

# THE IMPACT OF THE BOARD OF DIRECTORS CHARACTERISTICS ON REGULATION COMPLIANCE: AN EVALUATION OF THE BOARD OF DIRECTORS' EFFECTIVENESS

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## Abstract

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This paper aims to investigate the board of directors' (BD) effectiveness in enhancing compliance with regulations in the Saudi context. In particular, it explores whether there is an impact of the board of directors (size, independence, frequency of meeting and CEO serving on board) on the value of fines imposed by the Saudi Capital Market Authority (CMA) during the period from 2010 to 2017. In total 728 year observations were collected and analyzed. Multiple linear regression is performed to examine the association between the value of fines imposed by CMA and companies' board of directors attributes. The results show that the CEO is serving on board, and ownership concentration significantly impacts the value of the fines imposed by the CMA. These results suggest that power distance could influence the function and effectiveness of the board of directors in compliance with official regulations. This paper provides implications to regulators interested in fostering compliance with regulations in emerging capital markets. The findings can also help investors to enhance their corporate governance practices.

**Keywords:** Corporate Governance, Board of Directors, Regulations, Fines, Capital Market

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## 1. INTRODUCTION

The board of directors (BD) has a fiduciary duty to the firm it represents. This duty can be broken down into three types: duty of care, loyalty, and candor

(CMA, 2017). Duty of care provides that the board of directors must work in the most effective ways to protect companies from any negative actions that regulatory agencies may impose because of violations of regulations. The objective of

the corporate governance (CG) system is to protect the company from such fines and sanctions by monitoring and supporting compliance with regulations. CG systems can protect the company from the violence of regulations depending on the level of monitoring they provide and the board of directors (Dutra, 2012). Adams, Hermalin, and Weisbach (2010) argue that the obligation of the board of directors in terms of monitoring is to be vigilant against managerial malfeasance.

Investigating factors relating to the board of directors' effectiveness in enhancing compliance are essential in shading light on the monitoring role and performance of the CG system as this system differs from country to country (Brown, Beekes, & Verhoeven, 2011) and is vital particularly in an emerging economy where there is limited evidence. Further, Berglöf and Claessens (2005) argue that this is of significant importance, especially in developing countries where enforcement of laws and regulations is weak, resulting in a negative impact on the effectiveness of CG. Klapper and Love (2004) provide that companies may adopt stronger firm-level CG to counterbalance the weaknesses at the national level in this type of environment. Alfraih (2016a, 2016b, 2018), Aluchna and Tomczyk (2018), Fernandes and Lourenço (2018), and Khan and Rehman (2020) discuss in detail the relationship between the characteristics of the board of directors, corporate governance, and compliance of regulations.

In the Saudi context, there is extensive research investigating the value relevance of CG practices and its impact on several companies' affairs and outcomes such as profitability and performance (Ghabayen, 2012), leverages and CEO compensation (Fallatah, 2015), or auditor independence (Bahrawe, Haron, & Hasan, 2016). However, these previous studies have provided mixed evidence about the effectiveness of CG in the Saudi context.

The investigation of the effectiveness of the monitoring role of the board of directors is conducted by examining the association between the value of fines imposed by the Saudi Capital Market Authority (CMA) (as a dependent variable) and many board characteristics; specifically the size of the board of directors, the independence of the board of directors, the CEO serving in the board of directors, the frequency of board meetings and the ownership concentration. The data for CMA fines are collected through an archived survey of the CMA website from 2010 to 2017. At the same time, data for the independent variables are collected from the annual reports of listed companies. In total, 728 year-observations relating to 91 listed companies were analyzed, among which the CMA imposes 204 fines and actions.

The motivation for this study stands on several grounds. First, this study is the first study to examine fines and sanctions imposed by the Saudi CMA because of failures in compliance with regulations and requirements and broaden our understanding of monitoring/governance performance, which is considered an empirical issue (Hassan, Romily, Giorgioni, & Power, 2009). Second, this paper aims to extend previous research by providing evidence confirming the effectiveness of the board of directors in enhancing compliance with regulations and requirements.

