# Board of Directors, Audit Committee Characteristics and Performance of Saudi Arabia Listed Companies

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**ABSTRACT**: This study examines the relationship between the internal corporate governance mechanism related to the board of directors, the audit committee characteristics and the performance of the Saudi companies listed in the Saudi stock exchange (TADAWL) in 2010, excluding financial companies. The statistical results of the study are not in line with the agency theory that board of directors and audit committee might mitigate agency problems leading to reduced agency cost by aligning the interests of controlling owners with those of the company. While audit Committee size (ACSIZE) is found to have a significant relationship with firm performance (but in the opposite directors (BODCOM), CEO Duality (DUAL), Board Size (BSIZE), Audit Committee Independence (ACIND), audit committee meeting (ACMEET) were found to be as expected directions but insignificantly related to firm performance measure except the direction of the proportion of non-executive directors (BODCOM) was opposite to the expectations.

Keywords: Corporate governance; Firm performance; Board of directors; Audit committee; Saudi Arabia.

JEL Classifications: M40; M41; M42

#### 1. Introduction

The corporate scandals such as Enron, Global Crossing, Tyco, and World Com have shaken the investors' confidence and made it difficult for companies to raise equity from the stock market (Agrawal, 2005). In commenting on these scandals, many reports believed that the board of directors and its committees do not have a good supervision on the management. For example, Enron manipulated its financial statements through off-balance sheet financing. Therefore, the board was unable to disclose the distorted statements because the board lacked of independence from senior executives (Deakin and Konzelmann, 2004). Moreover, World Com materially overstated its earnings and finally filed for bankruptcy. The investigation showed that the audit committee failed to effectively oversee the mangers duties (Weiss, 2005). Consequently, these well-publicized corporate scandals together with the Asian financial crisis in 1997 have highlighted the importance of good corporate governance practices for the long-term survival of companies (Mokhtar et al., 2009).

In Saudi Arabia, The Saudi Stock Market (SSM) also faced an extraordinary crash at the beginning of 2006, which leads the Capital Market Authority (CMA) to suspend the trading of two

firms, Al Sanie and Saad group. These events created a serious question about the effectiveness of different monitoring devices that were presumed to protect investors' interests in Saudi Arabia. In response to critics of Saudi corporation management after the 2006 crash, the corporate governance regulation has been issued by CMA in November 2006.

Based on the premises of the agency theory, Jensen and Meckling (1976) and Shleifer and Vishny (1986) pointed out that there is likelihood of principal-agent conflicts when management roles are separated from ownership roles, coupled with the existence of asymmetric information. They assert that this is due to the improper use of corporate assets arising from manager's self interest satisfaction in pursuing projects that are very risky but not prudent with the adverse consequences on the providers of the capital. Therefore, different internal and external mechanisms have been considered via corporate governance to prevent agency conflicts as well as reducing costs associated with such agency.

#### 2. Literature Review and Hypotheses Development

#### 2.1 Board of Directors Variables

#### 2.1.1 Board Composition and Firm Performance

According to Jensen and Meckling (1976), boards dominated by outsiders or NEDs may help to mitigate the agency problem by monitoring and controlling the opportunistic behavior of management. The results of previous studies that investigated the relationship between board composition and firm performance are inconsistent. Dehaena et al. (2001), Omar (2003) and Rhoades et al. (2000) found that NED has a positive relationship with financial performance. For example, Krivogorsky (2006), Lefort and Urzúa (2008) and Limpaphayom and Connelly (2006) also found a positive relationship between board composition (the proportion of independent directors on the board) and firm performance. Hasnah (2009) showed that NED is significantly related to firm performance that is measured by ROA.

On the other hand, Coles et al. (2001) demonstrated that there is a negative impact of outside directors on firm performance. Erickson et al. (2005) also found a negative relationship between greater board independence and firm value. However, Bhagat and Black (2002) and De Andres et al. (2005) found no significant relationship between the composition of the board and the value of the firm. Based on above discussion and in the light of the agency theory, the following hypothesis can be empirically tested.

