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## **Gender Diversity in Compensation Committees: The Factors and Implication on CEO Compensation**

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### ***Abstract:***

*Several studies have emphasized the fact that women are under-represented on corporate boards. So, the issues of corporate board gender diversity and compensation committee functioning have gained the attention of policymakers, legislators and regulators in recent times in many countries. This has led to legislative quotas, persuasion and among others to increase women representation on boards. Using 43 firms listed on Ghana stock Exchange with data spanning from 2006-2015, we found that board attributes are related with the existence of females on the compensation committee. Also, the presence of woman on compensation committee is related to the CEO compensation. The finding showed a significant negative relationship between executive compensation and presence of female on the compensation committee. In Ghana firms that have more gender-diverse are able to control excessive compensation demand by CEO. We also observed a significant increase in women representation on corporate boards in Ghana following government persuasion and encouragement to increase women presence just about a decade ago.*

***Keywords:*** gender, board, diversity, executive compensation, compensation committees

### **1. Introduction**

The study is set to examine the factors related to gender-diverse compensation committee and the association between the presence of female directors on the compensation committee and executive pay. Of late gender diversity in corporate boards and the functioning of compensation committees are two issues that have caught the attention of legislators and regulators in many countries, therefore, bringing to light whether gender diversity of compensation committees really have relative implication and link with level of Chief Executive Officer (CEO) compensation. We are motivated by contemporary efforts by lawmaker sand/or policymakers in many countries both advanced and developing nations seeking to increase the percentage of women in corporate boards, through persuasion, affirmative action, and/or legislative quotas. This is issue that deserve much attention in empirical studies. Strobl et al. (2016) believe such studies derive an agenda for future research about corporate boards' diversity, with much attention on compensation and audit committees.

Catalyst (2015) a group which seeks to advance the course of women in business and leadership, notes that nearly less than twenty percent of board seats in the S&P 500 companies are held by women. Deloitte (2013) posits that the fraction of women on corporate board is even lower among smaller firms and the non-representation of female in corporate boardrooms is a global phenomenon. This situation promoted policymakers in some countries to legislative gender quotas on corporate boards. It was not surprising when corporate Norway chat the pathin 2003 with a requirement that at least 40% of the public companies' directors must be female. Deloitte (2013) suggests that several countries like France, Spain, Italy, Malaysia, and India has implemented gender quotas for boards of public companies in a bid to follow the example of Norway. Elsewhere, legislation has been proposed to bring on board gender diversity (particularly women representation on corporate boards) such as Canada, Germany, Brazil and Israel, while governments have encouraged firms to voluntarily increase female representation on corporate boards or risk quotas imposition in the future, such countries include Australia, Sweden, and the United Kingdom (Ernst & Young, 2014). Securities and Exchange Commission in 2009 in the United States, issued a rule requiring companies to disclose the role of diversity in considering candidates for directorship nominations. Whiles the wind of board gender diversity is blowing in the advanced world, the issue is not difference in Africa and by extension developing world. For example, government of Ghana has tried to increase women representation on state owned firms or where government is majority holder. Similarly, governments and political parties in Africa are using affirmative actions to increase women in leadership of governance and state owned public firms.

Theoretically, on one hand, board gender diversity can have positive consequences on firms. Zahra & Pearce (1989) argue that boardroom diversity can lead to consideration of different perspectives of ideas; additionally, board diversity can make firm attractive to talented employees and increase external legitimacy of the firm (Hambrick et al., 2008). On the other hand, The Downside of Diversity (2014) advances that diversity can also worsen communication, increase conflict, and reduce trust. Empirical evidence about

the impact of boards' gender diversity and performance have been mixed and sometimes inconclusive. Adams et al. (2015) noted that the mixed findings related to diversity and firm performance can be attributed to "differences across studies in measures of performance, methodologies, time horizons, omitted variable biases and other contextual issues."

Contextually, this study is in relation to Sub-Saharan Africa where nearly no rule or legislation is made in relation to gender diversity instead governments are encouraging public and private firms to increase female representation on corporate boards together with the influence of affirmative action being adopted across most Africa countries. In Ghana, particularly, we have observed a gradual increase in female representation on corporate board over the past decade as against two decades ago. Given this gradually increase in women on public firms' board over a decade now through government encouragement, has it brought any changes to the executive (CEO) pay of the firms. However, in the context we find ourselves we suspect that female presence on the compensation committee is not significantly associated with CEO pay.

