



THE EFFECT OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE, EVIDENCE FROM EGYPT

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ABSTRACT

Corporate governance is well thought-out to have major implications for the growth prediction of an economy. Fine corporate governance practices are viewed as important in decreasing risk for investors; catch the attention of investment capital and improving the performance of firms. However, the way in which corporate governance is prearranged differs between countries, relying on their economic, political and social circumstance.

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Keywords: Corporate governance, Board size, Board composition, Block holders, CEO-duality, Firm performance.

Contribution/ Originality

The study is one of very few studies which have investigated the relationship between corporate governance dimensions and firm performance on the Egyptian market. The performance is measured using both book measures and market measures. Our study would compare between the effects of different corporate governance mechanisms on firm performance.

1. INTRODUCTION

Corporate governance represents the bridge and solution that govern the relationship between shareholders and the board of directors. As there is always an uncertainty factor represented by the shareholders of how the board of directors are directing the corporation they are interested in, and whether they are managing it in their favor or not. Also because the shareholders are not always aware of the management techniques that are used by those directors, therefore their must be a solution that decreases the gap between the interested parties and the corporation represented by the board of directors. This solution is the corporate governance mechanism under predetermined

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governmental rules and regulations that represents the security and the judge under which all parties are subject to. Board of directors solved the problem of the conflict of interests between managers and stockholders, also it secures the rights of the stockholders inside the corporation, that's why it is important to investigate the characteristics of the board and how these characteristics can affect the corporate performance. Our study examined the relationship between board characteristics and corporate performance by examining the most 30 listed active nonfinancial companies in the Egyptian stock market for 7 years; from 2004 to 2010. Financial companies are eliminated from this study as it has its own rules and regulations.

2. LITERATURE

Corporate governance is under lied by many theories, these theories range from the agency theory and expanded to stewardship theory, stakeholder theory, resource dependency theory, transaction cost theory, political theory and ethics related theories like business ethics theory, virtue ethics theory, feminist's ethics theory, disclosure theory and postmodernism ethics theory (Abdullah and Valentine, 2009).

Agency theory is one of the most famous corporate governance theories that show the corporate relationship with ownership. Agency theory its bases come from an economic theory expositied by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976). Agency theory is defined as "the relationship between the principals, such as shareholders and agents such as the company executives and managers".

In this theory, the owners whom are represented by the shareholders or the principals, hires the agents to perform work. Principals delegate the management and running of business to the directors or managers, who are shareholder`s agents (Clarke and Cooper, 2004).

The other significant theory for this research is Resource Dependency Theory.

Resource dependency theory focuses on the role of board of directors in giving an access to the needed resources by the firm, Hillman *et al.* (2000) explain that resource dependency theory concentrates on the function of directors that play in providing and securing the needed resources to the organization through their communications with the external environment.

3. INDEPENDENT VARIABLES AND DEFFINATIONS

In the following sections we will focus on the basic variables of board characteristics and their relations with corporate performance.

3.1. Board Size

The finance literature has generally found evidence consistent with the agency theory perspective that a smaller board is related to better firm performance (Gertner and Kaplan, 1996; Yermack, 1996; Eisenberg *et al.*, 1998; Denis and Sarin, 1999). Due to coordination costs and free rider problems inherent in large boards, shareholder groups generally favor smaller boards and have pressured companies to reduce board size (Gertner and Kaplan, 1996). Some management

studies, however, have found a large board to be better (Gales and Kesner, 1994; Dalton *et al.*, 1999), and these studies seem consistent with resource dependency theory, which supports a positive relationship between board size and firm performance (Dalton *et al.*, 1999). However, both theories support the notion that board size has a significant economic impact on firm value.

The European journal of finance investigated the impact of board size on firm performance. A large sample has been used of this investigation of 2,746 listed firms in the UK stock market from 1981-2002. The use of this large sample makes the research more creditable to rely on its results. It is found a very strong negative relationship between board size and firm performance measured by Tobin's Q. The result support the argument that there is poor communication and decision making in large boards. This evidence is also argued by Lipton and Lorsch (1992), and Jensen (1993). Also other US results supports the result of the negative relationship between board size and firm performance (Coles *et al.*, 2008), Haniffa and Hudaib (2006). Most of the studies are taking Tobin's Q as a measure for the dependent variable firm performance.