The rest of the paper is divided into 5 sections. Section 2 reviews the literature, Section 3 discusses the research methodology used for the current study; it develops a hypothesis, describes the research model and research method. Section 4 discusses results, and Section 5 provides the study's conclusion.

## 2. LITERATURE REVIEW

The firm value relevance of CG has been the subject of extensive research from different performance dimensions. These studies report a positive relationship between CG quality and firm value such as performance (Core, Guay, & Rusticus, 2006; Dittmar & Mahrt-Smith, 2007), decreased costs of capital and greater access to external financing (Doidge, Karolyi, & Stulz, 2007), and disclosure and transparency (Durnev & Kim, 2005; Francis, Khurana, & Pereira, 2005). Further, a large number of papers have investigated the association between the firm value relevance of CG and questions typically raised in accounting literature, such as those relating to accounting quality and accounting conservatism (Beekes, Pope, & Young, 2004; García Lara, García Osma, & Penalva, 2009), earning timelines, informativeness and earnings management (Jiraporn & DaDalt, 2009), or relating to transparency and disclosure practices (Cerbioni & Parbonetti, 2007; Abraham & Cox, 2007; Chen, Chen, & Cheng, 2008) and analyst following (Byard, Li, & Weintrop, 2006; Beekes & Brown, 2006). For example, Fernandes and Lourenço (2018) reviewed the literature published in the different journals of Elsevier and Emerald and found that business characteristics (firm's size, the firm's profitability, the type of auditor, and the level of internationalization), country characteristics and the level of enforcement and corporate governance characteristics (including the nature of the board members and the type of ownership/control) have the impact on the degree of compliance.

Compliance with regulations is one dimension of the value relevance of CG and is usually emphasized in CG regulations as one important duty of the company CG. Nevertheless, the literature is limited about the firm value relevance of CG on compliance with regulations. Moreover, limited issues have been investigated from this perspective, such as compliance with regulations (Clarkson, Li, Richardson, & Vasvari, 2008; Kent & Stewart, 2008) and restatements and fraud (Cheng & Farber, 2008; Donohoe, Reed, & Storrud-Barnes, 2007; Beasley, Carcello, Hermanson, & Neal, 2010). Brown et al. (2011) provide a review of studies examining CG at the firm level, and Bushman and Smith (2003) provide an argument about the relationship between CG and financial accounting information.

Furthermore, most previous studies investigating compliance with regulations have been carried out in most developed countries. For example, Peasnell, Pope, and Young (2001) examine enforcement actions by the Financial Reporting Review Panel (FRRP) in the UK and report that most firms being subject to such action are less likely to have a good proportion of outside directors and an audit committee or to be audited by large audit firms. In Australia, Sharma (2004) investigates fraud incidence and reports that the occurrence of

fraud is lower when there is better independence of the board of directors and institutional ownership and higher when there is CEO duality. Similarly, in the US, Uzun, Szewczyk, and Varma (2004) find that the board of directors' independence and its committees result in lower corporate fraud. Kent and Stewart (2008) find that greater compliance with disclosure of IFRS impact occurred in firms with better CG in Australia, particularly more frequent meetings of the board of directors and its audit committee and audited by large audit firms. Abbott, Parker, and Peters (2004) argue that the financial background of the audit committee is important in reducing the occurrence of restatements, reporting a lower occurrence of restatements when there is at least one member of the audit committee with financial background. Agrawal and Chadha (2005) report an association between the probability of restatements when the CEO is a member of the funding family, suggesting that the lack of independence and monitoring would result in higher restatements. Cheng and Farber (2008) find that the compensation paid to management influence negatively the frequency of restatements. These studies suggest that the effectiveness of the monitoring role is an essential factor in preventing misleading disclosure, violations, and lower transparency.

Even though there is a general premise that a higher quality of CG would lead to better compliance with regulations, research evidence varies about this association, whether to the significance of this association or the importance of the specific aspects or characteristics of CG. For example, Beasley et al. (2010) investigated 347 cases of alleged fraud in the US. They report no difference in CG structures between fraud and non-fraud firms. Brown et al. (2011) explain that this might be because the regulation of CG in the US result in uniformity of CG characteristics among US firms making it difficult to observe the impact of CG on committing fraud. In Millstein's (2005) opinion that laws and their effective enforcement can only protect the interests of investors and other stakeholders. Bajpai (2005) argued that whenever regulators are implementing corporate governance standards, it is observed that it prevents scandals in the world of corporate. In a recent study, Khan and Rehman (2020) investigate the impact of three sets of variables on Pakistan's operating liquidity, i.e., corporate governance compliance, governance reforms, and board attributes. Further, they also examine the relationship in the context of pre-and post-corporate governance reforms.