# $H_{1a}$ : There is a positive relationship between the proportion of non-executive directors and firm performance.

#### 2.1.2 CEO Duality and Firm Performance

Jensen and Meckling (1976) argued that when an individual is holding two top positions there is a tendency on the path of such individual to adopt personal interests' strategies that could be detrimental to the firm as a whole.

Sharing the same thought, Mallette (1992) argued that in the combined roles, the chairman of the board has to make decisions potentially leading to the conflict of interest. Moreover, in the combined roles, the CEO can set the board's agenda and can influence (if not control) the selection of directors of the board. They concluded in their paper that CEO duality can challenge a board's ability to monitor executives.

However, empirical analyses of the impact of duality on various corporate performance measures have yielded conflicting results. Ahmadu, Aminu and Taker (2005), Bhagat and Bolton (2008), Coles et al. (2001), Feng, Ghoshand and Sirmans (2005), Judge, Naoumova and Koutzevol (2003), Kyereboah - Colemn and Biekpe (2005) and Mustafa (2006) found negative significant relationship between CEO duality and firm performance. In contrast, Carapeto, Lasfer and Machera (2005), Schmid and Zimmermann (2007) and Wan and Ong (2005) found no significant difference in the performance of companies with or without role duality.

Thus, it is reasonable to test the following hypothesis:

 $H_{1b}$ : There is a negative relationship between the CEO duality and firm performance.

#### 2.1.3 Board Size and Firm Performance

Jensen (1993) confirmed that the smaller board size is more correlated with the quality of monitoring. Lipton and Lorsch (1992) also stated that the board might become less effective in monitoring management when its size increases. They recommended that board membership should be

## *Board of Directors, Audit Committee Characteristics and Performance of Saudi Arabia Listed* 243 *Companies*

between eight and nine persons, and any additional benefits that can be gained from the increased monitoring by additional membership will offset the costs linked with slow decision making.

Empirical evidence on the relationship between board size and firm performance provided mixed results .While, Ahmadu et al. (2005), Chan and Li (2008), De Andres et al. (2005) and Mustafa (2006) found that larger boards are associated with poorer performance, Beiner et al. (2004), Bhagat and Black (2002) and Limpaphayom and Connelly (2006) found no significant association between board size and firm performance.

To re-examine this relationship, the following hypothesis is proposed for empirical testing:

 $H_{lc}$ : There is a negative association between board size and firm performance.

## 2.2. Audit Committee Variables

## 2.2.1 Independence of Audit Committee and Firm Performance

The empirical result of the relationship between audit committee independence and firm performance is ambiguous. Chan and Li (2008) found that independence of the audit committee (i.e., To have at least 50 percent of expert-independent directors serve on audit committee) positively impacts the firm performance as measured by (Tobin's Q). Similarly, Ilona, (2008) showed that there is a positive relationship between audit committee independence and firm performance as measured by ROA. Moreover, Erickson et al. (2005) asserted that independent directors can reduce agency problems. Based on the argument provided by Erickson et al. (2005) that directors' independence can reduce the agency problem, it can similarly argue that independent audit committee independence and firm performance is expected and justified.

Based on above discussion and in the light of the agency theory, the following hypothesis can be empirically tested.

 $H_1$ : There is a positive relationship between the independence of the audit committee members and firm performance.

## 2.2.2 Audit committee meeting and Firm Performance

The numbers of audit committee meeting are considered to be an important attribute for their monitoring effectiveness (Lin, Li, and Yang, 2006). Anderson et al. (2004) noted that audit committee monitors the internal control and provides reliable information to the shareholders. Therefore, audit committee strengthens the internal auditing function and oversees management's assessment of business risk (Hsu, 2007).

The number of audit committee meetings is considered as a proxy for audit committee activity (Xie et al., 2003). Therefore, the audit committee that meets more frequently with the internal auditors is better informed about auditing and accounting issues. When an important auditing or accounting issue arises, the audit committee can direct the proper level of internal audit function to address the problem promptly. Therefore, an audit committee that meets frequently can reduce the possibility of financial fraud (Abbott et al., 2004; Raghunandan et al., 1998). Inactive audit committees with fewer numbers of meetings are unlikely to supervise management effectively (Menon and Williams, 1994). Beasley et al. (2000) found that fraudulent firms with earning misstatements have fewer audit committee meetings than non-fraud firms. An active audit committee with more meetings has more time to oversee the financial reporting process, identify management risk and monitor internal controls. As a result, firm performance increases with audit committee activity. More importantly, there have been very few studies that examined the effect of audit committee meeting on firm performance. For example, Hsu (2007) found that there is a positive relationship between audit committee meeting and firm performance.

