

## Relationship Between Board Characteristics and Level of Corporate Disclosure Among Listed Companies in Tanzania

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### **Abstract**

*This paper examined the relationship between board characteristics and Level of corporate Disclosure (LCD) among Tanzanian listed companies. Relationships between board size, board independence; directors' remuneration and LCD were examined. The 105 firm-year observations for 21 listed companies in Tanzania from 2016 to 2020 were used. The study used the agency theory. An explanatory research design was employed. Balanced panel data for analysis were gathered using a survey method. Data were analyzed using descriptive and inferential statistics. Regression analysis was used in testing hypotheses. Findings showed that board size, board independence, directors' remuneration were positively related to LCD. It was recommended that listed companies should appoint a higher proportion of independent directors to their boards. Independent directors can provide impartial oversight and are more likely to prioritize transparency and disclosure. Companies are advised to optimize board size aim for a board size that is appropriate for their specific needs and industry. Moreover, listed companies should adopt transparent and fair director remuneration practices. This includes disclosing the structure of director compensation, including; salaries, bonuses, stock options, and other benefits. Policymakers and regulators should consider implementing or strengthening regulations related to board composition, independence, and disclosure practices.*

**Keywords:** Corporate disclosure, board characteristics, Board size, Directors Remuneration

### **1.0 Introduction**

Corporate disclosure plays a pivotal role in providing stakeholders with essential information about a company's financial performance, risk management practices, and governance structures. (Alnimer, 2019). Mansulu (2021) contended that financial scandals reported for example Enron Scandal

(2001); WorldCom Accounting Fraud (2002); Tyco International Scandal (2002); 1Malaysia Development Berhad (1MDB) Scandal (2015-2018); Danske Bank Money Laundering Scandal (2018) just to mention a few, have highlighted an international need to improve and reform corporate governance practices.

With increasing exposure to international capital markets, most listed firms in developed and developing countries have been obliged to satisfy the information demands of foreign investors and to provide these investors with more transparent, meaningful, reliable and relevant information in their annual reports (Gad, 2020). Improvement of the quality, extent and informativeness of both mandatory and voluntary disclosures in annual reports may assist the market mechanism to function efficiently and thereby facilitate the effective distribution of capital, assets and even human resources (Mansulu, 2021). However, despite International Financial Reporting Standards (IFRS) requirements, General Accounting and Auditing Guidelines (GAAP), and governmental regulations, full disclosure among listed firms is not guaranteed (Alnabsha et al., 2018). This is caused by the fact that corporate reporting regulation aims to provide outside investors with minimal information (Almaqtari *et al.*, 2021).

The board of directors, as a key governing body, plays a crucial role in shaping corporate disclosure practices (Almaqtari *et al.*, 2021). However, there is a lack of comprehensive research on how specific board characteristics relates to the level of corporate disclosure among listed companies in Tanzania. The rationale for selecting board size, board independence and director remuneration as independent variables is because according to researchers' best knowledge, they have not been researched by previous studies in Tanzania. Therefore, this study aims to bridge this gap by conducting an in-depth analysis of the relationship between board characteristics and corporate disclosure practices in the Tanzanian context.

In Tanzania, scanty studies have been conducted on the relationship between different board characteristics and level of corporate disclosure. The following questions were answered in order to fulfill the objective of this paper: Is there any relationship between board size and the level of corporate disclosure for listed companies in Tanzania? Is there any relationship between board independency and the level of corporate disclosure for listed companies in Tanzania? Is there any relationship between directors' remuneration and the level of corporate disclosure for listed companies in Tanzania?

### **1.1 Theory that guided this Study**

One of the key theories that can provide a theoretical foundation for this study include agency theory. Agency theory posits that there is a principal-agent relationship between the shareholders (principals) and the management (agents) of a company. Agency theory then attempts to reduce information asymmetries by incorporating monitors and establishing mechanisms that can defend shareholders from conflicts of interest on the part of management (Mansulu, 2021). The theory suggests that the effectiveness of the board in monitoring and controlling management behavior influences the level of corporate disclosure. A strong board with appropriate characteristics may lead to better oversight and, consequently, more transparent corporate disclosure practices. Three variables for this study emanate from agency theory. These are board size, board Independence and the directors remuneration. By studying these variables in the context of agency theory, researchers can gain insights into how board characteristics affect the LCD for listed companies.