Compliance and regulations vary significantly among countries and between developed and developing countries. Brown et al. (2011) reported from a review of studies investigating the relation between CG quality and firms' disclosure and transparency that additional research is merited, particularly in emerging markets due to the sensitivity of the CG measurements, regulations, and indices to local institutional arrangements. Berglöf and Claessens (2005) expressed that in most developing countries, enforcement of laws and regulations is weak, which has a negative impact on the effectiveness of corporate governance. Unfortunately, limited studies have tried to

investigate the relationship between compliance with regulation and CG quality in developing countries. Among the few examples investigating the relationship between compliance with regulation and CG quality in developing countries is the study of Zerban, Abdullah, and Abdullateef (2017). They carried out a case study of corporate governance and board responsibilities in one of the financial institutions in Saudi Arabia. They show that Saudi Arabian Monetary Agency (SAMA) regulation plays a significant role in highlighting the benefits of applying good corporate governance. In China, the board's efficiency is increasing due to the China Securities Regulatory Commission (CSRC) power. However, CSRC can confiscate that income earned through breaching the laws (OECD, 2014).

Moreover, in the Saudi context, limited research attempts to investigate the effectiveness of CG and its structured committees in enhancing firms' value. Furthermore, to the researchers' best knowledge, there is very limited studies have tried to investigate the surrounding circumstances of the CMA actions and fines and their link with the CG quality dimensions. One of these limited studies has been carried out by Alnodel (2018). However, he has focused on audit committees' attributes rather than a board of directors. Most of the previous studies investigating corporate governance practices in the Saudi context have focused on its impact on several companies' affairs and outcomes such as profitability and performance (Ghabayen, 2012; Fallatah & Dickins, 2012), leverages (Alnodel & Hussainey, 2010) and CEO compensation (Fallatah, 2015), disclosure and reporting (Hussainey and Alnodel, 2008; Al-Bassam, Ntim, Opong, & Downs, 2015) or auditor independence (Bahrawe et al., 2016). These studies have provided mixed evidence about the value relevance of CG quality in the Saudi context.

Overall, previous studies present evidence about the positive association between the monitoring role of CG and compliance with regulation. Nevertheless, there is a need for further investigation about the effectiveness of corporate governance on regulations compliance in developing countries since there are differences in the business environment, societal culture, and advancement of regulations (Brown et al., 2011). Therefore, this paper extends previous research by providing evidence confirming the effectiveness of the CG on compliance with regulations.

### 3. RESEARCH METHODOLOGY

Regulations for CG issued by CMA in 2006 (later modified in 2017) emphasizes the role of the board of directors in several articles. Among which it states in Article 22 (Main function of the board) that the board of directors should set policies and procedures to ensure the company's compliance with the laws and regulations, whether about disclosing material information to shareholders and stakeholders and making sure that executive management is complying with these policies and procedures.

Literature has frequently utilized a number of indicators or factors to proxy for CG quality. However, in this study, only five factors will be investigated because of the data availability and

matters relating to objectivity. These factors are board size, independence, frequency of meetings, the proportion of non-executive directors, and ownership concentration.

