UNIVERSITY OF WOLLONGONG AUSTRALIA

Australasian Accounting, Business and Finance Journal

Volume 11
Issue 1 *Special Issue on Corporate Governance 2017*

Article 5

Corporate Governance and Firm Performance: Evidence from Saudi Arabia

Amina Buallay
Brunel University, UK; Ministry of Education, Bahrain

Allam Hamdan
Ahlia University, Bahrain, allamh3@hotmail.com

Qasim Zureigat
Sulaiman AlRajhi School of Business, AlQassim, Saudi Arabia

Recommended Citation
Buallay, Amina; Hamdan, Allam; and Zureigat, Qasim, Corporate Governance and Firm Performance: Evidence from Saudi Arabia, *Australasian Accounting, Business and Finance Journal*, 11(1), 2017, 78-98. doi:10.14453/aabfj.v11i1.6

Corporate Governance and Firm Performance: Evidence from Saudi Arabia

Abstract

This study aimed to measure the impact of Corporate Governance on Firm performance of listed companies in Saudi stock exchange. The study methodology was a pooled data collected from the Saudi stock exchange (TADAUWL) for the period from 2012 to 2014. The study sample is 171 listed companies. The study independent variable is Corporate Governance principals. The dependent variable is Firm performance which was measured using ROA, ROE and Tobin's Q. The study also utilized five control variables in order to help measuring the relationship between Corporate Governance and Firm Performance. In conclusion, the study found that the governance level was 61.4% in Saudi stock exchange which is considered high compared to previous studies. The results of the study test indicate that there is no significant impact for corporate governance adoption on firm's operational and financial performance in the listed companies in Saudi stock exchange. By testing the Tobin's Q model the study also concluded that there's no significant impact for ownership of the largest shareholder and independency of Board of Directors on firm's market performance. Significant impact was found for the ownership and the size of the Board of Directors on firm's performance.

Keywords

Corporate Governance, Firm performance, Agency Theory, Saudi Arabia

Corporate Governance and Firm Performance: Evidence from Saudi Arabia

Amina Buallay[1], Allam Hamdan[2] and Qasim Zureigat[3]

Abstract

This study aimed to measure the impact of Corporate Governance on Firm performance of listed companies in Saudi stock exchange. The study methodology was a pooled data collected from the Saudi stock exchange (TADAUWL) for the period from 2012 to 2014. The study sample is 171 listed companies. The study independent variable is Corporate Governance principals. The dependent variable is Firm performance which was measured using ROA, ROE and Tobin's Q. The study also utilized five control variables in order to help measuring the relationship between Corporate Governance and Firm Performance. In conclusion, the study found that the governance level was 61.4% in Saudi stock exchange which is considered high compared to previous studies. The results of the study test indicate that there is no significant impact for corporate governance adoption on firm's operational and financial performance in the listed companies in Saudi stock exchange. By testing the Tobin's Q model the study also concluded that there’s no significant impact for ownership of the largest shareholder and independency of Board of Directors on firm's market performance. Significant impact was found for the ownership and the size of the Board of Directors on firm's performance.

JEL Classification: M40, G34

Keywords: Corporate Governance, Firm performance, Agency Theory, Saudi Arabia.

---

[1] Ph.D. Scholar in Accounting; Brunel University, UK. Head of Admin and Finance Services, Ministry of Education, Bahrain.
[2] College of Business & Finance, Ahlia University, Bahrain.
[3] Sulaiman AlRajhi School of Business, Sulaiman AlRajhi Colleges, AlQassim, Saudi Arabia.

Introduction

Corporate governance is a combination of policies, laws and instructions influencing the way a firm is managed and controlled, it consists of a framework of rules to grant transparency and fairness in the relationship between the firms and its shareholders, the framework of corporate governance consist of both external and internal contracts between employees and the shareholders it includes distribution of rewards and responsibilities and conditions to avoid conflicting interests.

OECD in 2001 has published a broader definition of corporate governance written by Iu and Batten, "Corporate governance refers to the private and public institutions, including laws, regulations and accepted business practices, which together govern the relationship, in a market economy, between corporate managers and entrepreneurs (corporate insiders) on one hand, and those who invest resources in corporations, on the other", which simply indicates that corporate governance means establish a set of rules and actions that facilitate the shareholders decision making process. In recent years, the focus on corporate governance has increased due to the increased in number of bankruptcies caused by fraud or errors in financial accounting, the reason behind those cases was the absence of corporate governance regulations in the organizations; this resulted in the implementation of different accounting practices, increased in personal interest and biased reporting (Ioana, 2014).

Saudi Arabia has witnessed several reforms in governance. This started with special attention being given to internal control systems. Thus, Saudi standard-setters issued internal control standards in 2000. Saudi companies are required to design their internal control system based on these internal control standards, corporate governance codes were also issued in 2006, which became compulsory for all Saudi listed companies in 2010 (Al-Janadi, et al, 2016). Saudi Arabia was the second country to adopt corporate governance for the public companies in the Gulf region after Oman. The main objectives of Saudi's Corporate Governance Regulations was to provide a universal guideline of rules, regulation and practice for those companies listed in TADAWUL as well as for their investors; this was a stage to improve the level of protection for all investors, specifically for the minority shareholders and to provide legal devices that assist the investors to practice their rights and to found any injustice practices by the majority shareholders. The story of corporate governance in Saudi backed to 1965 with the beginning of The Companies Law. The Companies Law was about rules concerning the establishment of private and public companies. In 2006, the Saudi stock exchange market was crashed, and its general index tumbled to 25% as a result of this and other circumstance causing a loss of shareholders confidence. The Capital Market Authority (CMA) issued rules and regulations to prevent more crises in the future; it was announced a first code of the corporate governance regulation in Saudi, all of these rules were voluntary until the beginning of 2009.

In December, 2009, 145 companies were voluntary listed on TADAUWL. In 2010 Corporate Governance ~~it~~ became compulsory for listed companies in Saudi Stock Market. The role of Capital Market Authority (CMA) was to operate the stock market, adopted Corporate Governance Regulations (CGR's) and monitor the adherence to specific provisions that are now required in all Saudi's listed companies, in line with the principles of Organization for Economic Co-operation and Development (OECD, 2004).

