

THE RELEVANCE OF SOCIAL PERFORMANCE DISCLOSURE FOR FINANCIAL PERFORMANCE OF COMPANIES INCLUDED IN BELEXline INDEX

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Abstract

In the contemporary conditions of intense dynamics of competition, clearly articulated demands of the community and booming environmental requests, corporate social responsibility (CSR) becomes an imperative strategy for responsible and ethical company management. The primary goal of the research is to identify the relevance of social performance for financial success of the most liquid Serbian companies included in the BELEXline index in the period from 2014 to 2018. The level of social performance disclosure is determined using content analysis and the formulation of the social performance disclosure index. In order to confirm the initial hypotheses, cluster analysis and the non-parametric Mann-Whitney U test are used. The empirical findings of this research indicate that the disclosure of social performance is relevant only at the level of certain financial indicators, given that the non-financial reporting of the companies from the sample is at a low level. With changing business conditions, higher requirements for CSR, and increasingly demanding regulations on non-financial reporting, this study provides information on the relationship between the social indicators and the financial performance that are important both in terms of defining sustainability strategies at the company level and from the point of view of the capital market, regulatory bodies and the academia.

Key words: business reporting, social performance, financial performance, emerging economy, disclosure index.

РЕЛЕВАНТНОСТ ОБЕЛОДАЊИВАЊА ДРУШТВЕНИХ ПЕРФОРМАНСИ ЗА ФИНАНСИЈСКЕ ПЕРФОРМАНСЕ ПРЕДУЗЕЋА УКЉУЧЕНИХ У *BELEXline* ИНДЕКС

Апстракт

У савременим условима израженог динамизма конкуренције, јасно артикулисаних захтева друштвене заједнице и све гласнијих еколошких захтева, дру-

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штвено одговорно пословање (ДОП) постаје неизоставна стратегија одговорног и етичког управљања компанијом. Примарни циљ истраживања је уочавање релевантности друштвених перформанси за финансијску успешност најликвиднијих српских компанија укључених у *BELEXline* индекс у периоду од 2014. до 2018. године. Ниво обелодањивања друштвених перформанси утврђен је коришћењем анализе садржаја и формулисањем индекса обелодањивања друштвених перформанси. У циљу потврђивања полазних хипотеза, коришћена је кластер анализа и непараметарски *Mann-Whitney U* тест. Емпиријски налази овог истраживања указују на то да је обелодањивање друштвених перформанси релевантно само на нивоу појединих финансијских показатеља, с обзиром на то да је нефинансијско извештавање код компанија из узорка на ниском нивоу. Услед промене услова пословања, већих захтева за друштвено одговорним пословањем и све строже регулативе по питању нефинансијског извештавања, ова студија пружа информације о везама између друштвених показатеља и финансијског пословања које су значајне како са становишта дефинисања стратегије одрживости на нивоу компаније тако и са становишта тржишта капитала, регулаторних тела и академске јавности.

Кључне речи: корпоративно извештавање, друштвене перформансе, финансијске перформансе, тржиште у развоју, индекс обелодањивања.

INTRODUCTION

An increasing number of investors are aiming to invest in those companies which are not only financially profitable, but also have sustainable business in the long run. The growing needs of the community require companies to direct their resources, more than ever, to support solving important social and environmental issues. In order to increase the quality of existing sustainability reporting practices and identify the main risks in the modern business environment, the most important question is not whether to report, but what and how to report in order to generate maximum value for investors and other stakeholders (Sekerez, 2016). Accordingly, many international institutions have engaged in the search for an adequate model of CSR reporting to complement traditional financial statements by measuring the impact of organization's activities on society. Today, at the global level, the Global Reporting Initiative (GRI) guidelines are the most comprehensive guidelines for sustainability reporting.

With all of the above in mind, the question inevitably arises as to whether companies that operate responsibly towards society can be competitive and profitable at the same time. Accordingly, the aim of this paper is to determine the relationship that exists between the disclosure of social performance and financial performance indicators of the analyzed companies included in the BELEXline index.