### **1.2 Motivation and Contribution of the Study**

The study is unique as it examines for the first time the impact of board characteristics in corporate disclosure in an economy being transformed from the least developing country to developing country. Moreover, the study is unique in that it describes the board characteristics in view of the wide range of shareholdings. Furthermore, this study is considered important because the knowledge about internal components of the company that influence corporate disclosure helps the formation of regulations and policies, so that generalization to all companies of all sizes, age and other variations is avoided. By studying the relationship between board characteristics and level of corporate disclosure, we can prove the agency theory which argues that there is a positive relationship between board size, board independence and director remuneration and LCD, and this will be proved in developing economy, specifically Tanzania.

### **1.3 Empirical Literature and Hypothesis Development**

In this paper, the research hypotheses were formulated based on a critical review of both theoretical and empirical literature.

#### ***Board Size and Level of Corporate Disclosure***

Board size refers to the number of directors serving on a company's board (El-Deeb *et al.* (2021). It represents the number of executive and non-executive members on the board of governance of a company (Elfeky, 2017). Board size may influence the extent of corporate disclosure and the decision-

making process of a business entity (Javaidet *et al.*, 2016). The agency theory postulates that larger boards can play a vital role in monitoring management and having long-run sustainable decisions (Elfeky, 2017; Fama & Jensen, 1983). Moreover, a larger board is less likely to be controlled by the management (Jensen & Meckling, 1976).

Studies exploring the relationship between board size and corporate disclosure have produced mixed findings. Some studies have suggested a positive association, indicating that larger boards tend to lead to higher levels of corporate disclosure (Albasam *et al.*, 2018; Masum & Khan, 2019; Omer *et al.*, 2020). This is because larger boards may bring diverse perspectives and expertise, leading to more comprehensive and transparent reporting. A larger board could also imply greater accountability and oversight, which may incentivize higher levels of corporate disclosure. On the other hand; other studies have found out a negative association between board size and corporate disclosure (Ntim & Ahmed, 2019; Ullah *et al.*, 2018; Orazalin, 2019). These studies have argued that larger boards can suffer from coordination problems, communication problem, monitoring problems, information overload and excessive internal conflicts, which may hinder decision-making processes and reduce the level of corporate disclosure. Furthermore, some researchers have found no relationship between board size and disclosure level (e.g., Ntim *et al.*, 2017). According to agency theory larger boards are associated with greater diversity in terms of expertise and experience (Katmon & Farooque, 2020). Therefore, given the fact that the current study aimed at contributing to the agency theory (AT), which revealed a positive relationship between board size and LCD thus, the following hypothesis was formulated:

*H<sub>1</sub>: There is a positive relationship between the board size and the LCD among the listed companies in Tanzania.*

### ***Board Independency and Level of Corporate Disclosure***

This variable measures the proportion of independent directors on the board who are not affiliated with the company's management. Board with a high proportion of nonexecutive directors is more likely to be more successful in directing and controlling management (Cheng & Courtenay, 2006). Although outsiders and insiders have their merits and demerits, empirical evidence provided by past research have revealed that outsider-dominated boards were more favorable to meet the varied interests of stakeholders (Charumathi & Ramesh, 2015). Further, they can enhance the independence and objectivity dimensions in boardroom's decision making (Fama & Jensen, 1983) and improve corporate reporting (Fernandez *et al.*, 2018). From a theoretical

framework, nonexecutive directors provide corporate disclosure to mitigate information asymmetry and litigation risks (Lim *et al.*, 2007). Independent directors have closer relations with various group of stakeholders, know their expectations better, and are more likely to satisfy their interests (Masum & Khan, 2019). Moreover, independent directors do not have any relation with the firm and, thus, they will incline to engage in more corporate governance-related activities (Alnabsha *et al.*, 2018). The level of independence within the board of directors can influence disclosure practices (Al-Maskati & Hamdan, 2017). A higher proportion of independent directors, who are not directly affiliated with management, can enhance the board's oversight function and reduce the potential influence of management on disclosure decisions (Lee & Luu, 2017).