The impact of corporate governance is expected to affect the firm's performance which is one of main issues for the stakeholders as it' helps them to identify the factors that affect the performance and to consider those factors as indicators for firm's success or failure. Fallatah and Dickins (2012) investigates the relationship between corporate governance characteristics and firm performance in Saudi-listed companies. The results found that corporate governance and firm performance are unrelated. On other hand Ahmed and Hamdan, (2015), explore the impact of corporate governance on firm performance in Bahrain listed companies and found that corporate governance is significantly correlated with firm performance. Another different result was founded by, Gupta and Sharma (2014) they found that corporate governance has limited impact on both the firm's share prices and on its performance.

Literature Review and Hypotheses development

Corporate Governance is crucial to build a marketplace trust and attract investors in the corporation, as well as, corporate governance encourage investors' confidence by ensure the existence of independent board of directors. Moreover, it helps provide a high level of confidence degree which is very necessary for the whole market operation, as it considers adherence to business ethics principles. (Guo & Kumara, 2012).

All Saudi listed companies are required to adopt the corporate governance regulations due to the importance of corporate governance for effective financial, operational and markets performance. Therefore, a perfect implementation of corporate governance mechanism reduces the risk for investors, enhance investment capital and improve business performance (Rezaee, 2009). The impact of corporate governance on firm performance has been discussed widely around the world, different performance measures were used to explore the effect of corporate governance on firm performance such as operational based measures, market based measures and financial based measures. Although, the most popular financial measure was used is the return on equity (ROE) and the most popular operational measure were used is the return on Assets (Ahmed & Hamdan, 2015) and Tobin's Q was the most popular market measure used in the studies (Kiel & Nicholson, 2003). On another hand; A more sophisticated proposition is that corporate governance has a differential impact on demand for debt and depends on the degree to which governance mitigates default risk in relation to each type of debt: intermediated versus non-intermediated. In particular, given the differences in monitoring environment there is an argument that the expected impact of corporate governance on non-intermediated debt will be different to the more highly monitored intermediated debt (Aldamen, et al, 2012).

Corporate governance and operational performance

Al-Ghamdi and Rhodes, (2015) study the Family Ownership, Corporate Governance and Performance in Saudi listed companies on sample of 792 observations for the period from 2006 to 2013. The analysis shows that ownership has no relationship with firm performance by using ROA measure. While Khamis, et al., (2015) found that there is a significant relationship between performance and ownership measured by ROA in Bahraini listed companies, the study sample was 42 companies for 5 years from 2007-2011, the analysis shows that institutional ownership has a negative relationship on company performance if measured by ROA. However, it was found that managerial ownership has a positive effect on performance. Another study adopted by Fallatah and Dickins (2012) to investigates the relationship between corporate governance characteristics and firm performance in Saudi-listed companies on sample of 292 observations for the period from 2006 to 2009 using the ROA measure. The results found that corporate governance and firm performance (measured as return on assets) are unrelated. In contra with Fallatah and Dickins there is study adopted by Ahmed and Hamdan, (2015) to explore the impact of corporate governance on firm performance in Bahrain listed companies on sample of 42 companies for the period from 2007 to 2011 using the ROA measure. The results found that corporate governance is significantly correlated with firm performance. Different results around the world are found regarding the relationship between CG and performance was performed.

Onakoya (2014) explores the impact of corporate governance practices on bank performance in Nigeria. Nine banks were examined in the study for the period from 2006 to 2010. The data were analyzed by using regression test. It was found that ownership structure and the board size are positively affected by the return on equity. Whereas, negatively associated with return on assets. Added to that, there is no effect of board structure on corporate governance practice. Also Mohammed (2012) explores the effect of corporate governance mechanisms on Nigerian banks performance. He found that corporate governance is associated significantly with banks performance. As well as, he found that loan deposit ratios and poor asset quality are negatively affecting the banks performance. In Sri Lanka Guo and Kga (2012) test the impact of corporate governance practice on firm performance. It was found that size of board is negatively associated with the firm value. In Malaysia Fooladi (2011) investigated the effect of corporate governance on Malaysian firm's performance on sample of thirty firms in 2007 annual reports of those firms. Results show that corporate governance negatively associated with ROE and ROA.

Another Study in China done by Sami et al, (2011) discussed the link between operating performance and corporate governance, the results show a positive relation between corporate governance measures and operational performance. Thus, the first hypothesis can be formed as follows: “There is no significant impact for corporate governance adoption on firm's operational performance”.

Corporate governance and financial performance

One of the aims of good corporate governance is to mitigate residual losses (Safari et al, 2015). The study of Ahmed and Hamdan, (2015) explore the impact of corporate governance on firm performance in Bahrain listed companies on sample of 42 companies for the period from 2007 to 2011 using the ROE measure. The results found that corporate governance is significantly correlated with firm performance. Afrifa and Tauringana in 2015 provides evidence of the different effects of corporate governance on the financial performance of small versus medium firms. The results show that board size has a significant negative impact on the performance of both sizes of firm. In line with this study Najjar (2012) study the impact of corporate governance on the insurance firm’s performance in Bahrain for the period from 2005 to 2010. He found that firm size, Board size and number of block-holders have significant impact on insurance firm’s performance by comparing them in relation to the return on equity. Moving to Arab countries Al-Haddad et al. (2011) study a sample of forty-four Jordanian firms listed in Amman Stock exchange for the period from 2000 to2007. The main objective of this study was to explore whether the corporate governance and performance measures are solving the agency problem in the Jordanian firms. Also, results show that corporate governance is significantly added a value to the firm. Going broader around Middle East countries Gupta and Sharma (2014) also try to determine the effect of corporate governance variables on firm performance in South Korean and Indian firms. This includes variables such as Board Structure, Board Constitution, Conflict of interest, Disclosure of information, Independent Directors and other Committees. They found that corporate governance has limited impact on both the firm's share prices and on its financial performance. Danoshana and Ravivathani (2013) explore the effect of corporate governance on corporate performance of twenty-five listed financial corporations in Sri Lanka for the period from 2008 to 2012. They used Return on equity (ROE) and Return on assets (ROA) as key variables to realize the business performance. Findings show that the variables are significantly effect on corporation's performance. Moreover, the size of board of directors and audit committee has a positive impact on the firm's performance. Mitton (2002) conduct a research to measure the effect of corporate governance practices on firm performance on 398 listed companies from different countries such as Philippines, Indonesia, Thailand Malaysia and Korea. Findings show that there is significant impact of corporate governance on firm performance in 1997-1998 during the East Asian Crisis. The results show that governed firms having greater outside ownership and greater quality indicators. Moving to Europe countries Rosenberg (2003) found that effective corporate governance practices are more successful in gain profits, whereas week corporate governance practices get less financial benefits. Thus, firms having poor governance practices delivered less value to shareholders. The second hypothesis can be formed as follows: “There is no significant impact for corporate governance adoption on firm's financial performance”.

