ECONOMIC THEMES (2024) 62(4): 561-585

DOI 10.2478/ethemes-2024-0030

STRUCTURAL DIVERSITY IN BOARDS OF DIRECTORS AND FIRM PERFORMANCE: ANALYSIS OF BOARDS IN THE REPUBLIC OF SERBIA

Petar Dogandžić

PhD student, Faculty of Economics, University of Belgrade, Republic of Serbia

✉ *dogandzic.petar@gmail.com*

Anja Dogandžić

PhD student, Faculty of Economics, University of Priština, Republic of Serbia

✉ *anja.dogandzic9@gmail.com*

UDC 658.310.8: 330.131.7 (497.11)

Original scientific paper

Abstract: The contribution of board diversification to corporate financial performance has piqued the interest of numerous researchers and regulators in recent decades. In this context, this paper aims to establish whether there is a connection between the board of directors attributes and the financial performance of the company. Using the Independent Samples T-test, we tested the relationship between board attributes, such as the representation of women, average age and size of the board, on the one hand, and financial performance expressed through ROA and ROS, on the other hand, on a sample of 97 joint-stock companies operating in the Republic of Serbia. The results we reached are, first, companies with a larger board do not have better financial performance compared to companies with a smaller board. Second, companies with an older board achieve better financial performance compared to companies with a younger board. And third, companies with one or more women on the board do not perform better financially than companies without women on the board.

Received: 16.05.2024
Accepted: 16.10.2024

Keywords: Corporate governance, Board diversity, Financial performance.

JEL classification: G32

Introduction

In today's global business environment, characterized primarily by uncertainty, the need for effective corporate governance has become more important than ever. Issues of corporate governance have attracted the attention of legislative bodies, but also the public at large due to the obvious importance of the economic and social

"health" of the company, especially after the corporate scandals of the big giants Enron, WorldCom, One Tel, Tyco, Satyam, as well as many others (Kalsie & Shrivastav, 2016). Corporate governance is a set of mechanisms used to protect the interests of shareholders. One of the strongest mechanisms of corporate governance is an effective board of directors.

Boards of directors strive to protect the interests of shareholders in an increasingly competitive environment, while maintaining the professionalism and responsibility of managers in leading the company towards good performance (Bathula, 2008). As an internal governance mechanism, the board of directors plays an important role in controlling business and reducing the agency problem, and therefore can improve firm performance. The authors (Kao, et al., 2018) especially point out that the attributes of the board (proportion of independent directors and independent supervisors, size of the board, duality of roles, etc.) will have an impact on the company's performance.

The composition of the board of directors is a topic of corporate governance that has received considerable attention in the professional literature over the last three decades (Dagsson & Larsson, 2011). Previous research on board composition has focused on board independence and its impact on firm performance, as well as analyzing the potential benefits of replacing inside directors with outside directors. Over the last decade, when analyzing the composition of the board, increasing attention has been paid to the diversification of the board of directors (Khatib, et al., 2021).

Board diversity represents the heterogeneity of the board members according to different criteria (age and gender of the members, board size etc.). Diversity of members promotes a better understanding of the market, increases creativity, encourages leadership and contributes to more effective problem solving. Dispersion of opinions is achieved by structuring a diverse board of directors, consequently unanimity within the board is mitigated (Arenas-Torres, et al..2021). Greater diversity reduces the risk of making decisions that would be biased towards certain stakeholders. Diversifying the board improves the process of making strategic decisions by offering a wider range of perspectives and ideas, facilitates the acquisition of critical resources for the company and increases the breadth of business connectivity (Zhang, 2012). Due to the numerous benefits it brings, implementing diversity into boards of directors is not necessarily just a good practice, but can also prove to be an effective business strategy (Abdullah & Ismail, 2013).

Due to the potentially positive impact that a diversified board can have on firm performance, this paper aims to determine whether there is a correlation between board attributes and company financial performance. In the continuation of the paper, the basic attributes of the board will be defined and an overview of the literature related to the structural board diversity will be carried out, followed by an analysis of the connection between the attributes of the board and the financial performance of companies operating in the Republic of Serbia.

1. Attributes of board of directors

1.1. The role of the Board of directors

1.1.1. The composition of the board

The board of directors represents the management body, made up of a group of individuals possessing different knowledge, abilities and expertise. In order to be part of the board, the members were previously elected, and most often by the shareholders (Kean, 2003). By electing board members, shareholders delegate authority and power to the board of directors so that it could perform its role in a manner that is in the best interest of the company and shareholders.

The role of the board of directors manifests itself through the performance of various functions. According to (Fauzi & Stuart, 2012) the main contributions of the board would be to control management activities with the aim of preventing, or at least mitigating agency costs. Existing evidence suggests that an effective board of directors can reduce agency conflict by reducing information asymmetry, which would further increase the value or financial performance of the company (Akileng, et al., 2019). Furthermore, it is the board of directors that decides on the hiring and firing of the company's management (Wellalage & Locke, 2013). The board can help by connecting the company with the external environment and facilitating access to external resources. Also, the shareholders expect that the board continuously protects and promotes the key interests of the shareholders and participates in defining the strategic direction of the company.

As one of the main reasons that led to the unsuccessful business of companies and the lost trust of the investment public, (Pugliese, et al., 2009) state the passivity of the board of directors in the process of creating the company's strategic business. (Khatib, et al., 2021) point out that, strategic decision-making itself is the key responsibility of the board of directors. The practice, characterized by the passivity of the board in strategic planning, changes significantly with the growth of the influence of institutional investors and especially after the reforms in corporate governance.

The unstable business environment caused the board of directors to operate actively while performing their duties through the development and control of strategy implementation. Additionally, the active participation of the board in determining the company's vision, values and goals was necessary. Within (New York Stock Exchange, 2014) it is pointed out that, including the board of directors in the strategic planning process, results in the achievement of several goals:

- Contributes to different opinions, which can only strengthen the quality of the strategic plan,
- Improves the board’s ability to understand the company’s environment and increase sense of responsibility,

- Ensures mutual cooperation of the executive team and board members, thereby preventing their confrontation and
- Identification of additional important issues is encouraged, such as various external factors that should be taken into account when defining a strategic plan.

1.1.2. The composition of the board

The company's board of directors consists of the company's top managers, who are called inside directors or executive directors, as well as professional or distinguished persons selected from the broader community, who are called outside directors or non-executive directors. (Minciullo, 2019).

Inside directors come from the company itself and belong to the upper echelon of the management structure. As they belong to the company, inside directors have excellent insight into the ongoing activities of the company. Therefore, their task on the board is to provide and update key information about the company's activities. However, it is possible to filter the information flow by the executive directors, where pre-selected information is delivered to the board of directors. Therefore, it is necessary to motivate executive directors with greater incentives, with the intention of achieving better cooperation with independent directors and to act towards eliminating the problem of information asymmetry (Goel, et al., 2022). It is the level of information asymmetry between independent directors and executive directors which is the key factor that determines board effectiveness (McCann, 2016).

