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# WHAT CAN BE LEARNED FROM SUSTAINABILITY REPORTING AT THE FRONTIER MARKETS? THE CASE OF THE REPUBLIC OF SERBIA AND NORTH MACEDONIA

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Abstract. The paper examines the corporate social responsibility (CSR) reporting practice at the frontier markets by using a comparative review of sustainability reporting practice according to the GRI framework. The research covers 31 companies included in the BELEXline and MBI10 indices in the period 2014-2018. The values of Social, Environmental, Economic and aggregate Sustainability Index, calculated using content analysis, indicate a low level of sustainability reporting practice. This is a consequence of a passive ownership and modest stakeholder pressures to the companies at two frontier markets and the lack of normative pressure on sustainability reporting. The grouping of the companies into clusters in accordance with the disclosure of sustainability indicators indicates significant inter- and intra-countries variations in practice. The reporting on sustainability issues differs among the companies according to their size, ownership structure, exchange market and industrial sector affiliation, which is on par with the developed capital markets.

Key words: sustainability reporting, social, environmental, economic indicators, GRI Standards, disclosure index, frontier markets

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#### INTRODUCTION

Growing legislative pressure and increasing public concern about the global warming, climate change and energy regulation, resource scarcity, social conflicts and migrations, bring increasing demands for organizations to act in sustainable ways and, consequently, to report on sustainability issues. Sustainability reporting, as an extended reporting model, "aims to highlight the view that a company's consideration of only financial matters as an indicator of its success is inadequate" (Nolan, 2007, p.2). This reporting model should include not only financial indicators, but also environmental and social aspects of the company's business. The economic dimension of sustainability refers to the impact of an organization on the economic condition of its stakeholders, as well as to the economic system at the local, national and global levels. The environmental dimension of sustainability reporting focuses on the organization's impacts on living and non-living natural resources, including ecosystems, land, air and water. Disclosure of information on social performance indicators is relevant for considering the impact that companies have on the social system in which they operate, as well as the ability to manage the potential risk that may arise from the interactions of companies with their stakeholders.

The development of sustainability reporting largely depends on the adopted regulatory measures and guidelines for reporting at the national level (Stojanović-Blab, Blab & Spasić, 2016). The research results conducted in the United States also show this, given that after the adoption of the Sarbanes-Oxley Act, information on corporate social responsibility became more comprehensive, and in some areas more transparent (Cohen et al., 2011). In addition to legislation, some studies state that the development of sustainable accounting and sustainability reporting depends on other factors. Zyznarska-Dworczak (2018), in her study, shows that in the countries of Central and Eastern Europe, the progress of sustainability reporting is determined by the national culture and the historical environment. Namely, in these countries, political, structural, social and economic changes come to the fore, which affect all activities of companies, and thus the reporting on sustainability (Zyznarska-Dworczak, 2018). Mahmood, Kouser & Masud (2019), in their paper also point out that in emerging markets, reporting on sustainable business is influenced by structural and cultural conditions.

Promoting transparency and disclosure of non-financial information is a key issue on the European Union agenda (see more: Denčić-Mihajlov & Stojanović-Blab, 2018). The practice of the sustainability reporting among EU and other developed countries has been broadly examined. Hąbek & Wolniak (2016) outline the practice of CSR reporting in selected EU Member States and identify differences in the scope and quality of disclosure, taking into account mandatory and voluntary reporting model. Research on the scope and quality of CSR reporting in national economies across Europe can be found in numerous studies (such as Holgaard & Jørgensen (2005) in Denmark, Kuznetsov & Kuznetsova (2010) in Russia, Hąbek (2014) in Poland, Cerin (2002) in Sweden, Cormier & Magnan (2003) in France). Many researchers in developed countries outside the EU have also tried to identify the factors influencing the disclosure of information about social responsibility (such as Giannarakis (2014) in US, Ashcroft (2012) in Canada and US, Andrew & Wickham (2010) in Australia).