Corporate governance and market performance

Fallatah and Dickins (2012) investigates the relationship between corporate governance characteristics and firm performance in Saudi-listed companies on sample of 292 observations for the period from 2006 to 2009 using the Tobin's Q measure. The results found that corporate governance and firm value (measured as Tobin’s Q and market value of equity) are positively related. In line with this study Al-Ghamdi, and Rhodes, (2015) study the Family Ownership, Corporate Governance and Performance in Saudi listed companies on sample of 792 observations for the period from 2006 to 2013. The analysis shows that ownership has a significant positive relationship if measured by Tobin’s Q. There is a strong relationship between performance and ownership if performance is measured as by Tobin’s Q. However, Al-Matari, et al, (2012) study the relationship between internal corporate governance mechanisms and firm performance as measured by Tobin’s in Saudi Arabia. The findings did not add value to firm performance in Saudi companies and are not in line with the agency theory. Moving to GCC countries Khamis, et al, (2015) study the relationship between ownership structure and corporate performance in Bahraini listed companies on sample of 42 for 5 years from 2007-2011. The analysis shows that institutional ownership has a negative relationship on company performance if measured by Tobin’s Q. however it was found that managerial ownership has a positive effect on performance. To find the fact among those conflicting results Siddiqui (2014) examined the impact of corporate governance characteristics on firm performance based on twenty-five previous studies by doing meta-analysis. The study examines the legal organisms, the internal and external governance structures as well as the accounting performance measures. The result of this study found that the external governance is measured by anti-takeover provisions. Moreover, the results indicate that the value of the firm's performance measured by Tobin’s Q and finally the study found that the there is significant relationship with firm value. Thus, the third hypothesis can be formed as follows: “There is no significant impact for corporate governance adoption on firm's Market performance”.

Research Methodology

Study population sample and resources of data

The Data used in this study was collected from the Saudi stock exchange data base (TADAWUL) which contains 171 listed companies. Firms used in the sample were selected according to: Data is available in the period of 2012 to 2014. Firms have not been turned off or merged with other firms during the research period. Data were obtained from Saudi stock exchange database; we used in our sample the pooled data which combine both time series data and cross sectional data in our sample.

None of those 171 listed companies were excluded. The sample contains divers listed companies from fifteen sectors. Table 1 show the companies included in the sample by sector for the periods (2012-2014). Table 1 shows that there are 7% of Saudi listed companies from Banks & Financial Services sector, 8.2% from Petrochemical Industries sector, 8.2% from Cement sector, 8.8% from Retail sector, 1.2% from Energy & Utilities, 9.4% from Agriculture & Food Industries sector, 2.3% from Telecommunication & Information Technology, 20.5% from Insurance sector, 4.1% from Multi-investment sector, 8.8% from Industrial Investment sector, 9.9% from Building & Construction sector, 4.7% from Real Estate Development sector, 2.9% from Transport sector, 1.8% from Media & Publishing sector, 2.3% from Hotel & Tourism sector.

Table (1) Sample Selection

Sector	Study population	Total observations
Agriculture & Food Industries	16	48
Banks & Financial Services	12	36
Building & Construction	17	51
Cement	14	42
Energy & Utilities	2	6
Hotel & Tourism	4	12
Industrial Investment	15	45
Insurance	35	105
Media & Publishing	3	9
Multi-investment	7	21
Petrochemical Industries	14	42
Real Estate Development	8	24
Retail	15	45
Telecommunication & Information Technology	4	12
Transport	5	15
Total (Time series 3 years)	**171**	**513**

Measurement of Variables and Descriptive Statistics

Dependent variables

This study aims at investigating the effects of corporate governance on firm's performance, to do so the study works to investigate the effects of corporate governance on different types of performance including financial, operational and market performance. Following Roudaki and Bhuiyan, (2015) the firm performance is measured using three proxies, ROE, ROA and Tobin's Q. Those three performance aspects were used as dependent variables in three different regression models. The current study used return on equity (ROE) to measure financial performance, return on assets (ROA) to measure operational performance (Danoshana and Ravivathani, 2013) and Tobin's Q to measure market performance (Kiel and Nicholson, 2003).