The role of *outside directors* is to offer an alternative and objective approach to management decision-making, and since their role is prescribed by corporate law and corporate governance codes in countries with strong and well-established corporate governance systems, they are considered an important governance mechanism (Al-Faryan, 2021). If there is an absence of connection between the outside director and the company as prescribed by the corporate governance code, then the outside director is considered independent. The independence of outside directors contributes to the minimization of conflicts of interest when participating in the company's management process, but also when controlling and selecting managers. A board's ability to monitor management is assumed to be a function of its independence from management (Zhang, 2012). The most commonly used indicator for board independence is the ratio comparing the number of outside directors to the number of inside (employed) directors (Dagsson & Larsson, 2011).

Due to the growing significance of independent directors within the board, (Gordon, 2007) states that in the period 1950-2005, the share of independent directors in the board of directors increased from 20 percent to 75 percent. Although the contribution of independent directors within the board is multiple, (Mishra, 2020) singles out five key contributions. First, the independence of outside directors prevents the company's management from influencing their behavior, thus independent directors retain the integrity and responsibility for the decisions they

make. Second, independent directors may recognize risks and opportunities that management may overlook due to their daily activities. Third, independent directors have the ability to discipline managers, given that managers do not have direct influence over them. Fourth, because of their good business connections, they can provide the company with potential business opportunities. And fifth, companies use the expertise of independent directors in bridging the period of transition, such as, for example, changing the ownership structure or repositioning the business.

2.1.3. Forms of board management

The principal difference in corporate governance between countries is the structure of the board of directors, which can be one-tier (unitary) or two-tier (dualistic) depending on the country. A one-tier board is characteristic for the UK, USA, and most of the EU, whereas a two-tier board is characteristic for Germany, Austria, the Netherlands, and Denmark (Mallin, 2019). A one-tier board that companies can apply consists of executive and non-executive directors. Non-executive directors are not permanently employed by the company, as opposed to executive directors who are permanently employed and involved in the day-to-day operations of the company (Fuzi, et.al., 2016). While a one-tier board integrates decision-making and decision control into a single organizational body, a two-tier board provides a formal separation of these two roles, whereby executive directors (executive board) are responsible for the day-to-day operations of the company, while non-executive directors (supervisory board) are responsible for supervising the executive directors. (Bezemer, et al., 2014).

In the Republic of Serbia, the statute of the company defines whether the governance is one-tier or two-tier. In the case of *one-tier governance*, the company forms, i.e., elects an assembly, and one or more directors, i.e., a board of directors. On the other hand, if the company opts for *two-tier governance*, the bodies are the assembly, the supervisory board, and one or more executive directors, i.e. the executive board (Раденковић - Јоцић & Секулић, 2020).

In the one-tier form of governance, the company has one or more directors appointed by the assembly. Nonetheless, if the company has three or more directors, then they form the board of directors. Directors within the board may be executive or non-executive directors. The role of *executive directors* is in business management and legal representation of the company. Also, within the board, one of the executive directors can be appointed as the general director of the company, whose role is to coordinate the activities of the executive directors and organize the affairs of the company. The role of *non-executive directors* is to supervise the work of executive directors, propose the company's strategy and control its implementation. In addition, a public joint-stock company must have at least one

non-executive director who will be independent from the company, i.e. at least one independent director[1].

In a two-tier form of governance, the company has a supervisory board and one or more executive directors appointed by the supervisory board. If the company has three or more executive directors, then they form the executive board. The role of the *executive board* is in managing the business of the company, being responsible for the accuracy of financial reports, determining the dividend payout amount of, and decision- making in accordance with the law, the statute and the decisions of the assembly and the decisions of the supervisory board. The supervisory board can appoint one of the executive directors as the general director. The role of the *supervisory board* is to determine the goals and business strategy of the company as well as controlling their achievement, controlling the work of the executive directors and the company's operations, determining the accounting policy and risk management policy, determining the company's financial reports and reports on the company's operations, as well as hiring executive directors[2].The supervisory board must have at least three members[3] appointed by the assembly, none of whom must be the executive director of the company. Additionally, a public joint-stock company must have at least one non-executive director who will be independent of the company.

2. Structural diversity in board of directors

A potential way to improve the efficiency of the board of directors is via increasing its diversity. In a turbulent business environment, different expertise, insights and opinions of board members can be of great benefit to the company.

Authors often use the term "diversity" as a synonym for heterogeneity, dispersion, variety, mix of attributes, etc. The term board diversity is used to describe the distribution of differences among observation units (board members) with respect to a common attribute. There are different criteria according to which it is possible to observe the diversity of the board: ethnicity, age, nationality, experience, origin, education, level of compensation, number of years on the board, race, years of experience, etc.. (Khatib, et al., 2021).

The positive implications of diversifying the board are multiple. Thus, the representation of directors who differ in certain attributes will ensure a balanced board, in such a way that no single individual or small group of individuals can dominate

[1] Independence of non-executive directors is defined by Article 392 of the Law on Companies („Official Gazette of RS“, No. 36/2011, 99/2011,083/2014 – other laws, 5/2015 ,44/2018, 95/2018, 91/2019 and 109/2021)

[2] Here are the first six points of competence of the supervisory board according to Article 441 of the Law on Companies, the other points (15 points in total) can be viewed in the mentioned article of the law.

[3] Conditions and restrictions for membership in the supervisory board are defined in Articles 382 and 391 of the Law on Companies.

decision-making within the board. Owing to greater diversity, boards will perform their control function better as diversity boosts the independence of the board of directors (Arvanitis, et al., 2022). Diversification has the effect of mitigating groupthink as one of the major problems in board action (Rahman & Zahid, 2021). Board diversity promotes creativity and innovation in decision-making processes (Ongore, et al., 2015). By diversifying the board, there is a greater chance that the board of directors will offer the company a significant business connectivity, effective problem solving and improvement of the company's image. By diversifying the expertise and experience of members, a better understanding of the increasingly diverse and complex market is achieved (Fernández-Temprano & Tejerina-Gaite, 2020).

