

ENVIRONMENTAL, SOCIAL AND GOVERNANCE PERFORMANCE OF COMPANIES: THE EMPIRICAL RESEARCH ON THEIR WILLINGNESS TO DISCLOSE INFORMATION

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Abstract. The paper investigates environmental, social and governance (ESG) performance of companies, specifically, analysing their willingness to provide ESG related information. It is argued that financial information, as well as features related to a specific sector or a country, may determine the amount of the disclosed information. The relationship between the ESG disclosure and inclusion in the Global Compact Network is considered. The empirical model was used to determine the factors, producing statistically significant effect on ESG disclosure score. The analysis was based on fifty three independent indicators denoting financial and external information from fifteen selected European countries over the five-year period. The article describes the specific ESG disclosure patterns in different regions and gives some recommendations for increasing enterprise sustainability incentives.

Keywords: enterprise, environmental, social and governance (ESG), information disclosure.

Jel classification: M14, O16

1. Introduction

The understanding of the phenomena of corporate performance has commonly been related to variables of financial performance. An increase in social and environmental risks discloses the importance of having more comprehensive firm valuation. While conventional financial analysis accounts for such intangibles as goodwill, the environmental, social and governance (ESG) measures are three important intangibles that can have a strong effect on company valuation. Currently, ESG is employed to describe all the responsibilities of firms to their stakeholders, particularly, voluntary codes that exceed legislated requirements (Bassen, Kovacs 2008). The term ESG appeared in the United Nations' Principles of Responsible Investment. Since then the term has become very popular around the investment community and is mostly related to the responsible investment concept (sometimes, synonymously used with the term of socially responsible investment or sustainable investment) (Eccles, Viviers 2010).

The responsibility ideas were not new in the academic and business world. Since the beginning of the 20th century there have been many discussions about the contribution of business to the solution of social and environmental issues. Corporate social responsibility, sustainable business and shared value (Idowu 2011; Porter, Kramer 2011; Porter, Kramer 2006) are the theories, which enable enterprises to create the economic value, solving the problem of satisfying the social needs at the same time. Still, the economic argument remains, stating

that the potential benefits, associated with social and environmental issues, should be estimated against the related cost. The researchers agree that, when firms change their values or objectives based on increasing social and environmental risk, their strategy and expenditures change and affect the financial results (Les Coleman 2011). Some scientists emphasize that such investments are only additional costs for business (Freedman 1970; Telle 2006), while another argue that, in the long term, it will decrease costs and stimulate the increase in revenues (Heal 2005; McWilliams 2006). Hence, a large number of scholars approached the issue of corporate responsibility through the lens of corporate financial performance and, thus, predominantly empirically investigating, where socially responsible performance affects corporate financial performance (Ameer, Othman 2011; Ziegler et al. 2011; Ziegler, Schröder 2010; Callan, Thomas 2009; Pelozo 2009; Margolis, Walsh 2007).

This article investigates corporation social performance by focusing on the ESG disclosure score provided by the Bloomberg information platform. The object of the article is to identify and expand potentially statistically significant drivers affecting the ESG disclosure score.

It is argued that, in addition to the firm's financial indicators, some external features, related to a specific sector or a country, may determine the amount of the disclosed ESG information. Some enterprises of particular European countries are chosen to analyse the considered problem.

A review of the related works

A great amount of studies related to the relationship between corporate environment or social performance and economic success can be found. Margolis and Walsh observed 167 studies, including Meta-Analysis of Association between corporate social performance and corporate financial performance, which confirmed slight positive association between corporate social performance and financial performance (Margolis, Walsh 2007). Based on data used, the studies analysing this problem can be classified into three groups. The studies of the first group analyse financial results, using historical accounting data and main financial ratios, such as return, sales turnover, debt ratios and other data of specific firms or economic sectors (Ameer, Othman 2011; Callan, Thomas 2009; Margolis et al. 2007). The works of the second group investigate stock returns in the context of various aspects of corporate sustainability or corporate social responsibility (Cheung 2011; Lapinskienė 2011; Moneva, Ortas 2008; Baird et al., 2010, Gunther, Laguna 2010; Gupta, Goldar 2005). In the third group of studies, the econometric instruments are used to incorporate accounting and market information into one model (Ziegler et al., 2011; Ziegler, Schröder 2010; Lopez et al. 2007, Telle 2006).