Unlike developed Western countries, reporting on sustainability issues is still in the early stages of development in emerging and frontier economies. In accordance, the studies on the sustainability reporting practice and determinants, and particularly on the relevance of sustainability reporting for the financial and market position of companies at these markets are limited. The different level of sustainability reporting between developed and developing countries is a consequence of differences in the institutional framework, which mainly concern the degree of economic development and growth rate (Filatotchev, Buck & Zhukov, 2000). Comparing Western and Central and Eastern European countries, in terms of access to corporate social responsibility, Fijałkowska, Zyznarska-Dworczak & Garsztka (2018) conclude that Central and Eastern European countries are more oriented towards maximizing economic growth goals, while Western European countries that generally have a higher level of economic security and stability are more geared towards addressing environmental, social protection and sustainability issues. Due to these reasons, in emerging and frontier markets, sustainability reporting is mainly practiced by large corporations or subsidiaries of multinational companies.

According to Dow Jones' description (CME Group Index Services LLC, 2012), "frontier markets are typically much less accessible to foreign investors, exhibit notable limitations in their regulatory and operational environments, and support a smaller investment landscape." The fact that the under-development of market and financial services, the absence of an equity culture and a slow process of financial inclusion, are the main features of many frontier economies generates opportunities, challenges and risks for investors. Namely, as frontier markets face considerable sustainability challenges, such as poverty, inequality, pollution, disease, corruption, unequal governance, weak institutions and a lack of regulations, the practice, quality and materiality of the data on sustainability issues are getting increasingly important (Odell & Ali, 2016).

This study aims to extend the current research on sustainability reporting practices in the context of two frontier capital markets – the Republic of Serbia and North Macedonia in two ways. First, to our best knowledge, this is the first study to give a comparative overview of recent sustainability reporting practice according to the GRI framework at the two frontier markets of Southeastern Europe. Second, we examine the development of sustainability reporting practices over time, as well as the differences among two markets, companies' size, stock exchange segments, ownership structure and industrial sectors. Also, in this paper, by discussing the combined institutional and stakeholder theory, we explain the practice of sustainability reporting among Serbian and Macedonian companies and identify the challenges that the sample companies face in the field of sustainability reporting. This offers a more comprehensive view on the content of the reporting on the sustainability issues at the frontier markets and offers some messages to policy makers, investors and companies.

The paper is structured as follows: a brief theoretical background is given in Section 1. Section 2 describes the dataset and the research method, while Section 3 discusses the research findings. The last section concludes the paper.

### 1. THEORETICAL BACKGROUND

Theoretical background for understanding the nature of sustainability reporting and CSR in most of the conducted research can be found in the institutional, legitimacy, and stakeholder theory. These theories provide different but complementary explanatory perspectives of analyzed sustainability issues.

According to the legitimacy theory, the legality of a business entity to operate in a society is based on an implicit social contract between the business entity and society. If a

company acts contrary to society's norms and expectations, it can be deprived of the permission to operate in society. In this regard, legitimacy theory anticipates that companies use sustainability reporting to legalize their operations and ensure that their activities and performance are acceptable to the community (Wilmshurst & Frost, 2000; Deegan, 2002; O'Donovan, 2002). Even though some empirical evidence supports legitimacy theory, the conclusion regarding its validity in explaining sustainability disclosure should be taken with caution since most of these studies that test legitimacy theory are focused mainly on environmental issues associated with public concern and fear. Yet, as indicated by Lanis & Richardson (2013) there are many other issues at least as important to society as the environment.

Developed by the business ethicists in the mid-1980s, stakeholder theory has become both a model upon which many business people rely and the central point of many debates. As Radin (2015) indicates "it signifies the recognition that firms have responsibilities to people or entities in addition to stockholders". Furthermore, according to Oruc and Sarikaya (2011) "the stakeholder theory aims at increasing the efficiency of organizations by bringing new definitions to organizational responsibilities. In this respect, the theory suggests that the needs of shareholders cannot be met before the needs of stakeholders are met".

The institutional theory has as a focal point the pressures and constraints of the institutional environment and "illustrates how the exercise of strategic choice may be preempted when organizations are unconscious of, blind to, or otherwise take for granted the institutional processes to which they adhere" (Oliver, 1991, p.148). Institutional theorists claim that organizations face similar institutional pressures, ending up with the adoption of similar strategies. This happens because they integrate a society, and their actions are influenced by stakeholders, "including governments (through regulations), an industry (through standards and norms), competitors (through better business models), and consumers (through loyalty)" (Tavares & Dias, 2018).