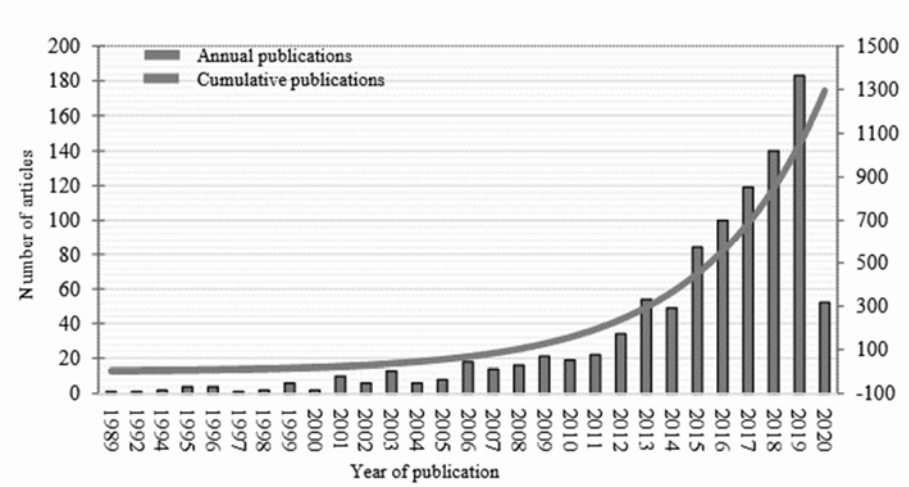
Also, copious research underscores the positive impact of a diverse board of directors on increasing company performance. Thus, companies with boards diversity will rely less on debt capital and maintain higher dividend payouts (Bernile, et al., 2018), and a diversified board affects the increase in firm value and ROA (Rahman & Zahid, 2021). As a result of various advantages, the authors (Adams & Ferreira, 2009) point out that the increase in board diversity also entails the improvement of corporate governance in companies.

Board diversity can have negative consequences. Increasing board diversity can lead to the formation of smaller factions within the board, additionally, it can damage group cohesion, increase conflicts, hinder communication and complicate decision-making (Terjesen, et al., 2016).

Board diversity is a topic that records an increasing interest of the professional public. The trend of published research on the topic of board diversification is increasing, which can be seen in the graphic display. At first glance, it is clear that the great interest in the topic of board diversity began in 2009, and could be a consequence of the introduction of regulation in many countries. As the regulation is, primarily aimed at the domain of greater representation of women in the boards of directors, so the interest of the professional public is the greatest in this matter. Of course, both cognitive (experience, education, etc.) and demographic (age, gender, etc.) aspects of board diversification are also the subject of frequent study (Khatib, et al., 2021).

Also, the diversification of the board is popular among the directors themselves. In a survey that was conducted (New York Stock Exchange, 2014), directors highlighted the diversification of expertise and opinions of board members as one of the top three answers when listing the key attributes that an effective board should have. In addition, 86 percent of directors agree that a proactive approach to board diversity is a necessary "building block" for a successful board. However, it is important to note that although board diversity is considered important, it will only be relevant if it contributes to the improved board efficiency and thus the improved firm performance. Otherwise, diversity would be implemented solely to meet regulatory and social pressure (Abdullah & Ismail, 2013).

Figure 1: Cumulative and annual number of publications on board diversity research



Source: (Khatib, Abdullah, Elamer, Yahaya, & Owusu, 2021)

2.1. Board size

The size of the board of directors represents the number of members that make up the board. Identifying the optimal board size that would affect the board's ability to effectively perform its function is a matter of ongoing debate. There are conflicting opinions about whether better firm performance is achieved under the influence of smaller or larger boards. Some of the arguments in favor of both claims are given below.

There are numerous arguments why a large board can be more effective than a small board. Company age and size are positively related to board attributes, implying that larger and older companies have large boards, because a large and diverse board will serve to oversee top management (Arora & Sharma, 2015). When evaluating the performance of top management, it is much more difficult to manipulate a large and highly diverse board. Also, an increase in board size entails the entry of additional directors, thereby further enhancing management oversight and control. The size of the board should be related to the size of the company and its growth opportunities, therefore, the board must have an appropriate size that will facilitate decision-making and supervision (Pucheta-Martínez & Gallego-Álvarez, 2020). The complexity of the company determines the informational need of the top management. Thus, highly diversified companies that are active in different business segments will show a greater need for heterogeneous expertise, which a large board is able to offer. A larger board can potentially contain a larger number of directors who have been, or are currently CEOs in a company, therefore they can provide the CEO of a given company with advice that is not available to other board members (Dagsson & Larsson, 2011). There is evidence to suggest that, regardless of its size,

a large board operates effectively and that there are no problems in communication and coordination among members. However, this result is contrary to the majority of studies that have found that small boards are more effective in terms of communication and coordination. (Abidin, et al., 2009).

The results of the research conducted by (Ilaboya & Obaretin, 2015) indicate that large boards have a positive effect on company performance, and nine members are cited as the average board size. Companies with larger boards show less volatility in performance as well as less risk of bankruptcy (Nakano & Nguyen, 2012). Profitable companies are more likely to increase their board size and appoint independent directors or executive directors than non-profitable ones (Goel, et al., 2022). The authors (Kalsie & Shrivastav, 2016) found that there is a positive correlation between board size and the accounting ratios ROA and ROCE, where board size is an important mechanism of corporate governance that positively affects firm performance.

By contrast, there are studies that confirm the effectiveness of small boards. The authors (Yan, et al., 2021) found a negative correlation between board size and company performance, and stated that small boards are more effective in the decision-making process. The greater efficiency of small in comparison with large boards is a consequence of better coordination and less communication problems. The responsiveness of the board when initiating strategic activities is more pronounced in smaller boards. Stronger board cohesion is achieved in smaller boards. If the size of the board increases, directors will invest less effort in performing their activities. Smaller boards will reach consensus more quickly on many issues. Additionally, financial expenditures are lower for smaller board sizes (Arora & Sharma, 2015).

Contrary to the findings of various studies done on this topic, which favor either small or large boards, a study (Topak, 2011) shows that there is no correlation between board size and company performance.

Based on a review of the literature that studied the topic of board size, we present a hypothesis:

H1: Companies with a larger board have better financial performance (ROA, ROS) than companies with a smaller board.

2.2. Board age

The age of board members is one of the more important demographic variables used in examining board diversity. The impact of age diversity on board effectiveness and company performance has not been firmly defined, as it can have both a positive and a negative impact (Francis, et al., 2012).

Promoting board age diversity occurs so as to encourage diverse opinions, perspectives and experiences within the board. The authors (Ferrero-Ferrero, et al.,

2015) state the affirmative attitude of the European Commission towards age diversity, according to which "as a result of the experience and knowledge that different age groups bring to the board, increased level of age diversity can improve the overall level of knowledge board of directors". The need to implement age diversity is greater if the board of directors is faced with solving complex tasks. Older directors contribute wisdom and advice to executive directors, unlike younger directors who may be dynamic and full of ideas but lack experience. Renowned and experienced directors who are high-profile in business circles can provide the company with significant business connections, whereas younger directors may have higher education and may be tech-savvy (Kagzi & Guha, 2018). The authors (Fernández-Temprano & Tejerina-Gaite, 2020) found that age diversity has a positive effect on ROA, which is a consequence of properly utilizing the characteristics of younger and older directors as a complement to each other.