The paper is divided into four interdependent units. The first part is dedicated to the theoretical and empirical foundations of the research in order to develop hypotheses. The sample and research methodology are described in the second part, while the research results are presented in the third part of

the paper. In the last section, the main conclusions are summarized and the limitations and recommendations for further research are pointed out.

THEORETICAL AND EMPIRICAL FOUNDATIONS OF THE RESEARCH

Literature Review

The social aspect of business activities is highly important for companies in order to create a social environment in which knowledge about sustainability can be adopted and subsequently improved (Faber, Peters, Maruster, van Haren & Jorna, 2010). Based on the social performance disclosure, the impact of the organization on society can be considered, as well as the ability to manage potential risk that may arise from the organization's interactions with other institutions.

Disclosure of information about social indicators attracts the attention of researchers, who try to approach this issue from different aspects. Authors who have investigated the relationship between these indicators and financial performance of a company come to contradictory results. One reason is the fact that the conceptual foundations and determinants of social responsibility are relatively unexplored (Rowley & Berman, 2000). Given that social responsibility is a multidimensional concept, fundamentally different aspects of social responsibility can have different implications for a company's financial performance. This emphasizes the importance of focusing on specific elements of social responsibility in research (Margolis & Walsh, 2003). In addition, it is important to point out that financial performance can be measured in different ways. It is possible to use accounting indicators (e.g. ROA) as well as market value indicators (e.g. Tobin's Q, P/E ratio). Ullmann (1985) also states that the inconsistent relationship in the studies can be attributed to various factors such as sample size, industry affiliation and methodology applied. Table 1 shows the results of individual studies in which the relationship between social performance and financial performance of companies was investigated.

Table 1. The nature of the relationship between social performance and financial performance identified in the empirical literature

| Nature of the relationship | Representative references |
|----------------------------|--|
| Positive | Sun, 2012; Rodgers, Choy & Guiral, 2013; Chen, Feldmann & Tang, 2015; |
| Negative | Brammer, Brooks & Pavelin, 2006; Surroca & Tribó, 2008; |
| No relationship | Soana, 2011; Salmani Mojaveri, Daftaribesheli & Allahbakhsh, 2016. |

Source: Authors

As can be seen in Table 1, some studies have identified a positive relationship between social and financial performance of companies, suggesting that CSR can contribute to increasing their profitability. In contrast, some authors come to the conclusion that this relationship is negative. The third group of authors point out in their works that the connection between social and financial performance does not exist, which implies that socially responsible behavior of companies does not contribute to profitability, but also does not deteriorate it (Galant & Cadez, 2017).

Hypotheses Development

The theoretical basis for explaining the idea of sustainability reporting, as well as the connection that exists between this form of reporting and financial performance of companies can be found in institutional theory, legitimacy theory, stakeholder theory and signaling theory (more in: da Conceição da Costa Tavares & Portugal Dias, 2018). Institutional theory is based on the view that institutional pressures and social interactions influence the formulation of organizational activities (Herold, 2018). In line with this theory, companies disclose CSR information since they believe that favorable relationships with stakeholders can contribute to increased financial returns, inasmuch as they adapt to stakeholder norms, which is an instrument of legitimacy, to show compliance with those norms. (da Conceição da Costa Tavares & Portugal Dias, 2018). The theory of legitimacy starts from the fact that companies must disclose certain information about environmental or social indicators in order to convince society that their activities are permissible and contribute to social value, gaining the support of the community in which they operate, resulting in benefits such as better market opportunities, and ultimately leading to the company value increase (Yawika Kurnia & Handayani, 2019). Viewed from a stakeholder perspective, disclosure of CSR information leads to stronger external links, better risk management, lower capital costs and a sustainable competitive advantage in the future (Orlitzky, Schmidt & Rynes, 2003; Lo & Sheu, 2007). According to signaling theory, sustainability disclosure, e.g. company policy in social and environmental areas, reduces the potential conflicts between management and shareholders, and sends positive signals to the markets which should increase firm value and stock price.