Independent directors are more likely to advocate for transparent and accurate disclosure. Researchers have indicated conflicting findings on the relationship between the independence of directors in the board and LCD. Ntim *et al.* (2017); Yasser & Al-Mam (2020) reported a negative relationship between the board independency and LCD, while the positive relationship between them was indicated by Hashed & Almaqtari (2021). However, El-Deeb *et al.* (2021); Keet *et al.* (2020) found no association between the independence of directors in the board and LCD. Given the fact that previous researchers have tested the direct relationship between the board independency and LCD and there were mixed results and focused on the idea that the relationship was indicated to be positive in the agency theory (AT) which is supposed to be tested, thus the current researcher proposed the following hypothesis two:

*H<sub>2</sub>: There is a positive relationship between board independence and the LCD among the listed companies in Tanzania.*

### ***Directors' Remuneration and Level of Corporate Disclosure***

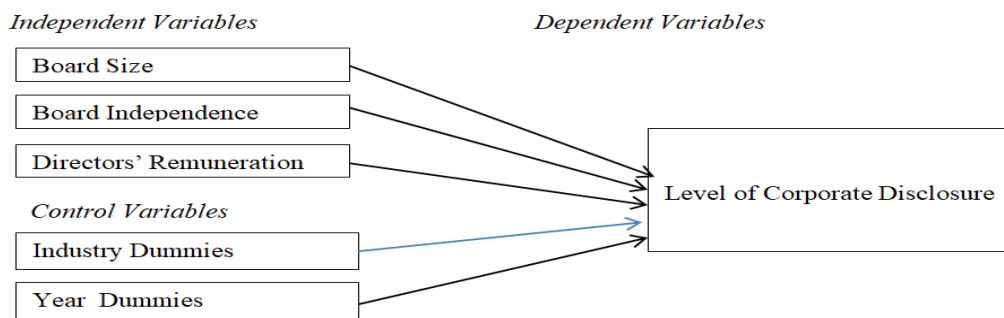
Director's remuneration refers to the compensation and benefits that directors of a corporation receive for their services and responsibilities (Katmon & Farooque, 2020). Corporate disclosure related to director's remuneration is an important aspect of transparency and governance in publicly traded companies. It involves the disclosure of detailed information about how much directors are paid and the various components of their compensation packages (Ntim & Ahmed, 2019). In most countries, publicly traded companies are required by law to disclose detailed information about director's remuneration in their annual reports and financial statements. These disclosures are typically included in the company's proxy statement or annual report to shareholders (Orazalin, 2019).

In recent years, directors' remuneration has become a controversial topic in corporate governance due to the tension between shareholders demanding to understand and to be able to rationalize their directors remuneration levels and methods and the directors desire for privacy in their financial affairs (Alqmatar,2021).Both executive and non-executive directors are required to be compensated for services they provide to the company.

These compensations/remunerations can be in terms of salaries, fees, or use of the company's property as per the agreement (Lokmanet *al.*, 2014). Several authors have indicated that directors' remuneration is positively related to the level of corporate disclosure (LCD) (Alnabsha *et al.*, 2018; Masum& Khan, 2019; Sarhan&Ntim, 2019). Other researchers have revealed that directors' remuneration has a negative relationship with the level of corporate disclosure (Alyousef&Alsugher, 2021; Khlif *et al.*, 2017). Therefore, there is a disagreement among the researchers based on the mixed results on the relationship between directors' remuneration and LCD. The current study aimed at contributing to the agency theory (AT) which revealed a positive relationship between directors' remuneration and LCD thus, the following hypothesis was formulated:

*H<sub>3</sub>: There is a positive relationship between the directors' remuneration and the LCD among the listed companies in Tanzania.*

## 1.4 Conceptual Framework



**Figure 1: Conceptual Framework**

**Source:** Developed by authors (2023) using empirical and theoretical review.

## 2.0 Methodology

This study used a post-positivist philosophy. Saunders *et al.* (2019) posits that post-positivist philosophy is based on the belief that reality is independent of people's perceptions, but it can be studied scientifically. Since this study uses a reasonable inference about a relationship between board

characteristics and the level of corporate disclosure, post-positivist philosophy suits the study because it combines empirical observations with logical reasoning in investigating causal relationship between board size, board independence, director remuneration and the LCD. Moreover, this study used explanatory research design because explanatory research design determines cause-and-effect relationships among variables and testing hypotheses to determine the worth of theories and the ability of particular theories to make predictions about social developments. Moreover, explanatory research design uses quantitative research procedures and seeks answers to how or why questions. Therefore, testable and measurable research hypotheses can be answered with a yes or no or a precise answer to how many (Zikmund *et al.*, 2013). This study uses deductive approach. The deductive approach in this study took the form of the research hypotheses in order to support or not support a theory. Additionally, this study used the survey strategy because it is associated with instruments that need numerical inputs of the parameters related to the subject of investigation. It is also considered an appropriate strategy because it establishes a causal relationship between variables (Saunders *et al.*, 2019).