As it can be concluded, all three theories tend to provide a complementary perspective in explaining corporate disclosure strategies. This theoretical background has typically been applied in the context of developed countries. However, as indicated by Islam & Deegan (2008), "there is no apparent reason why the theories would be more appropriate in one national context as opposed to another". Hence, for the purposes of this study, and having in mind the above-mentioned theories, the main aim of this paper is to explore the reporting activities on sustainability issues among companies operating at two frontier markets. Further, we explore whether the sustainability reporting practices are shaped by stakeholder demands and expectations or by institutional pressure at the frontier markets in which companies operate.

#### 2. MATERIALS AND METHODS

#### 2.1. Research design

The empirical part of this paper is devoted to the consideration of the practice of the sustainability reporting at two capital markets of Southeast Europe – Serbian and North Macedonian. The situation and trends in these markets, which in terms of size, liquidity, risk and level of development belong to the group of frontier markets (FTSE Russell, 2020), have not sufficiently captured the attention of the academic public. We will try to fill the gap in the empirical research and provide answers to two important questions:

*RQ1:* What is the degree and the content of the sustainability indicators disclosed among companies included in the BELEXline and MBI10 indices? Is it possible to classify these companies according to their sustainability reporting practices into special groups (clusters)?

*RQ2:* Does the sustainability reporting of companies included in BELEXLine and MB110 differ according to the size, ownership structure, exchange market and industrial sector affiliation?

When it comes to the regulation in the sustainability reporting area, in the Republic of Serbia, some progress has been made with the introduction of the Law on Accounting from 2013 which pursuant to Article 29, binds large and listed companies to publish information on certain dimensions of sustainable business, through the business report starting from 2014 (Law on Accounting, 2013). With regard to North Macedonia, there is no legal obligation to disclose information on non-financial indicators. However, in the Law on Companies from 2016 pursuant to Article 348, paragraph 7, companies, among other things, shall disclose information on their activities in the field of research and development, as well as information on the rights and benefits of the management and supervisory board members within the annual business report (Law on Companies, 2016).

In order to assess CSR disclosure, researchers mainly use content analysis (Akin & Yilmaz, 2016; Kansal, Joshi, & Batra, 2014). There are several different approaches to this analysis, the most objective being the one that involves Disclosure Index calculation, where the presence or absence of certain information is determined by binary coding, e.g. assign "1" to the index position if the information exists or "0" if the information is not available, and formulate the index based on the summary result of all information (Ehsan et al., 2018). This study employs content analysis technique and develops four indices: Social Disclosure Index, Environmental Disclosure Index, Economic Disclosure Index, and aggregate, Sustainability Index.

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 performance indicators in the Republic of Serbia and North Macedonia, 11 indicators that make up the Social Disclosure Index (SDI) structure have been identified: *Qualification structure, Gender structure, Age structure, Number of employees, Termination of employment, Volunteer activities, Employee training, Support for employees, Internal and external communication capabilities, Injuries at work* and *Work days lost due to work injuries.* 

With regard to the environmental dimension of sustainability, the analysis includes environmental performance indicators covered by *GRI 302*: Energy, *GRI 305*: Air emissions, *GRI 306*: Effluents and Waste and GRI 307: Environmental Compliance. Based on the reporting practice on these indicators, the structure of the Environmental Disclosure Index (EnvDI) consists of five indicators: *Energy Management, Harmful substances air emissions, Waste management, Wastewater management* and *Environmental Compliance*.

Economic Disclosure Index (EconDI) has been developed taking into account the standards *GRI 201*: Economic Performance, *GRI 203*: Indirect economic impacts and *GRI 205*: Anti-corruption. Five indicators make up the structure of the index: *Defined benefits when retiring, Donations, Investments in environmental protection, Investments in research and development* and *Procedures related to anti-corruption activities*.

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The positions of indices in this paper are coded with 0 (if the information about indicators is not disclosed), 1 (if the information in the report is descriptive, for example - the possibility for internal and external communication) or 2 (the information is disclosed and of a quantitative nature, for example, the number of employees). SDI index is determined as a sum of equally weighted SDI positions giving the possible maximum index value of 22. Consequently, the maximum index values of both EnvDI and EconDI are 10, while the aggregate Sustainability Index (SI), calculated as a sum of SDI, EnvDI and EconDI, takes the highest value of 42.

In order to answer RQ1, the paper uses hierarchical cluster analysis to statistically determine similarities and differences between companies, taking into account the level of disclosure of economic, environmental and social performance (the Ward clustering method and Euclidean distance were used) (for more details, see: Kaufman & Rousseeuw, 2009).