For the purposes of this research, it is important to review the reporting practices on sustainability of companies in Southeast European countries. In their study, Krivačić & Antunović (2015) investigate the practice of non-financial reporting in Croatia, with the results showing that the companies in the sample mainly disclose information on social performance. Ermenc, Klemenčić & Rejc Buhovac (2017) show that the sustainability reports in Slovenia contain mainly qualitative information aimed at clarifying the relationship between the company and its employ-

ees. Knežević, Pavlović & Stevanović (2017), in their research conclude that companies listed on the Belgrade Stock Exchange report on sustainable development very superficially. Considering the structure of the sample companies, a modest stakeholder pressure to the companies at the Serbian capital market, as well as the lack of normative requirements on sustainability reporting on the one hand, and the analyzed theoretical framework of the other hand, the following hypothesis is formulated:

Hypothesis 1: *In accordance with the practice of social performance disclosure in emerging markets, it is possible to distinguish companies from the BELEXline index according to the level of sustainability reporting.*

In addition to the impact of environmental and economic dimensions of sustainable development, the literature has specifically investigated the impact of social indicators on the financial performance of companies. Research conducted by Edmans (2012) shows that firms with high levels of employee satisfaction generate high long-run share returns. Faleye & Trahan (2011), in their research also conclude that there is a positive relationship between employee satisfaction and financial performance of the company. A study by Chen, Feldmann & Tang (2015), shows a positive correlation between categories of human rights, as well as product responsibility and return on equity. Research by Ermenc et al., (2017) indicates that sustainable business of companies in Slovenia leads to better financial performance in the first and second year, as well as in the first three years after measuring the company's sustainability. Having in mind theoretical framework, particularly signaling theory, the results of previous empirical studies, as well as the research sample, the following hypothesis is defined:

Hypothesis 2: *The social performance disclosure in companies whose shares are constituents of the BELEXline index is relevant for the financial success of the company.*

SAMPLE AND METHODOLOGY

The empirical study was conducted on a sample of companies included in the BELEXline Index in the period from 2014 to 2018. One of the reasons for opting for this time period is the fact that, according to the Law on Accounting from 2013, large and listed companies shall, through their Business Reports, publish information on certain dimensions of sustainable business, starting from 2014 (Law on Accounting, 2013, art. 29). The analysis of 34 companies that were included in the BELEXline Index on September 16, 2019 was initially performed. However, the final sample does not include the companies "Fintel energija" and "Žitopek" due to the fact that the consolidated financial statements were not available for the observed period. The final research sample consists of 32 companies.

Based on the results of relevant previous researches (López, Garcia & Rodriguez, 2007; Galant & Cadez, 2017), the following ratio indicators were used to express the financial success of the company: *net profit rate (NPR)*, *rate of return on assets (ROA)*, *rate of return on equity (ROE)*, *current liquidity ratio (CLR)*, *quick liquidity ratio (QLR)*, *P/E ratio (P/E)*, *net working capital ratio (NWCR)* and *indebtedness ratio (IR)*. The explanation of the financial indicators can be found in Appendix A.

In order to assess the level of disclosure of social performance of the companies in the sample, a Disclosure Index was formulated. Hierarchical cluster analysis was used to statistically determine similarities and differences between companies, taking into account the level of social performance disclosure (for more details, see: Kaufman & Rousseeuw, 2009). In this paper, the Ward clustering method (Kaufman & Rousseeuw, 2009) and the Gower similarity measure (which is useful for combining continuous and categorical data types) (Gower, 1971) were used. The testing of the second hypothesis is based on the statistical non-parametric Mann-Whitney U test application, which in statistics examines the differences between two independent groups on a continuous scale (Pallant, 2010). A value of $p < 0.05$ was used as statistically significant.

Social Performance Disclosure Index (SPDI)

The calculation of Disclosure Index, as one of the approaches to content analysis, implies that the presence or absence of certain information is primarily determined by a simple binary coding method (e.g. assign 1 if information exists or 0 if information is omitted) and then the index is calculated based on the summary result of all selected information (Ehsan, Nazir, Nurunnabi, Raza Khan, Tahir & Ahmed, 2018).