Based on these studies, variables which may be the most influential to ESG disclosure were chosen (see Appendix 1). It is argued that, in addition to the well-known financial indicators, other, external indicators, may also have some impact on ESG performance. For the present analysis, such factors as the country of residence of an enterprise and economic sector, where it operates are the additional investigated parameters. It is argued that, due to specific requirements, regulations or attitudes, firms operating in specific country (or sector) would have different ESG performance. This allows the author to make the following hypothesis, which will be examined in the empirical analysis:

At least some indicators, representing the firm's country of residence or economic sector in which it operates, have a statistically significant impact on enterprise ESG performance.

The data and methods used in the analysis

In order to examine this hypothesis, the regression analysis is used. The companies issuing publicly quoted common stock and registered in the stock exchange of the respective countries are taken for analysis. To narrow the scope of the research, particular European countries, representing some potentially specific features, are chosen. These countries are as follows: the Baltic countries (Lithuania, Latvia, and Estonia), Nordic countries (Denmark, Finland, Sweden and Norway), large western European countries (Germany, France,

Great Britain and Spain), small western European countries (Austria and Switzerland) and the European countries of high economic growth (Ireland and Poland). The analysis was based on fifty three independent indicators, including widely recognized financial indicators and specific additional indicators, presenting the external information about the enterprise residence and economic sector. The overall sample covers 2912 companies and their activities from 2006 to 2010. The sample is constructed by combining a number of different databases. The accounting data and external information is taken from the Bloomberg platform, the inclusion in the Global Compact Network from the UN Global Compact Participant Search database.

The performed analysis comprises several steps. Firstly, the sample from the target population is defined and all companies are subdivided into specific sectors based on the main activities as represented in the Bloomberg system. Secondly, fifty three variables are chosen, as potential indicators, reflecting the ESG disclosure score. According to the aim of the paper, the regression analysis was used as a statistical method to determine the relationship between ESG disclosure score and the chosen indicators. Thirdly, the results are evaluated for statistical significance and economic logic.

2. The empirical analysis

The chosen sample of companies is subdivided into specific sectors, based on the main activities as represented in the Bloomberg system. It can be observed that the Consumer Goods, Consumer Services, Financials and Industrials are the sectors, covering the largest part of the selected enterprises in the whole sample (respectively 1980 and 67 percent), but significant differences exist in particular countries. The sectors of Telecommunication and Utilities cover the smallest number of enterprises (respectively 102 and 3.5 percent). It can be seen that the Baltic countries also have different structures. Lithuania represents a large number of enterprises in Consumer Goods. In Estonia, a large amount of companies are in Consumer Goods, Consumer Services and Industrials, demonstrating the same proportion and a little smaller number of enterprises in Financials. In Latvia, the sector of Basic Materials, Consumer Goods, Health Care and Industrials are the largest.

For the final analysis, only the companies which disclose at least some ESG information are analysed, they account for around 23 percent of overall number of companies. The percentage of companies, disclosing ESG information per sector, is presented in the Table 1 given below.

Table 1. The percentage of companies, disclosing ESG information (Source: Bloomberg, author's calculations)