If the directors on the board are of similar age, the leadership and decision-making styles of the board may be biased, especially towards a certain age segment of the market. Bias appears if directors have similar information and experience. Appointing directors from different age groups will help the board to get input from directors who better understand the needs of different stakeholders from their age groups (Abdullah & Ismail, 2013). Although there is no clearly defined limit, (Darmadi, 2011) states that the dividing line between junior and senior directors could be 50 years of age.

However, age diversity does not necessarily have a positive effect on board effectiveness. If more knowledge and experience are provided to directors who are of similar age, then a board of homogeneous age should be preferred over a board of diverse age (Dagsson & Larsson, 2011). Diversified groups may tend to split into subgroups based on social identification, making decision-making costlier in terms of time and effort. In the case of age diverse groups, breaking into smaller groups can occur in line with different ages, because people prefer to interact with others who have similar values, attitudes, experiences, and interests as them (Janahi, et al., 2022).

Nevertheless, a study on the age of directors of S&P 500 companies showed that a homogenous board was preferred, i.e. older directors were preferred over younger ones. Research (Barrett, 2017) showed that the average age of all boards of S&P 500 companies was 62.4 years, while 80% of all S&P 500 boards have an average age above sixty. An older board of directors will be more cautious in making decisions (John, et al., 2020). Thus, older directors will show risk aversion when making decisions, because financial security and career security are vital to them in the later stages of their careers, while younger directors will exhibit risk appetite because job security is not so important to them in the earlier stages of their careers. Heterogeneity among directors' attitudes about risk and caution is likely to cause conflicts in the decision-making process. This prevents the board from functioning effectively which will ultimately have a negative impact on profitability (Talavera, 2018). The findings of a study (Ali, et al., 2014) show a negative linear relationship

between board age diversity and return on assets (ROA), whereas age dispersion increase within a board, decreases return on assets (ROA).

Based on the review of the literature that studied the topic of the board's age structure, we present a hypothesis:

H2: Companies with an older board have better financial performance (ROA, ROS) than companies with a younger board.

2.3. Board gender structure

Gender diversity refers to the process of creating a board where the different characteristics and skills of men and women would be used in the best way. Gender diversity can minimize the dominance of a homogenous gender within boards in using their decision-making power. For example, female (male) directors may question decisions usually made by male (female) directors and this will limit male (female) power in managing the company (Mohamada, et al., 2017).

The lack of gender diversity, or insufficient representation of women in boards of directors, is a systemic problem in the corporate world. Consequently, governments, especially in developed countries, have imposed quotas to increase the presence of women on boards. Regulatory and institutional pressures may lead to the appointment of women to the board of directors, however, they do not ensure that appointed female directors will participate in governance mechanisms (Green & Homroy, 2018). However, economically, women should be engaged according to their education and professional experience, otherwise, the corporation may face a decline in profitability (Simionescu, et al., 2021).

Female directors have the potential to increase company performance by providing different approaches and views on internal board discussions, build a positive company image, and contribute to maintaining competitive advantage (Kılıç & Kuzey, 2016). When boards include female directors, overall meeting attendance rates are higher, a wider range of alternatives are considered during discussions, and management oversight is more pronounced (Chen, et al., 2019). Women contribute to the cohesion of the board, because they are more inclined to cooperation and less to competence. Additionally, women are less prone to overconfidence, so this type of bias will not significantly affect their decision-making process (Mastella, et al., 2021).

Also, it was determined that in the decision-making process, female directors are more conservative and show greater aversion to risk compared to male directors. The presence of female directors is particularly important for mitigating excessive risk-taking that can be harmful to companies, especially if the companies operate in emerging markets (Lee-Hwei Khaw & Liao, 2018). Women directors can mitigate firm risk, not by making risk-free investments *per se*, but through thorough

evaluation of investment opportunities, which can result in enhanced firm performance (Nadeem, et al., 2019).

The research result (Ongore, et al., 2015) indicates that greater gender diversity has a positive effect on the financial performance of companies. The effect of gender diversity on financial performance will be stronger for firms with two or more female directors on the board, suggesting that building a critical mass of women on the board boosts firm financial performance (Chijoke-Mgbame, et al., 2020). A study found that women directors not only improve the ROA of companies, but also reduce the volatility of their stocks (Rahman & Zahid, 2021). The participation of female directors on boards is associated with higher profits, higher levels of liquid assets and higher share of equity capital (Jizi & Nehme, 2017). The representation of women in the board of directors has a positive effect on the allocation of free cash flow, through the payment of dividends and repayment of debt, which indicates that women directors contribute by monitoring managerial behavior well (Guizani & Abdalkrim, 2021). Furthermore, the higher the proportion of women on the board of directors, the more likely the company will pay dividends and the higher the level of dividends paid (Ye, et al., 2019). The presence of women in the board of directors affects the increase in the value of the company, which is especially pronounced in companies that are not state-owned (Ullah, et al., 2019). In addition, when three or more women are present on the board of directors, the company is less likely to face the risk of a plunge in stock prices (Qayyum, et al., 2021).

On the other hand, there are studies that indicate the negative effect of female directors. Findings (Abdullah & Ismail, 2013) generally show that the appointment of women to the board of directors does not result in higher financial performance of the company. On the contrary, their appointment to the board leads to a lower financial performance of the company. The presence of women with higher education and the presence of women with high seniority within the board of directors does not produce a positive effect on financial and managerial performance (Wang, 2020). Although the study (John, et al., 2020) showed that gender diversity does not significantly affect the value of the company, the authors state that the reason for this result is the dominance of men over women on the board.

Based on the review of the literature that studied the topic of the gender structure of the board, we present the hypothesis:

H3: Companies with at least one woman on the board have better financial performance (ROA, ROS) than companies without women on the board.

3. Research

3.1. Research sample and methodology

The research has been conducted on a sample of 97 joint-stock companies from the Republic of Serbia. The sample consists of companies that have a two-tier management form, and the subject of the analysis are supervisory boards. The subject of the analysis were not companies with a one-tier form of board organization, nor executive boards within a two-tier form of board organization.

The database was created from data downloaded from the website of the Agency for Business Registers (APR). The board size variable was defined based on the information on the number of supervisory board members. The variable average age of the board was determined based on the personal identification number of members of the supervisory board. The variable number of women in boards was determined based on the personal names of board members. Additionally, return on assets (ROA) and net profit rate (ROS) of sample companies were calculated based on financial reports taken from APR. The ROA variable was obtained as a quotient of EBIT (earnings before taxes and interest) and total assets, while the ROS variable was obtained as a quotient of net profits and total revenues.

Data analysis will be performed in the statistical analysis program IBM SPSS Statistics. In the continuation of the paper, a descriptive analysis of the variables will be performed and the set hypotheses will be tested. Hypothesis testing will be performed using the Independent-Samples T-test statistical procedure.