Evidence gathered so far have shown that any relationship between performance and board diversity has both governance and public policy concerns (Strobl et al., 2016). We therefore, argue that if there is continuous evidence that there is a direct relationship between firm performance and board diversity, then there is a case for firm board diversity. However, in the absence of such evidence leading to inverse relationship, we suspect that diversity leads to lower performance therefore the costs of diversity must be well-thought-out in any discussion about making boards more diverse.

This paper contributes to expand corporate board literature in several ways. To start with, we respond to the need to examine the impact of board gender composition of compensation committee on CEO pay following waves of governments' reforms and encouragements to increase female representation on boards, be it legislations, quotas or affirmative action in several countries. Second, using Ghana as a case study, we give evidence of factors associated to the link between gender diverse compensation committee. To the best of our knowledge, this paper is the first to response to the effect of gender diversity of compensation committee of board on CEO pay within the context of Sub-Saharan African with reference to Ghana due to difficulties in data gathering on board sub-committees' studies. Lastly, we adopt both static and dynamic estimation techniques that significantly address the different kinds of endogeneity issues, of course which is different from prior studies.

The rest of this paper proceeds as follows. Section 2 discusses the theoretical foundation, Section 3 accounts for empirical literature review and hypothesis. Section 4 considers methodology and finally, section 5 discusses empirical results and conclusion.

## 2. Agency Theory

Agency theory holds an integral role in the corporate governance literature. It describes the fundamental conflict that exist between owners and self-interested managers. Agency theory is the propositions and rules governing how corporate institutions are controlled and managed. Such institutions are normally characterized by owners who appoint individuals to collectively direct the use of resources for future capital gains. These individuals may not have shares in the institution but have professional skills, experiences and expertise in managing the institution. The concept of Agency theory is modeled around the contractual relationship between shareholder and managers where the responsibilities of running the business are delegated to the manager.

Agency philosophers argue that the agents are driven by their own personal benefits and tend to increase their wealth at the expense of the value of the firm. Thus, agency problem arises when interest agent and the principal are not aligned, making it problematic for principal to monitor the activities or actions of the agent (Eisenhardt, 1989). Hence, the essence of agency theory is to mitigate agency problem by ensuring that the agent seek the interest of shareholders.

Agency theorists suggest information asymmetry between shareholders and managers resulting from separation of ownership from control in corporations may distort quality of information managers have to their benefit by engaging in self-seeking activities that affect shareholders negatively. Therefore, Fleischer et al., (1988) believe that the central duty of corporate board is to serve as the mechanism for control and monitor activities of corporate managers for shareholders. This implies that if the board is dominated by insiders and executive directors, there is probability that the board's role of monitoring will be defeated, creating opportunity for manager to harm shareholders' value. Consequently, agency theorist campaign for more non-executive directors for the board to honour their obligation properly.

Despite several studies on independent directors, a lot of studies do not provide a logical basis for such boards (see Zahra & Stanton 1988; Daily & Dalton, 1992). Daily and Dalton (1992) for instance, find not any evidence showing association between composition of the board and firm performance. However, related to Agency theory is the use of board attributes in resolving or mitigating agency conflict. There are some few characteristics that characterize the effectiveness of boards, chief among are sub-committees of the board and board independence.

A lot of weaknesses are associated with agency theory. It is suggested that Agency theory is suitable for the monitoring of managers' role but cannot explain the other roles of boards (Daily et al. 2003). Opponents of agency theory establish further that agency theory is not informative enough in respect to services, resources, and strategy roles of the board. Hence the conceptualization of corporate governance as deterrents to manager's self-interest. So far empirical studies on how agency theory contributes to the resolution of agency conflict are conflicting. One way we can properly apply the Agency theory role is to examine the sub-committee where bulk of the decisions, controlling, monitoring and mitigating of the cost and conflicts are happening. Hence our study contributes to the debate on Agency theory by empirically examining how the presence of female directors on the compensation committee is mitigate excessive executive pay and by extension increase the worth of shareholders.

### 3. Empirical Review

#### 3.1. Sub-Committee Performance

Empirical research about diversity in compensation committees is almost rare. Prior study by Adams & Ferreira (2009) find that female directors are less likely to be appointed to the compensation committee. Strobl et al. (2016) find, using data from 5,630 observations from public companies in the United States, they found that firm and board characteristics are associated with the presence of females on the compensation committee. Kesner, (1988) believes in evaluating board performance, it is more appropriate to focus on the composition of the sub-committees of the board because most board decisions are made within sub-committees. Strobl et al. (2016) state that two board sub-committees are most important in the context of accounting, which are the audit committee and the compensation committee. The latter in most cases use accounting numbers to set targets related to executive compensation contracts which eventually influences managerial judgments relative to accounting, while the former is an important part of the financial reporting process. Each of these sub-committees of the board have central role in the process of corporate governance.