H1: There is a significant negative relationship between board size and firm performance.

3.2. Board Composition

One of the key characteristic of board is the non-executive directors, the non-executive director is the one that is not involved in the day to day management of the organization, but he is involved in the decision making and the planning policies.

Previous studies by y Kaplan and Reishus (1990), (Byrd and Hickman, 1992), Brickley *et al.* (1997) argued that there is a positive relationship between independent directors and firm performance. Also Fernandes (2008) documented that firms with independent directors have less agency problems and have more alignment to shareholders.

Mike (2004) investigated the relation between outside directors and firm performance. Mike is based in his research on different theories mentioned by previous researchers analyzing the relationship, like agency theory, resource dependency theory, and institution theory. (Jensen and Meckling, 1976; Shleifer and Vishny, 1997) argued that based on agency theory there is a positive relationship between outside directors and firm performance due to the presumed independency. A sample of 523 companies from listed companies in shanghai and Shenzhen stock exchanges were taken for analysis. Firm performance as dependent variable is measured by return on assets and return on equity.

Mura (2007) investigated through his paper the relationship between firm performance and ownership structure evidence from U.K, in details the effect of nonexecutives structure. The empirical results reached by the paper are based on analyzing a sample of 1,100 U.K listed non-financial firms for period 1991-2001 shows no significant relationship between nonexecutives and Tobin's q as a measure for the dependent variable firm performance.

Lawrence and Stapledon (1999) mentioned that there are many studies examined the relationship between independent directors and corporate performance. They found through their examination that there is a direct relation between independent directors as an independent variable

and return on equity as dependent variable for measuring performance. The authors used by the end of 1995 a data sample the top 100 Australian companies, ranked by market capitalization. They used simple regression model for their analysis.

H2: There is a significant positive relationship between independent board members and firm performance.

3.3. Duality

One of the important functions of the board of directors is to monitor the top management's actions, but a problem may arise when the Chief Executive Officer and chairperson positions are held by the same person. Unlike Agency Theory which shows that great conflicts may arise from the action of duality; Stewardship Theory supports the idea. Stewardship is one of the most important theories of Corporate Governance which states that managers don't work for their self interest but they are working for the corporation favor, as they are steward for corporation assets. Managers are working for making high reputation for them and so benefit the corporation.

Varshney *et al.* (2012) studied the effect of corporate governance mechanism on firm performance. The study examined the effect duality as an independent variable on firm performance as a dependent one. Duality was mentioned by the Combined Leadership. Also Donaldson and Davis (1991) examined the effect combined leadership, which leads to a higher performance. Brickley *et al.* (1997) mentioned that combined leadership structure facilitate the communication between management and the board. Rechner and Dalton (1991) argued that a combined leadership helps in monitoring the activities of top management and thus reduces the agency costs. In contrast, some examiners argued that the separation between Chief Executive Officer and the chairman is better for increasing the firm performance as mentioned by Peel and O'Donnell (1995) and also Coles *et al.* (2001). Based on previous studies, Varshney shows that there is a negative relationship between concentration leadership and firm performance. , Jensen (1993) argued that role of duality may hinder the board to monitor management and therefore increase agency costs. While Stoeberl and Sherony (1985), and Anderson and Anthony (1986) argued that the Dual structure leads to better firm performance. Other articles show that there is a negative relationship between the Dual structure and firm performance as what is mentioned by Pi and Timme (1993).

The article made by Chen *et al.* (2008) uses the changes in firm performance within 3 years related to changes in leadership structure. Through the study performance is measured by Tobin's Q. The examination found that many firms changed from Dual to non Dual structure, and by testing the variables it's observed that firm performance is not affected by this change.

Anthony and Coleman (2007) examined the relationship between CEO Duality and firm performance evidence experienced from Ghana. The study was based on previous empirical studies of the relationship between corporate governance and firm performance, like Claessens *et al.* (1999); Klapper and Love (2002). The study of Anthony relied on a secondary data from the financial statements of the 16 nonfinancial listed companies on Ghana stock market. Banks and

financial firms are excluded from the study because of their huge debt structure as argued. The data cover eleven year period starting from 1999 to 2001. Performance is measured by three measurements; ROA, Tobin's Q, and Sales growth rate (SGR). Results of the study are consistent by other studies made by [Berg and Smith \(1978\)](#), and [Brickley et al. \(1997\)](#). While the findings show a positive relationship between duality and ROA and a negative relationship with SGR.

