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*The mediating effects of Chief Executive Officers  
Attributes on Board Characteristics and Corporate  
Social Responsibility*

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## **The Mediating Effect of Chief Executive Officers Attributes on Board Characteristics and Corporate Social Responsibility**

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### **Abstract**

*The focus of this study is to examine the use of Chief Executive Officer's Attributes such as Tenure and Educational Background as a Mediating Effects on Board Characteristics and Corporate Social and Environmental Disclosures. Using a sample of Seventy-Three (73) firms selected from environmentally sensitive companies from the non-financial sectors in the Nigerian Exchange Group over a ten (10) years period (2011–2020), a combination of panel regression, fractional regression, and Structural Equations Modelling (SEM) were used to evaluate the data. The findings of the study reveal that board independence have negative relationship and statistically significant on CSED. For board gender, it was positively related to CSED and statistically significant. Considering the two (2) CEO's attributed i.e. tenure, and educational background, they were not statistically related to CSED. The study recommends the need: for companies to imbibe by corporate governance codes which specifies the number of independent directors that should be on the board and also improve on its gender mix. The study finally recommends greater support for corporate social and environmental disclosure strategy by the CEOs.*

**Keywords:** CEO Attributes, Board Characteristics, Corporate Social Responsibility

### **1. Introduction**

The financial reporting is only known for providing accounts for business activities with little or no emphasis on social and environmental impact. Bebbington (1997) asserts that the discontent which exists with the mechanism of accounting reporting practices has brought about adverse social and environmental consequences. As a concept, Corporate Social and Environmental Disclosures (CSED) imply firms acknowledging the negative effects caused by its activities on the citizens and efforts are made to make sure that such outcomes are fixed through reports. These consequences are provoked on the ground that the constrain of business activities are no more on profit maximization (Gray & Bebbington, 2000) hence the call for corporate responsibility disclosure and the inclusion of other information to financial reporting to enhance business performance.

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Though, much information exists on the empirical side showing insight on the tie between corporate board characteristics such as, board size, board independence, foreign ownership, board gender diversity, board ownership, institutional ownership, and social environmental disclosure, however, the elusiveness of similar empirical verbosity for the influence of the CEO is very much apparent especially for developing economy. This shields a grave understanding of the roles of corporate boards because of the principal influence the CEO has in directing corporate strategy. Hence the focus of this study is to present a more encompassing insight on board characteristics and corporate social environmental disclosure using the CEO's attributes such as, tenure, and educational background as a mediating effect.

It is against this backdrop the specific objectives of this study are to:

- (a) examine the effect of board independence on corporate social and environmental disclosures
- (b) assess the effect of board gender diversity on corporate social and environmental disclosures.
- (c) determine the mediating effect of the CEO's tenure on board characteristics and corporate social and environmental disclosures
- (d) examine the mediating effects of the CEO's educational background on board characteristics and corporate social and environmental disclosures

## **2. Literature Review**

### **2.1 Theoretical Framework**

This section explains the theory considered necessary for this study.

#### **2.1.1 The Upper Echelon Theory**

The Upper Echelons Theory is a management theory which was put forward by Hambrick and Mason in (1984). It shows that organizations' ranking are to some extent predicted by management setting of the top level team.

The idea of this theory explains the link between the organizational outcome and managerial backdrop uniqueness. In human resource management, upper echelons theory is a useful framework used for hiring new executives. In addition to the hiring function, the theory can also

be used to evaluate other market competitors and predict future strategic decisions of Chief Executive Officers.

Carpenter, Geleytkanycz and Sanders (2004) building on Hambrick and Mason's (1984) Upper Echelons Theory, sees an organization as a product of its top managers. This assertion implies that the carriage and how people look at an organization in the society is a reflection of the hard work of the top management team and the CEOs. In this context, CEOs are powerful individuals in the organization and hence their view on the corporate environment can decide greatly how business firms respond to their environment.

