is rejected and the auxiliary hypothesis H.2.1 is accepted. There is a significant difference between the mean values of profitability results expressed through the average gross profit margin measured over a five-year period in companies that are differentiated based on the form of organization.

#### 4. Discussion

The influence of the chosen form of organization of the company and the achieved profitability is a question that has attracted the attention of a certain number of researchers. Kosov et al. (2013) also studied the relationship between organizational form and company performance. Their studies were based on the segment of the hotel industry, in which the main subject of interest was the influence of the organizational form on prices and performance. Their conclusion was that the economic differences in different forms of organization are very small and that consistent results are obtained in all forms of organization of the company (Kosová et al., 2013).

Grifell-Tatjé (2011) conducted a study that related to Spanish commercial banks, savings banks and financial cooperatives. The examination was related to variations in financial and economic performance in organizational forms in a certain period of time. The analyzes were multilateral and related to variations in business profit as well as its further distribution. Research has included margin effects and business productivity. The conclusion reached indicated that deregulation and liberalization influenced the reduction of the performance gap between different organizational forms. What is important for this research is that the results do not differ depending on the form of organization (Grifell-Tatjé, 2011).

The relationship between organizational form and corporate performance was studied by Ezzamel & Watson (1993). The study primarily included the impact of uncertainty and age of the organizational form on the modeling of the relationship between the organizational form and corporate performance. The research also

extends to the analysis of the impact of ownership and control structures on performance. They propose measures of classical agency theory and the separation of management and control. They concluded that these measures have a direct impact on the company's performance, while the main impact is indirect through interactions with organizational form variables (Ezzamel et al., 1993).

Studying the impact of costs on the profitability of life insurance entities, Greene comes to the conclusion that cost inefficiency varies depending on the organizational form. The results suggest that cost inefficiency in the life insurance industry is significant relative to earnings, and that this inefficiency is negatively related to profitability. (Greene, 2004). Similar research was conducted by Guenther, who proves that the chosen form of organization of the company significantly affects profitability. This conclusion was derived from the established fact that costs are significantly higher with corporate forms of organization than with partnerships (Guenther, 1992).

The work published by Aulová et al. (2019) deals with the study of the level of net profit margin, rate of return on capital (ROE) and return on assets (ROA) in relation to the form of organization- legal form and size of Czech companies engaged in agricultural activity. Profitability indicators were calculated on the basis of data on a sample of 3,000 companies in the period from 2011 to 2015. The analyzed companies were divided by legal form into: joint stock companies, cooperatives and limited liability companies, while they were divided by size into small, medium and large companies. Based on the conducted Du point analysis, the authors concluded that the form of organization - legal form and the classified size of the company significantly influence the differences in the realized profitability expressed through the net profit margin, the rate of return on total assets (ROA) and the rate of return on capital (ROE) (Aulová et al., 2019).

Profitability can be influenced by many factors, including: the gender of the general legal representatives, the influence of the classification of the company by size, the influence of the size of the place where the company is located, the age of the general legal representatives, the form of organization of the company, the age of the company, etc. For the purposes of this paper, the influence of two variables, the gender of general legal representatives and the form of organization of the company, on the average gross profit margin in a time interval of five years was studied.

By researching the sample, which includes a total of 192 companies, the T-Test in table no. 6 which shows that  $P=0.597$  (two-sided), therefore there are no significant differences in the achieved gross profit margin for the period from 2018 to 2022 in companies managed by male and female general representatives, because ( $p>0.05$ ). An eta squared of 0.001476 indicates a very small almost insignificant effect.

To analyze the influence of the form of organization of the company on the average gross profit margin in the analyzed period, the method of one-factor analysis of variance of different groups with subsequent tests was used. A variance homogeneity test was performed, Levene's statistic is 2.116 while sig=0.65, which indicates that the variance homogeneity is not violated because  $p > 0.05$ . Based on the sig 0.000 data from the ANOVA table, it can be concluded that there are statistically significant differences regarding the influence of the analyzed groups on the average gross profit margin. Eta square at the level of 0.1701, which represents a very high influence of the independent variable (form of organization of the company) on the dependent variable (average gross profit margin).