Independent variables

The independent variables (corporate governance) has been measured using the Ownership of the largest shareholder, Ownership of the three largest shareholders, Size of the board of directors, Independency of board of directors and Posts of chairman and CEO (Akhtaruddin et al., 2009, Hamdan and Al-Sartawi, 2013, Barros et al., 2013, Bouaziz, 2014). When considering each dimension, the first dimension of Governance is the ownership of the largest shareholder, table 2 show that the mean percentage for the first corporate governance dimension (GC1) is around 43.2% shows that the largest shareholder in Saudi companies own more than 20% of a company's outstanding shares While 56.8% of the observations in Saudi have their shareholders with ownership of less than 20%. This is because the majority of firms in the Saudi market are family owned business and some of the shareholders own the majority of the company's shares. This means that some individual stakeholders have the voting power in the firm which significantly influences the strategic direction as well as the business operations of the firm. This indicates that Saudi companies are controlled by certain individuals. The mean percentage for the second corporate governance dimension (GC2) which is Ownership of the three largest shareholders of all listed companies is 61.7% shows that the ownership of the largest three shareholders is less than half of the shares in the observations listed in (TADAUWL) database. This is good indicator that the companies focus on multiple shareholders control. Added to that, the high percentage shows a strong monitoring by other shareholders in the firms. The results show that there is no control by the shareholders holding over 50% of shares which are not affected the stock exchange and the price of shares. Based on corporate governance regulations "one of the important corporate governance practices is having the board of directors between seven to thirteen members" which has been labeled in this study as CG3. The mean percentage for the third corporate governance dimension (GC3) is around 71.9% while only 28.1% of the observations had either over 13 or below 7 directors shows that the board size is considered to be aligned with governance practices to take a strategic decision that leads to efficient use of company resources. A board of directors between 7-13 members can be reasonable, as more the number involved, the harder it becomes to take decisions. For the fourth corporate governance dimension (GC4) which is the independency of the board of directors, the mean percentage is 42.5% of board independency. The fourth dimension suggests that more than 50% of total directors must be appointed as independent directors. The most important element for effective board is to have a majority of board outsider's involvement. Having a percentage of 57.5% of observations with less than 50% independent shareholders abroad which is nearly to half of the sample may adversely affects disclosure and transparency and could be a possible reason for conflict of interest.

The mean percentage for the last corporate governance dimension (GC5) which is the separation in roles of the CEO and the chairman, the duality takes place when the chairman of the board and CEO roles are combined, the chairman of the board is responsible for managing the board. However, the CEO is responsible for day-today management of the firm, including the enforcement of board decisions. Therefore, firms that have duality may have a powerful individual who has the ability to make decisions that may not maximize shareholders' wealth. (Abbadi et al, 2016; Shanikat and Abbadi, 2011). From table 2 around 100% shows that all listed Saudi companies separating the roles of chairman and the CEO in their company. The Chairman holds the most critical decisions and had the power to influence the boards; therefore, the separation between CEO and chairman can lead to an effective board (Bouaziz, 2014). Khiari, (2013) argued that merge between CEO and chairman role could lead to conflict of interests and therefore wrong disclosure. Which make this corporate governance practice an important one, and all Saudi listed companies are adopting it.

Table (2) Variables labels, measurement and descriptive:

Normal Distribution Test: testing the normality of data was conducted using Jarque-Bera test. The results illustrate that the variable of Size of board of directors is normally distributed as the p-value appears to be more than 0.050. On the other hand, the remaining continuous variables are not normally distributed as the p-value appears to be less than 0.050. In order to conquer this problem; the natural logarithm of these variables was taken. Significance at: *10%; **5% and ***1% levels.

Labels	Variables	Measurements	Descriptive statistics		
			Mean	SD	Jarque-Bera (*p*-value)
Dependent variables:					
ROE	Financial performance	Is the ratio of net income divided by shareholder's equity	0.084	0.202	30,619***
ROA	Operational performance	Is the ratio of net income divided by total assets.	0.046	0.096	1,884***
Tobin's Q	Market performance	Is the (Market value of equity + Book value of short term liabilities) ÷ Book value of total assets.	1.852	1.582	2,739***
Independent variables (dummy variables)					
CG_1	Ownership of largest shareholder	Ownership of largest shareholder bladed 0 If a shareholder has shares more than 20% and bladed 1 otherwise.	0.432	0.496	
CG_2	Ownership of largest three shareholders	Ownership of largest three shareholders bladed 0 if the shareholders have shares more than 50% and bladed 1 otherwise.	0.617	0.487	
CG_3	Size of board of directors	Size of board of directors bladed 0 if the board members are not between seven and thirteen member and bladed 1 otherwise.	0.719	0.450	
CG_4	Independency of board of directors	Independency of board of directors bladed 0 if the boards of director members are not controlled by greater than 50% independent outside directors and bladed 1 otherwise.	0.425	0.495	
CG_5	Posts of chairman and CEO	Posts of chairman and CEO bladed 0 if the chairman is the same of CEO and bladed 1 otherwise.	1.000	0.000	

Control variables:					
Assets	Firm Size	The total assets of the company.	22,101	60,119	6,021***
Age	Firm Age	The number of years since the company was established.	20.783	14.915	25***
Big4	Auditing quality	The company's external auditor one of the big four audit firms (KPMG, E&Y, PWC, Deloitte)	0.662	0.474	71***
BSize	The Size of board of directors	The number of board of director members in the company (Trireksani & Djajadikerta, 2016)	7.454	1.493	5*
Sector	Industrial dummy	Dummy variable that equals one for industrial companies.			

Control variables

Five control variables will be discussed for all estimated models of our research. They are: Firm Size (total assets) and Firm age, (Ahmed & Hamdan, 2015) Board of directors Size (Guo & Kga, 2012), External Auditor (Yaşar, 2013, Barros et al, 2013) and the Sector. The following Table 2 summarizes the measurement of the dependent, independent and control variables.

Study model

In order to measure the relationship between corporate governance and performance; the study estimates the following linear regression models.

$$Perf_{it} = \beta_0 + \beta_1 CG1_{it} + \beta_2 CG2_{it} + \beta_3 CG3_{it} + \beta_4 CG4_{it} + \beta_5 CG5_{it} + \beta_6 LnAssets_{it} + \beta_7 Age_{it} + \beta_8 Big4_{it} + \beta_9 BSize_{it} + \beta_{10} Sector_{it} + \varepsilon_i$$

