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Corporate Board Characteristics and Voluntary Disclosure by Firms Listed in East Africa Securities Exchanges

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Abstract
Adherence to board characteristics will ensure that corporate voluntary disclosure is an indispensable way for the firms' management to commune governance and performance to outsiders. The study sought to evaluate the influence of corporate board characteristics on the voluntary disclosure of firms listed in East Africa Securities Exchanges. The study was guided by agency theory. The study used the pragmatist research philosophy and ex post facto research design. The target population was comprised of 104 companies and census was used to study the 104 companies listed in the East African Securities Exchanges. Data was drawn from the annual reports and information circulars for the years 2011 to 2020 of all listed companies at the East African Security Exchanges listed in the said period from their respective websites. It was found that only social and board information had a significant influence on voluntary disclosures. Board diversity did not have a significant effect. Social and Board Disclosure Index had a positive relationship with Financial Disclosures. On the other hand, the Social and Board Disclosure Index has a negative, statistically significant relationship with forward-looking disclosure. The study concludes that social and board information influences voluntary disclosures of listed Firms in East Africa Securities Exchanges. The study recommends the proper structuring, creation, and optimization of board structure in terms of optimal board size, the combination of independent and non-independent directors, and the diverse composition of the board in terms of gender and expertise to enhance voluntary disclosure. In light of other studies done in other countries that have shown significant relationships, it is recommended that the regulatory authorities in the four countries should benchmark against similar listed firms abroad so as to enhance disclosures and possibly improve the performance of listed firms.

Keywords: corporate board characteristics, voluntary disclosure, Listed firms, East Africa Securities Exchanges

1. Introduction

The growing interest in corporate disclosure is influenced by either voluntary or mandatory disclosure. Mandatory disclosures are regulated and enforced by company law, or the relevant accounting standards (Broadstock et al., 2018). Voluntary disclosures provide additional information about a firm's activities, incorporating social, ethical, and environmental aspects (Wahyuni et al., 2018). The level of voluntary disclosure by firms may differ from one firm to another, based on their profitability, ownership structure, and characteristics of the firm (Chung et al., 2015). According to Huafang and Jianguo (2007), firms that generate more wealth are more likely to carry out voluntary and mandatory disclosure. Conversely, Jalaja (2010), posits that firms that generate losses may most likely undertake only mandatory disclosures. Voluntary disclosure is likely affected by corporate board characteristics; however, the linkage remains contentious among scholars.

Corporate board characteristics influence corporate practices and outcomes. Corporate boards differ with regard to size, proportion of independent outside directors, corporate board diversity, and existence of corporate governance committees (Samaha et al., 2012). Merendino and Melville (2019) pointed out that while directors elected by minority shareholders are not able to impact performance; independent directors do have a non-linear effect on performance while board size has a positive effect on firm performance for lower levels of board size. In addition, Mishra and Kapil (2018) indicated that the market-based measure (Tobin's Q) is more impacted by corporate governance than the accounting-based measure. Mishra and Kapil (2018) also indicated that board size, number of board meetings, and separation of chief executive officer and chairman of the board are positively and significantly related to firm performance while overburdened directors affect firm performance adversely.

In Turkey, Karagul and Yonet (2014) reported that the extent of voluntary disclosure was significantly positively associated with board size and the proportion of independent members on the board. In Nigeria, Aliyu (2018) reported that board independence and board meeting had a positive significant effect on corporate environmental but not board size and risk management committee composition. The CEO/chairman duality was found to be positively associated with the extent of voluntary disclosure but was statistically insignificant. Unlike, Agyemang et al. (2020), Karagul and Yonet (2014) did not assess the impact of diversity on voluntary disclosure. A study in Jordan by Rabi (2019) reported a positive relationship between board size, board ownership, firm size and level of environmental disclosure. Similarly, a study in France by Khaireddine et al. (2020) found that board size was positively and significantly related to corporate environmental disclosure

A study by Bueno et al. (2018) reported that in Brazil voluntary disclosure was significantly related to gender and duality variables of the board of director but not age and independence of the board. This differs from the findings of Agyemang et al. (2020) who reported that both females on board and foreign nationals had a negative and insignificant relationship with environmental accounting disclosure index (EADI). Similarly, although Samaha et al. (2015) found that board size, board composition and audit committee had a significant positive effect on voluntary disclosure while CEO duality had a significant negative impact. Likewise, Yanesari et al. (2012) found that firms with CEO duality are associated with lower levels of voluntary disclosures in Iran. This implies that the relationship between board characteristics and voluntary disclosure may vary from society to society or country to country. Thus, it is vital to ascertain the effect of board characteristics on voluntary disclosure in the case of firms listed in the East Africa Securities Exchanges.