## **2.2 Conceptual Review**

### **2.2.1 Corporate Social and Environmental Disclosures (CSED)**

Corporate Social and Environmental Disclosures (CSED) as a concept connote the essence of a firm in acknowledging the negative effects caused by its activities on the citizens and the basic efforts made to ensure that such impacts are corrected through report. It is also seen as a concept which is intended to address responsible behaviour of companies in everyday business decisions in creating strategy to varied stakeholders such as employees, suppliers, customers and shareholders (Moravcikova, Stefanikova & Rypakova, 2015).

In understanding the concept of CSED, we must first understand the concept of reporting. Reporting in its broad sense is providing an account for an event. Environmental disclosure emphasizes on the contribution of the organization in the environmental activities so as to fulfil the demand of the stakeholders' group (Norhasimah, 2016). Accordingly, Behram (2015) opines that companies disclose environmental information in their annual report to enhance its visibility and also send signals to show that the business is aware of environmental concern.

### **2.2.2 Board Independence and Corporate Social and Environmental Disclosures**

Independent directors are sets of directors who are not related in any kind with any member of the company. They are often referred to as external directors (Ong & Djajadikarta, 2017).

The crux of having this kind of directors is fundamentally to avoid possible conflict of interest that could result if they do not constitute the board. From studies which relates board independence and CSED, varied findings were observed. The followings findings show that they have positive relationship (Rao, Telt & Liste, 2012; Ong & Djajadikarta, 2017). On the other hand, these studies indicate negative relationship (Ali & Khan, 2016; Muhammed & Sabo, 2015).

### **2.2.3 Board Gender Diversity and Corporate Social and Environmental Disclosures**

This connotes the ration of men to women in the board. Within board diversity, the male to female ratio is considered to be an important point to note when decisions are made by boards (Bear, Rahman, & Post, 2010). From the studies reviewed in the course of this paper, it skewed to the fact that the presence of women on the board enhances positive changes on CSED (Abdul & Mustafa, 2016; Lone, Ali & Khan, 2016; Muhammed & Sabo, 2015; Nooraisah, Zuriyati, Mat, & Norwani, 2017; Ong and Djajadikarta, 2017; Velte, 2015). The following studies were of the view that gender diversity has negative impact on CSED (Fernandez-Feijoo, Romero & Ruiz *et. al.*, 2012; Muttakin, Khan & Subramaniam, 2015).

### **2.2.4 CEO Attributes**

These are the basic characteristics which are visible to chief executive officer of companies. The CEOs attributes used for this paper include: the CEO's tenure, and the CEO's educational background.

## **2.3 Empirical Review**

### **2.2.1 The CEO's Tenure and Corporate Social and Environmental Disclosures**

The CEO's tenure implies number of years spent by a CEO in a firm's executive position. The CEO's tenure could either be long or short. Song (2006) stated that long-tenured CEOs is for a period of 6 years and above. This implies that for any CEO who stays in position for a period less than 6 years, is considered short-tenured. Findings from (Chen, Hsien Liao and Tsang, 2017; Huang, 2013) on the CEO's tenure and company's performance shows that, long-tenured CEOs are predisposed to achieve better results. Research carried out to investigate CEO tenure and entrepreneurial risk-taking behaviour, revealed that tenure as a CEO attribute had an important influence on entrepreneur's risk taking (Boling, Pieper & Covin, 2016). Consequently, the CEO's

having a long tenure creates room for him/her to have better rapport with the firm-employee (Luo, Kanuri & Andrews, 2014).

However, Finkelstein & Hambrick (1990) assert that Long serving CEOs have shown to be highly opposed to changes in strategy. This implies that, the longer a CEO remains in office, the more he will want things to be done the same way.

### **2.2.2 The CEO's Educational Background and Corporate Social and Environmental Disclosures**

The CEO's educational background refers to the academic qualification of the CEO with emphasis on the area of study.