Where: $Perf_{ıt}$: is a continuous variable; the dependent variable is the firm performance measured by three models: ROA is the ratio of net income divided by total assets, for the company (i), in the period (t) and $ROE_{ıt}$: is a continuous variable; the dependent variable is the ratio of net income divided by shareholders equity, for the company (i), in the period (t) and Tobin's Q_{it}: is a continuous variable; the dependent variable is the ratio of current liabilities plus market value of share capital divided by total assets, for the company (i), in the period (t). β_0: is the constant. β_{1-10}: is the slope of the controls and independent variables. $CG1_{it}$: is dummy variable, bladed 0 if a shareholder has shares more than 20% and bladed 1 otherwise, for the company (i), in the period (t). CG2: is dummy variable, bladed 0 if the shareholders have shares more than 50% and bladed 1 otherwise, for the company (i), in the period (t). $CG3_{it}$: is dummy variable, bladed 0 if the board members are not between seven and thirteen member and bladed 1 otherwise, for the company (i), in the period (t). $CG4_{it}$: is dummy variable, bladed 0 if the boards of director members are not controlled by greater than 50% independent outside directors and bladed 1 otherwise, for the company (i), in the period (t). $CG5_{it}$: is dummy variable, bladed 0 if the chairman is the same of CEO and bladed 1 otherwise, for the company (i), in the period (t). $LnAssets_{ıt}$: is a logarithmic variable, the total assets of the company, for the company (i), in the period (t). $Age_{ıt}$: is a continuous variable, the number of years since the company was established, for the company (i), in the period (t). $Big4_{ıt}$: is a dummy variable, the company's external auditor one of the big four audit firms, for the company (i), in the period (t). $BSize_{ıt}$: is a continuous variable, the number of board of director members in the company, for the company (i), in the period (t). $Sctror_{ıt}$: is a dummy variable, the area of the economy in which companies work in the same field or have related product or service, for the company (i), in the period (t). ε_{it}: random error.

Corporate Governance, Size and Performance: A Preliminary Analysis

The corporate governance size was divided into two categories; firms with high corporate governance and firms with low corporate governance based on the value of the calculated median of corporate governance index. To identify the significance in the variance between the means of the two samples t-statistic test and z-statistic tests were used. The same can be said about firm size where size was divided based on assets. Results are shown in table 3.
The operational performance measure (ROA) was found to be higher with companies with low corporate governance, in other words, companies with lower implementation of corporate governance have more return on assets.

Table (3) Advanced descriptive analysis:

The *t*-statistic is based on parametric test Two-Independent Sample *t* test, and *z*-statistic is based on non-parametric test Kolmogorov-Smirnov Z. The difference Significance at: *10%; **5% and ***1% levels.

Performance	Corporate governance level				Firm size			
	With:		Difference Tests		With:		Difference Tests	
	High CG	Low CG	*t*-statistic	*z*-statistic	Big firms	Small firms	*t*-statistic	*z*-statistic
ROA	3.004	3.177	-0.247 (0.805)	-0.922 (0.357)	0.062	0.001	2.199** (0.028)	3.627*** (0.000)
ROE	5.098	6.157	-0.796 (0.427)	-0.796 (0.427)	0.117	0.005	3.318*** (0.001)	4.454*** (0.000)
Tobin's Q	1.800	2.169	-2.264** (0.024)	-2.634*** (0.008)	1.446	2.383	-6.624*** (0.000)	8.033*** (0.000)

For the second performance indicator which is the financial performance (ROE) was also found to be higher with companies with low implementation of corporate governance, whereas for the third performance which is the market performance (TQ) tend to be higher with highly implemented corporate governance companies.
By using the t-statistic and z-statistic, the path analysis was found to be insignificance in the variance between the means of the two samples for operational (ROA) and financial (ROE) performance. Whereas, the results found a significance in the variance between the means of the two samples for Tobin's Q. The Mean for both big firm size as well as for small firm size is measured to find the significance in the difference between the means of the two categories, t-statistic (Hamdan et al., 2013) and z-statistic was performed. The path analysis was found to be significance in the variance between the means of the two samples for operational (ROA), financial (ROE) and market performance (TQ).

The Compliance of Corporate Governance in Saudi Stock Exchange

The Capital Market Authority has made some big efforts in order to have a highly vital financial position for the Kingdom with its' surrounding region. The hypothesis tested the compliance level of Corporate Governance in Saudi stock exchange as the Saudi aims to have a crucial investment and business position in the region. Abiding by the Corporate Governance law can be considered one of the first steps towards its aim as investors and financial institutions tend to invest in organizations where Corporate Governance is strictly implemented (Hamdan and Al-Sartawi, 2013). Failing to implement the Corporate Governance could lead to some serious consequences to the extent of a financial crisis (Htay et al., 2013). A good Corporate Governance practice cannot only help with achieving corporate goals but can also help prevent fraudulent acts.

The One-sample t-test shows that the mean of corporate governance compliance is 64.1% with a standard deviation of 0.101 which explains a great variance in the companies' level of compliance with the corporate governance. The p-value is less than 0.050, therefore it can be concluded that there is acceptable level of compliance with the corporate governance in the listed companies in Saudi stock exchange. Comparing with other GCC countries, the study of Hamdan and Al-Sartawi, (2013) and Hamdan, et al., (2013) found a percentage of 52% level of corporate governance compliance in Kuwait financial sector. In Bahrain Bourse, the study of Sanad and Al-Sartawi, (2016) found a percentage of 66.6%, 73.6%, and 72.2% level of corporate governance compliance in Bahrain financial sector, Services sector, and Industrial sector respectively.

To justify the results of corporate governance compliance; Saudi Arabia has a newly established corporate governance culture implemented since 2010. Therefore, to have a mean of 64.1% is considered to be a good sign compared to a country which only initiated a Corporate Governance culture merely 5 years ago. Saudi have an acceptable level of Corporate Governance, it moving on the right track as Saudi have a highly experienced and educated Board of Directors which are expected to lead to a bright economy in the near future and therefore experience higher growth and a deep and valued Corporate Governance culture.

Empirical Study

Like most empirical corporate finance research, the analysis of the relationship between corporate governance dimensions and firm performance faces the challenge of endogeneity, which can arise from unobserved heterogeneity, simultaneity, and reverse causality. In the context of the governance–performance relationship, the problem of unobserved heterogeneity arises when one or more latent variables drive the observed relationship between governance dimensions and firm performance.
To check the validity of the study models and data, several tests were performed like, normal distribution test, time series stationarity test, autocorrelation and Multicolinearity and models were checked for not having homoscedasticity. Errors were corrected and results are believed to be accurate.