### 3.1. Investigated factors

#### 3.1.1. Board size

The board of directors should have enough members to be effective in carrying out its responsibilities. The appropriate size of the board of directors is debatable. The large size of the board of directors could help diversify the experience and background of the committee members; however, this would result in increasing the number of members, resulting in lose focus and being less participative than smaller size one. On the other hand, a small board of directors may help members concentrate and focus on the firm's issues, but it will have less diversity in background, experience, skills, and knowledge. In the Saudi context, there is no specific guideline for the number of board of directors; however, according to CMA regulations of CG, the board of directors should have a sufficient number of members to carry out its responsibilities. A number of studies have incorporated the board size in investigating the effectiveness of the CG quality. Literature, however, provides mixed results about the impact of the size of the board of directors on its effectiveness; based on them, the following first hypothesis is developed as:

*H1: There is a positive relationship between the size of the board of directors and the value of fines/sanctions imposed by CMA.*

#### 3.1.2. Independence of the board of directors

Independence of board of directors represents the proportion of board members who have no material personal interests in a company to a total number of directors. It has been assumed that when the number of independent members increases on the board of directors, the board of directors is more likely to help a company run honestly and efficiently. It has been emphasized in many studies that the board of directors' independence is crucial for the board of directors' effectiveness. For example, Cerbioni and Parbonetti (2007) report a positive relationship between the quantity of disclosure and the proportion of independent directors. Ajinkya, Bhojraj, and Sengupta (2005) find a positive relationship between the proportion of outside directors and institutional ownership and the accuracy of management earnings. Gul and Leung (2004) report a positive association between the existence of experienced non-executive directors on the board of directors and the quality of disclosure. However, other studies report different evidence suggesting that the positive relation between CG quality and board of directors' independence is unclear (Brown et al., 2011). Based on the above argument, the second hypothesis is articulated as follow:

*H2: There is a negative relationship between the number of independent members on the board of directors and the value of fines/sanctions imposed by CMA.*

#### 3.1.3. Frequency meeting of board of directors

The number of the board's meetings and its committees reflects its monitoring activities (Vafeas, 1999). When the board of directors meets more frequently, members of the board of directors are more likely to be aware of the company affairs. Consequently, their monitoring role over the firm's transactions should be enhanced (Al-Matari, Al-Swidi, & Fadzil, 2013; Alnodel, 2018; Alqatamin, 2018). Nevertheless, the evidence reported in previous studies about the relationship between the frequency of board of directors' meetings and its effectiveness is not conclusive. Previous studies provide supporting evidence about the relationship between BD meetings and the value relevance of CG (Kent & Stewart, 2008). Others provided different views; accordingly, the following hypothesis is developed:

*H3: There is a positive relationship between the number of board of directors meetings and the value of fines/sanctions imposed by the CMA.*

#### 3.1.4. Executives participation in the board of directors

Executive participation in the board of directors could have a different impact on the board of directors' effectiveness. From one side, CEOs' awareness of the company surrounding issues and regulations could help the board of directors carry out their responsibilities. On the other side, the CEO's participation in the board of directors could negatively influence the board of directors' independence. Some studies have reported a negative impact of the presence of the CEO on the board on the monitoring role of CG. Agrawal and Chadha (2005) report an association between the probability of restatements when the CEO is a member of the funding family. Cheng and Farber (2008) find that the compensation paid to management influence negatively the frequency of restatements. Therefore, the following hypothesis is developed:

*H4: There is a positive relationship between the CEO involvement in the board of directors and the value of fines/sanctions imposed by the CMA.*

#### 3.1.5. Ownership concentration

Several studies emphasize the impact of ownership concentration on the quality of CG. Brown et al. (2011) argue that governance quality depends on the ownership structure and whether disclosure compensates for perceived weakness in the firm's governance. Eng and Mak (2003) find an association between a greater disclosure and lower managerial ownership and further argue that there is a lower voluntary disclosure when the number of independent directors increases. Abraham and Cox (2007) report similar observations in the UK when investigating the impact of ownership and institutional investors on disclosure. Ali, Chen, and Radhakrishnan (2007) suggest that ownership concentration in family firms is associated with lower levels of transparency. Agrawal and Chadha (2005) report an association between the probability of restatements when the CEO is a member of the funding family. Due to the specific business

environment of Saudi Arabia, family ownership is considered as the proxy of owner concentration. However, in some circumstances, family ownership concentrated firms may disclose more sensitive information than non-family firms to avoid litigations (Chen et al., 2008). Based on the above arguments, H5 is developed as:

H5: There is a relationship between the ownership concentration of the company and the value of fines/sanctions imposed by the CMA.