By testing the set hypotheses, we want to determine whether there is a connection between the attributes of the board of directors and firm performance. The variables related to board attributes are the board size, age structure and gender structure, while the variables measuring firm performance are ROA and ROS.

3.2. Descriptive analysis

From the frequency table (table no. 7, annex), it can be observed that 63.9% of the companies in the sample have a board with three members, while 36.1% of the boards have four or more members. Although the Law on Companies defines that the supervisory board should have at least three members and that the board must contain an odd number of members, it is noticeable that there are companies that do not meet this provision.

The average age of the board of directors is 55.59 years, while the youngest and oldest members are 39 and 80 years old, respectively. Directors under the age of 50 make up 32% of the sample, directors aged 51-60 are the most represented and make up 41.2% of the sample, while directors over 61 are the least represented on boards and make up 26.8% of the sample.

Based on the frequency table (table no. 10, annex), it can be observed that boards which do not comprise female members make up 46.4% of the sample, while 36.1% of boards contain one female member. Boards containing two or more female members make up 17.5% of the sample.

Companies from the sample on average achieve ROA in the amount of -1.45%, while the achieved ROS is -23.95% on average.

3.3. Hypothesis testing

Hypotheses testing will be performed using the Independent-Samples T-test statistical procedure. To apply the Independent-Samples T-test, the variables board size, board age structure, and board gender structure were first binned. Thus, the board size variable was binned into boards with up to three members and boards with more than four members. The variable board age structure was binned into boards with an average age of up to 55 and boards with an average age of 56 or more. The gender structure of the board variable was binned into boards with no female members and boards that have one or more female members. After the mentioned variables were binned into two categories, it was possible to test the set hypotheses. Given that it is a one-sided test, for α=0.05, in order for the hypothesis to be accepted, two conditions must be met: that the sample statistics support the said statement and that p/2<0. 05.

3.3.1. Board size

The hypothesis to be tested is: Companies with a larger board have better financial performance (ROA, ROS) compared to companies with a smaller board.

At the 5% significance level, it can be concluded that there is a homogeneous variability of the ROA variable for the two groups. Given that the sample statistics (-1.35 > -1.50) confirms the hypothesis, and that the realized statistics and the associated probability (t=-0.084 and p/2=0.47) do not support the hypothesis, we conclude that hypothesis that ROA is higher with larger size boards cannot be accepted.

At the 5% significance level, it can be concluded that there is a homogeneous variability of the ROS variable for the two groups. Given that the sample statistics (-17.61 > -27.21) support the hypothesis, and that the realized statistics and associated probability (t=-0.62 and p/2=0.27) do not support the hypothesis, we conclude that the hypothesis that ROS is higher in larger size boards cannot be accepted.

Therefore, the claim presented by H1 is not accepted. Firms with larger boards do not perform better financially.

Table 1: Group Statistics - Size of Board of Directors

Group Statistics – Size of the board of directors

	Size of the board of directors(Binned)	N	Mean	Std. Deviation	Std. Error Mean
ROA	<= 3	64	-1.5042	8.88382	1.11048
	4+	33	-1.3548	7.01852	1.22177
ROS	<= 3	64	-27.2110	77.32215	9.66527
	4+	33	-17.6169	60.89615	10.60066

Source: author's calculation

Table 2: Independent Samples Test- Size of Board of Directors

Independent Samples Test - Size of the board of directors

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
ROA	Equal variances assumed	.805	.372	-.084	95	.933	-.14936	1.77928	-3.68169	3.38296
	Equal variances not assumed			-.090	79.241	.928	-.14936	1.65102	-3.43549	3.13676
ROS	Equal variances assumed	.923	.339	-.620	95	.537	-9.59414	15.47472	-40.31533	21.12706
	Equal variances not assumed			-.669	79.435	.506	-9.59414	14.34543	-38.14557	18.95730

Source: author's calculation

3.3.2. Age composition of the board

The hypothesis to be tested is: Companies with an older board have better financial performance (ROA, ROS) compared to companies with a younger board.

At the 5% significance level, it can be concluded that there is a homogeneous variability of the ROA variable for the two groups. Considering that the sample statistics (0.21 > -2.72) and the realized statistics and associated probability (t=-1.75 and p/2=0.04) support the hypothesis, we conclude that the hypothesis that ROA is higher among the older average age boards can be accepted.

At the 5% significance level, it can be concluded that there is a homogeneous variability of the ROS variable for the two groups. Considering that the sample statistics (-10.84 > -33.96) and realized statistics and associated probability (t=-1.58 and p/2=0.058) speak in favor of the hypothesis (for α=0.1), we conclude that the hypothesis that ROS is higher in older boards can be accepted.

Therefore, the claim presented by H2 is accepted. Companies with older boards have better financial performance.

Table 3: Group Statistics - Age of the Board of Directors

Group Statistics – Age of the Board of Directors

	Age of the board of directors(Binned)	N	Mean	Std. Deviation	Std. Error Mean
ROA	<= 55	55	-2.7252	8.75745	1.18085
	56+	42	.2121	7.32856	1.13082
ROS	<= 55	55	-33.9591	77.25478	10.41703
	56+	42	-10.8361	62.91864	9.70856

Source: author's calculation

Table 4: Independent Samples Test - Age of Board of Directors

Independent Samples Test - Age of the Board of Directors

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ROA	Equal variances assumed	1.976	.163	-1.754	95	.083	-2.93730	1.67448	-6.26157	.38696
	Equal variances not assumed			-1.797	94.160	.076	-2.93730	1.63498	-6.18353	.30892
ROS	Equal variances assumed	3.875	.052	-1.580	95	.117	-23.12302	14.63553	-52.17823	5.93218
	Equal variances not assumed			-1.624	94.573	.108	-23.12302	14.23976	-51.39415	5.14811

Source: author's calculation

3.3.3. Gender composition of the board

The hypothesis to be tested is as follows: Companies with at least one female member on the board have better financial performance (ROA, ROS) compared to companies without a female member on the board.

At the 5% significance level, it can be concluded that there is a homogeneous variability of the ROA variable for the two groups. Considering that the sample statistics (-2.90 < 0.22) do not support the hypothesis, and that the realized statistics and the associated probability (t=1.880 and p/2=0.03) support the hypothesis, we conclude that the hypothesis that ROA is higher for boards that have one or more female members cannot be accepted.

At the 5% significance level, it can be concluded that the variability of the ROS variable for the two groups is not homogeneous. Given that the sample statistics (-

34.76 < -11.46) do not support the hypothesis, and that the realized statistics and associated probability (t=1.647 and p/2=0.051) support the hypothesis (for α=0.1), we conclude that the hypothesis that ROA is higher for boards with one or more female members cannot be accepted.