The sampling frame for the study was twenty seven (27) local and cross-listed companies: twenty two (22) local companies and five (5) cross-listed companies at DSE. As of June 30, 2021, DSE had a total of 27 listed companies in both the main investment market segment (MIMS) and the enterprise growth market (EGM) (DSE, 2021). The MIMS had twenty two (22) listed companies, while the EGM had five (5) listed companies, comprising twenty-two (22) local companies from Tanzania and five (5) cross-listed companies (mainly from Kenya). Census method was used to select companies for sample. The following three criteria were used for selecting the sampled companies: First, the company had its stock listed in DSE before 2016. Secondly, the company had the audited annual report for the years 2016 - 2020 inclusively accessible either through the company website or on the DSE website. Finally, the company retained its listing status for the selected period (2016 -2020). Due to the unavailability of annual reports for 2016 and 2020, six companies were excluded. After the exclusion, there were 105 observations from 21 companies in the sample ( $n = 105$ ). The study spanned the years 2016 through 2020.

## **2.1 Dependent Variable**

The study's dependent variable was the level of corporate disclosure (LCD). This is the index measuring the level of corporate disclosure which is a combination index measuring the level of voluntary disclosure and level of

mandatory disclosure for each company. This measurement was created using the unweighted approach. This index included the 44 items that measured voluntary disclosure and 92 items measuring mandatory disclosure then combined to make a total of 136 items measuring overall corporate disclosure (LCD). Each company was examined, and if the disclosure criteria were met, the index item received a score of 1, otherwise a score of 0.

## **2.2 Independent Variables**

Independent variables in this study were board size (BSize); board independency (BIN) and directors' remunerations (DirRem). Hypothesis H<sub>1</sub>-H<sub>3</sub> concerning these independent variables was tested.

## **2.3 Control variables**

According to earlier studies, LCD may be impacted by other company characteristics. In order to control the relationship between the dependent and independent variables, certain control variables were used in this study, industrial dummies and year dummies (Al-Bassam *et al.*, 2018; Laksmana, 2008) Measurement of Variables is as shown in Table 2.



**Table 2:** Measurement of Variables

Variable Investigated	Notion in the Model	Measurement of variable	Other studies which has used the variable
Level of Corporate Disclosure	LCD	LCD is the Corporate Governance disclosure index consisting of 136 disclosure items (44 voluntary disclosure items and 92 mandatory disclosure items) that takes the value of 1 if each item is disclosed and 0 otherwise; scaled to value between 0 and 100%.The complete corporate disclosure index was then computed for each sample firm as a ratio of the entire disclosure score to the maximum possible disclosure by the firm.	Alnabshaet <i>al.</i> (2018); Ntim and Ahmed (2019).
<b>B Main independent variables – Board Characteristics</b>			
Board Size	Bsize	The total number of directors on the board	Ntimet <i>al.</i> (2017)
Board Independence	BIN	The number of independent non-executive directors / total number of directors on the board	Ntimet <i>al.</i> (2017);Soobaroyene <i>t al.</i> (2017)
Director Remuneration	DirRem	The total amount of compensation given to the board of directors for each company.	Alnabshaet <i>al.</i> (2018)
Industrial Dummies	Industrial Dummies		Laksmana, (2008),
Year dummies	Year dummies		Cho <i>et al.</i> (2020)

**Source:** Compiled by the Authors (2023)

## **2.4 Source and Data Collection**

This study used secondary data which included financial and non-financial information from the annual reports of listed companies in Tanzania. Secondary data was gathered from annual reports from listed companies' database, and comprised: income statements, statements of financial position, statements of change in equity and statements of cash flow. Similarly, board and management reports on the companies' activities and the notes to these financial statements, aimed at giving qualitative information about the companies' nature, operations, and disclosure practices which measured the level of corporate disclosure (LCD). Similar to past studies Al-Maskati&Hamdan (2017); Habbashet *al.*(2016), annual report data were used to gather data regarding LCD. As in earlier studies, LCD data were gathered using a balanced panel data analysis of annual reports.