### 3.2. Research model

One way to examine how effective the board of directors is on regulations compliance is to estimate the relationship between the number of sanctions or

fines imposed on a company and the company's structure of corporate governance. An alternative view is to use the value of the fines or sanctions imposed by the competent authority. Therefore, in this study, the dependent variable is the value of the fines or sanctions imposed by the CMA; this is more valuable than the number of fines or sanctions imposed because it measures the magnitude and is more objective than other means. Also, this extends previous studies by using a proxy that has not been intensively examined in the literature. Following previous studies, independent variables are selected, as mentioned in Table 1. The following model is formulated to investigate the board of directors' effectiveness in protecting companies from fines or sanctions imposed by the CMA.

$$VFS_{it} = \beta_0 + \beta_1 BDSIZE_{it} + \beta_2 BDIND_{it} + \beta_3 BDFM_{it} + \beta_4 BDEX_{it} + \beta_5 FOSC_{it} + \beta_6 FSIZE_{it} + \beta_7 FLEVER_{it} + \beta_8 FPRO_{it} + \beta_9 FAGE_{it} + Year\ Controls + \varepsilon_i \quad (1)$$

Table 1. Variables definition and description

Label	Variables	Description
VFS	Value of fines or sanctions	Value of fines or sanctions imposed by CMA at year-end.
BDSIZE	Size of the BD	The total number of BD members.
BDIND	Proportion of independent members	The proportion of independent directors to the total number of directors on the BD.
BDFM	Number of BD meetings	A number of BD meetings held during the year.
BDEX	The membership of an executive member in BD	A dummy variable that takes the value of 1 if an executive is a member of the BD and 0 otherwise.
FOSC	Ownership concentration	A dummy variable would take the value of 1 if the company's family ownership is concentrated and 0 otherwise.
FSIZE	Log. of total assets	The natural log of a firm's total assets.
FLEVER	Leverages	Total liabilities divided by total assets.
FPRO	Company net income	A dummy variable takes the value of 1 if a company makes a net profit before tax at the year-end and 0 otherwise.
FAGE	Age since establishment	Number of years at the year-end since the establishment.
Year Controls	Year of the fines	Year where the fines or sanction have been imposed.

### 3.3. Research method and data collection

The study data cover all sanctions/fines during the period from 2010 to 2017 and is collected from the website of Saudi Stock Exchange Company "Tadawul". CMA promptly announces any fines/sanctions imposed on any listed companies on Tadawul's website. Each announcement usually describes the nature of violation, irregularity, or misconduct that has been identified, its dates, and decisions of the CMA regarding the value and time of fines/sanctions. In addition, data relating to other variables are collected from the annual reports of each company listed in the Saudi Stock Exchange.

Alternatively, the research concerns could be investigated using a survey method or a qualitative research method. However, the researchers adapted this research method for several reasons. First, in terms of relevance and reliability, these sources are justified for the collection of data. Second, in terms of reliability, these sources are official and present the primary sources for such data, and studies with similar interests used the same sources. Third, in terms of relevance, data about fines/sanctions imposed on companies directly reflect or proxy the effectiveness of the board of directors and companies in their compliance with best practices to enhance the value of the company by avoiding any misconduct (Dutra, 2012; Loebbecke & Willingham, 1988).

## 4. EMPIRICAL ANALYSIS

### 4.1. Descriptive statistics

During the understudied period, the total value of fines imposed by CMA on listed companies because of violation of disclosure requirements comes around SAR 10,190,000. These fines range from 320,000 to 10,000, and the total number of actions was about 204 times. Therefore, the mean of fines was about 14,085. Of the total number of companies, 15 (16%) companies received no fines, whereas 76 (84%) companies were subject to fines, whether one or more in any understudy year. Table 2 shows the descriptive statistics of the fines imposed during the understudied period.