There are currently four securities exchanges forming the East African Community Securities Exchange (EACSE) market, namely: The Nairobi Securities Exchange (NSE), the Uganda Securities Exchange (USE), the Dares Salaam Securities Exchange (DSE), and the Rwanda Securities Exchange (RSE). Among the four, the oldest security exchange is NSE that was established in 1954 and has 61 listed firms followed by DSE which has 16 firms and was admitted into EACSE in 1996 as a private limited company. The USE has 16 listed firms run under the jurisdiction of the Capital Market Authority which reports to the Central Bank of Uganda (Okiro et al., 2015). The Rwanda Securities Exchange (RSE) was the last to be established and has 9 listed firms which commenced bond trading in January, 2008 as Rwanda Over the Counter Exchange (ROTCE), while Burundi does not have a security exchange and firms finance their financial needs through commercial banks (CMA, 2012). The framework for operations in the EACSE is guided by a policy which demands that security exchange from each country adheres to an acceptable code of corporate practices (Makau et al., 2015). The code of corporate practices involves the recognition of the role of good governance in corporate performance, capital formation and maximization of shareholders' value as well as protection of investor's rights.

In 2010, the East African Community (EAC) Monetary Policy Committee, which includes the EAC Central Banks commenced work on the interlinking of the EAC payment systems. Besides, the African Regional Economic Communities are beginning to establish regional and sub-regional capital markets. Among the ongoing efforts to integrate financial markets is the East

African Common Market Protocol (EACMP) which was signed and ratified on 1st July 2010 (Makau et al., 2015). The business conduct of firms listed in EACSE is governed by East African Securities Regulatory Authorities (EASRA), which is the regional umbrella body for capital markets regulators. The authority ensures best corporate practices are observed among the various players in EACSE. Some of the best practices relate to the board of directors, the chairman and chief executive officer (CEO), accountability and the role of audit committees. Although studies have been conducted on corporate board characteristics and voluntary disclosure (Karagul & Yonet, 2014; Samaha et al., 2015; Aliyu, 2018; Agyemang et al., 2020; Khaireddine et al. 2020; Agyemang et al., 2020) the findings remain contentious among the scholars. Thus, the study sought to test the following hypothesis;
$H_0$1: Corporate board characteristics has no influence on voluntary disclosure by firms listed in East Africa Securities Exchanges

2. Theoretical Literature

This study was guided by agency theory. The agency theory was proposed by Jensen and Mackling (1976). The 'principal-agent' problem revolves around the extent to which a principal must devote effort to minimise shirking behaviour by an agent who is motivated by self-interest and cannot be trusted (Spencer, 2013). The theory is founded on distrustful and pessimistic notions of human motivation and behaviour. It assumes that agents are shirkers, with a self-interest incentive to avoid work and viewed as 'resourceful, evaluative maximizers' (Jensen, 1994; Roehling et al., 2005; Russell et al., 2011), pursuing money, respect, honour, love and whatever else is in their interests, while being willing to sacrifice the common good to do so.
The agency theory is relevant to the current study since it advances that the relationships that guide the interests of managers (agents) within the listed firms are not in harmony with those of the shareholders. Thus, managers only disclose as little information as possible in order to utilize the aggrandized money that could otherwise be used for disclosure to increase their package. On the other hand, shareholders insist on voluntary corporate disclosure even though it involves expenditure and at the same time demand an improved return on their investment. Moreover, the board characteristics that include social and board information, board diversity, board independence, board duality and independent non-executive directors on board aimed at minimizing agency problems, associated with information non-disclosure that led in the decline of firm value.

3. Research Methodology

This study was guided by the pragmatist research philosophy which deals with the facts. In this research philosophy, the practical results are considered important (Lancaster, 2005). Thus, in this study the practical relationship between independent (board characteristics and ownership structure), mediating (voluntary disclosure) and dependent (firm value) variables was investigated. In addition, according to Alghamdi and Li (2013), pragmatism does not belong to any philosophical system and reality. This research freely chose methods, techniques, and procedures that ensured establishment of the relationship between independent, mediating and dependent variables.