Therefore, the claim presented by H3 is not accepted. Companies with one or more women on the board do not perform better financially.

Table 5: Group Statistics - Number of female members

Group Statistics – Number of female members

	Number of female members(Binned)	N	Mean	Std. Deviation	Std. Error Mean
ROA	<= 0	45	.2196	6.83141	1.01837
	1+	52	-2.9011	9.14005	1.26750
ROS	<= 0	45	-11.4558	55.92371	8.33661
	1+	52	-34.7568	82.44121	11.43254

Source: author's calculation

Table 6: Independent Samples Test - Number of female members

Independent Samples Test - number of female members

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
ROA	Equal variances assumed	3.943	.050	1.880	95	.063	3.12068	1.65984	-.17453	6.41589
	Equal variances not assumed			1.919	93.119	.058	3.12068	1.62592	-.10802	6.34938
ROS	Equal variances assumed	5.339	.023	1.603	95	.112	23.30095	14.53594	-5.55654	52.15844
	Equal variances not assumed			1.647	90.122	.103	23.30095	14.14928	-4.80854	51.41045

Source: author's calculation

Conclusion

Boards of directors play a pivotal role in corporate governance in modern companies (Guest, 2009). The most important functions of the board of directors are advisory and control functions. The advisory function involves giving professional advice to executive directors, while the other function of the board is to evaluate the performance of the executive directors and to ensure that the directors work in the best interests of the shareholders (Topak, 2011)

The effectiveness of the board of directors in performing its functions can be increased by diversifying the composition of the board of directors, given that in research on group decision-making, it was determined that the diversity of inputs favors the quality of the decisions made (Midavaine, et al., 2016). The benefits of diversified boards are numerous, from bringing different opinions, experiences and expertise to the board, to increasing business connectivity, facilitating the acquisition of critical resources and improving the strategic decision-making process. However, we must be aware of the fact that although the importance of board diversification is widely recognized, the empirical evidence on the benefits of board diversity is not entirely convincing (Harjoto, et al., 2015). The unreliability of the evidence on the benefits of diversified boards is based on the fact that a plethora of empirical evidence differ significantly in their results, considering that there is a large number of researches that talk about the positive implications of diversified boards, while on the other hand, there is a large number of researches that indicate negative consequences of board diversification. What is indisputable, however, is the growing body of research dealing with this topic.

In this paper, research was conducted on joint-stock companies in the Republic of Serbia. The aim was to examine the relationship between the structural diversity of board of directors and company performance. The results reached are:

First, firms with a larger board do not perform better financially than firms with a smaller board. The reason for this result can be found in the fact that joint-stock companies in Serbia do not utilize the advantages of large boards, such as greater collective information of approval, better control of financial reports, etc.

Second, firms with older boards have better financial performance than firms with younger boards. Such results may point to the fact that joint-stock companies in Serbia use the advantages of older boards such as experience, expertise, business connections of directors, etc.

And third, companies with one or more women on the board do not perform better financially than companies without women on the board. This result may be a consequence of not using the advantages of female directors, such as providing a wider range of alternatives, performing fundamental assessments of investment opportunities, etc.

The limitation of this research is that a limited number of joint-stock companies were taken for analysis and that the firm performance was observed for a time period of one year. The results of the study could potentially have been different if the sample had been larger or if a longer period of time had been observed. Also, it must be taken into account that the relationship between board diversity and company performance probably varies according to the socio-economic, political and cultural characteristics of the country or region under analysis. (Arenas-Torres, et al., 2021).

As the demographic aspects of board diversity (age structure, gender structure) were analyzed in this paper, future research can observe the connection between cognitive aspects of board diversity (experience, education, etc.) and firm performance.

References

Abdullah, S., & Ismail, K. (2013). Gender, ethnic and age diversity of the boards of large Malaysian firms and performance. *Jurnal Pengurusan, 38*, 27-40.

Abidin, Z. Z., Kamal, N. M., & Jusoff, K. (2009). Board structure and corporate performance in Malaysia. *International journal of economics and finance, 1(1)*, 150-164.

Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics, 94(2)*, 291-309.

Akileng, G., Nzibonera, E., & Kobumanzi, D. (2019). Board attributes and financial performance of listed firms in Uganda. *Research Journal of Finance and Accounting, 10(14)*, 30-44.

Al-Faryan, M. A. (2021). The effect of board composition and managerial pay on Saudi firm performance. *Review of Quantitative Finance and Accounting, 57(2)*, 693-758.

Ali, M., Ng, Y. L., & Kulik, C. T. (2014). Board age and gender diversity: A test of competing linear and curvilinear predictions. *Journal of Business Ethics, 125(3)*, 497-512. Retrieved from https://eprints.qut.edu.au/63826/

Arenas-Torres, F., Bustamante-Ubilla, M., & Campos-Troncoso, R. (2021). Diversity of the Board of Directors and Financial Performance of the Firms. *Sustainability, 13(21)*. doi:https://doi.org/10.3390/su132111687

Arora, A., & Sharma, C. (2015). Impact of firm performance on board characteristics: Empirical evidence from India. *IIM Kozhikode Society & Management Review, 4(1)*, 53-70.

Arvanitis, S. E., Varouchas, E. G., & Agiomirgianakis, G. M. (2022). Does Board Gender Diversity Really Improve Firm Performance? Evidence from Greek Listed Firms. *Journal of Risk and Financial Management, 15(7)*, 1-19.

Barrett, A. (2017). *Age Diversity Within Boards of Directors of the S&P 500 Companies.* Investor Responsibility Research Center Institute.

Bathula, H. (2008). Board characteristics and firm performance: Evidence from New Zealand . Auckland University of Technology.

Bernile, G., Bhagwat, V., & Yonker, S. (2018). Board diversity, firm risk, and corporate policies. *Journal of financial economics, 127(3)*, 588-612.

Bezemer, P.-J., Peij, S., de Kruijs, L., & Maassen, G. (2014). How two-tier boards can be more effective. *Corporate Governance, 14(1)* , 15-31. doi:https://doi.org/10.1108/CG-02-2013-0018

Chen, L. H., Gramlich, J., & Houser, K. A. (2019). The effects of board gender diversity on a firm's risk strategies. *Accounting & Finance, 59(2)*, 991-1031.

Chijoke-Mgbame, A. M., Boateng, A., & Mgbame, C. O. (2020). Board gender diversity, audit committee and financial performance: evidence from Nigeria. *Accounting Forum, 44(3)*, 262-286.

Dagsson, S., & Larsson, E. (2011). How age diversity on the Board of Directors affects Firm Performance.