### 2.2. Sample description

In order to explore the practice of non-financial reporting at two frontier markets, we used samples of companies included in two stock market indices – BELEXline and MBI10. While opting for companies constituents of the indices, we have two facts in mind. Firstly, market indices properly represent the situation on the market. They are made up of respectable companies whose shares are traded frequently; they have satisfactory liquidity, and a solid approximation of market value. Second, these shares are in the focus of institutional investors (foreign and domestic), so they are relevant from the point of view of disclosure of financial and non-financial information, and thus for research on disclosure of information on sustainability reporting. In the process of disclosure indices developing, secondary data were collected from external sources, mainly through the search of companies' websites and access to relevant data, documents and annual reports on the Belgrade Stock Exchange and Macedonian Stock Exchange's website from 2014 to 2018.

Table 1 presents characteristics of the sample companies. The analysis is based on the data from 21 real and financial sector companies that made up the BELEXline index basket on August 17<sup>th</sup>, 2019. As to MBI10 index, the analysis included 5 companies from real and 5 from financial sector. The sample companies are classified according to: 1) *Market segment* (trading at the Belgrade SE is organized at the Regulated Market (Prime Listing, Standard Listing and Open Market) and multilateral trading facility – MTP, while Macedonian Stock Exchange consists of Super, Mandatory and Exchange listing segments); 2) *Sector affiliation* (the secondary sector includes production activities - industry, construction and manufacturing, while tertiary sector covers non-manufacturing activities - transport, trade, tourism, catering, craft services, banking and utilities); 3) *Ownership structure* (the companies are differentiated according to the existence of a majority owner, owning 51% of the shares), and 4) *Company size* (companies are classified according to annual turnover into small ( $\leq$  EUR 10 million), medium ( $\leq$  EUR 50 million) and large ones (> EUR 50 million) (European Commission, 2016). A detailed overview of the sample companies according to their listing on the Macedonian and Belgrade Stock Exchanges is given in Appendix.

		Number of companies						
	Prime Standard		Open	Super	Mandatory	Exchange		
Market segment*	Listing	Listing	Market	Listing	listing	listing		
e	3	3	15	1	3	6		
Sector of cooperativ	secondary			tertiary				
Sector of economy	18			13				
Commony size	small			medium large				
Company size		6	-	7 18				
Ownership	majority shareholder			diffuse ownership				
structure	-	14			17			
Source: Authors' calculation								

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Source: Authors' calculation

We analyzed 155 annual reports published between 2014 and 2018 by 31 companies constituencies of two national capital markets indices. Having previously applied content analysis, we based our study on 11 topic indicators related to social, five related to ecological and five related to economic dimension of sustainability.

## 3. RESULTS AND DISCUSSION

We conducted cluster analysis and content analysis for each sustainability issue, including its development over time, its distribution over industries, and size of organization. Based on this analysis, we came up with eleven findings that are summarized and presented in Table 2.

**Finding 1:** Companies included in the two indices report on environmental, social, and economic sustainability, yet fragmentarily and not equally distributed. The cluster analysis findings point to significant inter- and intra-countries variations in practice.

According to the hierarchical grouping method, companies are classified into three clusters in 2014, 2015 and 2016, and into four clusters in 2017 and 2018. Based on the data shown in Table 3, changes in the cluster structure can be observed, given that, during the analyzed period, there were changes in the level of reporting in the companies from the sample. The first cluster includes companies that disclose information on the largest number of economic, environmental and social indicators and which also have the highest values of the aggregate Sustainability Index, compared to companies grouped in other clusters. Within this cluster, the companies that stand out are three companies whose shares are traded on the Belgrade Stock Exchange (NIIS, ALFA, MTLC) and one company (ALK) whose shares are traded on the Macedonian Stock Exchange. These companies are characterized not only by a significant level, but also by better quality of reporting on all dimensions of sustainability. Namely, the mentioned companies paid great attention to socially responsible business and sustainable development, which resulted in a serious approach to reporting on sustainability.

For companies grouped in the second cluster, reporting on selected indicators is at a slightly lower level compared to companies grouped within the first cluster, with these companies generally disclosing qualitative information on economic, environmental and social performance. Companies classified in the third cluster in the period from 2014 to 2016, as well as companies in the fourth cluster in 2017 and 2018 report on sustainability

at an extremely low level, given the fact that these companies disclosed only information on the number of employees, defined benefits upon retirement, as well as information on compliance with laws and standards in the field of environmental protection.

