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The impact of corporate governance on information asymmetry in Slovakia

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Abstract

The consequences of poor management in companies are expressed fully and affect not only the companies themselves, but the entire world economy. Especially for multinationals we note one important factor which significantly influences their governance, namely the separation of ownership from management. The negative consequences of this separation force companies to greater transparency and responsible management through application of the principles of corporate governance. Applying the principles of corporate governance has a positive effect on the elimination of information asymmetry, and hence on the financial management of the companies. Our main objective of the paper is to analyze the corporate governance principle's application in companies and to examine the possible impact of corporate governance on the estimated level of information asymmetry in the financial decision-making processes. We measured the level of corporate governance in selected companies in Slovakia (quoted on the Bratislava Stock Exchange) and used correlation analysis to examine the relationship between corporate governance and the level of information asymmetry.

Keywords: socially responsible business; corporate governance; corporate governance index; information asymmetry; Bratislava Stock Exchange;

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1. Introduction

The daily management of the company is delegated to managers, because the shareholders do not themselves have enough professional and technical knowledge needed to lead the company. Individual interests of company shareholders and executives have a significant impact on financial decisions and fulfilling financial goals (Minarova, Mala & Sedliacikova, 2015). Each interest group may have a different view of the financial goals of the company and this makes financial decisions about how to determine the optimal amount of total capital, sources of funding, business investment and the allocation of net profit more challenging and encourages the creation of information asymmetry (Cisco & Kliestik, 2013).

But information asymmetry can be minimized through compliance with the principles of corporate governance. The high topicality of the issue is due to the fact that the OECD is currently reviewing the original 2004 OECD Principles of corporate governance to ensure their continuing high quality, relevance and usefulness, taking account of recent developments in the corporate sector and capital markets. Adherence to these principles helps to reduce harmful short-termism and excessive risk taking, and is one of the key elements in building people's trust.

2. Theoretical background of corporate governance

The term corporate governance and its everyday usage is a new phenomenon that has appeared in the last twenty years or so. Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment (Schleifer & Vishny, 1997). A definition from the OECD clearly captures the essence of corporate governance: "Corporate governance is a system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board, managers, shareholders and other stakeholders and spells out the rules and procedures for making decisions in corporate affairs" (OECD, 2004). Sir Adrian Cadbury (1992) said: "Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The aim is to align as nearly as possible the interests of individuals, corporations and society." Professor Christine Mallin (2013) emphasizes some of the important features of corporate governance:

- It helps to ensure that an adequate and appropriate system of controls operates within a company and hence assets may be safeguarded.
- It aims to ensure that the company is managed in the best interests of the shareholders and the other stakeholders.
- It tries to encourage both transparency and accountability, which investors are increasingly looking for in both corporate management and corporate performance.

The theories that influenced the development of corporate governance include a variety of areas including finance, economics, accounting, law and management. The main theories associated with the development of corporate governance are: agency theory, stakeholder theory, stewardship theory and transaction cost economics.

3. The impact of Corporate Governance in mitigating information asymmetry in companies on the Bratislava Stock Exchange

In order to establish trust in the financial markets, it is necessary to minimize the presence of information asymmetry in companies, which otherwise has a negative impact on their financial management. One of the ways of reducing information asymmetry is the responsible application of the principles of corporate governance. The authors of several studies have researched the

relationship between corporate governance and information asymmetry: Kanagaretnam, Lobo and Whalen (2007); Cai, Liu & Qian (2008); Anglin, Gao, Edelstein & Tsang (2009); Elbadry (2010).

Kanagaretnam, Lobo and Whalen (2007) use three variables to estimate the level of corporate governance: the independence of the board, management board structure and functioning of the board. Based on the results of this study, the authors accept the hypothesis that there is a relationship between compliance with corporate governance principles and the reduction of information asymmetry. Cai, Liu and Qian, (2008) confirmed a statistically significant relationship between the intensity of monitoring the management board and the degree of information asymmetry. If the intensity of monitoring the board declines, the degree of information asymmetry increases. They also confirmed the indirect correlation between remuneration based on "pay for performance" and information asymmetry. Anglin, Gao, Edelstein and Tsang (2009) claim that better application of the principles of corporate governance reduces information asymmetry and thereby reduces the cost of raising funds. They also confirm that the management board will act in the interest of shareholders if they have the same financial incentives. Elbadry (2010) examined the relationship between corporate governance and information asymmetry in UK companies. A total of 23 independent variables were used to identify the level of corporate governance. Based on the results of correlation and regression analysis the author claims that the size, independence and operation of the management board, the remuneration of the CEO, the number of owners within the company and the proportion of debt to total capital is negatively correlated to information asymmetry. The level of information asymmetry may be affected by the frequency of meetings of the board, the audit committee, and the nomination and remuneration committee. The results of the study showed a positive effect of the meetings of the board and the committees on the level of information asymmetry. The main hypothesis: we assume that there is an indirect relationship between the application of corporate governance principles and the estimated level of information asymmetry in the financial decision-making in companies whose securities are listed on the Slovak regulated market.