To reach precise results about the relation between governance and performance. The study used firm Fixed-Effect approach FE. Results are shown in table 4 (below).
For the first dimension of corporate governance, we found that all performance measures are no significant relationship with Ownership of largest shareholder dimension. These results are in line with (Khamis et al., 2015). Traditional agency theory claims that more concentrated ownership would enhance the ability of shareholders to monitor management of the company, preventing it from taking self-serving decisions affecting the performance of the company negatively. Concentrated ownership creates majority shareholders and minority shareholders with diverging interests and objectives. In a market environment where laws protecting minority shareholders are absent or weak, a situation of majority shareholders controlling the company will be created and the performance of the company would be affected negatively. Theoretically, it may be said that an increase in ownership concentration should lead to a reduction in the costs of separation of ownership and control benefiting company performance eventually. However, the larger shareholders may benefit from that improvement privately at the expense of smaller shareholders.

For the Second dimension, we found that all performance measures have negative relationship with the Ownership of largest three shareholder dimension, this result is consistent with (Abuserdaneh, at el., 2010). The three largest shareholders in the organization hold shares with a total sum exceeding 50%, this means that those three are monopolizing and controlling the organization, thus creates a group of controlling shareholders that would protect their interests rather than the interests of the company itself or minority shareholders affecting negatively on the performance of the company.
Moving to third dimension which is the board size, the literature has found no conclusive evidence of a link between board size and performance (Lama, 2012), we found that all performance measures have positive relationship with this dimension. Based on those results, it can be concluded that the size of the board of directors' principal being between 7-13 members has a positive relationship with firm performance. It is believed that a smaller board is able to direct and make better decisions and that a larger board size may lead to less firm performance. Several prior studies document the favorable impact of outside directors on firm decisions aimed at enhancing shareholder wealth (Alves, 2014) but in KSA we can found that all performance measures are insignificantly affected by the independency of board of directors. Overall, the reasons behind insignificant results

in Saudi might be as follow: Saudi’s listed companies are recently adopted the corporate governance regulations and the effect of those practices are still not have been appears and not yet affected the firm’s performance. The adoption of corporate governance regulations by Saudi’s listed companies couldn’t be in proper or actual way. There are commercial laws in Saudi which protect the investors and it could be used instead of corporate governance regulations.

Conclusion and Recommendations

The main objective of the study is to evaluate the level of corporate governance practices in the listed companies in Saudi stock exchange and to in investigate the impact of Corporate Governance on firm's performance through the Saudi listed companies. The study aims to measure the impact of the governance on operational, financial and market performance in Saudi listed companies.

The study raises the questions about the level of CG adoption and the impact of corporate governance practices on firm's financial operational, performance and market performance using a sample of 171 Saudi listed companies. Data was collected from Saudi stock exchange database "TADAWUL". The data collected was pooled data which use both cross-sectional data and time series data using the financial information of the year 2012, 2013 and 2014 we end up with 513 observations. Operational performance which is return on Assets (ROA), financial performance which is return on Equity (ROE) and market performance which is Tobin's Q (TQ) is used as dependent variables. Corporate Governance as the independent variable is measured using dummy variables with five different principals known as: ownership of shareholders should not exceed 20%; the company's three largest shareholders shouldn't be more than 50%; the size of the board of directors should be in between 7-13 board members; board of directors should be controlled by over 50% independent outside directors and finally the duties of the CEO and the chairman should be separated (Akhtaruddin et al., 2009, Hamdan and Al-Sartawi, 2013, Barros et al., 2013, Bouaziz, 2014). Several control variables were used: Firm Size (total assets), Firm age, Board of directors Size, External Auditor and the Sector.

The descriptive results show that the average index of corporate governance for the period from 2012 to 2014 is greater than 50% (around 61.4% on average), this means that more than half of Saudi listed companies adopt corporate governance regulations.
We found that the average largest shareholder ownership in Saud's companies was 43.3% this percentage shows that the largest shareholder in Saudi firms owned more than 20% of the firm’s shares. Results also found that 32.7% of listed companies their three largest shareholders have less than half of firm's shares. Moreover, the average of the size of board of directors was around 12 members; only 37.2% of those boards were independent. Finally, all listed companies in Saudi showing separation posts of the CEO and board chair. Three regression models were estimated in order to measure the impact of Corporate Governance on firm's performance taking into consideration the control variables.

Table (4) Fixed-Effect regression results:

Significance at: *10%; **5% and ***1% levels. t-Critical: at df 512, and confidence level of 99% is 2.326 and level of 95% is 1.645 and level of 90% is 1.282. F-Critical (df for denominator n-β-1 = 513-8-1 = 504) and (df for numerator =β =8 and confidence level of 99% is 2.510 and confidence level of 95% is 1.940 and confidence level of 10% is 1.67. The independent variable CG5 which is the Duality of chairman and CEO posts was excluded from testing of hypothesis as it was found to be 100% complied.

Variable	ROA Model		ROE Model		Tobin's Q Model	
	β	*t*-Statistic	β	*t*-Statistic	β	*t*-Statistic
Corporate governance dimensions:						
Ownership of largest shareholder	0.052	0.863 (0.389)	-0.063	-0.991 (0.322)	0.050	0.864 (0.388)
Ownership of largest three shareholders	-0.067	-1.133 (0.258)	-0.008	-0.133 (0.894)	-0.171	-3.044*** (0.002)
Size of board of directors	0.137	1.841* (0.066)	0.078	1.030 (0.304)	0.199	2.792*** (0.005)
Independency of board of directors	0.077	1.585 (0.114)	0.025	0.521 (0.602)	-0.046	-0.988 (0.324)
Control variables:						
Firm Size	-0.094	-1.679* (0.094)	0.013	0.244 (0.808)	-0.441	-8.258*** (0.000)
Firm Age	0.225	4.606*** (0.000)	0.300	6.405*** (0.000)	0.026	0.562 (0.574)
Auditing quality	0.268	5.094*** (0.000)	0.260	5.128*** (0.000)	0.061	1.209 (0.227)
Board Size	-0.103	-1.315 (0.189)	-0.067	-0.894 (0.372)	-0.171	-2.280** (0.023)
R Square	0.134		0.196		0.207	
Adjusted R Square	0.116		0.180		0.191	
F-Statistic	7.646***		12.081***		12.914***	
p-value (*F*-Statistic)	(0.000)		(0.000)		(0.000)	

The ROA model results show that there is no significant impact for corporate governance adoption on firm's operational performance in the listed companies in Saudi stock exchange. After testing the effect of control variables on firm's operational performance we found that negative and insignificant relationship with the firm size, board size and positive and significant relationship with Big four and firm age. For the sector we found a positive relationship with all sectors but 5 of those sectors were insignificant.