The obtained result enables the use of subsequent tests in order to establish exactly where the statistically significant differences are located, that is, between which groups they exist. Thus the first group differs from the sixth, the second group from the sixth group, the third group from the fourth, the fourth from the third, fifth and sixth groups, then the fifth group from the fourth and finally the sixth group differs from the first, second and fourth groups. Among the other groups, no statistically significant difference was established regarding the impact of the chosen form of organization of the company on the average gross profit margin (Table 10. Multiple Comparisons).

Profitability expressed by the average gross profit margin in the period from 2018 to 2022 in the companies from the sample was the highest 80.26% in cooperatives, followed by entrepreneurs 63.4%, limited liability companies that achieve 58.67%, limited partnerships companies 44.08%, joint stock companies 41.57% and finally partnerships only 25.52%.

Research that studies the factors influencing the results of the company's operations expressed through profitability as well as other relevant indicators can significantly influence the making of optimal managerial decisions that will contribute to the achievement of better performance and thus to the achievement of the set goals of the company as a complete organizational system.

## 5. Conclusion

The existence, work and sustainable development of a company represent processes that are very dynamic and continuous. In the realization of its goals, the company becomes aware of the action of various factors that affect its operations. It is the management's task to establish and analyze all factors that can significantly influence the company's operations by their intensity and mode of action. In this paper, using the IBM SPSS 23 program, influencing factors were analyzed: the gender of general legal representatives and the form of organization of the company. Their impact was analyzed in relation to the achieved average gross profit margin, which represents one of the basic indicators of profitability. It was established that the gender of the general representatives has no significant influence on the profitability expressed

by the average gross profit margin. Secondly, it was established that the differences in the form of organization of companies in the sample of 192 subjects in the six shown groups significantly affect the profitability expressed by the average gross profit margin.

Given that this paper analyzed the influence of the variables of the gender structure of general representatives as well as the form of organization of the company on the average gross profit margin, future research can analyze the connection and influence of the classification of the company by size, activity, number of employees, age of the company, etc. on profitability which would be presented through net profit margin, ROA, ROE, ROS as well as liquidity indicators, general liquidity ratio and rigorous liquidity ratio.

## References

- Antony, J.P., & Bhattacharyya, S. (2010). Measuring organizational performance and organizational excellence of SMEs – Part 1: A conceptual framework. *Measuring Business Excellence*, 14(2), 3-11. <https://doi.org/10.1108/13683041011074209>
- Aulová, R., Pánková, L., & Rumánková, L. (2019). Analysis of selected profitability ratios in the agricultural sector., 11(665-2019-4010),. *AGRIS on-line Papers in Economics and Informatics*, 11(665-2019-4010), 3-12. <http://dx.doi.org/10.22004/ag.econ.294160>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd edn.)*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Ezzamel, M., & Watson, R. (1993). Organizational form, ownership structure and corporate performance: A contextual empirical analysis of UK companies 1. *British Journal of Management*, 4(3), 161-176. <https://doi.org/10.1111/j.1467-8551.1993.tb00056.x>
- Fulk, J., & DeSanctis, G. (1995). Electronic communication and changing organizational forms. *Organization science*, 6(4), 337-349. <https://doi.org/10.1287/orsc.6.4.337>
- Greene, W.H. (2004). Profitability and efficiency in the US life insurance industry. *Journal of Productivity Analysis*, 21, 229-247. <https://doi.org/10.1023/B:PROD.0000022092.70204.fa>
- Grifell-Tatje, E. (2011). Profit, productivity and distribution: Differences across organizational forms—The case of Spanish banks. *Socio-Economic Planning Sciences*, 45(2), 72-83. <https://doi.org/10.1016/j.seps.2010.12.001>
- Guenther, D.A. (1992). Taxes and organizational form: A comparison of corporations and master limited partnerships. *Accounting Review*, 45, 17-45.
- Idris, F., & Mohd Ali, K.A. (2008). The impacts of leadership style and best practices on company performances: Empirical evidence from business firms in Malaysia. *Total Quality Management*, 1-2, 165-173. <https://doi.org/10.1080/14783360701602130>
- Johnson, L. (2012). Pluralism in Corporate Form: Corporate Law and Benefit Corps. *Regent UL Review*, 269.
- Kaplan, R.S., & Norton, D.P. (2007). Using the balanced scorecard as a strategic management system. *Harvard Business Review*. Retrieved from <https://hbr.org/2007/07/using-the-balanced->
- Keatinge, R.R., Ribstein, L.E., Hamill, S.P., & Gravelle, M.L. (1991). The limited liability company: a study of the emerging entity. *Bus. Law*, 47, 375.
- Kim, S., Karlesky, M.J., Myers, C.G., & Schifeling, T. (2016). Why companies are becoming B corporations. *Harvard Business Review*, 1-5.