At this point, there are studies that have examined the relationship between the functioning of audit committees and gender diversity. Thiruvadi & Huang (2011) show, using data from 320 S&P SmallCap 600 firms, that the presence of a female director on the audit committee is associated with lower discretionary accruals. In contrast, Sun et al. (2011) find, using a sample of 525 observations over the period 2003 to 2005, that there is no association between the proportion of female directors on audit committees and performance-matched discretionary accruals. In terms of audit committee processes, Thiruvadi (2012) shows that audit committees with at least one female director are likely to meet more often than all-male audit committees while Ittonen et al. (2010) find that firms with female audit committee chairs have lower fees.

#### 3.2. Gender Diversity and Compensation Committee

In recent years, the performance of compensation committees of public firms is critically scrutinized by the general public and regulators. Critics of compensation committees believe that top executives are paid higher than they should and that such compensation often has little association with performance (Morgenson, 2013). Post global financial crisis studies have shown that the major cause of the crisis is attributed to the outsized compensation and skewed incentive structures of corporate executives (Bebchuk, 2012; Kuutol & Agyemang, 2015). These concerns have also been re-echoed by regulators and policymakers in their recent actions. Today, independence of compensation committees and their use of compensation consultants, as well as more detailed disclosures about pay-for-performance and the ratio of CEO pay relative to other employees have given us the concerns of regulators and legislators.

The ineffectiveness of the compensation committees is blamed for outsize executive compensation. Theoretically, a good independent nominations committee should select effective and independent directors, out of which some becomes members of the compensation committee; this would ensure that executives are adequately compensated but not excessive. However, in practice, the CEO dominant in many public companies and with significant influence on who is selected to become a board member and equally, who is put on the compensation committee (Bear et al., 2010). Compensation consultants are used by compensation committees to set the pay of the executive; however, in a confession statement by Lawson (2013) noted to the U.K. Parliament that ‘‘remuneration consultants . . . are a profession that makes prostitution seem thoroughly respectable’’.

On one hand CEOs are likely to bring in directors who are demographically similar to them and are mostly close ally who are most likely a support of the CEO in all related matters including compensation (Westphal & Zajac, 1995). On the other hand, Bear et al. (2010) stated that higher board diversity can lead to additional effective monitoring.

Existing previous studies on board gender diversity have shown that it is associated with higher levels of directors monitoring. Higher percentage of female directors’ representation on firms’ boards are positively related to board strategic control (Nielsen & Huse, 2010). Other evidences have shown that a well gender-diverse boards are associated with better attendance records, and that CEO turnover is mostly aligned to stock performance (Adams & Ferreira, 2009). Therefore, on the basis of previous empirical evidence, a more gender-diverse boards are associated with greater monitoring, we speculate that women directors will place much emphasize on pay-for-performance. Hence, it is less likely to have excessive executive pay if the compensation committee is highly gender diversity. We therefore hypothesis that:

**Hypothesis:** firms whose compensation committees are gender-diverse are less likely to have excessive executive pay.

### 4. Methodology

The study employs secondary data chiefly drawn from annual reports of the firms listed on Ghana Stock Exchange from the period of 2006-2015. Non-available data on the annual report was obtained from the firm through interview and questionnaire where necessary. We take reference from the period of 2015 those firms that were listed at the time of the study even if the previous years it was not listed. In all 43 firms were considered in the study with firm-year observation of 430. The table 1 below shows the description of variables used in the study.

Acronym	Variables	Description and measurement	Expectation
CEOPAY	Compensation of CEO	ratio of the change in market equity to total compensation of the CEO for each year	
GEND1	Gender Diversity	Is the presence of at least one female on the compensation committee, dummy variable 1 if at least one female, otherwise 0.	If use against CEOPAY (-)
GEND2	Gender Diversity	Is the proportion of female directors on the compensation committee	If use against CEOPAY (-)
EMV	Market Value of Equity	natural log of the market value of the equity	If use against CEOPAY (+) If use against GEND (+)
IND	Non-Executive Directors	Is the proportion of outside members on the board who has no business interest in the firm at time t	If use against CEOPAY (-) If use against GEND (+)
BOD	Board Size	Is the number of directors on the board of each firm at time t.	If use against CEOPAY (-) If use against GEND (+)
NBCC	Compensation committee	Is the percentage of directors on the compensation committee of each firm at time t	If use against CEOPAY (-) If use against GEND (+)
AGE	Average compensation Committee age	Natural log of the female directors age on the compensation committee at time t	If use against CEOPAY (+) If use against GEND (+)
TURN	Tenure	Tenure of the compensation committee directors of each at time t	If use against CEOPAY (+) If use against GEND (+)
IWSH	Institutional Ownership	Proportion of shares outstanding owned by institutions of each firm at time t	If use against CEOPAY (-) If use against GEND (+)
SIZE	Firm size	Natural log of total assets return each firm at time t	If use against CEOPAY (+) If use against GEND (+)