H3: There is a significant negative relationship between CEO duality and firm performance.

3.4. Block Holder Ownership and Firm Performance

Block holder ownership reflects the ratio of the shares in the corporation that are not publically traded but are concentrated and blocked by specific holders. Our aim here is to find either high block holder ratio or low one will led to high firm performance. A paper by [Diga et al. \(2009\)](#) investigated whether there is any relationship between ownership structure and firm performance in the UK Public firms. The analysis was using a panel data for period from 2003 to 2007. ROA and ROE are used as measures for the dependent variable firm performance. The paper stated the effect of inside ownership (managerial ownership) on firm performance; it shows different relationships which link the role of managerial ownership with firm value ([Jensen and Meckling, 1976](#); [Jensen, 1993](#)), it proposes that the share of ownership by managers would align the interest of shareholders and managers. However; another relation states that the firm value decreases when management holds a substantial share in the firm ([Jensen and Meckling, 1976](#); [Fama and Jensen, 1983a](#); [Stulz, 1988](#)). The paper also mentioned the effect outsider ownership on firm value. [Shleifer and Vishny \(1997\)](#) suggested that large block holders may have a positive effect on firm value and be an effective device to monitor management. The results show a positive relationship between inside ownership and firm value which is also supported by [Morck et al. \(1988\)](#). The results also show a negative relationship between outside ownership and firm value.

[Javid and Robina \(2007\)](#) explained the effect of ownership concentration on firm performance evidence from Pakistan. A sample of fifty firms from different sectors was chosen from 2003 to 2008. The study concluded that there is a positive relationship between ownership concentration and firm performance. These results are in accordance with the findings of [Lehmann and Weigand \(2000\)](#) for Germany, [Leech and Leahy \(1991\)](#) for UK and [Mudambi and Nicosia \(1998\)](#). Concentration of ownership is considered a solution to solve the agency conflicts ([Shleifer and Wolfenson, 2002](#)). Also firm performance could be improved by merging ownership and managerial interests through concentration of ownership ([Agrawal and Mandelker, 1990](#)). Through the study firm performance as dependent variable is measured using ROA, ROE, and Tobin's Q.

H4: There is a significant positive relationship between block holder ownership and firm performance.

4. METHODOLOGY

4.1. Sample Selection

In our research we selected our sample from the Egyptian companies, from the most 50 active companies listed in Egyptian stock market. We could collect data for 30 companies from the top 50 from year 2004 till 2010 so that the most recent relevant data could be achieved. Only those data for the 30 companies from 2004 to 2010 of our sample are available that were collected from the Egyptian stock market. This could be the reason for the potential omission for the missing data for each year. In our research we rely on the secondary data from the firms' annual reports. These data are manually collected from the annual reports for the tested sample. Banks and financial sectors are excluded from our sample as they have their own regulations and characteristics that are different from the other industrial sectors. Also firms that lack the independent variables' data are excluded and those lacking data for calculating the proxies for firm performance are also excluded. Hence, the final panel's data are of 210 observations, by this way the real contents only are retained and this is useful to maintain data away from any distortion.

4.2. The Proxy of Firm Performance

From the previous empirical studies the most commonly used proxies to measure the firm performance are ROA, ROE, and Tobin's Q (Eisenberg *et al.*, 1998; Denis and Sarin, 1999), Lipton and Lorsch (1992) and Jensen (1993), Rashid *et al.* (2010), and (Arthur, 2001). All of these researches and many others used the same proxies for measuring performance. ROA IS the accounting proxy for measuring performance, while Tobin's Q is the market proxy for measuring performance.

Table-1 Performance variables and their descriptions

Symbol	Variable name	Measure and description
ROA	Return on Assets	EBIT over Total Assets

4.3. Independent Variables

Independent variables are defined and shown in Table 2 Measurements and expected relations are consistent with prior research.

Table-2 board characteristics and control variables

Symbol	Variable name	Description and measures
BFSIZE	Board size	The sum of executives and nonexecutives directors in the board
BCOMP	Board composition	Board independence proxy measured by the number of independent directors over board size. Mike (2004), Rashid <i>et al.</i> (2010).
DUAL	CEO duality	Duality takes the value 1 if the same person fills the two positions CEO and chairman, and otherwise takes value 0.
BHOLDER	Block holder	Percentage of shares that are not publicly traded in stock market represents 100% minus free float percentage
FSIZE	Firm size	Natural log of total assets.