Darmadi, S. (2011). Board diversity and firm performance: The Indonesian evidence. *Corporate ownership and control, 8*, 524-539. Retrieved from https://mpra.ub.uni-muenchen.de/38721/

Fauzi, F., & Stuart, L. (2012). Board structure, ownership structure and firm performance: A study of New Zealand listed-firms. *Asian Academy of Management Journal of Accounting and Finance, 8(2)*, 43-67.

Fernández-Temprano, M. A., & Tejerina-Gaite, F. (2020). Types of director, board diversity and firm performance. *Corporate Governance: The International Journal of Business in Society, 20(2)*, 324-342.

Ferrero-Ferrero, I., Fernández-Izquierdo, M. Á., & Muñoz-Torres, M. J. (2015). Age diversity: An empirical study in the board of directors . *Cybernetics and Systems, 46(3-4)*, 249-270.

Francis, B. B., Hasan, I., & Wu, Q. (2012). Do corporate boards affect firm performance? New evidence from the financial crisis. *Bank of Finland Research Discussion Paper, 11*. Retrieved from http://hdl.handle.net/10419/212214

Fuzi, S., Halim, S., & Julizaerma, M. (2016). Board independence and firm performance. *Procedia Economics and Finance, 37*, 460-465.

Goel, A., Dhiman, R., Rana, S., & Srivastava, V. (2022). Board composition and firm performance: empirical evidence from Indian companies. *Asia-Pacific Journal of Business Administration, ahead-of-print*. doi:https://doi.org/10.1108/APJBA-09-2021-0483

Gordon, J. N. (2007). The rise of independent directors in the United States, 1950-2005: Of shareholder value and stock market prices. *Stanford law review*, 1465-1568.

Green, C. P., & Homroy, S. (2018). Female directors, board committees and firm performance. *European Economic Review, 102*, 19-38.

Guest, P. (2009). The impact of board size on firm performance: evidence from the UK. *The European Journal of Finance, 15(4)*, 385-404.

Guizani, M., & Abdalkrim, G. (2021). Board gender diversity, financial decisions and free cash flow: empirical evidence from Malaysia. *Management Research Review, 45(2)*, 198-216.

Harjoto, M., Laksmana, I., & Lee, R. (2015). Board Diversity and Corporate Social Responsibility. *Journal of Business Ethics, 132(4)*, 641-660.

Ilaboya, O. J., & Obaretin, O. (2015). Board characteristics and firm performance: Evidence from Nigerian quoted companies. *Academic Journal of Interdisciplinary Studies, 4(1)*, 283-290.

Janahi, M., Millo, Y., & Voulgaris, G. (2022). Age diversity and the monitoring role of corporate boards: Evidence from banks. *Human Relations*. doi:https://doi.org/10.1177/00187267221108729

Jizi, M. I., & Nehme, R. (2017). Board gender diversity and firms' equity risk. *Equality, Diversity and Inclusion: An International Journal, 36(7)*, 590-606.

John, J. S., Sudiono, R. R., Haryono, L., & Adelina, Y. E. (2020). The Diversity of Board of Directors Characteristics and Firm Value. *Journal of Applied Accounting and Taxation, 5(2)*, 233-245.

Kagzi, M., & Guha, M. (2018). Does board demographic diversity influence firm performance? Evidence from Indian-knowledge intensive firms. *Benchmarking: An International Journal*. doi:https://doi.org/10.1108/BIJ-07-2017-0203

Kalsie, A., & Shrivastav, S. M. (2016). Analysis of board size and firm performance: evidence from NSE companies using panel data approach. *Indian Journal of Corporate Governance, 9(2)*, 148-172.

Kao, M. F., Hodgkinson, L., & Jaafar, A. (2018). Ownership structure, board of directors and firm performance: evidence from Taiwan. *Corporate Governance: The International Journal of Business in Society, 19(1)*, 189-216.

Kean, F. R. (2003). *A blueprint for corporate governance: strategy, accountability, and the preservation of shareholder value.* New York: Amacom.

Khatib, S. F., Abdullah, D. F., Elamer, A., Yahaya, I. S., & Owusu, A. (2021). Global trends in board diversity research: A bibliometric view. *Meditari Accountancy Research.*

Kılıç, M., & Kuzey, C. (2016). The effect of board gender diversity on firm performance: evidence from Turkey. *Gender in management: An international journal, 31(7)*, 434-455. Retrieved from http://dx.doi.org/10.1108/GM-10-2015-0088

Lee-Hwei Khaw, K., & Liao, J. (2018). Board gender diversity and its risk monitoring role: Is it significant. *Asian Academy of Management Journal of Accounting and Finance, 14(1)*, 83–106.

Mallin, C. (2019). *Corporate Governance* (6th ed.). Oxford: Oxford University Press.

Mastella, M., Vancin, D., Perlin, M., & Kirch, G. (2021). Board gender diversity: performance and risk of Brazilian firms. *Gender in Management: An International Journal, 36(4)*, 498-518.

McCann, M. (2016). Board composition and diversification decisions of UK listed companies: a panel data analysis. *International Journal of Business Governance and Ethics, 11(4)*, 267-289.

Midavaine, J., Dolfsma, W., & Aalbers, R. (2016). Board diversity and R & D investment. *Management Decision, 54(3)*, 558 - 569.

Minciullo, M. (2019). *Corporate Governance and Sustainability The Role of the Board of Directors.* London: Palgrave Macmillan Cha. doi:https://doi.org/10.1007/978-3-030-18885-6

Mishra, S. (2020). Do independent directors improve firm performance? Evidence from India. *Global Business Review* .

Mohamada, Z. Z., Bakarb, J. A., Razakc, R. A., & Badaruddind, M. N. (2017). Diversity in boardroom and firm value in Malaysia. *Proceeding of ICARBSS*, 255-262.

Nadeem, M., Suleman, T., & Ahmed, A. (2019). Women on boards, firm risk and the profitability nexus: Does gender diversity moderate the risk and return relationship? *International Review of Economics & Finance, 64*, 427-442.

Nakano, M., & Nguyen, P. (2012). Board size and corporate risk taking: further evidence from Japan. *Corporate Governance: An International Review, 20(4)*, 369-387.

New York Stock Exchange, I. E. (2014). *NYSE: Corporate Governance Guide.* London: White Page Ltd.

Ongore, V. O., K'OBONYO, P. O., Ogutu, M., & Bosire, E. M. (2015). Board composition and financial performance: Empirical analysis of companies listed at the Nairobi Securities Exchange. *International Journal of Economics and Financial Issues, 5(1)*, 23-43.

Pucheta-Martínez, M. C., & Gallego-Álvarez, I. (2020). Do board characteristics drive firm performance? An international perspective. *Review of Managerial Science, 14(6)*, 1251-1297.

Pugliese, A., Bezemer, P. J., Zattoni, A., Huse, M., Van den Bosch, F. A., & Volberda, H. W. (2009). Boards of directors' contribution to strategy: A literature review and research agenda. *Corporate Governance: An International Review, 17(3)*, 292-306.