In our research we focused on companies whose securities are listed on the Bratislava Stock Exchange. The reference period was 2011-2013. The total number of issuers was 104 companies in 2011, 109 in 2012 and 102 in 2013. We obtained the information from the documents which are available in the Central Register of Regulated Information, on the websites of companies and from the Bratislava Stock Exchange. In this paper we measure the level of corporate governance using a corporate governance index. The corporate governance index takes into account the criteria for evaluation in various areas, whose level was evaluated by ordinal characters (see Annex). We compiled corporate governance index for each reporting company with an aim to estimate levels of corporate governance. The corporate governance index will consist of the criteria, which are to be assessed by ordinal characters based on their importance. Weightings will be assigned to each criterion and will be determined on the basis of expert estimation and theoretically supported by Saaty's method of determining the weights. The Saaty's method compares pairs and evaluation is entered into a matrix $S = (s_{ij})$ in the following way:

$$(s_{ij}) = \begin{cases} 1 - i \text{ and } j \text{ are equivalent} \\ 3 - i \text{ is slightly preferred over } j \\ 5 - i \text{ is strongly preferred over } j \\ 7 - i \text{ is very strongly preferred over } j \\ 9 - i \text{ is absolutely preferred over } j \end{cases}$$

The values 2, 4, 6 and 8 are the intermediate stage evaluation. For ease of calculation used method of least squares logarithmic:

$$F = \sum_{i=1}^k \sum_{j>i} (\ln s_{ij} - (\ln v_i - \ln v_j))^2 \rightarrow \min \quad (1)$$

The solution is the geometric mean of the row of the matrix S:

$$V_i = \frac{\left[\prod_{j=1}^k S_{ij} \right]^{1/k}}{\sum_{i=1}^k \left[\prod_{j=1}^k S_{ij} \right]^{1/k}} \quad (2)$$

where $i = 1, \dots, k$.

We assigned weights to the criteria with the aim of objective assessment of the importance of each criterion in corporate governance index. Coefficients in corporate governance index were based on expert estimation and supported by Saaty’s method of determining the weights. The corporate governance index is as follows.

$$\text{CG index} = 0,095 \cdot (a + b + c) + 0,079 \cdot d + 0,159 \cdot e + 0,079 \cdot f + 0,079 \cdot g + 0,079 \cdot h + 0,079 \cdot i + 0,079 \cdot j + 0,079 \cdot k. \quad (3)$$

There are various methods of estimating the level of information asymmetry reported in studies. Based on the current knowledge we employ three basic measures. The first is the spread between the buying and selling price of shares, which is calculated as (Anglin et. al, 2009):

$$1. \text{ SPREAD} = \frac{(Askprice - Bidprice)}{\left[\frac{(Askprice + Bidprice)}{2} \right]} \times 100, \quad (4)$$

The second measure is the standard deviation of the daily volatility in share prices, which is calculated as follows (Uradnicek et. al, 2005):

$$2. \text{ standard deviation (STDEV)} \quad s_{xn} = \sqrt{\frac{\sum_{i=1}^m (x_i - \bar{x})^2 \cdot n_i}{\sum_{i=1}^m n_i}},$$

where:

x_idaily yield, calculated as the natural logarithm of the share closing price on day n and the closing price on day n-1

\bar{x}average income

n_idays.

The third measure is the Parkinson volatility index which takes into account the maximum and minimum share prices. Volatility is calculated as follows:

$$3. \text{ Parkinson historical high-low volatility (PARK)} \quad \sigma = \sqrt{\frac{1}{T 4 \ln 2} \sum_{t=1}^{t=T} \left(\ln \frac{H_t}{L_t} \right)}, \quad (6)$$

where:

H_tmaximum share price

L_tminimum share price

T.....number of periods

t.....number of income.

After an intensive search of the available data for each surveyed company we used the statistical program SPSS 18 to calculate the following Spearman’s rank correlation coefficients.

Table 1 Spearman’s Rank Correlation Coefficient Between GC Index and Information Asymmetry Measures

	Spearman's rho	SPREAD	Sig.	STDEV	Sig.	PARK Volatility	Sig.
CG index	2013	-0.226*	0.031	0.221*	0.035	0.360*	0.000
	2012	-0.213*	0.041	0.167	0.112	0.362*	0.000
	2011	-0.180**	0.085	0.362*	0.000	0.369*	0.000

** Correlation is significant at the 0.1 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed)

Source: created by authors

The relationship between the corporate governance index and SPREAD taking into account the demand and supply of shares was confirmed with a probability of 0.9 for the whole of the period 2011-2013. The values of the correlation coefficient suggest the existence of a weak indirect dependence. A company that has a higher corporate governance index has a lower spread between the demand and supply of shares price on the Slovak regulated market. Potential investors, shareholders and other market participants have a low disproportionality of information and thus similar expectations of share trading. So we can confirm the positive impact of compliance with corporate governance principles on reducing information asymmetry, measured by SPREAD, in companies on the Bratislava Stock Exchange.