INDEX	Basic Materials	Consumer Goods	Consumer Services	Financials	Health Care	Industrials	Oil & Gas	Technology	Telecommunications	Utilities	Total
UK	57.5	60.6	55.1	49.5	46.7	57.8	59.2	43.2	57.8	68.0	54.8
Germany	23.1	14.2	9.7	10.9	10.5	11.1	9.2	5.3	20.0	30.9	11.1
Finland	66.7	29.2	41.4	16.5	25.7	21.0	60.0	13.9	70.0	80.0	28.0
Ireland	8.0	20.0	5.0	24.4	20.0	37.1	0.0	0.0	20.0	-	16.5
Denmark	15.0	27.0	4.7	6.2	27.4	22.6	26.7	8.9	100.0	40.0	15.1
Spain	21.8	8.6	23.1	28.9	22.2	35.2	64.0	25.0	50.0	65.0	30.2
Norway	27.5	10.5	15.6	13.3	8.3	14.0	13.6	7.5	60.0	60.0	14.2
Latvia	0.0	2.5	0.0	0.0	5.0	2.2	20.0	0.0	-	-	3.6
Sweden	41.3	26.7	23.0	29.0	12.0	22.7	20.0	14.6	56.0	10.0	23.6
France	54.5	27.4	36.6	46.3	20.0	33.3	42.9	19.4	50.0	66.7	33.5
Switzerland	21.5	40.0	6.0	27.2	27.7	22.3	40.0	18.7	100.0	28.0	24.9
Estonia	-	20.0	30.0	0.0	-	55.0	-	-	-	60.0	32.0
Lithuania	0.0	0.0	0.0	5.0	0.0	0.0	-	-	60.0	0.0	2.8
Austria	40.0	8.6	0.0	13.3	40.0	26.7	40.0	6.7	40.0	45.0	20.3
Poland	0.7	2.1	1.1	1.6	0.0	0.5	22.9	0.6	4.0	17.8	2.0
Total Result	31.4	20.6	26.1	21.1	19.6	23.2	26.8	12.7	45.6	46.1	22.9

In general, the UK has high representation in all sectors, resulting in approximately fifty percent. Lithuania, Latvia and Poland show modest results. It is shown by the table that the companies in the Telecommunications and Utilities sectors are more willing to capture and disclose the information related to ESG data in many countries. The sector of Telecommunications shows high representation in the UK, Finland, Denmark, Spain, Norway, Sweden, France, Switzerland, Lithuania and Austria. The Utilities sector is widely presented in the UK, Finland, Denmark, Spain, Norway, France, Estonia and Austria. The sector of Basic Materials has a larger representation in the UK, Finland, Sweden, France and Austria.

Taking into account this observation, the conclusion follows that the companies disclosing ESG data in every country are concentrated in specific sectors. On the other hand, the companies belonging to different countries also show different ESG disclosure practice, e.g. the UK is a clear leader in ESG disclosure, while Latvia, Lithuania and Poland are below the average. The reasons behind this may exist due to the differences in sector profitability, economic policies or other factors. The deeper analysis of this problem will be performed in other works of the author.

The regression analysis was used as a statistical method to determine the relationship between ESG data disclosure score, the company's financial indicators and some specific factors, such as the country or economic sector, where the company operates.

The regression analysis is aimed at finding the most influential factors, having a relationship with the company's ESG data disclosure and, specifically, at checking if a part of the company's financial data reflected by the specific factors, such as the sector and the country where the company operates, has a statistically measurable impact. The results of the regression analysis are presented in the Table 2.

It can be seen that the indicators having a statistically significant effect are as follows: ROA, LN_ASSET, LN_UNGC_T, BASIC, FINANC, TELE, Y2006, Y2007 and specific countries (Germany, Denmark, Norway, France, Switzerland, Austria, Poland, Ireland and the Baltic states).

As expected from the results obtained by other researchers, Return on asset (ROA) and firm size (LN_ASSET) has a positive effect on ESG disclosure. The variable Time since inclusion into UN Global Compact Network (LN_UNGC_T) highlights a positive relationship with the ESG variable, as expected.

Two variables, Y2006 and Y2007, were taken to determine if the financial crisis, which started in 2008, might have an impact on the considered relationships. The negative relationship which was found, show that the crisis did have an affect companies' investment in ESG disclosure and performance in relation with other specified variables.

Only three out of ten sectors, such as Basic Materials, Financials and Telecommunications, have a statistically significant impact on the con-

sidered ratio. Basic Materials sector has a significant positive effect. This sector is related to prospecting, development and processing of raw materials. Hence, it is strongly restricted by many environmental, safety and operational conditions and other requirements. However, the companies in this field often have a bad reputation in managing social and environmental risk. It is logical that they are trying on a voluntary basis to change this opinion.