Table 2. Descriptive statistics about fines imposed during 2010-2017

Years	Mean	Std. deviation	Minimum	Maximum
2010	19230.77	39978.627	0	150000
2011	20934.07	39284.660	0	175000
2012	13186.81	33195.686	0	200000
2013	11098.90	26223.423	0	100000
2014	26538.46	47601.893	0	320000
2015	13516.48	40534.584	0	320000
2016	5000.00	21213.203	0	140000
2017	3076.92	19418.909	0	150000
2010 to 2017	14085.28	35399.466	0	320000

The study sample consists of all non-financial companies listed in Tadawul during the whole period from 2010 to 2017. Any companies that were not listed or delisted during this period were excluded. This has resulted in 91 companies with 728 year observations being investigated in this study. Table 3 provides descriptive statistics about the study sample. The size of BD ranges from 5 to 13 members, and the mean is about 8.44, whereas the proportion of independent members ranges

from 18% to 60%, with a mean of 46%. The number of meetings of BD varies from 4 to 15 meetings per year, and the mean for the number of meetings is about 5.56 times. Also, in terms of the companies' attributes, the study sample reflects different types of companies concerning their size, leverages, and age, suggesting that the study sample represents the range of non-financial companies listed in the Saudi stock market during the study period.

**Table 3.** Descriptive statistics about companies' attributes: Non-categorical variables

<i>Variables</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. deviation</i>
Size of the BD	5	13	8.44	1.528
Proportion of independent Members	0.18	0.60	0.46	0.11
Number of BD meetings	4	15	5.56	2.028
Total assets (000)	78,277	449,340,429	22,339,646	65,889,096
Total liability (000)	6,405	393,794,872	16,896,327	53,735,813
Leverages	0.0132	0.9604	0.406137	0.2325398
Age since establishment	2	67	28.35	14.798

Further, descriptive statistics show that the study sample is composed of family and non-family ownership concentration. It shows that among the companies being investigated, 67 companies with 536 year observations were non-family ownership concentration while 24 companies with 192 year observations were family ownership concentration. Concerning whether the company CEO is a member of

the company BD, there were 499 year observations where the company CEO was a member of the company BD and 229 year observations where the company CEO was not a member of the company BD. From the study sample, 588 observations came from companies making a profit in the year of observation, and 140 observations came from companies making losses during observation.

**Table 4.** Descriptive statistics about companies' attributes: Categorical variables

<i>Variables</i>	<i>Frequency</i>	<i>%</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. deviation</i>
<i>Ownership:</i>						
Non-family concentration	536	74	0	320000	16828.36	38920.197
Family concentration	192	26	0	150000	6666.67	21326.024
<i>CEO membership in BD:</i>						
CEO is a BD member	499		0	320000	10961.92	30559.977
CEO is not a BD member	229		0	320000	21091.70	43461.875
<i>Profitability:</i>						
Profitable companies	588		0	320000	11547.62	31369.688
Non-profitable companies	140		0	320000	25071.43	47494.739

#### 4.2. Regression results

The regression is statistically significant with a high F-value and low significance probability of F. The multiple regression model with all predictors produced  $R = 0.398$  and  $R^2 = 0.158$  and adjusted  $R^2 = 0.146$ ,  $F(10,717) = 13.470$ ,  $p < 0.000$ . The coefficient of determination is 16 percent which is reasonable for this type of data. Appropriate tests are applied to check the ordinary least squares (OLS) assumptions, normality, and linearity of the data are

approved. No multicollinearity was detected since tolerance and variance inflation factor (VIF) are within acceptable levels, no errors in variables, and autocorrelation (Durbin-Watson = 1.256). We also test the heteroscedasticity by applying Breusch-Pagan/Cook-Weisberg tests, it is observed that chi-square value was small, which indicates that heteroskedasticity is not a problem. The regression results are obtained using SPSS and summarized in Table 5.