Table 2 Results of the analysis

	Findings
1	The data on environmental, social, and economic sustainability are mainly presented in annual reports; organizations pay more attention to the form than to the content and value of the information provided. Taking into account the level of disclosure of sustainability performances, the companies can be classified into special groups (clusters).
2	Environmental, social, and economic sustainability issues are not equally disclosed in companies reports.
3	The indicators that are the most frequently disclosed are those that are easily quantified and measured (e.g. the number of employees).
4	Social sustainability topics are of increasing importance for organizations.
5	As to the environmental dimension of sustainability, organizations report mostly qualitative information on waste management processes and compliance with laws and standards in the field of environmental protection.
6	Regarding the economic dimension of sustainability, the most frequently reported are data on defined benefits when retiring and investments in research and development.
7	Serbian companies on average report more frequently on CSR and a decline in the average value of SI for companies included in MBI10 is observed.
8	Large companies disclose more information on sustainable development indicators in their annual reports compared to small and medium-sized companies.
9	The highest level of information disclosure on corporate social responsibility is observed in

- companies listed on the Standard Listing at the Belgrade Stock Exchange.
- 10 Companies from the secondary sector report more on sustainable development in relation to companies from the tertiary sector.
- 11 Companies with diffuse ownership report more on all dimensions of sustainable business.

Source: Authors

Only one company (NIS, a.d. Novi Sad) has organized and presented information on sustainability development in the form of a separate sustainability report. Like in most other emerging and frontier markets, there is a substantial gap between companies that are leaders in CSR and doing a great deal in sustainability reporting (e,g. NIS Novi Sad, Serbia and Alkaloid Skopje, North Macedonia) and those that are doing little or nothing.

Finding 2: Information on the environmental, social, and economic sustainability issues is not equally disclosed among analyzed companies. Indicators on social performances are more frequently disclosed in comparison to two other categories of indicators. Average values of SDI among Serbian and Macedonian companies are 7.15 and 5.58 respectively. This finding indicates that social concerns and challenges dominate in these frontier markets. Such a conclusion is expected, taking into account that weak institutions, social poverty, limited consumer protection, human rights abuses or employee exploitation are at the heart of social debate in these countries.

CI (	2014	2015	2016	2017	2010
Cluster	2014	2015	2016	2017	2018
I.	ALK, NIIS, MTLC,	ALK, NIIS, TEL,	ALK, MTLC,	ALK, NIIS, ALFA,	ALK, NIIS, ALFA,
	KMBN, ALFA,	KMB, AERO,	NIIS, FITO, IMPL,	MTLC	MTLC
	FITO, IMPL,	TIGR, DNOS,	LSTA, SJPT,		
	LSTA	ALFA, MTLC	VBSE, ALFA		
II	TTK, TNB, KMB,	TTK, TNB,	KMBN, TTK,	TTK, TNB, KMBN,	TTK, TNB, KMB,
	SJPT, JMBN	KMB, SJPT,	TNB, JMBN,	JMBN	AERO, KMBN,
		JMBN, FITO,	KMB		TIGR, IMPL,
		IMPL, LSTA			DNOS, JMBN
III	GRNT, MPT,	GRNT, MPT,	GRNT, MPT,	MTUR, FITO,	MTUR, FITO,
	MTUR, SBT, TEL,	MTUR, SBT,	MTUR, SBT, STB,	IMPL, LSTA, SJPT,	LSTA, SJPT,
	STB, ENHL,	STB, ENHL,	TEL, ENHL,	VDAV, VBSE,	VDAV, VBSE,
	AERO, JESV,	JESV, EPEN,	AERO, JESV,	GLOS	GLOS
	TIGR, EPEN, EPIN,	EPIN, KOPB,	TIGR, EPEN,		
	KOPB, VDAV,	VDAV, VBSE,	EPIN, KOPB,		
	VBSE, TGAS,	TGAS, GLOS	VDAV, TGAS,		
	DNOS, GLOS		DNOS, GLOS		
IV				GRNT, MPT, SBT,	GRNT, MPT, SBT,
				STB, TEL, KMB,	STB, TEL, ENHL,
				ENHL, AERO,	JESV, EPEN,
				JESV, TIGR, EPEN,	EPIN, KOPB,
				EPIN, KOPB,	TGAS
				TGAS, DNOS	

Table 3 Results of the cluster analysis

Source: Authors' calculation

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

**Finding 3:** The indicators that are the most frequently disclosed are those that are easily quantified and measured (e.g. the number of employees and defined benefits when retiring) (Table 4). This finding is in accordance with Szekely & Kemanian (2016), who state that "most emerging market firms cannot afford to divert resources from their main business activities to focus on areas not generating returns".