Table 1: Variables Description

#### 4.1. Model Specification

We adopted various techniques both static and dynamic approach to do the estimations of the coefficient to test for the robustness. The outcome of various techniques used in this study for the empirical analysis are presented in this study. It shows the static panel estimations (OLS, fixed and random effects) and dynamic panel estimations (difference GMM and system GMM). However, our preferred estimator is system GMM which is discuss below. We start by estimating in more general form, dynamic panel regression is specified as:

$$Y_{it} = \eta Y_{it-1} + \beta X_{it} + v_i + v_{it} \dots \dots \dots (1)$$

in equation (1), Y denotes dependent variables (CEOPAY and GEND2), X is all the possible independent variables introduce in the model,  $v_{it}$  account for stochastic error term,  $v_i$  represents unobserved country-specific time variant effect,  $\beta$ ,  $\eta$  are the parameters that would be estimated in the model, 't' is time and 'i' is stand for a particular time and firm respectively.

To account for the persistence of CEOPAY and GEND2, the study employs dynamic panel specification which includes the lagged logarithmic difference of the dependent variables in the models, which bring about autocorrelation problem. This means that the lagged dependent variable is expected to be correlated with the error term in the model. In such a case, using Ordinary Least Square of the fixed effects to estimating equation (1), the results would provide inefficient and biased estimate. In order to address this problem and use OLS to estimate the model, the within-group estimator is applied to transform equation (1) by differencing the time series of each variable for each country.

Again, there are two types of GMM estimators as shown in literature, called the difference GMM and the system GMM. Given the difference GMM as provided by Arellano & Bond (1991), they sought to solve the inconsistency problem because of the endogeneity among the model variables by applying the first differencing of the estimated equation (1) to gain the relational function of the form in (2) below.

$$Y_{i,t} - Y_{i,t-1} = \eta_1 (Y_{i,t-1} - Y_{i,t-2}) + \beta_1 (X_{i,t} - X_{i,t-1}) + (v_{i,t} - v_{i,t-1}) \dots \dots \dots (2)$$

The equation (2) drops the country specific effect hereby addressing the inconsistency and biases due to endogeneity with the aid of lagging the endogenous variables as instruments. The difference estimator leaves on moment condition given the assumption that, there are weak exogeneity of the explanatory variables and also no serial correlation as specify in the equations stated below:

$$E\{Y_{i,t-1}(v_{i,t} - v_{i,t-1})\} = 0, t = 3,4, \dots, T \dots \dots \dots (2.1)$$

$$E\{X_{i,t-1}(v_{i,t} - v_{i,t-1})\} = 0, t = 3,4, \dots, T \dots \dots \dots (2.2)$$

Difference GMM aids in addressing endogeneity among variables but with limitations. As the difference GMM truly remove time-variant country-specific effect which may cause misspecification of the model. But the difference GMM may produce weak instruments problems if the regressand is most likely to be highly persistent given the difference method anchor strong biases. The asymptotic properties of the difference estimator are undermined by weak instrument and as such is harmful to a sample size which is small in the way that it increases variance of the coefficient and as well bias the small samples coefficient.

However, in the wake of the shortfalls in the difference GMM, Arellano & Bover (1995) and Blundell & Bond (1998) model system GMM to address the problem of weak instrument provided in the difference GMM technique using difference and level equations. The effectiveness or the efficiency under estimation equation is improved if moment conditions of its level form and the differenced form are combined (Roodman, 2009). The system GMM takes into account additional moments conditions as shown below:

$$E\{(Y_{i,t-1} - Y_{i,t-2})(u_i + v_{i,t})\} = 0, t = 3,4, \dots, T \dots \dots \dots (2.3)$$

$$E\{(X_{i,t-1} - X_{i,t-2})(u_i + v_{i,t})\} = 0, t = 3,4, \dots, T \dots \dots \dots (2.4)$$

Lagged differences are employed as instruments for the endogenous variables in the level equations since these values become the appropriate instruments in the light of the supplementary moment conditions. The additional moment conditions are working on underlining assumptions, that there is a possible correlation between the country-specific fixed effects and the predetermined variables of the equation and also there aren't correlation between the lagged differences and the specific- country fixed effects. By so doing it is able to solve the endogeneity problems by the use of lagged values of the independent variables as instrument thereby, producing consistent and unbiased parameters even with small time period (t) and large countries (i).