In order to acknowledge the intellectual capacity of the CEO's in terms of information processing, flexibility and innovation, Xiaowei and Zhang (2010) used the CEO's educational background as a proxy to measure intelligence.

Romain (2014) examined the link between the CEOs characteristics and organizational outcomes, especially the CEO's likelihood to carry out (CSR) using a sample of 25 firms over a period of seven years. The data analysis showed significant results for both environmental and social CSR practices by their firms. To begin, having the best education reduces the likelihood of the CEOs to carryout environmental and social practices.

Manner (2010) used the upper echelons theory to examine the impact of CEO characteristics on corporate social performance with special emphasis on firm and industry characteristics. The findings revealed that exemplary social performance was positively related to CEOs who had acquired a bachelor's degree in humanities. For the purpose of this research the educated are considered as CEOs with Masters and above in the field of Finance and otherwise for others.

### 3. Research Methodology

This study employed the use of secondary data extracted from the annual reports of 173 companies listed on the Nigerian exchange group as at 31st December 2020. The study used a ten-year period that is 2011 to 2020 as its scope. The sample size was 121, the research design used for this study is the longitudinal research design while the “Ordinary Least Square (OLS)” was used as the statistical tools and the structural equation modelling used to mediate the effects of the CEO age on CSED.

#### 3.1 Model Specification

##### Model 1: Board Characteristics and CSED

The model specifies board variables as a determinant of CSED;

$$CSED = f(BDIND, BDG) \text{ ----- (1)}$$

Specifying the functional model into an econometric form, we have

$$CSED_{it} = \beta_{it} + \beta_1 BDIND_{it} + \beta_2 BDG_{it} + \varepsilon_{it} \text{ ---- (2)}$$

Introducing control variables, the model is then specified as;

$$CSED_{it} = \beta_{it} + \beta_1 BDIND_{it} + \beta_2 BDG_{it} + \beta_3 FS_{it} + \varepsilon_{it} \text{ - (3)}$$

BDG= Board Gender

BDIND= Board Independence

Fs= Firm size

##### Model 2: CEO Attributes and CSED

Based on the Upper Echelons (UE) theory as postulated by Hambrick and Mason (1984), an organization reflects the profile of the dominant individuals who manage its activities. In this context, CEOs are powerful individuals in the organization and their view on the corporate environment can decide greatly how business firm respond to their environment. Hence, based on this theory, the model CSED as a function of CEO attributes;

$$CSED = f(CEO-T, CEO-EB,) \text{ ----- (4)}$$

Specifying the functional model into an econometric form, we have

$$CSED_{it} = \beta_{it} + \beta_1 CEO-T_{it} + \beta_2 CEO-EB_{it} + \varepsilon_{it} \text{ ----- (5)}$$

Introducing control variables, the model is specified as:

$$CSED_{it} = \beta_{it} + \beta_1 CEO-T_{it} + \beta_2 CEO-EB_{it} + \beta_3 FS_{it} + \beta_4 FAGE_{it} + \varepsilon_{it} \text{ ----- (6)}$$

### Model 3: Robust CEO, Board, and CSED Model

$$CSED_{it} = \beta_{it} + \beta_1 BDIND_{it} + \beta_2 BDG_{it} + \beta_3 CEO-A_{it} + \beta_4 CEO-T_{it} + \beta_5 CEO-EB_{it} + \varepsilon_{it} \text{-----(7)}$$

Introducing control variables, the model is then specified as:

$$CSED_{it} = \beta_{it} + \beta_1 BDIND_{it} + \beta_2 BDG_{it} + \beta_3 CEO-A_{it} + \beta_4 CEO-T_{it} + \beta_5 CEO-EB_{it} + \beta_6 FS_{it} + \beta_7 FAGE_{it} + \varepsilon_{it} \text{----- (8)}$$

Where:

$\beta_1, \beta_2, \beta_3, \beta_4, \dots, \beta_6$  = parameter of proposed estimate or co efficient

