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METHODOLOGICAL ASPECTS OF THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND FIRM PERFORMANCE

Temur Makhkamov,

Lecturer at Westminster International University in Tashkent. Uzbekistan.
tmakhkamov@wiut.uz

Rustam Abduraupov

Senior Lecturer, Westminster International University in Tashkent, DSc.
Uzbekistan. rustamabduraupov@gmail.com

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Abstract

This article seeks to examine the effect of corporate governance transparency on the firm performance of emerging markets companies from 2009 to 2020, specifically, to investigate the role of the board of directors and corporate governance disclosure on firm performance.

Key words: Corporate governance, firm performance, emerging markets

Аннотация

Ushbu maqola korporativ boshqaruv shaffofligining 2009 yildan 2020 yilgacha rivojlanayotgan davlatlardagi kompaniyalarning kompaniya samaradorligiga ta'sirini o'rganishga, xususan, direktorlar kengashi va korporativ boshqaruvni oshkor qilishning kompaniya samaradorligi rolini o'rganishga qaratilgan.

Калит сўзлар: Korporativ boshqaruv, firma faoliyati, rivojlanayotgan davlatlar.

Аннотация

В данной статье рассматривается влияние прозрачности корпоративного управления на результаты компаний развивающихся рынков с 2009 по 2020 год, в частности, изучить роль совета директоров и раскрытия информации о корпоративном управлении на результаты компаний.

Ключевые слова: Корпоративное управление, результаты деятельности компаний, развивающиеся рынки

Introduction

The primary objective of every country is to ensure economic growth and development. The United Nations estimated the developing countries need between 3.5 and 4.5 trillion USD in annual investments to achieve the Sustainable Development Goals by 2030 [1]. Considering the investment needs, there is a greater need to develop and strengthen the capital markets to facilitate efficient allocation of the scarce financial resources and mobilize commercial

financing. The development of capital markets, on the other hand, depends on many factors, such as, economic growth, banking sector development, foreign direct investments and institutional factors like trade openness, financial liberalization, supremacy of law and corporate governance. Good corporate governance is vital to enable companies perform more efficiently, to ease access to capital, minimize risk and protect stakeholders. It also makes companies more accountable and transparent to investors to minimize expropriation and unfairness for shareholders. Thus, good corporate governance practices are seen as the driving force for companies to build trust with investors and shareholders.

Literature review

The term corporate governance has become more popular among scholars and regulators following the fraudulent financial activities in the corporate world. Some researchers defined corporate governance as a tool to protect the interests of the shareholders. While other scholars [2] argue that corporate governance not only protects the interests of shareholders, but also satisfies the interest of the stakeholders (i.e., employees, customers, suppliers, and government). Tricker [3] argues that “Governance is different from the management; and involves setting the corporate direction, involvement in executive action, supervision and accountability.”. According to Shleifer and Vishny [4], “...corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment”. Since it is impossible for principals to fully monitor the daily operation of the corporation in the modern world, they delegate agents to manage operations in their interest. Obviously, this leads to conflicts of interest problems where shareholders are not happy with their return on investment. Therefore, shareholders must find ways to protect themselves from the expropriation of their wealth [5].

The agency theory is the main theory used in this dissertation to study the relationship between corporate governance transparency and firm performance. The agency problem arises because of the separation of power between the owners and the management where information asymmetry is high, and managers are believed to maximize their own utility instead of enhancing shareholders’ wealth. Consequently, the theory holds that due to information asymmetry principals cannot correctly measure the efforts of managers who know the details of the daily operations.

Since Joint-stock companies have professional managers hired by the owners the agency problems are inherent in a corporation due to the separation of ownership from control. Corporate governance mechanisms and the agency theory protect the interests of the shareholders by mitigating agency problems which will increase the value of shareholders and the firm. Therefore, there is a direct link between corporate governance and financial performance. The central interest of shareholders is from value maximization. Therefore, with a view to the objective of the dissertation to investigate the impact of corporate governance on firm performance, the narrow definition is more relevant since it provides a direct link between corporate governance and financial performance. Both the narrow definition of corporate governance and the agency theory provides theoretical justification for the link between corporate governance and firm performance and allow the testable hypotheses on the different corporate governance mechanisms in terms of improved financial performance.