Therefore, this study aims to investigate the effect of the audit committee meeting on firm performance by introducing the following hypothesis:

 $H_2$ : There is a positive relationship between the frequencies of audit committee meeting and firm performance.

#### 2.3 Audit Committee Size and Firm Performance

The size of the audit committee is another characteristic considered to be relevant to the effective discharge of its duties (Cadbury Committee, 1992). A minimum of three audit committee directors has been proposed by a number of corporate governance reports (BRC, 1999; New York Stock Exchange, 2002; CMA, 2006). It is argued that a larger committee has greater organizational status and authority (Kalbers and Fogarty, 1993; Braiotta, 2000) and a wider knowledge base

(Karamanou and Vafeas, 2005). However, an audit committee can suffer from process losses and diffusion of responsibility if it becomes too large (Karamanou and Vafeas, 2005). These arguments give rise to the following hypothesis:

*H*<sub>2</sub>: *There is a positive relationship between the size of the audit committee and firm performance.* 

#### 3. Research Method and the Study Models

This study focused on the listed companies in Saudi Arabia, excluding financial companies at the end of the year 2010. The total number of companies in Saudi Stock Market (TADWAUL) is 146 companies at the end of the year 2010. The latest sample companies in Saudi Stock Market that provides information on corporate governance attributes after excluding financial companies is 135 companies. All data relating to the independent and dependent variables were obtained from the company's annual report.

The firm performance was measured by Tobin's q ratio because it provides an estimate of the intangible asset value such as the market power, goodwill, quality of the management, and growth opportunities (Perfect and Wiles, 1994). Therefore, it is used widely in several different versions as a measure of performance in corporate governance empirical research as evidenced by Black et al. (2003), Larcker et al. (2004), and Drobetz et al. (2004).

The effect of six internal corporate governance variables, namely board composition (BODCOM), CEO duality (DUAL), board size (BSIZE), audit committee size (ACSIZE), audit committee activities (ACMEET), audit committee size (ACSIZE) and two control variables, firm size (FSIZE) and leverage (DEBT) were examined. Table 1 provides a summary of variables measurement.

| Name of Variable             | Acronym | Measurement   |
|------------------------------|---------|---|
| Dependent Variables          |         |   |
| Tobin's Q                    | TQ      | The market value of equity plus total debt divided by<br>the book value of total assets of the company. |
| Independent Variables        |         |   |
| Board composition            | BODCOM  | The proportion of non-executive directors to total number of directors on the board.                    |
| CEO duality                  | DUAL    | Dummy variable, taking a value of 1 for firms with the CEO as Chair, and 0 otherwise.                   |
| Board size                   | BSIZE   | Total number of directors on the board.   |
| Audit committee independence | ACIND   | The proportion of independent directors on the audit committee.   |
| Audit committee activity     | ACMEET  | The number of audit committee meetings held in a year 2010.   |
| Audit committee size         | ACSIZE  | Total number of directors on the audit committee.   |
| Control Variables            |         |   |
| Firm Size                    | FSIZE   | The book value of the total assets of the company.  |
| Leverage / Debt proportion   | DEBT    | The percentage of total liabilities to total assets.  |

**Table 1. Summary of Variables Measurement** 

The relationship between audit committee characteristics and firm performance was analyzed by using the following model:

 $TQ = \beta 0 + \beta 1 *BODCOM + \beta 2 *DUAL + \beta 3 *BSIZE + \beta 4 *ACIND + \beta 5 *ACMEET + \beta 6 *ACSIZE + \beta 7 *FSIZE + \beta 8 *DEBT + \varepsilon$ Where: TQ - Tobin s'Q.