$it$  = “I” represents the firm while “t” is a symbol for time

CEO’s -T= CEO Tenure

CEO’s -EB= CEO Educational background

**Table 1: Operationalization of Variables**

Variables	Definition	Measurement	Source	Aprori sign
CSED	Corporate Social And Environmental Disclosure	Disclosure Index Check List.	Welback, Owusu, Bekoe & Kusi, (2017)	-
BDIND	Board Independence	Ratio of independent-non independent directors	Mgbame and Onoyase 2015	+
BDG	Board Gender Diversity	Ratio of female-male board members	Ijas (2012)	+
CEO-EB	CEO’s Educational Background	Dummy variable of 1 if CEO has financial background and 0 if otherwise.	Koyuncu (2010)	+
CEO-T	CEO’s Tenure	Length of period of being CEO	Song (2006)	+
FAGE	Firm’s Age	Year of listing in the stock exchange till date	Egbunike & Tarilaye, (2017)	+
FS	Firm’s size	Log of total assets	Egbunike & Tarilaye, (2017)	+



#### 4. Results and Discussions

This section examines the presentation and analysis of the estimations conducted using the various statistical methods.

**Table Two: Descriptive Analysis**

	Mean	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	J.B	Prob
BDIND	0.455274	0.9400	0.000	0.161620	-0.6899	4.0306	72.185	0.000
BDG	0.084623	0.4000	0.000	0.093221	0.8869	3.1378	77.0234	0.000
CSED	0.597307	2.010000	0.000000	0.218310	1.006656	7.010271	489.1298	0.000
AGE	24.66438	53.00000	1.000000	12.64031	-0.23477	1.886459	35.53752	0.000
FS	7.038834	9.020000	5.090000	0.747488	0.156511	2.699335	4.576114	0.101
CEO-T	0.897084	1.000000	0.000000	0.304110	-2.61369	7.831389	1230.807	0.000
CEO-ED	0.967410	1.000000	0.000000	0.177714	-5.26478	28.71790	18760.01	0.000

From the table, it shows that the mean for BDIND is 0.4555 showing that on the average about 45% of board members are independent members on the board with maximum and minimum values of 94% and 0% respectively. The standard deviation which stood at 0.1616 is an indication of the level of dispersion from the mean while the Jacque Bera statistics p-value (0.000) confirms the normality of the series and the unlikely presence of outlier values in the series. The mean for BDG is 0.0846 which shows that for the sampled companies the gender diversity is very low as females occupy just about 0.08% of total board sizes with the maximum value standing at just 4% and minimum values of 0% respectively. The result indicates that companies are not providing a robust gender diversity mix in their corporate boards and there is the need to look into this trend. The Jacque Bera statistics p-value (0.000) confirms the normality of the series and the unlikely presence of outlier values in the series. The mean for CEO demographic examined in this study reveals that about 89.7% of the CEOs have been in that position for more than 5yrs and about 96.7% have post-graduate degrees. The Jacque Bera statistics p-value of all CEO demographics confirms the unlikely presence of outlier values in the series. Firm age and firm size are used as

control variables in the study showing mean value of 24.6 and 7.03 respectively and the Jacque Bera statistics p-value (0.000) confirms the unlikely presence of outlier values in the series.

**Table Three: Pearson Correlation Matrix**

	BDIND	BDG	CSED	AGE	FS	CEO-T	CEO-ED
BDIND	1						
BDOWN	-0.101						
BDG	-0.028	1					
CSED	-0.1348	0.05125	1				
AGE	0.0652	0.03728	0.1179	1			
FS	-0.0487	0.19197	0.1211	0.139	1		
CEO-T	0.0153	0.19855	0.0426	-0.09	0.1242	1	
CEO-ED	-0.0749	-0.04915	0.1618	0.048	0.0304	0.0369	1

From the results, it was observed that CSED is positively correlated with BDG ( $r=0.057$ ) and negatively correlated with BDIND ( $r=-0.135$ ), CSED is positively correlated with CEO-T ( $r=0.0426$ ) and CEO-ED ( $r=0.162$ ). Looking at the control variables, CSED is positively correlated with FS ( $r=0.1179$ ) and with FAGE ( $r=0.121$ ).