This study adopted ex post facto research design. The design was appropriate since it used per-existing data, that is, board characteristics, ownership structure, voluntary disclosure and firm value without interference from the researcher (Kumar, 2018). It was also appropriate since it acted as a substitute for true experimental research to test hypotheses about cause-and-effect relationships between independent variables, mediating variable and dependent variable (Salkind & Silva, 2010).

The targeted population was 104 companies listed in the East African Security Exchanges that is 63 companies listed at Nairobi Security Exchange, 16 at Dares Salam Security Exchange, 16 at Uganda Security Exchange and 9 companies listed at Rwanda Security Exchange. This study used census to study all the 104 listed companies at the East Africa Security Exchanges which were listed for the period 2011 to 2020. The information was drawn from the annual reports and information circulars in the years 2011 through 2020 of all the listed companies at the East African Security Exchanges which had been listed in the said period.

Data analysis entailed panel data analysis. The study analyzed firms listed at East Africa Security Exchanges for ten years starting from 2011 to 2020. Various tests were carried out to determine whether the analysis should use pooled ordinary least squares (pooled OLS), random effect (RE), or fixed effect (FE).

Table 1: Panel Analysis to be used

Test statistic		P-value	**Panel Analysis to be used**
Breusch-Pagan multiplier (LM)	Lagrange	>0.5	Pooled ordinary least squares (OLS) panel
Breusch-Pagan multiplier (LM)	Lagrange	<0.05	Random effect (RE)
Testsparm		<0.05	Fixed Effect (FE).
Hausman		>0.05	RE
Hausman		< 0.05	FE

Voluntary disclosure was ascertained in terms of general and strategic, financial, forward-looking, social and board information (Barako, 2007). The index of voluntary disclosure, IDj for each company was calculated on the basis of the formula of disclosure index used by Li et al. (2008) as follows:

$$d = \sum \frac{Xij}{nj} \qquad 3.1$$

Where:
X is the firm, nj is the amount of information to j^{th} firm, nj is 47 for IDTV: Total voluntary disclosure index; nj is 13 for IDGSI: the general and strategic information disclosure index; nj is 8 for the IDFD: financial data disclosure index; nj is 9 for IDFLI: forward-looking information disclosure index; nj is 17 for IDSB: social and board disclosure index. Equation 3.2 was used to examine the effect of board characteristics on voluntary disclosure.

$$DISV_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon_t \qquad 3.2$$

Where $DISV_{it}$ is the level of voluntary disclosures, β_0 is constant, BS is social and board information, BD is board diversity, BI is proportion of independent non-executive directors on board, BM is CEO/chairperson duality, RC is proportion of the independent non- executive on risk management committee.

Equation 3.3, 3.4, 3.5 and 3.6 was used to determine the effect of board characteristics on the following components of voluntary disclosure: general and strategic, financial, forward-looking, and social and board information respectively.

$$DISGS_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon_i \qquad 3.3$$

Where DISGS is level of general and strategic disclosures, β is constant, BS is social and board information, BD is board diversity, BI is proportion of independent non-executive directors on board, BM is CEO/chairperson duality, RC is proportion of the independent non- executive on risk management committee.

$$DISFD_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon i \qquad 3.4$$

Where DISFD is level of financial data disclosures, β is constant, BS is social and board information, BD is board diversity, BI is proportion of independent non-executive directors on board, BM is CEO/chairperson duality, RC is proportion of the independent non- executive on risk management committee

$$DISFL_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon_i \qquad 3.5$$

Where DISFL is level of forward-looking disclosures, β is constant, BS is social and board information, BD is board diversity, BI is proportion of independent non-executive directors on

board, BM is CEO/chairperson duality, RC is proportion of the independent non- executive on risk management committee.

$$DISSB_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon_i \text{ .....3.6}$$

Where DISSB is Level of social and board information disclosures, β is constant, BS is social and board information, BD is board diversity, BI is proportion of independent non-executive directors on board, BM is CEO/chairperson duality, RC is proportion of the independent non-executive on risk management committee.

4. Empirical Findings

4.1 Descriptive Statistics

The study examined various key aspects of Board Characteristics that were identified from past studies. These included: Number of board members, number of board members from local country, number of board members from foreign countries, Board independence, Female board chair, Number of female board members, Number of male board members and Different CEO from chairperson.