It is known that dynamic panel GMM estimator is able resolve the issues of endogeneity, measurement error with OLS estimation and omitted variables biases, however, it depicts weak instrument problem (Roodman, 2009). But alternatively, Kumar & Woo (2010) opine that system GMM is the technique mostly preferred in spite of the fact that it sometimes shows weak instruments drawbacks. To validity of the instruments within the system GMM, the Sargan test of over-identifying restriction is use to ensure the validity of the apply instrument in the model if the null hypothesis is not rejected which will assures that the over-identifying restrictions are valid. Moreover, AR (1) and AR (2) will be used to test the autocorrelation in the error term. It is believed that Blundell and Bond's estimator is an independent idiosyncratic error term, in that the AR (1) test would reject the null hypothesis, while the AR (2) test would not reject the hypothesis of no or zero correlation.

We therefore adopted the following models to examine the factors that determine presence of a female on the compensation committee by applying equation 3.1 to estimate system GMM coefficient and equation 3.2 to estimate logistic regression coefficients.

$$\ln \text{GEND}2_{i,t} = \beta_0 + \beta_1 \ln \text{GEND}2_{i,t-1} + \beta_2 \ln \text{IND}_{i,t} + \beta_3 \text{BOD}_{i,t} + \beta_4 \ln \text{NBCC}_{i,t} + \beta_5 \ln \text{AGE}_{i,t} + \beta_6 \ln \text{EMV}_{i,t} + \beta_7 \ln \text{TURN}_{i,t} + \beta_8 \ln \text{SIZE}_{i,t} + \eta + \varepsilon_{i,t} \dots \dots \dots (3.1)$$

$$\text{GEND}1_{i,t} = \beta_0 + \beta_1 \text{IND}_{i,t} + \beta_2 \text{BOD}_{i,t} + \beta_3 \text{NBCC}_{i,t} + \beta_4 \text{AGE}_{i,t} + \beta_5 \text{EMV}_{i,t} + \beta_6 \text{TURN}_{i,t} + \beta_7 \ln \text{SIZE}_{i,t} + \eta + \varepsilon_{i,t} \dots \dots \dots (3.2)$$

Next, was to examine the association between gender-diverse compensation committees and executive pay, we use the following model to estimate the coefficients.

$$\ln \text{CEOPAY}_{i,t} = \beta_0 + \beta_1 \ln \text{CEOPAY}_{i,t-1} + \beta_2 \ln \text{IND}_{i,t} + \beta_3 \text{BOD}_{i,t} + \beta_4 \ln \text{NBCC}_{i,t} + \beta_5 \ln \text{AGE}_{i,t} + \beta_6 \ln \text{EMV}_{i,t} + \beta_7 \ln \text{TURN}_{i,t} + \beta_8 \ln \text{SIZE}_{i,t} + \beta_9 \ln \text{GEND}2_{i,t} + \eta + \varepsilon_{i,t} \dots \dots \dots (4.1)$$

$$\ln \text{CEOPAY}_{i,t} = \beta_0 + \beta_1 \ln \text{CEOPAY}_{i,t-1} + \beta_2 \ln \text{IND}_{i,t} + \beta_3 \text{BOD}_{i,t} + \beta_4 \ln \text{NBCC}_{i,t} + \beta_5 \ln \text{AGE}_{i,t} + \beta_6 \ln \text{EMV}_{i,t} + \beta_7 \ln \text{TURN}_{i,t} + \beta_8 \ln \text{SIZE}_{i,t} + \beta_9 \Delta \text{GEND}1_{i,t} + \eta + \varepsilon_{i,t} \dots \dots \dots (4.1)$$

The study uses both econometric and descriptive analysis based on the panel data set from 2006 to 2015 to examine the relationship between the interest variables in Ghana. The collected data from the different sources were checked, coded and entered into excel to make data ready for analysis. It was exported in Stata 12/IC version software packages for the analysis.

**5. Result and Discussion**

The table 1 below shows descriptive evidence about the chosen variables. We find from the observations that 33% of the firms have at least one female director on the compensation committee. In terms of individual directors, just about 15% of the compensation committee directors are female. Averagely the number of directors on the board is 7 and just about 75% of the compensation committee are coming from the board.