The social dimension of sustainable development has been taken into account and covered by the following GRI standards: *GRI 401*: Employment, *GRI 403*: Occupational Health and Safety, *GRI 404*: Training and Education and *GRI 413*: Local Communities. In accordance with the practice of disclosing social indicators in the Republic of Serbia, eleven indicators that make up the Index structure have been identified: *qualification structure (QS)*, *gender structure (GS)*, *age structure (AS)*, *number of employees (NOE)*, *termination of employment (TE)*, *voluntary activities (VA)*, *employee training (ET)*, *employee support (ES)*, *injuries at work (IW)*, *work days lost due to work injuries (WL)*, *internal and external communication capabilities (IEC)*. The explanation of the social indicators can be found in Appendix B.

The positions of Index in this paper are coded with 0 (if the information about indicators is not disclosed), 1 (if the information in the report is descriptive) or 2 (the information is disclosed and of a quantitative nature). SPDI is determined as a sum of equally weighted Index positions giving the possible maximum Index value of 22.

RESEARCH RESULTS AND DISCUSSION

Below are the results of the research conducted for this paper. An overview of the counted values (0, 1 and 2) of social indicators by years is first given within the section with results and discussion (Table 2).

Table 2. Overview of the values of social indicators

| Indicators | 0-information is not disclosed | | | | | 1-information is descriptive | | | | | 2-information is quantitative | | | | |
|------------|-----------------------------------|------|------|------|------|---------------------------------|------|------|------|------|----------------------------------|------|------|------|------|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 |
| QS | 21 | 20 | 19 | 19 | 18 | 0 | 0 | 0 | 0 | 0 | 11 | 12 | 13 | 13 | 14 |
| GS | 24 | 24 | 24 | 23 | 23 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 9 | 9 |
| AS | 23 | 23 | 24 | 23 | 22 | 2 | 3 | 1 | 1 | 1 | 7 | 6 | 7 | 8 | 9 |
| NOE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 32 | 32 | 32 | 32 |
| TE | 23 | 23 | 23 | 22 | 21 | 0 | 0 | 0 | 0 | 1 | 9 | 9 | 9 | 10 | 10 |
| VA | 28 | 28 | 28 | 28 | 28 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 2 | 2 |
| ET | 23 | 23 | 23 | 22 | 21 | 7 | 5 | 4 | 5 | 6 | 2 | 4 | 5 | 5 | 5 |
| ES | 27 | 27 | 27 | 26 | 26 | 5 | 4 | 3 | 3 | 3 | 0 | 1 | 2 | 3 | 3 |
| IEC | 18 | 16 | 16 | 16 | 15 | 14 | 16 | 16 | 16 | 17 | 0 | 0 | 0 | 0 | 0 |
| IW | 30 | 30 | 30 | 30 | 29 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 3 |
| WL | 31 | 30 | 30 | 29 | 29 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |

Source: Authors' calculation

Based on the data presented in Table 2, it can be seen that social indicators in the observed period generally have a value of 0 and 1. Accordingly, the examined reports provide qualitative information that cannot be practically used to assess changes in the quality of disclosure over time. The most common quantitative information is information on the number of employees and the qualification structure, which indicates the fact that the companies in the sample are oriented towards disclosing indicators that are easily quantified and do not expose companies to additional efforts and costs with regard to their collection and disclosure. Reporting on injuries at work and lost working days due to injuries at work is not at a satisfactory level, given the fact that information on these indicators is available in the reports of only three companies (2 companies disclose quantitative data, while 1 company reports descriptive information). In addition to these indicators, one of the least reported is the indicator on voluntary activity, since 28 companies do not disclose information about it.

Descriptive Statistics

The results of the descriptive statistical analysis are presented in Table 3. The table shows the minimum, the maximum for financial indicators and SPDI, followed by the mean and the standard deviation.