## **2.5 Estimation Model**

The following Ordinary Least Square (OLS) model was employed to test the hypotheses of the current study:

$$LCD_{it} = \beta_0 + \beta_1 Size_{it} + \beta_2 BIN_{it} + \beta_3 Dir Rem_{it} + \beta_4 Industrial dummy + \beta_5 Year dummy + \varepsilon_{it}$$

## **2.6 Data Analysis**

STATA software version 17 was used to analyze the data gathered from the annual reports of the companies. Based on the output of the statistical tool, the data were then analyzed. It was compared to earlier research from Tanzania and other countries. Similar to prior studies (Cho *et al.*, 2020; Eng&Mak, 2003; Laksmana, 2008), the study produced descriptive statistics measuring mean, standard deviation, maximum and minimum values, skewness and kurtosis. Moreover, the study employed Pearson's correlation coefficients to investigate the correlation between study variables. It also used Ordinary Least Squares (OLS) regression to examine the relationship between the explanatory variables and LCD similar to other studies (Alnabshaet *al.*, 2018; Alturki, 2014).

## **2.7 Validity and Reliability of the Research Tools**

The reliability statistics test of Cronbach Alpha (Cronbach, 1951) was tested for eleven disclosure items and confirmed to be 0.785 through 0.810 for the level of mandatory disclosure (LMD) and level of voluntary disclosure (LVD) which meets Pallant's (2020) criteria for variable reliability (Table 3 and 4). A coefficient value of  $\alpha = .7$  or higher is widely considered reliable and acceptable (Pallant, 2020).

**Table 3:** Cronbach Alpha Test for Level of Mandatory Disclosure (LMD)

Category	Number of Items	Cronbach's Alpha Coefficient
General Company information	16	0.809
Financial Transparency Information	22	0.812
Ownership Information	15	0.785
Board and Management Structures	33	0.795
Auditing and Control Mechanisms	6	0.799

**Source:** Data analysis (2023)

**Table 4:** Cronbach's Alpha Test for Level of Voluntary Disclosure (LVD)

Category	Number of Items	Cronbach's Alpha Coefficient
General Company Information	5	0.802
Firm Segment Performance Information	16	0.801
Financial Information	7	0.787
Employee Information	6	0.795
Corporate Social Responsibility Information	7	0.707
Corporate Governance Ethics Information	3	0.762

**Source:** Data Analysis (2023)

### 3.0 RESULTS

#### 3.1 Descriptive Analysis Results

In this study the results shown in Table 5 indicated that the mean LCD of Tanzania firms on average was 63 percent whereas its minimum value was 55 per cent and maximum was 76 per cent showing optimum spread with standard deviation of 6 per cent. Implidly the mean can move away 0.062 in both directions. In terms of board characteristics descriptive statistics, Table 5 reported that, board size of listed companies in Tanzania (BSize) ranged from 3 members to 17 members with an average of 9 members. This showed that listed companies domiciled in Tanzania had relatively modest board sizes. This aligned with previous studies (Desta *et al.*(2019); Fulgence, 2021). Furthermore, results showed that 82 percent of boards of Tanzanian listed companies were comprised of more independent directors than non-independent directors with a minimum and maximum levels of 33 percent and 95 percent respectively, and a standard deviation of 14 percent suggesting the likelihood of effective oversight by board members. This indicated that due to reform and emphasis on compliance and disclosure requirement, many listed companies in Tanzania met the minimum recommended board independence rate of one third (33.33 percent) (CMSA, 2002).Moreover, the results evident board remuneration with a minimum of TZS.800 million, a maximum of TZS.456billions and an average of TZS.105

billion indicating that most listed companies remunerated highly their board of directors.

**Table 5: Summary of Descriptive Statistics**

	N	Mean	SD	Min	Max	Skewness	Kurtosis
LCD	105	0.6267	0.0626	0.5536	0.7597	0.1609	1.6034
Bsize	105	9	3.0944	3	17	0.7526	3.2423
BIN	105	0.8205	0.1458	0.3333	0.9453	1.8288	5.3127
DirRem	105	1.05E+09	6.04E+08	8000000	4.56E+09	2.2178	7.0437

**Source:** Data Analysis (2023)

### 3.2 Correlation Analysis Results

The Pearson correlation presents the direction and strength of correlations among the variables and helps identify any multicollinearity problem. Table 6 presents the correlation coefficient and p-value for measuring LCD through index. According to Pallant, (2011) correlation analysis checked the association among multiple variables. As expected, the LCD was positively associated with board characteristics as represented in Table 6. LCD is significantly and positively associated with board size with coefficient 0.4047 ( $p < 0.01$ ), LCD is significantly and positively associated with board independence with coefficient 0.4923 ( $p < 0.05$ ), and LCD is positively and significantly associated with director remuneration with coefficient 0.3519 ( $p < 0.01$ ). The positive correlation among these variables showed that higher LCD was associated with these board characteristics. This was consistent with existing studies (Deb & Dube, 2017; Grassa, 2018).