Non-executive directors on the board who have no business connection with the firm account for average of 75% of compensation committees. On the average, the age of compensation committee directors is 54, and the average tenure of such directors is 6 years. Other statistics which is not shown in the table suggest that women account for about 22% of the total number of directors in the sample. Again, a comparative analysis we did shows that the number of women on the board has increase from 8.4 % to 29.7 % for the period of 2006-2010 and 2011-2015 respectively. Thus, we find a sharp increase in women on boards of firms perhaps due to continuous government encouragement which saw a shift move away from the evidence of dearth of female directors documented in many previous studies. Therefore, the tendency that a woman may find herself in compensation committee in every 30% of the board is high. Further, we equally find that, comparing female directors on compensation committee with their male colleagues in the sample, they are younger (54 vs. 63 years old), have shorter tenure as directors (6 vs. 12 years). These findings support results of existing studies that female directors have unique demographic characteristics from their male counterparts.

Variable	Mean	Standard Dev.	Minimum	Maximum
CEOPAY	.682	0.123	-0.156	0.924
GEND1	.333	0.099	0.10	0.55
GEND2	0.154	0.101	0.12	0.333
IND	0.751	0.142	0.500	0.889
BOD	7.000	3.000	5.000	11.000
NBCC	0.750	.173	0.600	0.800
IWSH	0.5923	.118	.4265	0.825
AGE	54.000	9.100	45.000	67.000
EMV	4.124	0.251	3.697	4.958
TURN	5.867	1.118	4.578	7.500
SIZE	6.254	0.954	5.879	6.687

Table 2: Descriptive Statistics

Table 3 below shows the finding from the regressions to examine factors related to the presence of female directors on the compensation committee of corporate boards. We first adopt logistic regression has GEND1 as the dependent variable and GEND2 as the dependent variable for the other five regression estimators. With the exception of SIZE all the control variables are significant,  $p < 0.05$ , in all the regressions estimates. The results in table 3 suggest that women are more likely to be members of the compensation committee of firms when the firm: board size is larger, has a greater percentage of non-executive directors who have no business interest with the firms, has more board members on the compensation committee, has more relative young women on the board, has better equity performance on the market, has more institutional ownership, and has a longer tenure of female board member.

With reference to table 4 below, where the results are related to our hypothesis, we find evidence that in both gender diversity in compensation committee measured with dummy and proportion on the committee, provide evidence that as more and more women get to the compensation committee it is associated with less excessive CEO pay. We therefore argue that as more women get to compensation committee of board they will resist any attempt to increase executive pay without aligning it to performance. Considering the totality of the results, it indicates that gender diversity on the compensation committee is associated with CEO pay. Following the result, we argue that female directors are more risk-averse and tend to choose more risk-averse CEOs who demand lower pay. We further propose that firms with more gender diversity compensation committees will be less likely to have excessive executive pay.

	Logistic	OLS	RE	FE	Diff. GMM	System GMM
Dependent variable	GEND1	GEND2	GEND2	GEND2	GEND2	GEND2
Regressors	(a)	(b)	(c)	(d)	(e)	(f)
IND	0.1254 (3.42)***	0.0981 (4.15)***	0.0211 (4.60)***	0.1574 (8.18)***	0.2057 (3.32)***	0.3542 (4.99)***
BOD	0.0095 (2.95)**	0.1842 (3.87)***	0.0325 (3.36)***	0.1175 (7.25)***	0.0245 (5.45)**	0.0995 (3.79)***
NBCC	0.1742 (5.14)***	0.2584 (0.11)**	0.2174 (4.15)**	0.0958 (9.00)***	0.0948 (3.98)**	0.0272 (4.05)***
IWSH	0.3564 (4.02)***	0.2134 (3.98)***	0.1009 (5.65)***	0.2032 (6.32)***	0.1173 (7.75)**	0.1440 (3.23)**
AGE	-0.0457 (-2.98)*	-0.1015 (-2.41)**	-0.0188 (-4.57)**	-0.3090 (-3.56)**	-0.0173 (-2.89)**	0.0250 (6.58)***
EMV	0.4157 (4.11)***	0.3147 (3.52)**	0.0149 (3.19)***	0.0176 (4.70)***	0.193 (4.76)***	0.0595 (2.96)**
TURN	0.1984 (3.87)***	0.2417 (4.97)***	0.0136 (3.28)***	0.0124 (5.36)***	0.0845 (3.55)***	0.1021 (2.95)**
SIZE	0.3654	0.2146	0.0558	0.0948	0.0697	0.1267