On the other hand, financial disclosure was measured by 7 indicators which included: Historical summary of financial data for the last 6 years or over; Review of current financial results and discussion of major factors underlying performance; Statement concerning wealth created e.g., value added statement

Supplementary inflation adjusted financial statement; return on assets; return on shareholders' funds; liquidity ratios and gearing ratios. The table 2 presents descriptive statistics for the corporate board characteristics and financial disclosure variables.

Table 2 Descriptive statistics for the corporate board characteristics and financial disclosure variables

	N	Mean	Std. Deviation	Min	Max
	Statistic	Statistic	Statistic		
Number of board members	1232	9.15	2.822	4	16
Number of board members from local country	1232	6.80	3.121	0	13
Number of board members from other countries	1232	2.61	2.496	0	12
Number of female Board members	1232	1.83	1.284	0	9
Number of male board members	1232	7.37	2.332	1	14
	Response	**Count**	**Percent**		
Female CEO	Yes	52	5.4%		
	No	906	94.6%		
Board Independence	No	14	1.5%		
	Yes	944	98.5%		
Female Board Chairperson	Yes	64	6.7%		
	No	894	93.3%		
Different CEO and Chairperson	Yes	939	98.8%		
	No	11	1.2%		

Table 2 shows that the mean number of board members is 9.15 with a Minimum of 4 and Maximum of 16 and Standard deviation of 2.822. This implies that most companies in East Africa have a relatively large board size which allows for possibility of diversity.

The boards are mainly composed of persons from the local country where the company is listed (Mean = 6.80, SD = 3.121, Min = 0, Max = 13). However, there appears to exist a serious lack of gender parity given that males dominate the boards (Mean = 7.37, sd = 2.33, Min = 0, Max

= 12). The absence of gender parity is much worse with the CEO with females making up only 5.4% of CEOs of listed firms. Further, female chairpersons constitute a tiny percentage of 6.7% in all listed firms in East Africa. However, the listed firms score well in board independence with 98.5% of the boards being independent and 98.8% of the companies have separated the position of CEO and chairperson.

4.2 Corporate Board Characteristics and Voluntary Disclosure

The objective was to evaluate the influence of corporate board characteristics on voluntary disclosure by firms listed in East Africa Securities Exchanges. The hypothesis to be tested was;
H_{01}: Corporate board characteristics has no significant effect on voluntary disclosure by firms listed in the East Africa Securities Exchanges

4.2.1 Aggregated Voluntary disclosures index and board characteristics

In order to examine the relationship between voluntary disclosures and board characteristics using regression analysis, diagnostic tests were first conducted. The Table 3 shows the summarized results from the diagnostic tests.

Table 3: Diagnostic tests results for Aggregated Voluntary disclosures index and board characteristics

Diagnostic Test	Test type	Statistic		P-value
Use of pooled or random effects	Breusch-Pagan Lagrange multiplier (LM)	Chibar2 (01)	839.46	0.0000
Time Fixed Effects (re or fe model)	Hausman test	Chi2 (2)	10.01	0.0067
Tests of heteroscedasticity	Modified Wald test for groupwise heteroskedasticity	Chi2 (100)	9.60E+31	0.00000
Tests of stationarity for IDTV	Unit root Fishers (Pperron, lags (1))	Inverse Chi2 (208)	261.83	0.0067
Test of multicollinearity	Variance Inflation Factor	mean VIF	1.02	

Table 3 shows that the Breusch-Pagan Lagrange multiplier (LM) statistic was statistically significant (Chibar2 (01) =839.46, p< .05).

Thus, it was concluded that pooled OLS was not appropriate for the regression analysis and instead panel data regression analysis would be applied.

Homoscedasticity is one of the assumptions of linear regression. When there is a violation, then there is heteroscedasticity which is indicated by errors or residuals in OLS regression that are constant. In this study, the Modified Wald test for groupwise heteroscedasticity was used.

Table 3 shows that the statistic was significant hence it was concluded that there was presence of heteroscedasticity in the data (p<.05). This means that the robust method would be used along with xtreg in the panel data regression. The Hausman test favored fixed effects model over random effects model (p<.05). The dependent variable, IDTV, was found to be stationary (p < .05). The mean of the Variance Inflation Factors (VIF) was less than 10, hence it was concluded that there was no multicollinearity (mean VIF = 1.02).