The level of application of the principles of corporate governance, measured by the corporate governance index and the standard deviation STDEV, interact with each other. Based on Spearman’s rank correlation coefficient, we can confirm the existence of a weak dependence, but only for the years 2011 and 2013. A direct weak correlation between the corporate governance index and another important measurement of information asymmetry, the Parkinson volatility PARK, was confirmed for the whole period 2011-2013.

The confirmed direct and indirect correlation makes us think about the causes. The results can be a relatively distorted high abundance of zero values of information asymmetry measurements. The zero value of the standard deviation STDEV and PARK Volatility indicate to us that the shares of the company were not traded in a regulated market. We cannot claim that companies with zero values measurements of information asymmetry have perfectly symmetrical information and information asymmetry doesn’t exist. The following table 2 shows the numbers of companies with zero values of spread between the bid and ask price SPREAD, standard deviation STDEV and Parkinson volatility.

Table 2 The Number of Companies with Zero Measurements of Information Asymmetry

	2011	2012	2013
Number of issuers of shares	87	92	84
SPREAD “0”	7	10	11
STDEV “0”	33	32	34
PARK Volatility “0”	65	59	61

Source: created by authors

Due to the high numbers of companies with zero values of STDEV and PARK Volatility, we will consider in identifying the relationship between corporate governance and information asymmetry only the dependent variable SPREAD.

4. Conclusions

In spite of the Slovak regulated financial market's relatively short history (since 1993) and relatively small trading volume and liquidity we were able to establish an empirical association between corporate governance and information asymmetry. A company applying the principles of corporate governance reduces the information asymmetry measured by the spread between the bids and ask price of the shares. Our results are the same with the results of Elbadry (2010). An opposite correlation was confirmed by other measurements of information asymmetry. For this reason, we assume that a better measure of information asymmetry in the Slovak market is through the spread between the bids and ask price of the shares SPREAD.

The topic of corporate governance in Slovakia is still relatively new. By confirming the positive impact of corporate governance we have shown that the application of its principles has relevance for such a small new market. The next tasks are to disseminate this important information to market participants and to deepen our research knowledge in this area.

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Appendix

A.1. Evaluation 1st, 2nd and 3rd criterion and results of the survey

Criteria	Description	Ordinal scale	Numbers of companies 2011/2012/2013
1. Disclosure of Annual Report	Availability of information to shareholders and potential investors. The annual financial report or financial report available in the Central Register of Regulated Information (CERI), on the company's website and in Register of Financial Statements (RUZ).	„0“ = annual report for the actual period is not disclosed	25/25/24
		„1“ = annual report is published in one of the three options (CER, RUZ, website)	23/8/8
		„2“ = annual report is published in two of the three options (CER, RUZ, website)	56/76/69
		„3“ = annual report is published in the CERI, on the company's website and also in the RUZ	1*
2. Annual Report	The scope and clarity of the information about corporate governance.	„0“ = annual report does not contain information about corporate governance	47/39/53

3. Corporate governance statement	The scope, clarity and quality of information.	„1“ = annual report contains partial information about corporate governance	43/64/27
		„2“ = annual report contains partial information about corporate governance and deviations from the Code	14/6/22
		„0“ = no specific information about corporate governance	57/61/68
		„1“ = includes a brief explanation of each point of the statement	40/28/12
		„2“ = contains explanations of each point of the statement and reasons for deviations from the Code	7/20/22

Source: created by authors

*Companies have been required to publish the information in the RUZ since 2013.

A.2. Evaluation 4th, 5th, 6th, 7th, 8th, 9th criterion and results of the survey

Criteria	Description	Ordinal scale	Numbers of companies 2011/2012/2013
4. Boards of companies	Disclosure of information about board members, such as names, experience, responsibility and functions.	„0“ = no information	27/31/33
		„1“ = only the names of board members	64/64/57
		„2“ = published the names of board members, together with the qualifications, roles and responsibilities and management functions	13/14/12
5. Remuneration of board members	Information about the structure and amount of remuneration for individual members of the board.	„0“ = no information	61/63/65
		„1“ = only cumulative information about remuneration	34/39/32
6. Risk management	Information about risk management, defined predictable risks and risk quantification.	„2“ = information about the amount of remuneration of individual board members	9/7/5
		„0“ = no specific information	72/82/69
		„1“ = basic information about risk management and defined predictable risks	16/10/11
		„2“ = comprehensive information about risk management and risk quantification	16/17/22
7. Audit Committee	Information about the establishment or failure to establish the committee and its	„0“ = no information	38/71/78
		„1“ = information about the establishment or failure to establish the committee	44/21/16

	activities.	„2“ = where there is a committee there is information about its activities and results	12/2/0
		„0“ = no information	88/87/80
8. Remuneration Committee	Information about the establishment or failure to establish the committee and its activities.	„1“ = information about the establishment or failure to establish the committee	12/18/17
		„2“ = where there is a committee there is information about its activities and results	4/4/5
		„0“ = no information	91/92/85
9. Nomination Committee	Information about the establishment or failure to establish the committee and its activities.	„1“ = information about the establishment or failure to establish the committee	12/16/16
		„2“ = where there is a committee there is information about its activities and results	1/1/1

Source: created by authors

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