Table 5. Regression results

	Unstandardized coefficients		Standardized coefficients	T	Sig.	Collinearity statistics	
	Beta	Std. error	Beta			Tolerance	VIF
Constant	-116840.339	20158.418		-5.796	0.000		
Size of the BD	-252.003	1159.844	-0.008	-0.217	0.828	0.807	1.239
Proportion of independent members	4492.094	10402.572	0.016	0.432	0.666	0.839	1.192
Number of BD meetings	-579.371	817.536	-0.025	-0.709	0.479	0.922	1.084
The CEO membership of BD	12654.122	3651.337	0.127	3.466	0.001	0.881	1.136
Ownership concentration	21414.619	3901.235	0.203	5.489	0.000	0.857	1.168
Log. of total assets	15623.406	2799.612	0.257	5.581	0.000	0.553	1.810
Leverages	-45000.147	8522.257	-0.225	-5.280	0.000	0.645	1.549
Loser companies vs. profitable companies	-12711.218	4505.211	-0.108	-2.821	0.005	0.803	1.245
Age since establishment	16.919	126.740	0.005	0.133	0.894	0.782	1.279
Year of the Fines	2422.278	709.039	0.119	3.416	0.001	0.961	1.041
Model	R	R-squared	Adjusted R-squared	Std. error of the est.	Durbin-Watson	F-value	Sig. of F-value
	0.398	0.158	0.146	4.29277	1.256	13.470	0.000

The results of standardized coefficients show the relative impact of independent variables on the dependent variable. According to the results, companies' attributes (ownership concentration, size, and leverages) have the highest impact on the value of fines imposed by CMA. This is followed by the CEO membership of BD, the year of the fines, and the company's profitability. The coefficients of the rest of the variables are either very small or statistically insignificant.

#### 4.3. Discussion of the results

The role of BD in maintaining the company's compliance with regulation is the main focus of this study. It is depicted from the estimations that the size of BD, proportion of independent members in the BD, number of BD meetings, and the CEO membership of BD would reduce the value of fines imposed by the CMA on the company. However, the results show that these variables of the company's BD do not significantly reduce fines imposed on companies. These results suggest that violation of CMA regulations is the same among companies regardless of BD structure. Nevertheless, the CEO would help companies better avoid such regulation violations when they are a member of the company BD. This might be explained by the CEO accumulated experience and awareness of the day to day business.

To measure the effect of CEO membership in the company's BD on the value of the fines imposed by CMA, the study incorporated a dummy variable for this factor, whereas 1 is assigned when CEO is a member of the company BD and 0 otherwise. The regression results show that CEO membership in the company BD is statistically significant. Therefore this study fails to reject the proposed  $H_4$ . This result suggests that the presence of the CEO in the company BD could help companies reduce fines imposed by CMA. Previous studies have reported different observations. For example, an increase in the likelihood of earning management when the CEO exercise more stock options (Bergstresser & Philippon, 2006), when the board of directors is weak in earning management may take place before the sale of managers' shares (McVay, Nagar, & Tang, 2006), the duality of CEO is associated with more earning management behavior (Davidson, Jiraporn,

Kim, & Nemec, 2004), companies with a lower proportion of outside directors are more often subject to enforcement action by a regulatory body (Peasnell et al., 2001) and CEO duality causes a higher probability of occurrence of fraud. The possible explanation for the study result concerning the effect is that CEOs are more likely aware of regulatory requirements, so CEOs would contribute to the BD in avoiding violence of such requirements. Therefore, avoidance of incompliance with regulation may be enhanced when the CEO is a member of the company's BD.

In contrast, other attributes of BD were not significant. The above results suggest that the size of the BD, the number of independent members in the BD, and the number of BD meetings have no significant impact on the value of the fines imposed because of violation of regulations imposed by the CMA. Previous studies have reported mixed results about the impact of the proportion of independent members on the company's performance. For example, Black and Bhagat (2002), Dahya and McConnell (2007), Bhagat and Bolton (2008), and Fu and Yu (2010) argued that there is no conclusive evidence supporting that a more independent board leads to better firm performance. However, other studies reported positive impacts (Jensen & Meckling, 1976; Huang, Lobo, & Zhou, 2009; Cerbioni & Parbonetti, 2007; Kato & Long, 2006).

The coefficient of the number of BD meetings is negative and statistically insignificant. Therefore,  $H_2$  is rejected. This result suggests that the number of BD meetings has no impact on the value of the fines imposed because of violation of regulations. Therefore, the premise that more frequent BD meetings could help BD members exercise their oversight duties with respect to enhancing compliance with regulations is not defined. These results do not support findings of previous studies reporting that more frequent meetings of BD result in greater compliance with disclosure requirements (Kent & Stewart, 2008), higher level of transparency and disclosure (Torchia & Calabrò, 2016), better future operating performance (Vafeas, 1999) and gives a kind of assurance to bondholders about the integrity of the firms' accounting disclosures (Anderson, Mansi, & Reeb, 2004).