In order to examine the relationship between voluntary disclosures and board characteristics, regression analysis was done using the fixed effects model as shown below:

$$DISV_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon_t$$

DISVit is the level of voluntary disclosures,
β0 is constant,
BS is social and board information,
BD is board diversity,
BI is proportion of independent non-executive directors on board,
BM is CEO/chairperson duality,
RC is proportion of the independent non- executive on risk management committee.
Table 4 presents the regression analysis output.

Table 4: Regression analysis output for the relationship between voluntary disclosures and board characteristics

F test that all u_i=0 F(99, 775) = 9.58 Prob > F = .0000
F (2,775) = 1042.42
Corr (u_i, Xb) = 0.2156 Prob>F = 0.000
R-sq = 0.74

					[95% Conf. Interval]	
IDTV	Coef.	Std.Err	t	P>t	LB	UB
BD	0.005644	0.005778	0.98	0.329	-0.0057	0.016986
SBI	0.326261	0.007178	45.45	0.000	0.31217	0.340351
_cons	0.256692	0.00308	83.35	0.000	0.250647	0.262738

Table 4 indicates that Board Diversity does not have a significant influence on voluntary disclosures. Social and Board information has a significant influence on voluntary disclosures. BM and BI have been omitted from the model due to collinearity.

4.2.2 General and Strategic Disclosures and Board Characteristics

The study sought to examine the relationship between General and Strategic Disclosures and board characteristics. Preliminary diagnostic tests were carried out before running regression analysis. Table 5 shows the summarized results of the various tests performed.

Table 5: Diagnostic tests

Diagnostic Test	Test type	Statistic		P-value
Use of pooled or random effects	Breusch-Pagan Lagrange multiplier (LM)	Chibar2 (01)	2042.93	0.0000
Time Fixed Effects (re or fe model)	Hausman test	Chi2 (2)	6.76	0.0341
Tests of heteroscedasticity	Modified Wald test for groupwise heteroskedasticity	Chi2 (100)	6.90E+09	0.0000
Tests of stationarity for GSI	Unit root Fishers (Pperron, lags (1))	Inverse Chi2 (208)	167.28	0.9826
Test of multicollinearity	Variance Inflation Factor	mean VIF	1.02	

Table 5 shows that the Breusch-Pagan Lagrange multiplier (LM) statistic was statistically significant (Chibar2 (01) =2042.93, p< .05) which meant that pooled OLS was not appropriate for the regression analysis and instead panel data regression analysis would be applied. The Modified Wald test for groupwise heteroskedasticity was used and the statistic obtained was significant hence it was concluded that there was presence of heteroscedasticity in the data (p<.05). Thus, the robust method would be used along with xtreg in the panel data regression. The model below was generated using panel data regression analysis.

$$DISGS_{it} = \beta_0+\beta_1 BS_{it}+\beta_2 BD+\beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} +\_\varepsilon_i$$

DISGS is level of general and strategic disclosures,
β is constant,
BS is social and board information,
BD is board diversity,
BI is proportion of independent non-executive directors on board (board independence),
BM is CEO/chairperson duality; RC is proportion of the independent non- executive on risk management committee.
Table 6 presents the results of the regression analysis.

Table 6: Fixed Effects model for the regression between General and Strategic Disclosures and board characteristics

R-sq = 0.0108
F (2,775) = 1.36
Corr (u_i, Xb) = 0.0589 Prob > F = 0.2566
F test that all u_i=0: F (99, 775) = 27.42 Prob > F = 0

GSI	Coef.	Std.Err	t	P>|t|	[95% Conf.	Interval]
BD	0.023269	0.014978	1.55	0.121	-0.00613	0.052671
SBI	0.008233	0.018608	0.44	0.658	-0.0283	0.044761
_cons	0.592417	0.007984	74.2	0.000	0.576745	0.60809

Table 6 shows that BM and BI predictors were omitted due to collinearity. However, none of the other predictors had a significant influence on GSI (p >.05).

4.2.3 Financial disclosures and Board Characteristics

The study sought to examine the relationship between Financial Disclosures and board characteristics. Table 7 shows the summarized results of the various diagnostic tests that were performed.