	(0.91)	(1.47)	(1.11)	(1.62)	(1.91)*	(0.86)
GEND2 <sub>T-1</sub>					0.8979 (27.63)***	0.9061 (37.54)***
CONS	-0.6948 (-6.14)***	-0.5412 (-5.98)***	-0.5223 (-2.77)**	-0.3174 (-2.58)*	-0.2370 (-0.81)	0.2145 (3.97)***
R <sup>2</sup>	0.2645	0.3513	0.2291	0.2516		
Sargan test (OIR)						[0.439]
AR(1)					[0.000]	[0.000]
AR(2)						[0.698]
***denotes significance at 1% level, ** denotes significance at 5% level and * denotes significance at 10%. Values in ( ) and [ ] are the <i>t</i> -statistics and probability values respectively.						
Dependent variable is the dummy variable of presence of female on corporate board (GEND1) and the proportion of female on compensation committee (GEND2) spanning over the period 2006-2015. Independent variables consist of percentage of independent directors who have no business interest (IND), board size (BOD), percentage of directors Compensation committee (NBCC), average age of female on compensation committee (AGE), equity market value (EMV), tenure of female director on compensation committee (TURN), firm size (SIZE), institutional ownership (IWSH) and lag of gender diversity (GEND2 <sub>T-1</sub> ).						

Table 3: Presence of Female Directors on the Compensation Committee

We further find that given our preferred estimator which is system GMM, a statistically significant result is found considering the variables related to governance. We find that the coefficient of IND, BOAD and NBCC are negative and significant, demonstrating that larger outsider directors who has no business interest with a firm, larger boards and more board members on compensation are more likely to be “inefficient” with regards to protecting shareholder interests. In the case AGE coefficient, the result suggests that the older of female members on the compensation committees, it is less likely to associate with higher executive compensation.

## 6. Conclusion

Several studies have emphasized the fact that females are under-represented on corporate boards. This has over the years influenced lawmakers, gender activists, politicians and governments intervening, directly or indirectly through encouragement/persuasion, legislative quotas, to increase female representation on corporate boards. The first country to legislate mandatory quota system was Norway in 2003, to give 40% female directors representative on corporate board. Further to that, many countries have been encouraged to act to implement gender quotas on corporate boards spanning from development and cultural spectrum. In Ghana for instance, over the year’s governments have persuaded firms to increasing women representation on their board, even though it has not been legislated. It is evident to suggest that firm have gradually been responding to the call.

On one hand, some prior studies have shown that there is no (or negative) association between board diversity and subsequent performance (Post & Byron, 2015; Strobl et al., 2016). This has increased the call to use research to examine social changes, with a careful thought out data and method associated issues.

On the other hand, previous research suggests that women directors are usually unique from their male colleagues in the boardroom, along many heights. For instance, studies have shown that, female directors are more likely to be more educated and non-executive (Adams & Ferreira, 2009; Hillman et al., 2002) as compared with male directors.

As already suggested in literature, research on corporate governance in general is subject to endogeneity problems and this is mainly relevant for diversity. Since there are both personal and corporate features that are associated with board and/or committee diversity, it is tough to separate consequences of board and/or committee diversity from other causes. For example, Adams & Ferreira (2009) observe from their finding that female directors are not less likely to be outsiders than their male counterparts, while other finding shows that female directors are not more likely to be member at riskier banks (de Cabo et al., 2012). So, researcher must be careful in differentiating gender effect on other underlying factors.

Ferreira (2015) opines that as more countries naturally are tempted to legislate gender diversity, since such legislative quotas are exogenous shocks where endogeneity-related concerns become less of an issue, we warn that some of these legislative can be counterproductive and therefore should be country specific case. While persuasion may be better in one country it may be counterproductive, other countries may need legal backing to be productive. In the current study while we find evidence that government persuasion was much productive to the increase in number of women on corporate boards and the finding that gender diversity in compensation committee is related less excessive executive pay, on the contrary Strobl et al., (2016) find otherwise in USA. Strobl et al. (2016) find that women continue to be significantly underrepresented on corporate boards.

Furthermore, from this study which support Strobl et al. (2016), we find that female directors are at least as likely as their male counterparts to be members of compensation committees. We therefore, explain that the bias against female presence on the compensation committee suggested in previous studies may have given way to gender neutrality. We also find that gender diversity on the compensation committee is associated with company characteristics, including institutional ownership, ownership and equity market value or performance.