**Finding 4:** The most disclosed social topics are on the number of employees and internal and external communication capabilities (topics reported from 90.32% and 64.52% companies during 2018) (Table 4). Even though companies have been slow to integrate social dimension of sustainability into their reporting practice, a trend of a slow improvement of this practice is present among companies included in BELEXLine (SDI average value is 6.62 in 2014 and 7.76 in 2018).

 
 Table 4 Most commonly disclosed social, environmental and economic indicators in the period 2014-2018

	Indicators	2014	2015	2016	2017	2018
	Number of employees	90.32%	90.32%	90.32%	90.32%	90.32%
Social	Internal and external	58.06%	64.52%	64.52%	64.52%	64.52%
indicators	communication capabilities					
Environmental Environmental Compliance		74.19%	77.41%	74.19%	77.41%	80.64%
indicators Waste management		58.06%	58.06%	58.06%	58.06%	58.06%
Economic	Defined benefits when retiring	90.32%	93.54%	93.54%	93.54%	93.54%
indicators	Investments in research and	67.74%	74.19%	77.41%	77.41%	77.41%
mulcators	development					

Source: Authors' calculation

**Finding 5:** As to environmental dimension of sustainability, organizations report mostly in a qualitative manner on waste management processes and compliance with laws and standards in the field of environmental protection. Research results show that companies from industries that may have a potential negative impact on the environment (processing industry and mining - e.g. Alkaloid, NIS, Metalac) on average disclosed more information on the environmental dimension of sustainability compared to companies from the financial sector.

**Finding 6:** Regarding the economic dimension of sustainability, as shown in Table 4, the most often disclosed information is about defined benefits during retirement (93.54% of companies), which are mostly quantitative in nature, as well as the information on investments in research and development (77.41% of companies). The practice of reporting on economic dimension of sustainability is a reflection of corporate ownership structures, immature capital markets and investors` passiveness immanent to these two frontier markets.

**Finding 7:** Serbian companies on average report more frequently on CSR, and a trend of improvement in sustainability reporting can be observed among companies included in BelexLine index (average value of SI rises from 14.48 in 2014 to 16.19 in 2018 reaching 40.23% of compliance level) (Table 5). On the other hand, a decline in the average value of SI for companies included in MBI10 is observed. During 2018, the average value of SI was 10.00, which corresponds to 23.8% compliance level of maximal SI value.

**Finding 8:** Company size plays an important role in determining the level and quality of sustainable development reporting. Large companies from the sample have on average higher SI values in comparison to small and medium-sized companies (Table 5). These companies have also seen a shift in transparency (the SI average values reach 14.50 and 15.89 in 2014 and 2018 respectively). The results are consistent with Nayak & Venkatraman (2011) who state that large companies report more since they are exposed more to pressure from stakeholders, regulatory bodies and the community.

**Finding 9:** The highest level of information disclosure on CSR is observed in companies listed on the Standard Listing at the Belgrade Stock Exchange. The SI average values for companies listed on Prime and Standard Listing in 2018 are 20.00 and 21.33 respectively (Table 5). Having in mind more rigorous conditions for inclusion of securities of companies on these two segments of the Belgrade Stock Exchange, the listed companies are under pressure to increase the quality of disclosure.

**Finding 10:** Companies from the secondary sector (dominantly from processing industry (44%), construction and mining sector) report more on sustainable development in relation to companies from the tertiary sector. This analysis indicates that a higher level and quality of information disclosure on social, environmental and economic dimension of sustainability is expected from those companies whose sector is closely related to sustainability issues.

**Finding 11:** Companies without majority owner report more on all dimensions of sustainable business, with the SI average values ranging from 13.71 to 14.29 (Table 5). This finding is in line with La Porta et al. (1998), who state that in companies with concentrated ownership the need for disclosing additional non-financial information decreases, since the companies are less dependent on external shareholders.