Table 3. Results of descriptive statistics

| Financial indicators | Number of companies | Minimum | Maximum | Mean | Standard deviation |
|----------------------|---------------------|---------|---------|-------|--------------------|
| NPR | 32 | -23.97 | 1.01 | -0.09 | 1.93 |
| ROA | 32 | -0.78 | 0.86 | 0.03 | 0.12 |
| ROE | 32 | -2.24 | 0.96 | 0.02 | 0.28 |
| CLR | 32 | 0.22 | 64.34 | 4.01 | 7.29 |
| QLR | 32 | 0.08 | 64.29 | 3.33 | 7.20 |
| NWCR | 32 | -0.64 | 0.70 | 0.20 | 0.27 |
| IR | 32 | 0.01 | 1.32 | 0.35 | 0.28 |
| P/E | 32 | -116.97 | 365.23 | 14.84 | 44.45 |
| SPDI | 32 | 2.00 | 21.00 | 5.99 | 4.96 |

Source: Authors' calculation

According to the results presented in Table 3, profitability indicators indicate a low level of profitability of the analyzed companies, given that the average value of ROE is 2.3% and ROA 3.4%. The net profit margin is characterized by a high standard deviation (1.93), which suggests that net profit margins differed among the analyzed companies. The average values of liquidity indicators (4.01 in the current ratio and 3.33 in the quick ratio), indicate the fact that companies have a satisfactory amount of liquid assets to settle short-term liabilities. The data from the table show that the average indebtedness ratio of companies is 34.7%, which means that the liabilities of companies amount to one third of total assets. The P/E ratio is characterized by a very high standard deviation (44.44) which indicates a large diversity of P/E ratio in the companies from the sample during the analyzed period. The mean of the SPDI index is 5.99, while the minimum (2.00) and maximum (21.00) values indicate significant variations in the disclosure level of social indicators of companies included in the BELEXline index.

Results of Cluster Analysis

According to the hierarchical clustering method, companies are classified into two clusters in all the years (Table 4). The first cluster includes companies that disclose information on the largest number of social indicators and which have higher values of the SPDI compared to companies grouped in the second cluster, which is characterized by a lower level of disclosure of analyzed indicators. Based on the data from

Table 4, changes in the structure of the cluster can be noticed, considering that during the observed period there were changes in the level of reporting in the companies from the sample.

In the first cluster, six companies (ALFA, KMBN, JMBN, DNOS, GLOS, IMPL) stand out, which reported on the largest number of indicators during the five-year period. Starting in 2016, there has been a shift in transparency in some companies, so the company NIIS is now in the first cluster, and since 2017 the company MTLC as well. Companies from the first cluster are characterized not only by a significant level, but also by a better quality of reporting on socially responsible business. The results of cluster analysis in the last three years are in line with the expectations that the companies recognized as socially responsible in practice report on social dimension of sustainability significantly more than the other companies in the sample.

Table 4. Results of cluster analysis

| Cluster | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|--|---|---|--|---|
| I | ALFA, MTLC, KMBN, JMBN, DNOS, GLOS, IMPL, FITO | ALFA, KMBN, JMBN, DNOS, GLOS, IMPL | NIIS, ALFA, KMBN, JMBN, DNOS, GLOS, IMPL, TIGR, LSTA | NIIS, ALFA, MTLC, KMBN, JMBN, DNOS, GLOS, IMPL, FITO, LSTA, SJPT, VBSE, VDAV, | NIIS, ALFA, MTLC, KMBN, JMBN, DNOS, GLOS, IMPL |
| II | NIIS, TIGR, SJPT, LSTA, STUP, VDAV, TRBG,TRGO M, VBSE, GMON, NSSJ, INEU, IRTL, EPIN, KOPB, TGAS, ENHL, JESV, RMKS, PPVA, VPDU, SVRL, AVEN, AERO | NIIS, MTLC, TIGR, FITO, SJPT, LSTA, STUP, VDAV, AERO, VBSE, TRBG,TRGO M GMON, TRBG,TRGO NSSJ, INEU, NSSJ, INEU, IRTL, EPIN, KOPB, TGAS, ENHL, JESV, KOPB, TGAS, RMKS, PPVA, ENHL, JESV, VPDU, SVRL, AVEN | MTLC, FITO, SJPT, STUP, VDAV, VBSE, AERO, TRBG,TRGO M GMON, NSSJ, INEU, M GMON, KOPB, NSSJ, INEU, IRTL, EPIN, ENHL, JESV, KOPB, TGAS, RMKS, PPVA, ENHL, JESV, VPDU, SVRL, PPVA, VPDU, SVRL, AVEN | TIGR, AERO, STUP, TRBG,TRGO M GMON, NSSJ, INEU, IRTL, EPIN, KOPB, RMKS, PPVA, PPVA, VPDU, SVRL, AVEN | AERO, TIGR, FITO, LSTA, SJPT, STUP, VDAV , VBSE, TRBG,TRGO M GMON, NSSJ, INEU, IRTL, EPIN, KOPB, TGAS, ENHL, JESV, KOPB, TGAS, RMKS, PPVA, ENHL, JESV, VPDU, SVRL, PPVA, VPDU, SVRL, AVEN |