	OLS		Random Effects		Fixed Effects		Difference GMM		System GMM	
	(a)	(b)	(C)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
GEND1	-0.0254 (-2.92)**		-0.1547 (-3.01)***		-0.0684 (-1.99)*		-0.0339 (-3.02)***		0.0437 (3.27)***	
GEND2		-0.1542 (-2.98)***		-0.1147 (-2.79)**		-0.0358 (-3.02)***		-0.1201 (-2.55)**		-0.0513 (-3.91)***
IND	-0.0113 (-3.11)***	-0.0584 (-4.01)***	-0.1147 (-2.79)**	-0.1006 (-3.44)***	-0.0074 (-2.67)**	0.2541 (-2.21)*	-0.0728 (-5.12)***	0.0367 (2.59)**	-0.3874 (-4.43)***	-0.0222 (-3.13)***
BOD	-0.1033 (-2.98)**	-0.0225 (-3.24)***	-0.0099 (-1.98)*	-0.0978 (-2.11)*	-0.1124 (-2.99)**	-0.0086 (-2.13)*	-0.0098 (-0.54)	-0.0191 (-1.05)	-0.1144 (-6.96)***	-0.0092 (-1.94)*
NBCC	-0.0414 (-1.24)	-0.2201 (-2.05)*	-0.0978 (-3.74)***	-0.1097 (-2.94)**	0.0407 (2.29)**	0.0970 (5.37)***	0.1434 (1.14)	-0.0130 (-2.05)	-0.0828 (3.04)***	-0.0776 (-3.49)***
EMV	0.2723 (4.14)***	0.0367 (2.95)***	0.1190 (2.06)*	0.0291 (0.21)	0.0502 (3.85)***	0.112 (3.81)***	0.1013 (3.94)***	0.2323 (5.40)***	0.0218 (4.07)***	0.1412 (5.66)***
IWSH	-0.0542 (-3.39)***	-0.0191 (-1.05)	-0.0828 (-3.41)***	-0.0332 (-4.02)***	-0.0959 (-2.97)**	-0.0058 (-2.87)**	-0.0529 (4.01)***	0.0817 (3.07)***	-0.0131 (-2.87)***	-0.1145 (-4.11)***
AGE	-0.1421 (-4.23)**	-0.0302 (-0.95)	0.0521 (2.07)*	-0.0712 (-3.55)***	0.0021 (2.59)**	0.1001 (1.05)	-0.0941 (-3.53)***	-0.1222 (-1.44)	-0.0902 (-4.56)***	-0.0554 (-3.98)***
TURN	0.0514 (1.15)	0.4723 (4.94)***	-0.1013 (-2.87)**	-0.0031 (-0.0887)	0.0067 (3.61)***	-0.0798 (-0.86)	0.2594 (4.51)***	0.3623 (5.95)***	0.1088 (2.79)**	0.1112 (6.47)***
SIZE	0.1110 (2.69)*	0.0297 (0.29)	0.0987 (1.11)	0.2178 (0.91)	0.0978 (1.87)*	0.0997 (3.14)***	0.0282 (2.00)	0.0369 (3.98)***	0.5471 (2.33)**	0.2357 (0.97)
CEOPAY <sub>T-1</sub>							0.8974 (15.25)***	0.9047 (28.44)***	0.9419 (25.33)***	0.9572 (19.31)***
CONS	0.2354 (7.25)***	0.5647 (5.47)***	0.3641 (3.87)***	-0.6471 (-1.28)	0.4521 (2.87)**	0.4157 (6.24)***	0.6147 (5.97)***	0.5471 (3.99)***	0.3697 (4.44)***	0.6321 (1.58)
Sargan Test (OIR)									[0.474]	[0.556]
AR (1)							[0.000]	[0.000]	[0.000]	[0.000]
AR(2)									[0.676]	[0.84]

\*\*\*denotes significance at 1% level, \*\* denotes significance at 5% level and \* denotes significance at 10%. Values in ( ) and [ ] are the *t*-statistics and probability values respectively.

Dependent variable is the spanning over the period 2006-2015. Independent variables consist of percentage of independent directors who have no business interest (IND), board size (BOD), percentage of directors Compensation committee (NBCC), average age of female on compensation committee (AGE), dummy variable of presence of female on corporate board (GEND1) and the proportion of female on compensation committee (GEND2), equity market value (EMV), tenure of female director on compensation committee (TURN), firm size (SIZE), institutional ownership (IWSH) and lag of gender diversity (GEND2<sub>T-1</sub>).

Table 4: Female Directors on Compensation Committees and Executive Pay

Additionally, our result shown that female presence on the compensation committee is significant in influencing CEO compensation. Our study brings to light possible areas for future research. We observe in very few cases where there are more women on the compensation committee and the board at large. This has implications for the working of the committee, like women in majorities. There are also some aspects of diversity and gender diversity is only one aspect. During the cause of our research, there were other aspects of board and committee diversity, like nationality and race we find non-existent. This brings to bear several interesting questions, and indeed are opportunities for future research, about diversity effects on performance of corporate boards. For instance, how do different forms of diversity in relation to gender, race and nationality, and the pressure to have such diverse representation in boards, how does it vary across cultures and countries? Answers to these questions empirically would be very useful to policy makers and academics.

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