5. DATA ANALYSIS AND MODEL SPECIFICATION

5.1. Data Analysis and Management

In testing the panel data we may face some expected problematic features in the research that are carefully handled.

First, data levels, as most of the variables that measure the data are in the percentage and proportions form, and low variables are dummy, so the ideal method to use is the parametric methods to test and analyze the data, this provide the actual standard errors and significance.

Second, missing values, imputation and deletion are not used in the research as they sure occur due to weakness of the availability and collection of data. We do believe that imputation and deletion change the information's nature and make the data artificial which lead to misleading interpretation of population. Another advantage gained from retaining the missing values is to add more firms to the sample hence became representative for the population.

Third, the outlier, it is the highest and lowest extreme and infrequent values. The call for removal of outlier is not an option in the research as new outlier may emerge after removal of the initial ones. Also, we do believe that the outlying values may contain important information and its removal may lead to emerging new information.

Fourth, in the research different techniques are used to check for normal distribution of the observations like descriptive statistics, skewness and kurtosis which indicate the variables that are non normal.

5.2. Model Specification

The relationship that is subject to investigation is firm performance as a function of board characteristics. The panel data analysis has been simply shown as:

$$ROA_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BCMP_{it} + \beta_3 DUL_{it} + \beta_4 BH_{it} + CTRL_{it} + \epsilon$$

ROA: RETURN ON ASSETS

BS: BOARD SIZE

BCMP: BOARD COMPOSITION

DUL: CEO DUALITY

BH: BLOCK HOLDER OWNERSHI

CTRL: CONTROL VARIABLE (firm size)

6. RESULTS AND DISCUSSION

6.1. Descriptive Statistics

The main objective of this analysis is to measure the level of firm performance. The descriptive analysis study shows the average of firm performance and the averages of the other components of independent variables.

This analysis is carried out with the aid of STATA package. The study is devoted to presenting the results of data collected. Table 3 provides the mean, and standard deviation of the variables from year 2004 to 2010. Also it provides the skewness for each variable for the called years.

Table-3 Descriptive statistics of Panel data: 2004-2010

Variable	Label	Mean	Std. deviation	Min.	Max.	Std. Skewness	Std. Kurtosis
Return on Asset	ROA	0.12216	0.2759	-2.6936	2.3834	-2.3773	73.8976
Board size	BS	10.76667	4.19247	5	24	1.00276	4.153044
Board composition	BCM	0.150119	0.105841	0	0.6	2.08098	7.621858
CEO duality	DUL	0.6714286	0.4708161	0	1	-0.729958	1.53284
Block holder	BH	10.76667	4.19247	5	24	1.002768	4.153044
Firm size	CTRL	6.177418	0.655315	4.73162	7.97750	0.475175	3.05323

Table 3 shows the descriptive statistics of the panel data for the tested from year 2004 to 2007. The descriptive statistics for board size shows that the average number of board members is 10 members of the sample. It also shows the minimum number in the sample is 5 members and the maximum is 24 members. The analysis shows that 47% of the checklist is dual. Moreover, the average percentage of the independent directors in the board of the checklist is 15%. However, the minimum percentage of independent directors in the board is 0% and the maximum is 60% of the board is independent directors.

Moreover, relating to the standard skewness statistics which shows the normality of data. The data to be normally distributed the standard skewness should be within the range ± 1.96 (Haniffa and Hudaib, 2006). From table 3, it's observed that board size, CEO duality, free float, and block holders are normally distributed, while board composition is out of the range of standard skewness.

6.2. Results of Regression Model

After the test of descriptive statistics, correlation analysis has been provided to check the correlation between dependent and independent variables, and also among the independent variables to check for the multi-co-linearity. Spearman's correlation shows the degree of correlation between variables. Spearman's R between the independent variables should not exceed 0.8, otherwise there is a multi-co-linearity between the independent variables. From table 4 it was clear that there is no multi-co-linearity between the variables, the maximum correlation found is between independent directors and board size with the amount of 0.5918.