Methodology

The sample size covers 5 geographical areas (Americas, Asia, Middle East, Europe and Africa) and 24 countries that are categorized as emerging markets according to MSCI specifications. Firms in the sample are also categorized by their sizes of market capitalization as; Mega, Large and Mid. The study covers 3,497-year observations that come from 396 companies from different industries, throughout the period of 2007 and 2018. Only Mega, Large and Mid-size companies' data was used, because the companies of this size make up more than 80% of the whole equity markets in each country. All the data was obtained from the Bloomberg Terminal in Westminster International University in Tashkent. Some observations were dropped due to incompleteness, namely, some companies that did not have Governance disclosure scores, or other important variables.

Historically, different measurements have been used in order to examine the firm performance by different studies. Most of the studies examine the firm performance using a diversity of financial Tobin's Q, ROA, ROE, ROI and net profit margin.

The above measures can be categorized into two groups: market-based and accounting-based measures. On one hand, Daily and Dalton [6] suggest that the accounting-based measures consider the current financial performance of the company. On the other hand, market-based measures consider the investor perceptions of the company potential performance. Each group has been criticized by different researchers.

Return on assets is an indicator of how profitable a company is or how efficient is the management as using its assets to generate earning and is sometimes referred to as Return on Investment. It is calculated by dividing a company net income by its total assets:

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}} \quad (1)$$

Return on Equity measures the profit of the company by revealing how much profit the company generates regarding to the amount of the money invested by the investor. It is calculated by dividing a company net income by its total equity. It is also known as Return on Net Worth:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Total Equity}} \quad (2)$$

All of the financial information that related to ROE and ROA variables were extracted from the balance sheet that provided by Bloomberg database.

Corporate Governance Disclosure

Bloomberg monitors environmental, social, and governance (ESG) performance of all publicly traded companies since 2009. It uses published disclosures and news items, and turns them into one number: a disclosure score. This score, along with Bloomberg's other ESG products, helps investors assess company's transparency, risks, and opportunities. Bloomberg ESG captures many qualitative and quantitative indicators that investors and analysts can use in evaluating how well a company is adapting to our changing world—and company's

commitment to transparency and accountability. It does not measure performance, but transparency. The more information disclosed, the higher the disclosure score. The score ranges from 0 to 100. In this research, we use only one part, the Governance disclosure score which also ranges from 0 to 100. The governance disclosure score measures the disclosure level of companies that takes into account 43 points that belong to the aspects of corporate governance that are shown in the table.

Table 1. Aspects of corporate governance

Main Sections	Number of aspects covered
Board Structure	4
Board Independence	6
Board & Exec Diversity	14
Board Committees	15
Shareholder Rights	1
AGM Voting Results	1
Director Compensation	1
Total Aspects	42

Table 2. Description of variables

Independent	Definition
Governance disclosure score	G disclosure score that ranges from 0 to 100
B_size	Total number of board members
B_ind	Number of independent members in the board
B_fem	Number of female members in the board
Dependent	Definition
ROA	Return on assets, calculated as the ratio of net income to total assets
ROE	Return on equity, calculated as the ratio of net income to total shareholders` equity

Furthermore, prior to carrying out our multiple regression analysis, this study examined whether the general assumption required were fulfilled. Firstly, we examined the variables for multicollinearity. The issue of multicollinearity appears if two or more variables are highly correlated which might affect the estimation of the regression parameters. Gujarati [7] illustrates that the existence of multicollinearity makes the assessment and the hypothesis testing about regression coefficients indeterminate. This is because multicollinearity makes the regression coefficient unstable and difficult to interpret. In addition, the standard errors for the coefficients are magnified making the coefficient statistically insignificant. Furthermore, multicollinearity can cause the coefficients to change signs, and makes it more difficult to identify the correct model. The variance inflation factor (VIF) is commonly used to identify the presence of multicollinearity. VIF illustrate the degree for every independent variable that been

explained by other independent variable to eliminate collinear variables. In other word, the change in one variable will change the coefficient. If VIF is bigger than 10 this indicates there is a problem with multicollinearity.

It should be noted that the variance of the estimator for a typical regression coefficient (say β_i) can be shown to be the following:

$$Var\beta_i = \frac{\sigma^2}{s_{ii}(1-R_i^2)} \quad (3)$$

Where:

$S_{ii} = \sum_{j=1}^n (X_{ij} - X_i)^2$ and R_i^2 is the unadjusted R^2 when you regress X_i against all the other explanatory variables in the model, that is against a constant $X_2, X_3, \dots, X_{i-1}, X_{i+1}, \dots, X_k$.