#### 4.1 Regression Analysis

From the regression results, the  $R^2$  is 0.7602 which implies that the model explains about 76.02% of the systematic variations in the dependent variable with a degree of freedom adjusted the  $R^2$  of 72.19%. The F-stat is 19.860 (p-value = 0.00), it is significant at 5% and suggests that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. The impact of BDIND is negative (-0.0594) but statistically significant at 5% ( $p=0.0454$ ). Supporting the inference, the presence of independent board affects CSED though the sign of the coefficient ironically does not support that CSED will move in tandem with increasing the board independence. The effect of BDG is positive (0.1465) and also statistically significant ( $p=0.0181$ ) at 5%. The finding suggests that strengthening board diversity by increasing number of females on the board improves CSED. Looking at the control variables, FS has a positive beta (0.0300) and statistically significant ( $p=0.0179$ ) while FAGE though with a positive coefficient (0.0005) is however not significant at 5%.

**Table Four: BC and CSED**

<i>Variable</i>	<i>AproriSign</i>	<i>FEModel</i>	<i>REModel</i>	<i>FractionalRegression Model</i>
<i>CSED</i>		0.4727* (0.077) {0.000}	0.4981* (0.1151) {0.000}	1.0028* (0.1202) {0.000}
<i>BDIND</i>	+	-0.0594* (0.0309) {0.0454}	-0.1573* (0.0550) {0.0045}	-0.2750* (0.064) {0.000}
<i>BDG</i>	+	0.1465* (0.0618) {0.0181}	0.2303* (0.0977) {0.0187}	0.6615* (0.0147) {0.000}
<i>FS</i>		0.0300* (0.0127) {0.0179}	0.0318 (0.0169) {0.0611}	-0.0090 (0.0165) {0.5834}
<i>FAGE</i>		0.0005 (0.000) {0.3606}	0.0011* (0.0009) {0.2350}	0.0040 (0.0011) {0.6584}
<i>Model Parameters</i>				
<i>R<sup>2</sup></i>		0.7602	0.0433	
<i>Adjusted R<sup>2</sup></i>		0.7219	0.0288	
<i>Pseudo R<sup>2</sup></i>				0.310
<i>F-statistic</i>		19.860	3.156	0.7483
<i>Prob(F-stat)</i>		0.000	0.00	0.0031
<i>Model Diagnostics</i>				
<i>Hausman</i>			0.0392	
<i>serial corr.</i>		0.893		
<i>Ramsey Reset test</i>		0.410		
<i>Hosmer-Lemeshow</i>				0.840
<i>Likelihood ratio</i>				36.40
<i>Prob</i>				0.000

The fractional regression estimates show that pseudo  $R^2$  is 0.310, the Pseudo  $R^2$  values are typically smaller than what is seen for linear regression models (Norusis, 2005). The F-stat is 0.7483 (p-value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. The analysis of coefficients reveal BDIND is negative (-0.2750) but statistically significant at 5% (p=0.000) supporting the FE results. The effect of BDG is positive (0.6615) and also statistically significant (p=0.000) at 5% and this is also similar to the FE outcome. The finding suggests the strengthening of the board diversity by increasing the number of females on the board improves CSED. Looking at the control variables, FS has a negative beta (-0.0090) though not statistically significant (p=0.5834) while FAGE though with a positive coefficient (0.0040) is however not significant at 5%. The Hosmer–Lemeshow test has p-value of 0.840 which indicates a good fit to the data and likelihood ratio is

also significant as p-value <0.05 and thus confirms that the given model with independent variables was more effective than the null model.