Other factors that may influence the value of the fines imposed by CMA were incorporated to investigate their impact on the value of the fines imposed by CMA. These factors relate to years of fines and the company attributes, such as ownership concentration, size, leverage, profitability, and company age.

As shown in Table 5, it is evident from the regression results that companies' attributes are associated with the value of the fines imposed by violations of regulations. To measure the effect of ownership concentration on the value of the fines imposed by CMA, the study incorporated a dummy variable for this factor, whereas 1 is assigned for family ownership concentration and 0 otherwise. The regression results show that family ownership concentration is subject to more minor fines in comparison to non-family ownership concentration companies, suggesting that companies dominated by family ownership comply with regulations better than non-family companies. Thus the proposed *H5* is not rejected. Furthermore, this result supports the argument of Chen et al. (2008), stating that in some circumstances, family ownership concentrated firms may disclose more sensitive information than non-family firms to avoid litigations.

The variable "size of the company" is calculated as the logarithm of the total value of the company assets at the end of each year under study. The regression coefficient for the company's size is statistically significant, indicating a difference in the value of fines imposed by CMA because of the size of the company. With respect to the association between the value of fines imposed by the CMA and the profitability of the company, the study incorporated a dummy variable for this factor, whereas 1 is assigned when the company makes a profit in the year and 0 otherwise. The results show a significant relationship between the company's profitability and the value of the fines imposed by the CMA, suggesting that non-profitable companies are subject to more fines than profitable companies. Previous literature has suggested that loser or non-profitable companies are more likely to be subject to enforcement actions. In contrast to other companies' attributes, the company's age has an insignificant effect on the value of the fines.

The study also investigates whether there is a difference in the values of fines imposed by CMA from year to year. According to the regression results, the coefficient of the year of fines is negative and statistically significant. This might be a result of increased regulations imposed by the CMA. For example, during 2014, more fines have been imposed by CMA due to initiating new requirements for disclosure. On the other hand, the decrease in the number of fines imposed by CMA likely represents the learning curve of the listed companies as the Saudi stock market is one of the merging stock exchanges.

In general, the multiple regression results show that the BD structure has no significant impact on the value of fines imposed because of violations of regulations imposed by the Saudi CMA. These results suggest that the board of directors in Saudi companies might not be working in the most effective ways to protect companies from any negative actions imposed by regulatory agencies because of the valuation of regulations. In contrast, companies' attributes, especially operation factors such as ownership concentration, size, leverage, and profitability, are the most important indicators of companies' violations of regulations. This is important when there is a tendency for more regulation and when the industry is complex.

## 5. CONCLUSION

Like other emerging economies, different institutions are trying to improve the performance of the country's different sectors. During this development process, the role of these institutions is marvelous. Among them, CMA is also trying to regulate the Saudi Stock Exchange (Tadawul) through issuing rules and regulations for good corporate governance. However, the board of directors has a significant role in improving the state of the art. CMA is imposing the policy of carrots and sticks. In this current study, an effort was made to examine how characteristics of the board of directors (size, independence, frequency of meeting, CEO serving on board and ownership concentration) impact reducing the chances of fines and violence. The present study tried to find the association between the value of fines imposed by the Saudi CMA (as a dependent variable) and several boards of directors' characteristics. The regression results observed that board size, board independence, and several meetings are irrelevant to the value of fines imposed by CMA. One can expect this result because of Saudi culture, where the structure of the board has not any impact on the performance of the firms. However, CEO serving on board and ownership concentration have a significant impact on the value of fines imposed by the CMA. In a country like Saudi Arabia, where the culture is based on high power distance, and most firms are family firms, the results mentioned above are expected.

It is observed from the empirical analysis of the current study that the investigation related to the variables like *VFS* would be a fruitful effort for future research. It will guide us, the researchers and policymakers, on how board members and business characteristics play their role in explaining the degree of regulation compliance. This will also guide the policymakers on how the optimal composition of the board can be achieved. However, the selection of characteristics is based on a particular context and location that may be treated as a limitation of this research.

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