Table 7: Diagnostic tests

Diagnostic Test	Test type	Statistic		P-value
Use of pooled or random effects	Breusch-Pagan Lagrange multiplier (LM)	Chibar2 (01)	831.85	0.0000
Time Fixed Effects (re or fe model)	Sargan-Hansen(xtoverid)	Chi2 (2)	37.05	0.0000
Tests of heteroscedasticity	Modified Wald test for groupwise heteroskedasticity	Chi2 (100)	8.70E +30	0.0000
Tests of stationarity for FDI	Unit root Fishers (Pperron, lags (1))	Inverse Chi2 (208)	244.07	0.0534
Test of multicollinearity	Variance Inflation Factor	mean VIF	1.02	

Table 7 indicates that the test statistic for the Breusch-Pagan Lagrange multiplier (LM) was statistically significant (Chibar2 (01) =831.85, p< .05). This means that panel data regression model would be applied instead of pooled OLS regression. The Modified Wald test for groupwise heteroskedasticity was statistically significant indicating presence of heteroscedasticity in the data (p<.05).

Thus, the robust method was used along with xtreg in the panel data regression. The Hausman test failed to yield any results, hence Sargan-Hansen test was used instead alongside -xtrovid-

which yielded a significant statistic ($p < .05$) hence the fixed effects model was used instead of random effects model. The dependent variable, FDI, was found not to be stationary ($p > .05$). The mean of the Variance Inflation Factors (VIF) was less than 10, hence it was concluded that there was no multicollinearity (mean VIF = 1.02).
The following model below was fitted to the data.

$$\mathbf{DISFD_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon i}$$

DISFD is Level of Financial data disclosures,
β is constant,
BS is social and board information,
BD is board diversity,
BI is proportion of independent non-executive directors on board,
BM is CEO/chairperson duality,
RC is proportion of the independent non- executive on risk management committee

Table 8: Fixed effects model for the regression between financial disclosures and Board Characteristics

R-sq = 0.2208
F (2,785) = 1105.3
corr(u_i, Xb) =-0.6155 Prob > F = 0.000
F test that all u_i=0: F (100, 785) = 22.01 Prob > F = 0

FDI	Coef.	Std.Err	t	P>|t|	[95% Conf.	Interval]
BD	-0.01276	0.01289	-0.99	0.322	-0.03807	0.012538
SBI	0.886182	0.018864	46.98	0.000	0.849152	0.923212
_cons	0.10823	0.008029	13.48	0.000	0.09247	0.123991

Table 8 shows that Social and Board Disclosure Index has a positive relationship with Financial Disclosures. The other variables, namely: Board diversity, CEO/Chairperson duality and proportion of independent non-executive directors on board were found to have no significant influence on voluntary disclosure. These findings are in agreement with those of Aliyu (2018) who found that board independence and CEO/Chairperson duality did not have a significant influence on voluntary disclosure. However, the findings disagree with those of Bueno et al. (2018) who found a positive association between CEO duality and voluntary disclosure in Brazil.

4.2.4 Forward Looking information and board characteristics

The study sought to examine the relationship between Forward Looking Information and board characteristics. Diagnostic tests were carried out before running regression analysis and the results were as presented in table 9.

Table 9: Diagnostic tests

Diagnostic Test	Test type	Statistic		P-value
Use of pooled or random effects	Breusch-Pagan Lagrange multiplier (LM)	Chibar2 (01)	542.16	0.0000
Time Fixed Effects (re or fe model)	Sargan-Hansen(xtoverid)	Chi2 (2)	86.45	0.0000
Tests of heteroscedasticity	Modified Wald test for groupwise heteroskedasticity	Chi2 (100)	1.50E+33	0.0000
Tests of stationarity for FLI	Unit root Fishers (Pperron, lags (1))	Inverse Normal	-5.977	0.0000
Test of multicollinearity	Variance Inflation Factor	mean VIF	1.02	

Table 9 shows that the Breusch-Pagan Lagrange multiplier (LM) statistic was statistically significant (Chibar2 (01) =542.16, p< .05).

Thus, it was concluded that pooled OLS was not appropriate for the regression analysis and instead panel data regression analysis would be applied. There was presence of groupwise heteroscedasticity as indicated by the Modified Wald test for groupwise heteroscedasticity (p<.05). This means that the robust method would be used along with xtreg in the panel data regression.