#### 4.2 Structural Equation Modelling (SEM), Mediating the Effects of CEO's Demographics

When addressing the CEOs attributes as a mediator on board characteristics and corporate social and environmental disclosures. The SEM was employed in the mediation estimation as presented and discussed.

**Table Five: Mediating Effect of CEO's Educational Background in an SEM Framework**

<i>Variable</i>	<b>Apriori Sign</b>	<b>Direct effect</b>	<b>Indirect effect</b>	<b>Total effect</b>
<i>BDIND</i>	+	-0.1155* (0.0571) {0.006}	-0.0063 (0.0075) {0.256}	-0.1221* (0.05739) {0.004}
<i>BDG</i>	+	0.04759 (0.9667) {0.248}	-0.00877 (0.0137) {0.268}	0.0388 (0.0910) {0.349}
<i>Model Fit statistics</i>				
R <sup>2</sup>	0.824			
Comparative fit index	0.872	RMSEA	0.054	
SRMR	0.0356	Likelihood Ratio: Chi square	997.54 (0.000)	

The underlying statistics shown in model has an overall R<sup>2</sup> which is 0. 824. It implies that the structural equations model explains about 82.4% of the systematic variations in the dependent variable. The full structural model was then tested so as to assess the fitness. The chi-square goodness-of-fit statistics assesses the magnitude of the difference between the sample and fitted covariance matrices. It indicates a reasonable model fit with a value of 997.54 which is statistically significant at 5%. This is further supported by the RMSEA which is 0.054 and CFI which stood at 0.872. The fit indices confirm the primary hypothesis that the overall model is valid. Looking at the path analysis, we focus particularly on the indirect effects estimates reflecting the mediation

effects of CEO educational background. In this regard, we observe that the indirect effects of BDIND is negative (-0.006) which suggests that the mediation effect of the CEO's educational background in the relationship between board independence and CSED is negative though not significant at 5%. The indirect effect of BDG is negative (-0.0087) which suggests that the mediation effect of the CEO's educational background in the relationship between board gender diversity and CSED is negative though not significant at 5%. On the overall, though the estimates failed to show up significantly on the estimations which thus introduces some caveat in relation to possible inferences to be made, the results show that the mediating role of the CEO's educational background is mixed suggesting that there may be better alignment between the CEO's educational background and certain board characteristics which may either positively affect CSED or otherwise. Nevertheless, from a statistical viewpoint, we may conclude that for the distribution of companies in this study, the mediation effect of the CEO's educational background in the relationship between board governance CSED is not statistically significant and hence the CEO's educational background does not significantly alter CSED strategy as determined by the board.

**Table Six: Mediating effect of the CEO's Tenure in an SEM Framework**

<i>Variable</i>	<b>Apriori Sign</b>	<b>Direct Effect</b>	<b>Indirect Effect</b>	<b>Total Effect</b>
<i>BDIND</i>	+	-0.1225* (0.0574) {0.004}	0.0004 (0.0016) {0.726}	-0.1221 (0.0574) {0.004}
<i>BDG</i>	+	0.0354 (0.0985) {0.399}	0.0034 (0.0164) {0.748}	0.0388 (0.0971) {0.349}
Model Fit statistics				
$R^2 = 0.824$				
Comparative fit index = 0.901      RMSEA= 0.054,   SRMR= 0.0356				
Likelihood Ratio: Chi square = 997.876 (0.000)				

The structural model has an overall  $R^2$  is 0.901 which implies that the structural equations model explains about 90.1% of the systematic variations in the dependent variable. The full structural model was then tested and again to assess the fitness. The chi-square goodness-of-fit statistics of 997.876 indicates a reasonable model fit which is statistically significant at 5%. This is further supported by the RMSEA which is 0.054 and CFI which stood at 0.901. Looking at the path analysis, we focused particularly on the indirect effects estimates reflecting the mediation effects of the CEO's tenure. In this regard, we observe that the indirect effect of BDIND is positive (0.0004) which suggests that the mediation effects of the CEO's tenure in the relationship between board independence and CSED is positive though not significant at 5%. The indirect effect of BDG is positive (0.0034) which suggests that the mediation effects of the CEO's tenure in the relationship between board gender diversity and CSED is positive though not significant at 5%.