Table-4 Spearman Correlation Coefficients

	ROA	BH	BS	IND	DUL	FS	
ROA	1.00						
BH	0.30*	1.00					
BS	0.01	0.17*	1.00				
BCM	-0.02	0.01	-0.59*	1.00			
DUL	-0.04	0.08	-0.05	0.17*	1.00		
CTRL	0.32*	0.21*	0.08	-0.08	-0.22*	1.00	

The following section is provided to show information about the regression model. Table 5 shows the results of the regression analysis as measured by the adjusted R square. The adjusted R

square describes how much the percentage of the dependent variable is due to the changes of independent variables.

Table-5 (Random - Effects Regression) Number of Observations = 210 Number of Groups (Panels) = 7 Obs. per Group:

Min = 30: Average = 30 Max = 30

Var./dep.	ROA	
	Coff.	T-Value
BLH	-0.289***	-3.28
BDS	-0.005	0.76
DUL	-0.113	-0.43
FRS	-477**	-2.73
IND	-0.339**	-1.67
Cons.	29.0***	3.27
R square	0.057	

*** $p \leq 0.01$, ** $p \leq 0.05$, and * $p \leq 0.10$

DTA Debt to Assets, **ROE** Return on Equity, **BLH** Block Holder, **BDS** Board Size, **DUL** Duality, **TBQ** Tobin's Q, **BDM** Board Meetings, **FRS** Firm Size, **IND** Independency.

Here in our study the adjusted R square is 57.2% which means that the model is adequately describe the data.

To test the hypothesis and significance of the variables we rely on tables 4 and 5. It is found through testing the first hypothesis of the board size that there is a positive and insignificant relationship with ROA (coefficient = 0.0108 and $p > 0.05$) which will lead us to reject H1. Previous studies found the same result as [Mohammad \(2012\)](#). Most of the researchers made on non Arab countries found a significant relation between board size and firm performance, while in Arab countries board size is not an indicator for the level of performance for firms. So we rejected H1

The study found that there is negative insignificant relationship between percentage of independence and ROA (coefficient = -0.0253 and $p > 0.05$). From previous sections, it is clear that any changes of the variables related to the board members have no significant effect on the changes occurred on firm performance. So we need to examine this phenomena and why the board members work is not effective relating to firm performance. However, we have to reject H2. Same result provided by [Dalton et al. \(1998\)](#), [Dalton et al. \(1999\)](#), [Davidson III and Rowe \(2004\)](#), and [Rashid et al. \(2010\)](#) that found no significant relation between independent directors and firm performance.

We found in our study that there is negative and insignificant relationship between CEO duality and firm performance (coefficient = -0.0452 and $p > 0.05$), so we have rejected H3. The result of the study is consistent with that made by [Chen et al. \(2008\)](#), and [Palmon and Wald \(2002\)](#). It is detected that it doesn't matter if the CEO and chairman is filled by the same person or not on the firm performance

By examining the relationship between block holders and firm performance, it is found that there is a positive significant relationship between block holders ownership and ROA (coefficient 0.3023 and $p < 0.05$) this phenomena is clear in Egypt as most of the family businesses have a high

and certain high performance other than other free float ownership structure which are affected by changes in the Egyptian stock market. This results the same as argued by [Leech and Leahy \(1991\)](#) for UK and [Mudambi and Nicosia \(1998\)](#). Therefore we accepted the hypothesis H4.

7. CONCLUSION AND LIMITATIONS

Corporate governance mechanism is examined and studied by many researchers and it is obvious CG is considered a wide and ready subject for research. Our originality here is that this kind of research is not applicable in Egypt with our specified model of the panel data, and how our tested variables work together to see their effect on firm performance.

From our research we concluded that the board members have no effect on firm performance. Where nor board size, duality, neither independence have any significant effect on the operation of the firms which lead to high or low performance. Firms in Egypt are mainly affected by the external environment it operates in more than of its internal environment.

Also the previous finding could be explained by the other results reached relating to the ownership structure, where, the result leads to the dominance of family owned businesses in Egypt. This may result of family dominance over board matters which show the weakness of the effect of the corporate governance regimes. Also by the results reached related to the board members, it has been detected that investors in Egypt are less protected. Our recommendation to the Egyptian authority is to find ways to strength and reinforce the attributes of the board of directors.

Limitation of the study is using a small sample relative to the active companies in Egypt. It is sure better to depend on a wider range of firms to representative for the population. It would be better for interpreting and evaluating the results.

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