 $\beta 0$  – Intercept

*Board of Directors, Audit Committee Characteristics and Performance of Saudi Arabia Listed* 245 *Companies* 

BODCOM – Board composition

- DUAL CEO duality
- BSIZE Board size

ACIND - Audit committee independence.

ACMEET – Audit committee meeting.

ACSIZE – Audit committee size.

FSIZE – The book value of the total assets of company.

DEBT – The percentage of total liabilities to total assets.

 $\epsilon$  - Error term.

## 4. Data Analysis and Results

## 4.1 Descriptive Statistic

Table 2 shows the descriptive statistics of the independent variables. The descriptive statistics include mean, standard deviation, minimum, and maximum which were computed using SPSS version 18.

| Variables                            | Mean  | Std. Deviation | Min  | Max  |  |
|--------------------------------------|-------|----------------|------|------|--|
| Board Composition (BODCOM)           | 0.570 | 0.253          | 0    | 1    |  |
| CEO Duality (DUAL)                   | 0.058 | 0.233          | 0    | 1    |  |
| Board Size (BSIZE)                   | 8.479 | 1.446          | 4    | 12   |  |
| Audit Committee Independence (ACIND) | 0.811 | 0.202          | 0.25 | 1    |  |
| Audit Committee Activity (ACMEET)    | 4.862 | 2.635          | 1    | 25   |  |
| Audit Committees Size (ACSIZE)       | 3.273 | 0.494          | 3    | 5    |  |
| Tobin's Q Ratio (Tobin's Q)          | 1.357 | 0.843          | 0.16 | 5.58 |  |

## Table 2. Descriptive Statistics for Continuous Variables

## 4.2 Correlation Analysis

Pearson correlation analysis was performed in order to obtain an understanding of the relationship among all the variables in the study. A number of previous studies such as Hair *et al.* (2010) and Gujarati and Porter (2009) suggest 0.8 at the beginning at which multicollinearity concerns may harm the regression analysis. The correlation matrix in Table 3 shows that there is no multicollinearity because none of the variables correlates above 0.8 or 0.9.

|  | 1      | 2       | 3       | 4       | 5      | 6       |
|--|--------|---------|---------|---------|--------|---------|
| 1) Board Composition (BODCOM)              |        |         |         |         |        |         |
| 2) CEO Duality (DUAL)                      | 0.043  |         |         |         |        |         |
| 3) Board Size (BSIZE)                      | 0.108  | 0.197*  |         |         |        |         |
| 4) Audit Committee Independence<br>(ACIND) | -0.023 | 0.010   | 0.020   |         |        |         |
| 5) Audit Committee Activity (ACMEET)       | 0.148  | 0.072   | 0.223** | -0.045  |        |         |
| 6) Audit Committees Size (ACSIZE)          | 0.036  | 0.240** | 0.161   | -0.186* | 0.091  |         |
| 7) Tobin's Q Ratio (TQ)                    | -0.048 | -0.077  | -0.154  | 0.066   | -0.068 | -0.171* |

**\*\*** Correlation is significant at the 0.01 level (2- tailed).

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

#### 4.3 Multiple Liner Regression Analysis

Before undertaking the regression analysis, the assumptions of linearity, normality, homoscedasticity and independent of the errors were examined. These assumptions were examined using the analysis of residuals, plots of the studentized residuals against predicted values as well as P-P Plot and Q-Q plot for the two models.

The results indicated no problems of linearity, normality, homoscedasticity and independence of the error terms. In other words, it was concluded that all the statistical assumptions required for multivariate statistical techniques were satisfied. Satisfaction of these assumptions ensures that the obtained results were valid and reliable.

The result of multiple regression analysis between internal corporate governance variables (Board of Directors and Audit Committee Characteristics) and TQ is presented in Table 4 with corresponding coefficient value and t-value. The F-value in the model is significant at the 0.10 level and the adjusted R<sup>2</sup> is 4%. In terms of board composition (BODCOM) board composition measured as the ratio of non-executive directors to the total number of directors (NED) was found to be insignificantly related to marketing performance (TQ). Therefore, the hypothesis 1 is not supported. However, this insignificant relationship may be attributed to institutional theory that expects corporate governance mechanisms as practices or regulations as a result of coercion from legislators who impose certain practices in order to improve organizational effectiveness or as a result of imitation. The result is also consistent with the findings of prior studies by Haniffa and Hudaib (2006) and Vafeas and Theodorou (1998). This result might be attributable to the limited oversight provided by non-executive directors (NEDs).