Table 2. Regression parameter estimates

(Source: Mynstat, author's calculations)

Dependent Variable: ESG_DISCLOSURE			
N		3335	
Multiple R		0.64	
Squared Multiple R		0.407	
Adjusted Squared Multiple R		0.404	
Standard Error of Estimate		10.711	
Durbin-Watson D Statistic		1.866	
Effect	Coefficient	Standard Error	p-value
CONSTANT	2.381	0.938	0.011
ROA	0.072	0.019	0.000
LN_ASSET	3.615	0.121	0.000
Y2006	-3.17	0.67	0.000
Y2007	-2.524	0.479	0.000
LN_UNGC_T	0.999	0.063	0.000
BASIC	5.069	0.661	0.000
FINANC	-8.046	0.582	0.000
TELE	-4.288	1.191	0.000
GERMANY	-8.598	0.679	0.000
DENMARK	-5.434	0.932	0.000
NORWAY	-9.303	0.977	0.000
FRANCE	-4.119	0.628	0.000
SWITZERLAND	-3.01	0.692	0.000
AUSTRIA	-6.58	1.264	0.000
POLAND	-9.912	1.862	0.000
BALTIC	-7.321	1.881	0.000
IRELAND	-8.79	1.682	0.000

Most of the dummy variables, relating companies to a specific country, or a group of countries, have shown significant statistical relationships. It is seen, that Poland, Ireland and the Baltic states shows comparatively high negative effect to dependant variable. It may be argued, that these countries/region does not have any business traditions of making much effort to improve ESG performance. However, the implementation of the UN development programme may change this situation. The specific features of the Baltic region are analysed by many scientists (Aktan 2010; Pilinkus 2010; Tvaronavičienė 2009; Melnikas 2008). At the same time, unexpectedly Germany and Norway also show high negative result which should be researched for possible explanations.

It should be noted that the addition of dummy variables indicating country of residence and economic sector also increases prediction power of analysed regression as the addition of these variables increases Adjusted Squared Multiple R from around 0.30 to 0.404.

3. Conclusions

The paper empirically studies the determinants of enterprises' willingness to disclose environmental, social and governance data. The regression analysis for the years from 2006 to 2010 covers on average 667 European companies disclosing the ESG data in the Bloomberg information platform. The study shows a positive effect of the variables, such as Return on Asset, Asset size, inclusion in the Global Compact Network, Basic Materials sector, as well as a negative impact of the Financials and Telecommunications sectors, the years of 2006 and 2007 and ten country dummy variables including the Baltic region. Indeed, the impact of some variables, such as ROA, Asset size, the Inclusion in the Global Compact Network as well as the crisis years is as expected. However, the residence of an enterprise in the Baltic region or some other specified countries has a statistically significant negative impact on its ESG performance. As mentioned above, only three sectors have close relationship with ESG performance. One of the areas of further empirical research may be the analysis of profitability of various sectors and their effect on the number of sustainable enterprises.

The performed analysis makes a contribution to empirical studies, trying to find more drivers of ESG performance for enterprises, including the considered external variables or similar indicators. The analysis may be expanded to include other external factors because they may potentially have a particular impact on ESG performance as well.

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Appendix 1**List of initial variables analysed in regression model**

Variable	Broad definition	Unit	Nature of variable
Dependent	ESG (Environmental, social, and corporate governance) disclose	Score (0...100)	absolute
Independent	Asset	EUR	absolute
Independent	EBITDA	EUR	absolute
Independent	RAC-Wacc		comparative
Independent	Sales	EUR	absolute
Independent	ROA		comparative
Independent	Debt to asset		comparative
Independent	Profit margin	Percent	absolute
Independent	Earnings per share		comparative
Independent	Employment	Number	absolute
Independent	RD	EUR	absolute
Independent	Advertising	EUR	absolute
Independent	Tobin Q		comparative
Independent	Sales- 3 YGR		comparative
Independent	EPS-3 YGR		comparative
Independent	Sales Growth		comparative
Independent	Asset Growth		comparative
Independent	Employee Growth		comparative
Independent	Sales to asset		comparative
Independent	Cash flow	EUR	absolute
Independent	Market cap	EUR	absolute
Independent	Germany and other countries		dummy variable
Independent	UNGC time (time for participation in Global Compact network)	Days	absolute
Independent	Basic and other sectors		dummy variable
Independent	SP600(inclusion in STOXX Europe 600 Index)		dummy variable
Independent	LN-Asset		recalculated
Independent	LN-employee		recalculated
Independent	LN sale		recalculated
Independent	Years 2006-2010		dummy variable