Qayyum, A., Rehman, I. U., Shahzad, F., Khan, N., Nawaz, F., Kokkalis, P., & Sergi, B. S. (2021). Board gender diversity and stock price crash risk: Going beyond tokenism. *Borsa Istanbul Review, 21(3)*, 269-280.

Rahman, H. U., & Zahid, M. (2021). Women Directors and Corporate Performance: Firm size and board monitoring as the least focused factors. *Gender in Management: An International Journa, 36(5)*, 605-621.

Simionescu, L. N., Gherghina, Ș. C., Tawil, H., & Sheikha, Z. (2021). Does board gender diversity affect firm performance? Empirical evidence from Standard & Poor's 500 Information Technology Sector. *Financial Innovation, 7(1)*, 1-45.

Talavera, O. Y. (2018). Age diversity, directors' personal values, and bank performance. *International Review of Financial Analysis, 55*, 60-79.

Terjesen, S., Couto, E. B., & Francisco, P. M. (2016). Does the presence of independent and female directors impact firm performance? A multi-country study of board diversity. *Journal of Management & Governance, 20(3)*, 447-483.

Topak, M. S. (2011). The effect of board size on firm performance: Evidence from Turkey. *Middle Eastern Finance and Economics, 14(1)*, 118-127.

Ullah, I., Fang, H., & Jebran, K. (2019). Do gender diversity and CEO gender enhance firm's value? Evidence from an emerging economy. *Corporate Governance: International Journal of Business in Society, 20(1)*, 44-66.

Wang, Y. H. (2020). Does board gender diversity bring better financial and governance performances? An empirical investigation of cases in Taiwan. *Sustainability, 12(8)*. doi:https://doi.org/10.3390/su12083205

Wellalage, N. H., & Locke, S. (2013). Corporate governance, board diversity and firm financial performance: new evidence from Sri Lanka. *International Journal of Business Governance and Ethics, 8(2)*, 116-136.

Yan, C. C., Hui, Y. Z., & Xin, L. (2021). The relationship between board size and firm performance. *E3S Web of Conferences, 257*. doi:https://doi.org/10.1051/e3sconf/202125702079

Ye, D., Deng, J., Liu, Y., Szewczyk, S. H., & Chen, X. (2019). Does board gender diversity increase dividend payouts? Analysis of global evidence. *Journal of Corporate Finance, 58*, 1-26.

Zhang, L. (2012). Board demographic diversity, independence, and corporate social performance. *Corporate Governance: The international journal of business in society., 12(5)*, 686-700.

Раденковић - Јоцић, Д., & Секулић, В. (2020). *Корпоративно управљање.* Ниш: Економски факултет Универзитета у Нишу.

Internet sources:

https://www.paragraf.rs/propisi/zakon_o_privrednim_drustvima.html, accessed: 14.08.2022.

https://pretraga2.apr.gov.rs/unifiedentitysearch, accessed: 02.08.2022.

STRUKTURALNA DIVERSIFIKACIJA ODBORA DIREKTORA I PERFORMANSE PREDUZEĆA: ANALIZA ODBORA U REPUBLICI SRBIJI

Apstrakt: Poslednjih decenija, doprinos diversifikacije odbora finansijskom učinku preduzeća privukao je interesovanje brojnih istraživača i regulatora. U tom kontekstu, u ovom radu želeli smo da utvrdimo da li postoji povezanost između karakteristika odbora direktora i finansijskih performansi preduzeća. Na uzorku od 97 akcionarskih društava koja posluju u Republici Srbiji, testirali smo pomoću Independent Samples T testa povezanost između karakteristika odbora kao što su zastupljenost žena, prosečna starost i veličina odbora, sa jedne strane, i finansijskih performansi izraženih kroz ROA i ROS, sa druge strane. Rezultati do kojih smo došli su, prvo, preduzeća sa većim odborom nemaju bolje finansijske performanse u odnosu na preduzeća sa manjim odborom. Drugo, preduzeća sa starijim odborom ostvaruju bolje finansijske performanse u odnosu na preduzeća sa mlađim odborom. I treće, preduzeća sa jednom ili više žena u odboru nemaju bolje finansijske performanse u odnosu na preduzeća bez žena u odboru.

Ključne reči: Korporativno upravljanje, Diversifikovanost odbora, Finansijske performanse.

Authors' biographies

Petar Dogandžić graduated from the Fifteenth Belgrade Gymnasium. He completed his bachelor studies at the Faculty of Economics, at University of Priština, and obtained his master's degree at the Faculty of Economics, at University of Belgrade. He is currently pursuing a PhD degree at the Faculty of Economics in Belgrade. He's currently employed as a financial controller at I&F Group. His main field of research are sources of financing of small and medium-sized enterprises.

Anja Dogandžić graduated from the Fifteenth Belgrade Gymnasium. She completed her bachelor studies at the Faculty of Economics, at University of Priština, and obtained her master's degree at the Faculty of Organizational Sciences, at University of Belgrade. She is currently pursuing a PhD degree at the Faculty od Economics in Priština. She's currently employed as an assistant in the Department of business studies, at the Toplica Academy of Applied Studies.

Appendix

Annex 1: Results of descriptive statistics

Table 7: Frequency table - size of the board of directors

Frequency table - size of the board of directors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	2.1	2.1	2.1
	3	62	63.9	63.9	66.0
	4	3	3.1	3.1	69.1
	5	23	23.7	23.7	92.8
	6	2	2.1	2.1	94.8
	7	5	5.2	5.2	100.0
	Total	97	100.0	100.0	

Source: author's calculation

Table 8: Descriptive Statistics - Age of Board of Directors

Descriptive statistics – Age of the board of directors

	N	Minimum	Maximum	Mean	Std. Deviation
Age of the board of directors	97	39	80	55.59	8.282
Valid N (listwise)	97				

Source: author's calculation

Table 9: Frequency table - age of the board of directors by category

Frequency table - age of the board of directors by category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<= 50	31	32.0	32.0	32.0
	51 - 60	40	41.2	41.2	73.2
	61+	26	26.8	26.8	100.0
	Total	97	100.0	100.0	

Source: author's calculation

Table 10: Frequency table - number of female members

Frequency table – number of female members

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	45	46.4	46.4	46.4
	1	35	36.1	36.1	82.5
	2	11	11.3	11.3	93.8
	3	4	4.1	4.1	97.9
	4	2	2.1	2.1	100.0
	Total	97	100.0	100.0	

Source: author's calculation

Table 11: Descriptive statistics of financial performance measures

Descriptive statistics of financial performance measures					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	97	-29.35	26.00	-1.4533	8.25940
ROS	97	-328.15	137.73	-23.9470	71.97585
Valid N (listwise)	97				

Source: author's calculation