The Sargan-Hansen (xtrovid) test revealed that the fixed effects model was more appropriate than random effects model (p<.05). The dependent variable, FLI, was found to be stationary (p < .05). The mean of the Variance Inflation Factors (VIF) was less than 10, hence it was concluded that there was no multicollinearity (mean VIF = 1.02).
To evaluate the relationship between Forward Looking Information and Board Characteristics, panel data regression model was fitted to the data. The model was displayed as follows.
$DISFL_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BD + \beta_3 BI_{it} + \beta_4 BM_{it} + \beta_5 RC_{it} + \varepsilon_i$
DISFL is Level of forward-looking disclosures,
β is constant, BS is social and board information,
BD is board diversity, BI is proportion of independent non-executive directors on board,
BM is CEO/chairperson duality,
RC is proportion of the independent non- executive on risk management committee.

Table 10: Fixed effects model for the regression between Forward Looking Information disclosures and Board Characteristics

R-sq = 0.1525
F (2,785) = 799.25
Corr (u_i, Xb) =-0.6409 Prob > F = 0.000
F test that all u_i=0: F (100, 785) = 17.24 Prob > F = 0

FLI	Coef.	Std.Err	t	P>|t|	[95% Conf.	Interval]
BD	0.010232	0.013028	0.79	0.432	-0.01534	0.035806
SBI	-0.7616	0.019066	-39.94	0.000	-0.79903	-0.72417
_cons	0.455491	0.008115	56.13	0.000	0.439562	0.47142

Table 10 shows that Social and Board information index had a negative statistically significant relationship with forward looking information.
The null hypothesis of the study was that corporate board characteristics has no influence on voluntary disclosure by firms listed in East Africa Securities Exchanges. It was established that social and board information had a significant influence on voluntary disclosures. The study rejects the null hypothesis and makes an inference that corporate board characteristics significantly influence voluntary disclosure by firms listed in East Africa Securities Exchanges.
The board of the publicly listed company ought to be well constituted when handling their corporate duties to ensure efficiency and effectiveness in running of the company as per the corporate goals. Properly constituted board in terms of board size, board independence, composition, diversity, duality, board meetings, structure and mode of operations determine voluntary disclosure of company information and financial position. Adherence to board characteristics will ensure that corporate voluntary disclosure is an indispensable way for the firms' management to commune governance and performance to outsiders. The size of the board ought to be within acceptable size not being too small or too large. Too large board size may breed about increase in agency costs while too small board may be ineffective to discharge their mandate. The results concur with Karagul and Yonet (2014) who reported that the extent of voluntary disclosure was significantly positively associated with board size. Similarly, Rabi (2019) reported a positive relationship between board size and level of environmental disclosure. However, Aliyu (2018) reported that board size did not have a significant effect on corporate disclosure.

Board independence ensures that board members can offer objective advice and guidance to the management of the listed firms. The results are similar with Karagul and Yonet (2014) who reported that the extent of voluntary disclosure was significantly positively associated with the

proportion of independent members on the board. Similarly, board composition and audit committee will ensure that objective decision making and advisory to the firm's board is conducted. This is in tandem with Samaha et al. (2015) who found that board composition and audit committee had a significant positive effect on voluntary disclosure. In the event that company CEO also serves as the chairman of the board, voluntary disclosure of information may be hindered. This is in line with Yanesari et al. (2012) who found that firms with CEO duality are associated with lower levels of voluntary disclosures.

5. Conclusion and Implication of the Study.

The study evaluated the influence of corporate board characteristics on voluntary disclosure by firms listed in East Africa Securities Exchanges. It was found that only social and board information had a significant influence of voluntary disclosures. Board diversity did not have a significant effect while both CEO/chairperson duality and proportion of independent non-executive directors on board were omitted from the equation due to collinearity. Additionally, it was found that Social and Board Disclosure Index has a positive relationship with Financial Disclosures. On the other hand, Social and Board Disclosure Index has a negative, statistically significant relationship with forward looking disclosure. The study concludes that social and board information had a significant influence on voluntary disclosures.

Corporate board characteristics including board size, board independence, diversity, composition, expertise duality, board meetings, structure and mode of operations determine voluntary disclosure of company information and financial position. The study recommends the proper structuring, creation and optimization of board structure in terms of optimal board size, combination of independent and non-independent directors, diversity and composition of board in terms gender and expertise to enhance voluntary disclosure. It is recommended that the regulatory authorities in the four countries should benchmark against similar listed firms abroad so as to enhance disclosures and possibly improve performance of listed firms.

Declarations

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