**Table 6: Correlation Analysis Results**

Variable	LCD	Bsize	BIN	DirRem
LCD	1000			
BSize	0.4047***	1000		
BIN	0.4923**	0.0817	1000	
DirRem	0.3519***	0.4699***	0.018	1000

*Note: \* $p < 0.1$ , \*\* $p < 0.05$  \*\*\* $p < 0.01$  (indicating significance)*

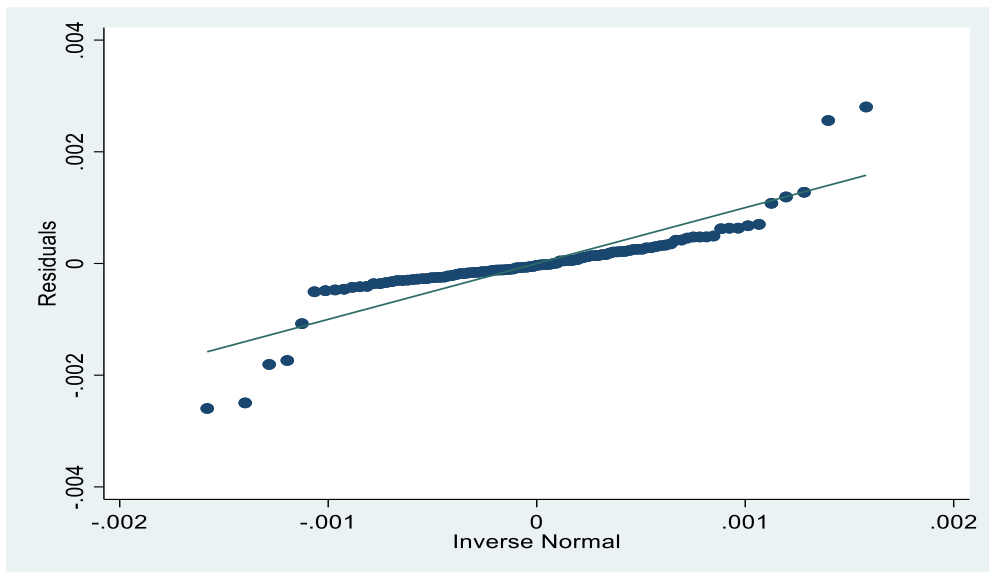
**Source:** Data Analysis (2023)

### 3.3 Testing for Multiple Regression Assumptions

#### 3.3.1 Testing for Normality

In this study, the skewness and kurtosis of the data were measured to determine whether the data were normal. Table 5 showed that the values for skewness ranged from 0.1609 to 2.2178 and those for kurtosis from 1.6034 to 7.0437. Based on Kline's (2015) guidelines of skewness  $< |3.00|$  and kurtosis

< |10.00|. The findings showed that skewness and kurtosis were centered within the suggested critical values, Such results implied that data were normally distributed, and that the multiple regression premise with regard to normality was properly met. Linearity assumption was also checked and p-normal graph showed a strong positive linear relationship. Data showed a closely clustered around the upward-sloping line, indicating a strong positive linear relationship between independent and dependent variables meaning that there was no clear departure from linearity (See Figure 2).



**Figure 2:** Test of Linearity using (p-normal graph)

**Source:** Data Analysis (2023)

Furthermore, multicollinearity was tested using Pearson's correlation coefficient. According to Hair *et al* (2021) the Pearson's between each pair of independent variables should not exceed 0.90. In this study, no high correlation among the independent variables was found because the highest coefficient was 0.49 which is below the threshold of 0.9 as shown in Table 6. Additionally, in order to be more precise about the issue of multicollinearity of the variables, the authors decided to examine the variables using VIF. The VIF was employed to examine the presence of multicollinearity whereby Hair *et al.*( 2021) suggested that the threshold for value for VIF should be less than 5. All VIF values in this study were well below the commonly used threshold of 5 as shown in Table 6 indicating that each predictor's variance was mostly independent of the other predictors evidencing the absence of severe multicollinearity cases.