### **4.3 Discussion of Results and Hypothesis Testing**

#### **H<sub>01</sub>: Board Independence and Corporate Social and Environmental Disclosures**

The analysis of FE estimation results coefficients reveals that the impact of Board independence (BDIND) is negative (-0.0594) but statistically significant at 5% ( $p=0.0455$ ) and this is also supported by the fractional regression result where the impact of BDIND is equally negative (-0.2750) and statistically significant at 5% ( $p=0.000$ ). Hence the alternative hypothesis ( $H_{01}$ ) that board independence has a significant impact on CSED is accepted. The finding supports the inference that the presence of independent board affects CSED.

#### **H<sub>02</sub>: Board Gender Diversity (BDG) and Social/Environmental Disclosures**

The analysis of FE estimation results coefficients reveals that the impact of BDG is positive (0.1465) and also statistically significant ( $p=0.0181$ ) at 5% and the fractional regression results also supports this outcome with the effect of BDG being positive (0.6615) and also statistically significant ( $p=0.000$ ) at 5%. Hence the alternative hypothesis ( $H_{02}$ ) that board gender diversity has a significant impact on CSED is accepted. The finding suggests that to strengthen board diversity the number of females on the board has to be increased to improve CSED. Our study's finding is in tandem with Post *et al.*, (2011) who discovered that firms with boards of three or more female directors are positively related to favourable environmental corporate social responsibility.

#### **4.4 Mediating Effects of the CEO's Characteristics**

##### **4.4.1 CEO Tenure**

Looking at the path analysis, we focused particularly on the indirect effects estimates reflecting the mediation effects of the CEO's tenure. On the overall, though the estimates failed to show up significantly on the estimations and from a statistical viewpoint, we may conclude that for the distribution of companies in this study, the mediation effects of the CEO's tenure in the relationship between board characteristics and CSED is not statistically significant and hence the CEO's tenure does not significantly alter CSED strategy as determined by the board.

##### **4.4.2 The CEO's Educational Background**

Looking at the path analysis, we focused particularly on the indirect effects estimates reflecting the mediation effects of the CEO's Educational background. On the overall, the indirect estimates of all the governance variables failed to show up significantly on the estimations and hence from a statistical viewpoint, we conclude that for the distribution of companies in this study, the mediation effects of the CEO's educational background in the relationship between board characteristics CSED is not statistically significant. Our findings are in line with Zu and Song (2009) whose result found no significant relationship between the CEO's educational background and CSED.

#### **5 Conclusions and Recommendations**

The summary of the results reveals several key findings. First, Board Independence (BDIND) demonstrates a negative relationship with Corporate Social and Environmental Disclosure (CSED) but is statistically significant. This suggests that while having independent directors on the board may not directly enhance CSED, their presence still has a measurable impact. Secondly, the effect of Board Gender (BDG) on CSED is both positive and statistically significant, highlighting the value of gender diversity in fostering stronger social and environmental disclosures. Lastly, the mediating roles of the CEO's tenure and the CEO's educational background in the relationship between board characteristics and CSED are not statistically significant, indicating that these factors do not notably influence the outcomes.

Based on these findings, the study makes several recommendations. Firstly, it advises a re-evaluation of corporate governance codes that dictate the number of independent directors on boards. Companies should ensure that the emphasis on board independence does not inadvertently hinder CSED efforts. Secondly, organizations are encouraged to enhance their gender diversity within boardrooms, as this has been shown to positively influence social and environmental reporting. Lastly, greater support from CEOs is necessary to strengthen firms' CSED strategies. CEOs should take a more active role in integrating and prioritizing these strategies to achieve better outcomes in social and environmental disclosures.

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