Suppose there is no linear relation between X_i and the other explanatory variables in the model. Then R_i^2 will be zero and the variance of β_i will be σ^2/S_{ii} . Dividing this into the above expression for $Var\beta_i$, the variance inflation factor will be written as:

$$VIF(\beta_i) = \frac{1}{1-R_i^2} \quad (4)$$

It is readily seen that the higher VIF, the higher the variance of β_i and the greater the chance of finding β_i insignificant, which means that there is a problem with multicollinearity. Thus, these measures can be useful in identifying multicollinearity. The procedure is to choose each right hand side variable (that is, explanatory variable) as the dependent variable and regress it against a constant and the remaining explanatory variables. We would thus get K-1 values for VIF. If any of them is high, then multicollinearity is indicated. Identifying multicollinearity is in fact only the beginning of the process, and it must be followed with solution of the problem.

GLS estimator

Generalized least squares (GLS) is a technique for estimating the unknown parameters in a linear regression model. The GLS is applied when the variances of the observations are unequal (heteroscedasticity), or when there is a certain degree of correlation between the observations. A GLS regression is more suitable in that it corrects for the omitted variable bias in the presence of autocorrelation and heteroskedasticity in pooled time series data. Pooled OLS estimator is consistent and unbiased only if the errors in each period are uncorrelated with the explanatory variables in the same time period. When this is not the case, ordinary least squares can be statistically inefficient, or even give misleading inferences. We applied GLS to estimate Random-Effects models. This methodology allows researchers to examine variations among cross-sectional units simultaneously with variations within individual units over time.

This study applied the deductive positivism approach where the pre-existing theoretical basis is identified and relied upon in developing the hypotheses. Multiple regression analysis is chosen as the main tool of analysis in this study. To capture the effects of firm and time specific heterogeneities panel data models can be specified as fixed effects or random effects. Moreover, this chapter examined the specification tests that might affect the corporate

governance variables which may result in problems from understanding the significance of individual independent variables in the regression model.

As discussed above, a model was constructed to test the effect of corporate governance transparency on the emerging market firm performance and the results are presented here.

This section deals with the descriptive statistics for the data that was used in the analysis of this study. Some of the main features of the data will be described quantitatively (e.g. central tendency of the statistics such as mean, max and min, data dispersion such as standard deviation). However, for ease of presenting and easier for the reader, we will present the descriptive statistics separately with the appropriate table extracted from the original table.

Firm performance

Table 8 below reports the descriptive statistics of the dependent variables. The table shows that the ROE ranges from a minimum of -293.71% to a maximum of 423% with an average of 17.57% for the overall sample. The ROA ranges from a minimum of -111.66% and maximum of 164.22% with average of 6.84% for the combined sample.

Table 3. Descriptive statistics of firm performance measurement

	N	Minimum	Maximum	Mean	Std.Dev
ROE (%)	3451	-293.71	423.00	17.57	25.07
ROA (%)	3471	-111.66	164.22	6.84	10.27

Corporate governance variable

In Table 9 below the statistics for board size show that in general the mean board size is ten directors, with a minimum of three and a maximum of twenty four for the whole sample of 305 listed companies in Emerging markets. By checking the frequency of the board size manually, only one company, a South African mid-size company, has 24 directors on the board, and the rest of the companies had between three and 22. This confirms that the listed firms in emerging markets, on average, do not correspond with the recommendations of Jensen and Lipton [8], based on their investigation of firm performance in relation to board size. They recommended eight or nine directors, and specified that ten should be the maximum number. This relatively small size is due to the effect of more people inhibiting the process of making decisions (i.e. causing indecisiveness or incoherent decisions due to the fissiparous decision-making process among many parties). Interestingly, it has been found that firms in developing countries typically have smaller board sizes (possibly related to nepotism, as discussed previously). The average board size similar in Egypt and Malaysia is eight directors (Elsayed [8]; Haniffa and Hudaib [9]), while the average board size in the US is 12.25 (Yermack [10]). However, the board size is significantly smaller in Australia, averaging 6.6 (Kiel and Nicholson [11]). In Uzbekistan, the law on “Joint-stock companies and protection of shareholders’ rights” says that the size of the supervisory board cannot be less than seven members if the joint-stock company has more than 500 common shareholders and not less than nine members if there are more than 1000 common shareholders.