Classification		Average value	e of Sustainabi	lity Index				
	2014	2015	2016	2017	2018			
	Exch	ange market in	dex					
BelexLine	14.48	14.90	15.00	15.66	16.19			
MBI10	10.50	10.30	10.20	10.2	10.00			
		Company size						
Small	9.00	9.17	9.00	9.17	9.33			
Medium	13.43	13.57	13.28	13.57	14.00			
Large	14.50	14.78	15.00	15.61	15.89			
Stock market segment								
Prime Listing	13.33	14.67	16.33	17.67	20.00			
Standard Listing	18.67	17.67	17.33	20.33	21.33			
Open Market	13.87	14.40	14.26	14.33	14.40			
Exchange listing	8.67	8.67	8.67	8.67	8.67			
Mandatory listing	12.67	12.00	11.33	11.67	11.00			
Super Listing	15.00	15.00	16.00	15.00	15.00			
	Sect	or of the econor	my					
Secondary sector	14.00	14.22	14.50	15.00	15.50			
Tertiary sector	12.07	12.31	12	12.38	12.38			
	Ow	nership structu	re					
Majority shareholder	12.57	13.14	13.43	13.64	14.07			
Diffuse ownership	13.71	13.64	13.47	14.11	14.29			

Table 5	Trends	in the	SI	average	values	by	exchange	markets,	size c	of company,	stock
	market	segme	nt,	sector an	d owne	rshi	ip structur	e			

Source: Authors' calculation

### CONCLUSION

Emerging and frontier markets offer both attractive opportunities for investors, and multiple environmental, social, and governance-related challenges. As indicated in this study, these challenges are often neglected and not considered in the long-term business strategies and disclosed in the companies` annual reports.

Disclosure practices are one of the most acknowledged and favoured means of being accountable to society and stakeholders. In contrast to this trend at the developed capital markets, this study indicates a serious level of resistance by companies operating at two frontier markets related to transparency and accountability towards sustainability performance. The mean values of SI during the period 2014-2018 of companies included in BelexLine and MBI10 index are 15.25 and 10.24 respectively (maximum 42). The disclosure at these two frontier markets still appears to be driven by survival concerns. Still, the findings of cluster analysis show that there are some groups of companies at these markets that make real efforts to embrace broader accountability and take into account sustainability issues in order to acquire competitive advantage and manage risks. The degree and the content of reporting on sustainability issues differ among the companies according to the size, ownership structure, exchange market and industrial sector affiliation, which is in line with sustainability practice drivers at the developed capital markets.

The theoretical background used to explain sustainability reporting practices at developed capital market can also be applied at the frontier markets. The reporting practices among the Serbian and Macedonian companies can be explained by a combined consideration of

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stakeholder and institutional theory. The low level and the quality of sustainability reporting can be interpreted as a consequence of a modest stakeholder pressures to the companies existing at these two markets and the lack of normative pressure on sustainability reporting. We consider this result consistent with Zyznarska-Dworczak (2018) who concludes that market participants in the Central and Eastern European countries are not sufficiently interested in socially responsible business issues, due to the cultural and historical environment, as well as the lack of widely accepted and used ethics and ethical standards. In spite of the apparent sustainability challenges in the Republic of Serbia and North Macedonia (such as inequality, pollution, corruption, weak institutions and a lack of regulations), recognition of these challenges and the contribution of sustainability reporting, even by the most successful and liquid companies included in the national capital markets indices, is quite modest. This is in line with previous research on sustainability reporting practice in the emerging economies (Islam & Deegan, 2008; Kansal et al, 2014; Odell & Ali, 2016). This sends a clear message to policy makers, industry affiliations and companies` management to engage in a creation of a more transparent and accountable business environment with active ownership which is leading to sustainable development goals achievement.