CEO duality (DUAL) was found to be insignificantly related to marketing performance (TQ). Therefore, the hypothesis 2 is not supported. The results support the findings of Haniffa and Hudaib, (2006), Heenetigala and Armstrong (2011) and Hsu (2007). This could be as Lipton and Lorsch (1992) suggested that the market believes that the CEO is the most knowledgeable and experienced person about the company and is best suited to serve as chairperson of the board.

Similarly, board size is found to be insignificantly associated with TQ, however, in the negative direction. Therefore, the hypothesis 3 is not supported. The insignificant relationship between board size and TQ is in consistent with results by Ehikioya, (2009), Haniffa and Hudaib, (2006). However, the result is in contrast with findings by Chauhan and Dey (2009), Wei Hu et al. (2010). An explanation suggested for this relationship is that CEO domination on board activities and asymmetry information about CEO may limit the board from performing effective monitoring (Hasnah, 2009).

In terms of audit committee independence (ACIND), Audit Committee Independence (ACIND) found to be insignificantly related to marketing performance (TQ). Thus, the hypothesis 4 is not supported. This is consistent with Hsu, (2007) who found no relationship between audit committee independence and marketing performance (TQ). However, it is in contrast to a study by Chang and Li (2008) who found a significant positive relationship between Tobin's Q and independence of the audit committee at the 0.01 level of significance.

Similarly, audit committee meeting (ACMEET) found to be insignificantly related to marketing performance (TQ), however, in the positive direction as hypothesized. Thus, hypothesis 5 is not supported. This result is in contrast with the finding by Hsu (2007) who found a significantly related to firm performance (TQ) but in the opposite direction to expectation. However, audit Committee size (ACSIZE) is found to have a significant relationship with firm performance (TQ) at the 0.05 level of significance but in the opposite direction to expectation. Therefore, the hypothesis 6 is not supported.

In general, of the variables hypothesized to be associated with TQ, the study only finds that Audit Committee size (ACSIZE) ( $\beta$ = -0.127, t= -1.423, p<0.05) was significant in the opposite direction to the expectation. Other hypothesized variables, the proportion of non-executive directors (BODCOM), CEO Duality (DUAL), Board Size (BSIZE), Audit Committee Independence (ACIND), the frequencies of audit committee meeting (ACMEET) were found to be as expected directions but insignificant except the direction of the proportion of non-executive directors (BODCOM) was opposite to the expectations. Based on the regression results the model equation is TQ= -0.216 \*Audit Committee Size (ACSIZE).

## *Board of Directors, Audit Committee Characteristics and Performance of Saudi Arabia Listed* 247 *Companies*

In summary, the current study found that there is no relationship between the board of directors, audit committee characteristics and firm performance except the audit committee size (ACSIZE) but in the opposite direction to the expectation. Thus, the prediction made about good board and audit committee to enhance firm performance was found to be inaccurate in Saudi Arabia. A plausible interpretation of the insignificant relationship between the board of directors and audit committee characteristics and firm performance may be attributed to institutional theory, focusing on the processes and systems by which theme acquire collective meaning and legitimisation. In other words, the findings may be referred to this theory which suggests that companies might adopt practices or regulations as a result of coercion from a legislator who imposes some practices in order to improve organizational effectiveness. However, there is no prediction that the adoption of these regulations will improve organizational effectiveness.