The ROE model results shows that there is no significant impact for corporate governance adoption on firm's financial performance in the listed companies in Saudi stock exchange. After testing the effect of control variables on firm's financial performance we found that positive and insignificant relationship with the firm size, negative and insignificant relationship with the firm size board size, positive and significant relationship with Big four and firm age. For the sector we found a positive relationship with all sectors but 5 of those sectors were insignificant.

The results of TQ model were significant with Ownership of largest three shareholders dimension and Size of board of director and insignificant with other dimensions. After testing the effect of control variables on firm's market performance we found that positive and insignificant relationship with the firm age, negative and insignificant relationship with the board size, positive and significant relationship with Big four and negative and insignificant relationship with firm size. For the sector's type appears to have a positive relationship with market performance (Tobin's Q) except for three sectors which are Multi-investment, Industrial Investment and Media & Publishing found to have negative relationship. Only four of those sectors were insignificant.

The study recommends that Corporate Governance Regulations in Saudi to be strictly implemented to assure that all listed companies in stock exchange are adopting it; the capital market authority should conduct a workshop about the importance of corporate governance for companies listed in Saudi exchange to increase the level of corporate governance adoption as it's only 61%.

In Saudi, the laws associated with protecting minority shareholders are weak, majority shareholders controlling the company will be created and the performance of the company would be affected negatively. Therefore, we recommend the Capital Market Authority to pay more attention to ownership concentration in the Saudi listed companies to avoid the controlling of majority shareholders.

Moreover, the Capital Market Authority should have a clear and mandatory law associated with number boards of directors to limit the number of boards on all listed companies in Saudi stock exchange. It's believed that a smaller board is able to direct and make better decisions and that a larger board size may lead to less firm performance.

Added to that, the Capital Market Authority should have a law associated with the number or percentage of independent board of directors in all Saudi listed companies as it considered a highly critical aspect to reduce agency costs and hence increase the firm's performance.

Moreover, the stakeholders such as investors, shareholders, creditors and debtors are recommended to increase their knowledge about the term of corporate governance and its importance in the business to make better investment choices.

Generally, we suggest that organizers like capital market authority, the government authorities, external auditors and stock exchange organizer to take the corporate governance into consideration to assure more adoption of corporate governance.

References:

Abbadi, S., Hijazi, Q., & Al-Rahahleh, A. (2016). Corporate Governance Quality and Earnings Management: Evidence from Jordan. Australasian Accounting, Business and Finance Journal, 10(2), 54-75. https://doi.org/10.14453/aabfj.v10i2.4

Abu-Serdaneh, J., Zuriekat, M., & Al-Sheikh, I. (2010). Ownership Structure and Corporate performance in the Jordanian manufacturing companies. Jordan journal of Business Administration, 6(3), 426-439.

Afrifa, G. A., & Tauringana, V. (2015). Corporate governance and performance of UK listed small and medium enterprises. Corporate Governance: The international journal of business in society, 15(5), 719-733. https://doi.org/10.1108/CG-03-2015-0029

Ahmed, E., & Hamdan, A. (2015). The Impact of Corporate Governance on Firm Performance: Evidence from Bahrain Bourse. International Management Review, 11(2), 21-37.

Akhtaruddin, M., Hossain, M. A., Hossaink, M., & Yao, L. (2009). Corporate governance and voluntary disclosure in corporate annual reports of Malaysian listed firms. Journal of Applied Management Accounting Research, 7(1), 1-19.

Aldamen, H., Duncan, K., & Khan, S. (2012). Governance-Default Risk Relationship and the Demand for Intermediated and Non-Intermediated Debt. Australasian Accounting, Business and Finance Journal, 6(3), 25-42.

Al-Ghamdi, M., & Rhodes, M. (2015). Family Ownership, Corporate Governance and Performance: Evidence from Saudi Arabia. International Journal of Economics and Finance, 7(2), 78-89. https://doi.org/10.5539/ijef.v7n2p78

Al-Haddad, W., Alzurqan, S. T., & Al-Sufy, F. J. (2011). The effect of corporate governance on the performance of Jordanian industrial companies: An empirical study on Amman Stock Exchange. International Journal of Humanities and Social Science, 1(4), 55-69.

Al-Janadi, Y., Rahman, R. A., & Alazzani, A. (2016). Does government ownership affect corporate governance and corporate disclosure? Managerial Auditing Journal, 31(8/9), 871-890 https://doi.org/10.1108/MAJ-12-2015-1287

Al-Matari, Y. A., Al-Swidi, A. K., Fadzil, F. H. B. F. H., & Al-Matari, E. M. (2012). Board of

Directors, Audit Committee Characteristics and the Performance of Saudi Arabia Listed Companies. International Review of Management and Marketing, 2(4), 241-251.

Alves, S. (2014). The Effect of Board Independence on the Earnings Quality: Evidence from Portuguese Listed Companies. Australasian Accounting, Business and Finance Journal, 8(3), 23-44. https://doi.org/10.14453/aabfj.v8i3.3

Barros, C. P., Boubaker, S., & Hamrouni, A. (2013). Corporate governance and voluntary disclosure in France. Journal of Applied Business Research (JABR), 29(2), 561-578. https://doi.org/10.19030/jabr.v29i2.7657

Bouaziz, M. Z. (2014). Corporate Governance and Voluntary Financial Disclosure by Canadian Listed Firms. Management Review: An International Journal, 9(1), 44-69.