Table 4. Descriptive statistics of board of directors

	N	Minimum	Maximum	Mean	Std. Deviation
Governance disclosure score	3496	0.07	1	0.84	0.21
Boards size	3481	3	24	10.50	3.41
Board independence	3039	0	100	42.51	17.94
% of Women on board	3089	0	60	7.98	9.59

As shown in table 9, an average of 42.51% of board members are independent, ranging from 0% to 100%. There are 25 companies that does not have any independent directors, while only one company, which is in United Arab Emirates, whose board consists of only independent directors. Previous studies have shown that independent boards provide reduced information asymmetry between shareholders and managers. Brickley et al.[12] found that boards tend to perform better with the monitoring and advisory function of independent directors on behalf of shareholders. Board independence in Uzbek companies is close to zero. This problem is intended to be addressed by the revised in 2019 law on “Joint-stock companies and protection of shareholder rights”, where it requires at least one independent member of supervisory board for listed companies. However, at this time many companies find it difficult to find candidates for independent director position and therefore most of them do not have them (e.g. compared to other countries: the US mean = 54%, Yermack [13]; Malaysia mean = 50%, Haniffia and Hudaib [14]).

Specification test results

In order to investigate the impact of corporate governance on the firm performance this study used panel data. By using Breusch and Pagan Lagrang multiplier test the result of the test is highly significant as shown below. The Breusch and Pagan Lagrang multiplier test has a Null of poolability. Therefore, its result rejects the null, suggesting that panel regression is necessary. Panel data models can be specified as fixed effects or a random effect that helps in capture the effects of firm and time specific heterogeneities. To decide between the random effects against the fixed effect we performed Hausman test. The test statistic result is statistically significant as shown below in Table 5. Hence, we reject the Null of random effects. Consequently, we estimate fixed effects models.

Table 5. Panel model test

Breusch and Pagan LM Test	chi2(1) = 71.42 P-value = 0.00
Hausman Test	chi2(14)= 8.11 P-value = 0.84

Table 6. Specification tests results

Wald (chi-square) P- value	6932.32 (0.000)	3445.70 (0.000)
Breusch-Pagan/Cook-Weisberg heteroskedasticity (P-value)	test	for
Wooldrige-test for autocorrelation (P-value)	4408.78 (0.000)	532.34 (0.000)
	5.114 (0.0258)	16.703 (0.0001)

Conclusion

Many papers have investigated the relationship between transparency and firm performance. However, all of them used different variables to measure transparency. Corporate governance disclosure score that we used in this work has not been used in prior literature. Moreover, we use the corporate governance disclosure score as a determinant of firm performance and find a positive significant relationship at the 1% level between corporate governance transparency and the return on common equity (ROE) and the return on assets (ROA). Prior literature that investigated the relationship between transparency and firm performance took form of different variables. Mohammadi, 2016 investigated the relationship between disclosure quality with current and future performance of the listed companies on the Tehran Stock Exchange (TSE). The results show that there is a significant relationship between disclosure quality with return on assets, return on equity, market to book value. In addition, the results of multiple linear regression analysis show that there is a significant relationship between disclosure quality and current and future performance.

We find a positive association between the board size and ROE at a significance level of 10% only in one equation. All other equations find no significant impact of board size on firm performance, as shown in table 14 and 15. Most prior studies that investigated the impact of board size on firm performance found either a negative or a positive relationship. For example, reducing board size helps in avoiding any free rider problems or poor coordination and communications, which result from larger boards. As board size increases, increased problems of coordination and communication result, leading to decreased ability of the board to control management, thereby increasing agency problem. Large board size results in different opinions and less efficient decision making or control over managers; in other words, it is difficult for board members to agree on specific decisions when the number of board members is high, while small boards are more likely to formulate and agree on specific opinions, and thus might be more effective in monitoring management and consequently maximize the value of shareholders.

We find no statistically significant impact of women serving in board neither the ROE nor on ROA. However, it is generally accepted that female board members are more independent because they are not part of the “old boys’ network”. Women are more likely to be placed in positions of leadership in circumstances of downturn. The implication is that the presence of women on the board could be perceived by shareholders that significant change is on the way, thereby making them more confident in the company’s success, which results in increase in share price. Diversity in general is considered to improve organizational value and performance as it provides new insights and perspectives and provides for representation of different stakeholders for equity and fairness.

Our results show that board independence has a positive and statistically significant relationship with ROE. Significantly, independent directors are viewed as people who can provide a better quality and assurance of reasoned corporate judgment. Whilst managers, who must face the pressures of day-to-day events, may overlook some of the decisions made and/or avoid making risky choices. Nevertheless, having general wisdom alone is not sufficient for independent directors to contribute productively. They need to be competent and capable of

understanding the firm’s business operations emphasizes non-executive directors should be those who possess sufficient calibre. This attribute is important for them to be able to influence board directions and decisions effectively and to ensure the implementation of plans that take into account the long-term interests of various shareholders, and the appropriate management of firm risk.

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