| Variables  | Standardized<br>Coefficients<br>Beta | T-value |  |
|--|--------------------------------------|---------|--|
| Board Composition (BODCOM)                       | -0.002                               | -0.023  |  |
| CEO Duality (DUAL)                               | -0.007                               | -0.078  |  |
| Board Size (BSIZE)                               | -0.109                               | -1.245  |  |
| Audit Committee Independence (ACIND)             | 0.048                                | 0.559   |  |
| Audit Committee Activity (ACMEET)                | 0.002                                | 0.019   |  |
| Audit Committees Size (ACSIZE)                   | (-)0.127*                            | -1.423  |  |
| Firm size (FSIZE)                                | -0.230                               | -2.659  |  |
| Debt ratio (DEBT)                                | 0.046                                | 0.530   |  |
| R <sup>2</sup>                                   |                                      | .098    |  |
| Adjusted R <sup>2</sup>                          |                                      | .043    |  |
| F-value  |                                      | 1.767   |  |
| F-Significance<br>**: $p < 0.01$ : *: $p < 0.05$ |                                      | .089    |  |

Table 4. Regression results between board, AC variables and Firm performance (TQ)

\*\*: p <0.01; \*: p < 0.05

## 5. Further Analysis

This study also conducted further tests to examine whether the main results were sensitive to different measurements in order to obtain clearer results and to confirm the main findings being made. The measurement of CEO duality based only on the positions separation between the chairman and CEO as required by the Saudi code (CMA, 2006).

However it also be based on the presence of independence from family relationship and significant shareholders (Hasnah, 2009). Hence, this study repeated the regression model by using this alternative measure, however, the findings remained the same.

In another sensitivity test, the research used alternate dichotomous variable of audit committee meetings (ACMEET) which is coded 1 if the number of meetings is at least four per year, 0 otherwise to replace the number of meetings per year, however, the findings remained the same.

#### 6. Conclusion

This study investigates the relationship between internal corporate governance mechanisms (board of directors and audit committee characteristics) and firm performance as measured by Tobin's Q ratio (TQ). The study is motivated by the gap in the existing literature and the limited evidence concerning developing countries, specifically in Saudi Arabia.

The findings of this study did not add value to firm performance in Saudi companies which have implications for developing the role of the board and audit committee in Saudi Arabia by enhancing the auditor's independence and competence and solving the existing issues that in the Saudi audit market. Thus, Capital Market Authority (CMA) may be required to improve and enhance the awareness and skills of board and audit committee members, for example, by holding business conferences or clarifying the roles of audit committee members in order to enhance their skills and abilities that lead to better firm performance.

Generally, the findings are not in line with the agency theory that the board of directors and audit committee might mitigate agency problems leading to reduced agency cost by aligning the interests of controlling owners with those of the company. These findings can be interpreted in relation to the institutional theory that views these mechanisms as practices or regulations resulting from coercion by legislators who impose certain practices in order to improve organizational effectiveness, or as a result of imitation. In other words, the findings may be referred to this theory which suggests that companies might adopt practices or regulations as a result of coercion from a legislator who imposes some practices in order to improve organizational effectiveness. However, there is no prediction that the adoption of these regulations will improve organizational effectiveness.

### 7. Limitations and Suggestions for Future Research

The conclusions drawn from this study should be interpreted in a limited way, which would potentially represent opportunities for further investigation in future research. First, although this study uses the whole population in the Saudi market, companies which operate in the financial sector are excluded since they have special practices and operations. Accordingly, the findings cannot be generalized to all sectors in Saudi market; however, the generalization is possible in other sectors involved in this study.

Second, although the research question regarding the role of internal corporate governance in improving firm performance is mainly answered by the database, questionnaire and interviews may also contribute to reinforcing the findings and provide a deeper understanding in providing further explanation on the relationship.

Third, only six characteristics of the board of directors and audit committee were considered in this study. Hence, future study could investigate other audit committee characteristics that are not included in this study such as education and experience of board of directors and audit committee members, which could affect the effectiveness of corporate governance in Saudi Arabia.

Finally, this was theoretically built on the agency theory and institutional theory in relation to internal corporate governance mechanisms and firm performance. Future research can also examine other theories that can be associated with these mechanisms and the performance, such as stakeholder theory, stewardship theory and resource dependence theory.

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*Board of Directors, Audit Committee Characteristics and Performance of Saudi Arabia Listed* 249 *Companies* 

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Board of Directors, Audit Committee Characteristics and Performance of Saudi Arabia Listed 251 Companies

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