Danoshana, M. S., & Ravivathani, M. T. (2013). The impact of the corporate governance on firm performance: A study on financial institutions in Sri Lanka. Merit Research Journal of Accounting, Auditing, Economics and Finance, 1(6), 118-121.

Fallatah, Y., & Dickins, D. (2012). Corporate governance and firm performance and value in Saudi Arabia. African Journal of Business Management, 6(36), 10025-10034. https://doi.org/10.5897/AJBM12.008

Fooladi, M., & Nikzad Chaleshtori, G. (2011). Corporate governance and firm Performance. In International Conference on Sociality and Economics Development (ICSED 2011), Kuala Lumpur, Malaysia, June (pp. 17-19).

Guo, Z., & Kga, U. K. (2012). Corporate governance and firm performance of listed firms in Sri Lanka. Procedia-Social and Behavioral Sciences, 40, 664-667. https://doi.org/10.1016/j.sbspro.2012.03.246

Gupta, P., & Sharma, A. M. (2014). A study of the impact of corporate governance practices on firm performance in Indian and South Korean companies. Procedia-Social and Behavioral Sciences, 133, 4-11. https://doi.org/10.1016/j.sbspro.2014.04.163

Hamdan, A., & Al-Sartawi, A. (2013). Corporate Governance and Institutional Ownership: Evidence from Kuwait's Financial Sector. Jordan Journal of Business Administration, 9(1), 191-203. https://doi.org/10.12816/0002053

Hamdan, A., Mushtaha, S., & Al-Sartawi, A. (2013). The Audit Committee Characteristics and Earnings Quality: Evidence from Jordan. Australasian Accounting, Business and Finance Journal, 7(4), 51-80. https://doi.org/10.14453/aabfj.v7i4.5

Htay, S. N. N., Salman, S. A., & Meera, A. K. M. (2013). Let's Move to "Universal Corporate Governance Theory". Journal of Internet Banking and Commerce, 15(7), 1047-1053.

Ioana, A. N. G. H. E. L., & Mariana, M. A. N. (2014). Study Regarding the Impact of The Audit Committee Characteristics on Company Performance. Studies in Business and

Economics, 9(2), 5-15.

Iu, J., & Batten, J. (2001). The implementation of OECD corporate governance principles in post-crisis Asia. Journal of Corporate Citizenship, 2001(4), 47-62. https://doi.org/10.9774/GLEAF.4700.2001.wi.00006

Khamis, R., Hamdan, A. M., & Elali, W. (2015). The Relationship between Ownership Structure Dimensions and Corporate Performance: Evidence from Bahrain. Australasian Accounting, Business and Finance Journal, 9(4), 38-56. https://doi.org/10.14453/aabfj.v9i4.4

Khiari, W. (2013). Corporate Governance and Disclosure Quality: Taxonomy of Tunisian Listed Firms Using the Decision Tree Method based Approach. EMAJ: Emerging Markets Journal, 3(2), 46-68. https://doi.org/10.5195/EMAJ.2013.33

Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. Corporate Governance: An International Review, 11(3), 189-205. https://doi.org/10.1111/1467-8683.00318

Lama, T. (2012). Empirical Evidence on the Link Between Compliance with Governance of Best Practice and Firms' Operating Results. Australasian Accounting, Business and Finance Journal, 6(5), 63-80.

Mitton, T. (2002). A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis. Journal of financial economics, 64(2), 215-241. https://doi.org/10.1016/S0304-405X(02)00076-4

Mohammed, F. (2012). Impact of corporate governance on banks performance in Nigeria. Journal of Emerging Trends in Economics and Management Sciences, 3(3), 257-260.

Najjar, N. J. (2012). The impact of Corporate Governance on the insurance firm's performance in Bahrain. International Journal of Learning and Development, 2(2), 1-17. https://doi.org/10.5296/ijld.v2i2.1412

Onakoya, A. B. O., Fasanya, I. O., & Ofoegbu, D. I. (2014). Corporate Governance as Correlate for Firm Performance: A Pooled OLS Investigation of Selected Nigerian Banks. IUP Journal of Corporate Governance, 13(1), 7-15.

Rezaee, Z. (2009). Corporate governance and ethics. Hoboken, NJ: John Wiley & Sons.

Rosenberg, M. (2003). Corporate governance mechanisms and firm performance: evidence from Finland. Swedish School of Economics and Business Administration, Working Papers – 497.

Roudaki, J., & Bhuiyan, M. B. (2015). Interlocking Directorship in New Zealand. Australasian Accounting, Business and Finance Journal, 9(3), 45 https://doi.org/10.14453/aabfj.v9i3.4

Safari, M., Mirshekary, S., & Wise, V. (2015). Compliance with Corporate Governance Principles: Australian Evidence. Australasian Accounting, Business and Finance Journal, 9(4), 3-19. https://doi.org/10.14453/aabfj.v9i4.2

Sami, H., Wang, J., & Zhou, H. (2011). Corporate governance and operating performance of Chinese listed firms. Journal of International Accounting, Auditing and Taxation, 20(2), 106-114. https://doi.org/10.1016/j.intaccaudtax.2011.06.005

Shanikat, M., & Abbadi, S. (2011). Assessment of Corporate Governance in Jordan: An Empirical Study. Australasian Accounting Business and Finance Journal, 5(3), 93-106.

Siddiqui, S. S. (2014). The Association between Corporate Governance and Firm Performance-A Meta-Analysis. Available at SSRN 2424592. https://doi.org/10.2139/ssrn.2424592

Trireksani, T., & Djajadikerta, H. G. (2016). Corporate Governance and Environmental Disclosure in the Indonesian Mining Industry. Australasian Accounting, Business and Finance Journal, 10(1), 18-28. https://doi.org/10.14453/aabfj.v10i1.3

Yaşar, A. (2013). Big Four Auditors' Audit Quality and Earnings Management: Evidence from Turkish Stock Market. International Journal of Business and Social Science, 4(17), 153-163.