**Table 7:** VIF analysis To Check Multicollinearity

Variable	Tolerance (1/VIF)	VIF
LCD	0.52	1.96
Bsize	0.58	1.73
BIN	0.64	1.56
DirRem	0.68	1.43

Source: Data Analysis (2023)

### 3.3.2 Testing for Homoscedasticity

According to Kline (2015), homoscedasticity is a multiple regression statistical test that assumes residuals are normally distributed and have uniform variance across all levels of predictors. If this assumption is violated, it might lead to significant non-normality, affect validity, or lead to greater measurement error (Keith, 2019). The authors used a scatter plot of standardized residuals against the predicted value to test for homoscedasticity. The result obtained in Figure 3 showed no serious heteroscedasticity issues. This is because only two points fall outside the threshold range of  $\pm 3$  (see Keith, 2019); thus, the assumption of homoscedasticity was archived.

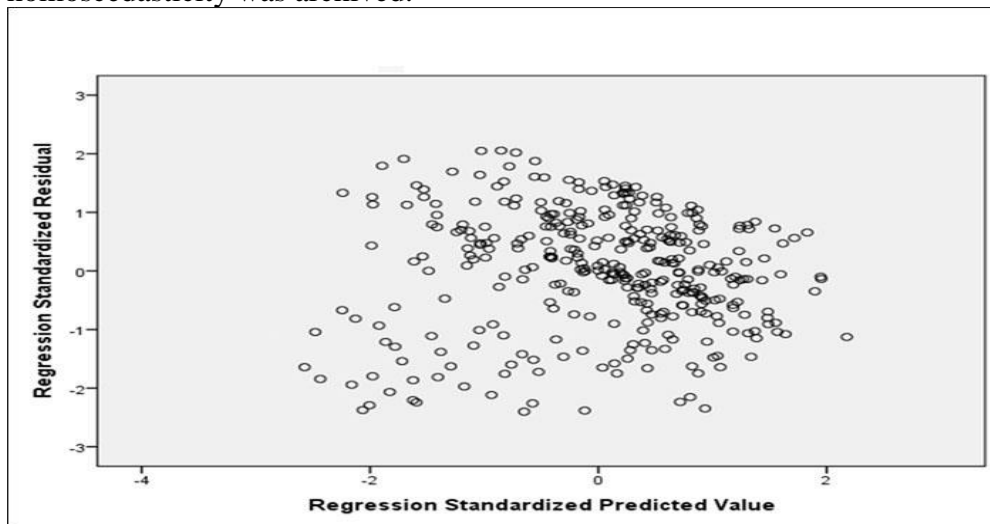


Figure 3: Results of Test for Homoscedasticity

Source: Data Analysis (2023)

### 3.4 Selecting Appropriate Model

The result indicated that p-value was 0.0265 for model 1 and 0.0325 for model 2, which is less than 0.05, as shown in Table 8. Then we reject the null hypothesis that random effects were preferred over fixed effects which was preferred (See Table 8).

**Table 8:** Hausman Test

	Model 1	Model 2
Chi <sup>2</sup>	10	11.34
Prob> Chi <sup>2</sup>	0.0265	0.0325

Note: \* $p < 0.1$ , \*\* $p < 0.05$  \*\*\* $p < 0.01$  (indicating significance)

Source: Data analysis (2023)

### 3.5 Multiple Regression Analysis Results and Discussion

Multiple regression analysis was used to examine the relationship between board characteristics and LCD for Tanzanian listed companies. Table 10 shows the model's regression parameters. Hypothesis one ( $H_1$ ) predicts a positive relationship between board size and LCD in Tanzania. The coefficient on BSize presented in Table 10 was positive and statistically significant i.e.  $\beta = 0.01005$  (t-statistic = 2.03879,  $p < 0.01$ ). As predicted, and by using agency theory postulation, these findings suggest that the board size in Tanzania support the higher level of corporate disclosure. These findings were in line with the findings of (Albassam *et al.*, 2018; Masum & Khan, 2019 and Samaha *et al.*, 2015). Also, the findings contradicted the results of different scholars who showed that board size was negatively related to LCD (Khlifet *et al.*, 2017; Ntim & Ahmed, 2019; Ullah *et al.*, 2018). These findings may be explained by the notion that firms with a big board size may experience higher pressure for transparency and accountability (Samaha *et al.*, 2015). These findings also proved the argument of the agency theory which claims a positive relationship between board size and the level of corporate disclosure.