Source: Authors' calculation

Note: * Symbols from the Belgrade Stock Exchange were used to indicate companies

For companies grouped in the second cluster, reporting on social indicators during the observed period is extremely low, given the fact that 14 companies from this cluster (which make up 43% of the sample) disclosed information in their reports only on the number of employees. Also, these companies mainly disclose qualitative information on social indicators.

In order to examine Hypothesis 2, test statistics were performed using the Mann-Whitney U Test. According to the results of the Mann-Whitney U test, in 2014 (Table 5) it is noticed that a statistically significant difference in financial performance between the companies of the observed clusters exists only when it comes to the net working capital ratio ($p = 0.04$).

In 2015, the Mann-Whitney U test rejected the null hypothesis for the P/E ratio indicator ($p=0.003$), with the obtained results showing that companies which have higher SPDI also have statistically significantly higher P/E ratio. The test statistics indicate that in 2016, as well as in 2015, a statistically significant difference between clusters exists only in terms of P/E ratio ($p=0.04$). With respect to the other financial indicators, no statistically significant differences were found between the two clusters. The Mann-Whitney U test results from 2017, show that there is a statistically significant dif-

Table 5. Mann-Whitney U test statistics results^a

| | 2014 | | | 2015 | | | 2016 | | | 2017 | | | 2018 | | | | | | | |
|------|------|-------|-------|-------------|------|-------|-------|--------------|------|-------|-------|-------------|-------|-------|-------|-------------|------|-------|-------|-------------|
| | MWU | WW | Z | MWU | WW | Z | MWU | WW | Z | MWU | WW | Z | MWU | WW | Z | Sig. | | | | |
| NPR | 81.0 | 381.0 | -0.65 | 0.51 | 77.5 | 428.5 | -0.02 | 0.98 | 96.0 | 372.0 | -0.31 | 0.75 | 100.5 | 290.5 | -0.88 | 0.37 | 44.0 | 344.0 | -2.27 | 0.02 |
| ROA | 91.0 | 127.0 | -0.22 | 0.82 | 55.0 | 76.0 | -1.11 | 0.26 | 80.0 | 125.0 | -0.98 | 0.32 | 100.5 | 290.5 | -0.88 | 0.37 | 69.0 | 369.0 | -1.17 | 0.23 |
| ROE | 92.5 | 128.5 | -0.15 | 0.87 | 67.0 | 88.0 | -0.53 | 0.59 | 99.0 | 144.0 | -0.18 | 0.85 | 72.5 | 262.5 | -1.96 | 0.05 | 43.5 | 343.5 | -2.29 | 0.02 |
| CLR | 59.0 | 359.0 | -1.61 | 0.10 | 58.0 | 409.0 | -0.96 | 0.33 | 98.0 | 143.0 | -0.23 | 0.81 | 108.5 | 298.5 | -0.57 | 0.56 | 75.5 | 375.5 | -0.89 | 0.37 |
| QLR | 53.0 | 353.0 | -1.87 | 0.06 | 53.5 | 404.5 | -1.18 | 0.23 | 91.0 | 136.0 | -0.52 | 0.60 | 115.5 | 305.5 | -0.30 | 0.75 | 77.0 | 377.0 | -0.82 | 0.40 |
| NWCR | 50.0 | 350.0 | -2.00 | 0.04 | 53.5 | 404.5 | -1.18 | 0.23 | 96.5 | 141.5 | -0.29 | 0.76 | 102.5 | 292.5 | -0.80 | 0.42 | 74.0 | 374.0 | -0.95 | 0.34 |
| IR | 92.0 | 128.0 | -0.17 | 0.86 | 77.0 | 428.0 | -0.04 | 0.96 | 66.5 | 342.5 | -1.55 | 0.12 | 104.0 | 294.0 | -0.74 | 0.45 | 89.0 | 389.0 | -0.30 | 0.76 |
| P/E | 60.0 | 96.0 | -1.56 | 0.11 | 17.0 | 38.0 | -2.94 | 0.003 | 55.5 | 100.5 | -2.01 | 0.04 | 68.0 | 159.0 | -2.13 | 0.03 | 77.0 | 113.0 | -0.82 | 0.40 |