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# ŠTA SE MOŽE SAZNATI IZ IZVEŠTAVANJA O ODRŽIVOM RAZVOJU NA GRANIČNIM TRŽIŠTIMA KAPITALA? SLUČAJ REPUBLIKE SRBIJE I SEVERNE MAKEDONIJE

Cilj sprovedenog istraživanja je da se kroz uporedni pregled prakse izveštavanja o održivosti u skladu sa GRI okvirom dođe do zaključaka o nivou prakse izveštavanja o društvenom odgovornom poslovanju na dva posmatrana granična tržišta kapitala. Istraživanje obuhvata 31 kompaniju uključenu u strukturu indeksa BELEXline i MBI10 u periodu 2014-2018. godine. Vrednosti Društvenog, Ekološkog, Ekonomskog Indeksa Obelodanjivanja, kao i zbirnog Indeksa održivosti, izračunate primenom analize sadržaja, ukazuju na nizak nivo prakse izveštavanja o održivosti. To je posledica pasivnog vlasništva i skromnih pritisaka stejkholdera na kompanije na ovima graničnim tržištima, kao i izostanka normativnog regulisanja izveštavanja o održivosti. Grupisanje kompanija u klastere u skladu sa obelodanjivanjem pokazatelja održivosti ukazuje na značajne razlike u praksi nefinansijkog izveštavanja unutar i između dva posmatrana tržišta. Izveštavanje o pitanjima održivosti razlikuje se između analiziranih kompanija prema njihovoj veličini, vlasničkoj strukturi, berzanskom tržištu i pripadnosti industrijskom sektoru, što je u skladu sa praksom na razvijenim tržištima kapitala.

Ključne reči: izveštavanje o održivom razvoju, društveni, ekonomski, ekološki indikatori, indeks obelodanjivanja, GRI standardi, granična tržišta kapitala

# APPENDIX

Table A1	Classification	of companies f	from the	sample	according	to market	segment,
	sector of econo	omy, company s	size and o	wnershi	p structure		

Belgrade Stock Exchange								
Companies	Market segment	Sector of	Company	Ownership structure				
		economy	size					
Nis (NIIS)	Prime Listing	secondary	large	majority shareholder				
Energoprojekt Holding (ENHL)	Prime Listing	secondary	large	diffuse ownership				
Aerodrom Nikola Tesla (AERO)	Prime Listing	tertiary	large	majority shareholder				
Metalac (MTLC)	Standard Listing	secondary	large	diffuse ownership				
Jedinstvo (JESV)	Standard Listing	secondary	medium	diffuse ownership				
Komercijalna banka (KMBN)	Standard Listing	tertiary	large	diffuse ownership				
Alfa Plam (ALFA)	Open Market	secondary	medium	diffuse ownership				
Tigar (TIGR)	Open Market	secondary	medium	diffuse ownership				
Galenika Fitofarmacija (FITO)	Open Market	secondary	medium	diffuse ownership				
Impol Seval (IMPL)	Open Market	secondary	large	majority shareholder				
Energoprojekt Entel (EPEN)	Open Market	secondary	medium	majority shareholder				
Energoprojekt Industrija (EPIN)	Open Market	secondary	small	majority shareholder				
Sojaprotein (SJPT)	Open Market	secondary	large	majority shareholder				
Kopaonik (KOPB)	Open Market	secondary	medium	diffuse ownership				
Voda Vrnjci (VDAV)	Open Market	secondary	medium	diffuse ownership				
Valjaonica bakra Sevojno (VBSE)	Open Market	secondary	large	majority shareholder				
Messer Tehnogas (TGAS)	Open Market	secondary	large	majority shareholder				
Lasta (LSTA)	Open Market	tertiary	large	diffuse ownership				
Dunav osiguranje (DNOS)	Open Market	tertiary	large	majority shareholder				
Globos osiguranje (GLOS)	Open Market	tertiary	small	diffuse ownership				
ALTA banka (JMBN)	Open Market	tertiary	small	diffuse ownership				
	Macedonian Stoc	<u> </u>						
Companies	Market segment	Sector of	Company	Ownership structure				
		economy	size					
Alkaloid (ALK)	Exchange listing		large	diffuse ownership				
Granit (GRNT)	Exchange listing	secondary	large	diffuse ownership				
Makpetrol (MPT)	Exchange listing	secondary	large	diffuse ownership				
TTK Banka (TTK)	Exchange listing		small	majority shareholder				
Makedonija Turist (MTUR)	Exchange listing	tertiary	small	diffuse ownership				
Stopanska banka Bitola (SBT)	Exchange listing	tertiary	small	diffuse ownership				
Stopanska banka Skopje (STB)	Mandatory listing		large	majority shareholder				
Makedonski Telekom (TEL)	Mandatory listing		large	diffuse ownership				
NLB banka (TNB)	Mandatory listing	-	large	majority shareholder				
Komercijalna banka (KMB)	Super Listing	tertiary	large	diffuse ownership				

Source: Authors