- Kodama, M. (2005). Knowledge creation through networked strategic communities: case studies on new product development in Japanese companies. *Long Range Planning*, 1, 27-49. <https://doi.org/10.1016/j.lrp.2004.11.011>
- Kosová, R., Lafontaine, F., & Perrigot, R. (2013). Organizational form and performance: Evidence from the hotel industry. *Review of Economics and Statistics*, 95(4), 1303-1323. [https://doi.org/10.1162/REST\\_a\\_00330](https://doi.org/10.1162/REST_a_00330)
- Munch, S. (2012). Improving the benefit corporation: How traditional governance mechanisms can enhance the innovative new business form. *Nw. JL & Soc. Pol'y*, 170.
- Murray, J. (2011). Purpose with profit: Governance, enforcement, capital-raising and capital-locking in low-profit limited liability companies. *U. Miami L. Review*, 6, 1.
- Osterwalder, A., Pigneur, Y., & Tucci, CL. (2005). Clarifying business models: Origins, present, and future of the concept. *Communications of the association for Information Systems*, 1. <https://doi.org/10.17705/1CAIS.01601>
- Sardana, GD (2008). Measuring business performance: A conceptual framework with focus on improvement. *Performance Improvement*, 47(7), 31-40. <https://doi.org/10.1002/pfi.20014>
- Smilor, R.W., Gibson, D.V., & Dietrich, G.B. (1990). University spin-out companies: technology start-ups from UT-Austin. *Journal of business venturing*, 1, 63-76. [https://doi.org/10.1016/0883-9026\(90\)90027-Q](https://doi.org/10.1016/0883-9026(90)90027-Q)
- Soldić-Aleksić, J. (2018). *Application of data analysis*. Belgrade: Faculty of Economics, Belgrade.
- Ssebunya, B.R. (2019). Sustainability Performance of Certified and Non-certified Smallholder Coffee Farms in Uganda. *Ecological Economics*, 154, 35-47. <https://doi.org/10.1016/j.ecolecon.2018.09.004>
- Tabachnick, B.G., & Fidell, L.S. (2013). *Using multivariate statistics*. Boston: Pearson Education.
- Vastola, A., Zdruli, P., D'Amico, M., Pappalardo, G., Viccaro, M., Di Napoli, F., ... & Romano, S. (2017). A comparative multidimensional evaluation of conservation agriculture systems: A case study from a Mediterranean area of Southern Italy. *Land Use Policy*, 68, 326-333. <https://doi.org/10.1016/j.landusepol.2017.07.034>
- Wilcox, R. R. (2010). *Fundamentals of modern statistical methods: Substantially improving power and accuracy* (Vol. 249). New York: Springer. <https://doi.org/10.1007/978-1-4757-3522-2>