a. Grouping Variable: Klaster

Source: Authors' calculation

Note: Symbols used in the table have the following meanings: MWU – Mann-Whitney U test, WW – Wilcoxon W test, Z – Z-value, Sig – Asymptotic statistical significance levels (2-tailed)

ference between the clusters not only in terms of P/E ratio ($p=0.03$), as in the previous two years, but also in terms of ROE ($p=0.05$). In 2018, a statistically significant difference between clusters was found in terms of the net profit rates ratio ($p=0.02$) and ROE ($p=0.02$).

Based on the data presented in the previous table, it can be seen that the results of the Mann-Whitney U test indicate a statistically significant difference between clusters in terms of at least one financial indicator, which can be argued that Hypothesis 2 is partially proven. The results of the statistically significant difference between the clusters in terms of P/E ratio, which are indicated by the test statistics from 2015, 2016 and 2017 are encouraging, since they indicate the fact that emerging markets, such as the Belgrade Stock Exchange, valorize disclosure of social indicators.

CONCLUSION

This paper, focused on the analysis of the relevance of social performance for financial success of the selected Serbian companies, led us to several conclusions.

Firstly, the level of reporting on social dimension of sustainability in the companies from the sample in the period 2014-2018 is not at a satisfactory level. The practice of reporting on sustainability of companies in Serbia can be explained by a combined consideration of the legitimacy and the institutional theory. The low level and quality of reporting is a consequence of the modest pressure of stakeholders on companies to harmonize their activities with the norms of the social community and, accordingly, to disclose more information on socially responsible business. In addition, the lack of institutional normative pressures on sustainability reporting is evident.

Secondly, the results of hierarchical analysis showed that the first hypothesis was confirmed, considering that the companies were grouped into two clusters in accordance with the disclosure of information on social indicators. The first cluster includes companies that report the largest number of social indicators and which also have the highest value of SPDI, while the second cluster includes companies with a lower level of disclosure.

Thirdly, the results of the Mann-Whitney U test showed that a statistically significant difference between clusters exists in terms of individual financial indicators. Thus, the second hypothesis in the paper is partially confirmed. As a market value ratio, P/E ratio offers a financial portrait of publicly traded companies, it captures the idea of what a firm's investors think of its performance and its future prospects. Accordingly, the results of test statistics from 2015, 2016 and 2017, which show that a statistically significant difference between the two clusters exists in terms of P/E ratio, are particularly significant, given that they unequivocally show that the Serbian capital market, despite its emerging character, values information on corporate social responsibility.

Given that investors in the Serbian capital market are increasingly interested in additional non-financial information and that the results have shown that disclosure of social performance is relevant to certain financial indicators, it is necessary for the companies from the sample to improve the level and quality of CSR information disclosure.

At the very end, it is necessary to point out one of the limitations in this paper which refers to the sample size, considering that only 32 companies were included in the research. Also, the paper analyzes only the impact of social dimension of sustainability. With all this in mind, future research should be based on a larger database and should include the information on the disclosure of economic and environmental indicators.

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Appendix A: Explanation of financial indicators used in the research

| <i>Financial indicators</i> | <i>Abbreviation</i> | <i>Description</i> |
|-----------------------------|---------------------|---|
| Net profit rate | NPR | Represents the ratio of net profit to operating income |
| Rate of return on assets | ROA | It is determined as the ratio of operating profit and the average value of total operating assets |
| Rate of return on equity | ROE | It is determined as the ratio of net profit and average value of capital |
| Current liquidity ratio | CLR | Represents the relationship between working capital and short-term liabilities |
| Quick liquidity ratio | QLR | It is calculated by deducting inventories from current assets and dividing that difference by short-term liabilities |
| Price to Earnings ratio | P/E | Represents the quotient of the market price of a share and earnings per share |
| Net working capital ratio | NWCR | It is calculated by deducting short-term liabilities from current assets and dividing this difference by operating assets |
| Indebtedness ratio | IR | It is determined by dividing the sum of short-term and long-term liabilities by the total liabilities |

Appendix B: Explanation of social indicators used in the research

| <i>Social indicators</i> | <i>Abbreviation</i> | <i>Description</i> |
|--|---------------------|---|
| Qualification structure | QS | Total number of employees during the reporting period, according to the qualification structure |
| Gender structure | GS | Total number of employees during the reporting period by gender |
| Age structure | AS | Total number of employees during the reporting period by age |
| Number of employees | NOE | Total number of employees during the reporting period |
| Termination of employment | TE | The number of employees whose employment was terminated during the reporting period |
| Injuries at work | IW | Total number of work-related injuries |
| Work days lost due to work injuries | WL | Total number of lost working days due to work-related injuries |
| Employee support | ES | Number of implemented projects that support the welfare of employees and improve employee motivation |
| Employee training | ET | Average hours of training per year per employee and/or the cost of employee education programs |
| Voluntary activities | VA | Implemented volunteer activities with focus on supporting socially vulnerable categories |
| Internal and external communication capabilities | IEC | The possibility of communication and open dialogue with employees and stakeholders through printed and electronic corporate media |

Source: (GRI, 2020)

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РЕЛЕВАНТНОСТ ОБЕЛОДАЊИВАЊА ДРУШТВЕНИХ ПЕРФОРМАНСИ ЗА ФИНАНСИЈСКЕ ПЕРФОРМАНСЕ ПРЕДУЗЕЋА УКЉУЧЕНИХ У *BELEXline* ИНДЕКС

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Резиме

У складу са повећаним захтевима стејхолдера за већом транспарентношћу и у циљу заштите њихових интереса, владе и берзе у развијеним земљама, као и у земљама у развоју, интензивирају притисак на компаније од којих се очекује да послују на друштвено одговоран начин, углавном кроз обавезу објављивања информација о друштвено одговорном пословању, како би се елиминисале или ублажиле негативне екстерналије које оне могу проузроковати. Из наведених разлога, јавиле су се бројне иницијативе које иду у правцу проширења традиционалног модела финансијског извештавања, који би, осим финансијских, укључио и бројне нефинансијске показатеље. Обелодањивање информација о друштвеним перформансама привлачи пажњу истраживача, па поједини аутори који су истраживали везу између њих и финансијских перформанси компаније долазе до различитих закључака.

Примарни циљ нашег истраживања је идентификовање релевантности друштвених перформанси за финансијску успешност компанија листираних на домицилној берзи у периоду од 2014. до 2018. године. Предмет анализе су 32 компаније које чине корпу индекса *BELEXline*. Иако број компанија укључених у истраживачки узорак није велики, узорак се може сматрати репрезентативним с обзиром на то да Закон о рачуноводству из 2013. године обавезује велика и листирана предузећа да почев од 2014. године, кроз Извештај о пословању, објављују информације о одређеним димензијама одрживог пословања. Истраживање је спроведено коришћењем података о изабраним финансијским и друштвеним перформансама компанија из финансијских извештаја. За потребе овог рада развијен је индекс обелодањивања друштвених перформанси са циљем да се анализира транспарентност извештавања о друштвено одговорном пословању компанија укључених у *BELEXline* индекс.

Резултати истраживања показују веома низак ниво праксе извештавања о друштвеним перформансама који је последица недовољне мотивисаности компанија на српском тржишту капитала да обелодањују већи број информација, па се у њиховим Извештајима о пословању углавном појављују површне информације о друштвеним индикаторима. У складу са тим, обелодањивање информација о друштвеним перформансама релевантно је само у погледу појединих финансијских показатеља.