Secondly, the study hypothesized that board independence relates positively to LCD. As predicted, the coefficient on BIN presented in Table 10 bears a positive sign. The coefficient on BIN is  $\beta = 0.30189$  (t-statistics = 0.03930,  $p < 0.01$ ). The positive relationship between BIN and the LCD provides empirical support for  $H_2$ . These findings are in line with the findings of Albassam *et al.*, (2018); Deb & Dube, 2017; Gaur *et al.* (2015) and Ntim *et al.* (2017) who suggested that corporations with high BIN make high disclosure. Also, the findings contradicted the results of different scholars who asserted that BIN is negatively related to LCD (Khlifet *et al.*, 2017 and Yasser *et al.*, 2020). This contradiction is caused by variation in Corporate environments across industries, regions, and time periods. Moreover, differences in the economic, regulatory, and cultural contexts between these studies and that of the author influence the relationship between board independence and corporate disclosure level. These findings support the argument of the agency theory that postulates that board independence is positively related to LCD.

Thirdly, the study hypothesized that director remuneration relates positively to LCD. As shown in Table 10, the coefficient  $\beta = 0.01200$  (t-statistic = 3.02936,  $p < 0.01$ ) was positive and statistically significant. The positive relationship between DirRem and the LCD provides empirical support for H<sub>3</sub>, the positive relationship between DirRem and LCD was in line with the evidence of previous authors (Alnabsha *et al.*, 2018; Masum & Khan, 2019; Sarhan & Ntim, 2019) and is contrary to studies of Alyousef & Alsugher (2021); Khlif *et al.* (2017). Hence this study contributed to the agency theory which argues that there was a positive relationship between directors' remuneration and LCD.

The following is the resulted model after the analysis:

$$LCD_{it} = 0.88 + 0.01 * (BSize)_{it} + 0.30 * (BIN)_{it} + 0.01 * (DirRem)_{it} + \epsilon_{it}$$

The equation suggests how changes in the independent variables influence the value of "LCD." The estimated value of "LCD" when all the independent variables (BSize, BIN and DirRem) are zero is 0.88. Furthermore, the results showed that for a one-unit increase in "BSize," the predicted value of "LCD" increases by 1 per cent units, assuming all other variables remain constant. Additionally, the findings showed that a one-unit increase in "BIN" corresponds to a predicted increase of 30 per cent units in "LCD," while keeping other variables constant. Regarding DirRem, findings indicated that an increase of one unit in "DirRem" is associated with an increase of 1 per cent units in the predicted value of "LCD," assuming other variables were held constant. R<sup>2</sup> showed the proportion of change in LCD due to variation in independent variables of the study. The value of R<sup>2</sup> is (78%) which designates that 78 per cent variation in LCD was explained by BSize, BIN and DirRem and remaining 22 per cent was explained by other factors other than the ones analyzed. F-Statistic showed the overall significance of the variables and fitness of the model. The p-value of the test is (0.0000) which means that the model was overall fit.



**Table 9:** Multiple Regression Results

Variable	Model 1 Pooled OLS		Model 2 Fixed Effects		Model 3 GMM	
	Coefficients	T-value	Coefficients	T-value	Coefficients	T-value
<b>Board Characteristics</b>						
Bsize	0.01005***	4.242	0.01651***	2.63426	0.0125***	4.1201
BIN	0.30189***	3.024	0.20234	5.23142	0.3123***	3.1334
DirRem	0.01200***	2.000	0.01045	2.1256	0.0169***	2.2167
Obs	105		105		105	
Year Dummy	Yes		Yes		Yes	
Industrial Dummy	Yes		Yes		Yes	
Firm fixed effects	No		Yes			
Constant	0.879***	5.091	0.899***	5.076	0.816***	0.112
F-Value	32.43***	0.000	16.58*	0.000	24.65***	0.000
Ch <sup>2</sup>	23.37		23.00		24.89	
R <sup>2</sup>	0.778		0.781		0.789	
Adj.R <sup>2</sup>	0.777		0.779		0.781	

Note: \* $p < 0.1$ , \*\* $p < 0.05$  \*\*\* $p < 0.01$  (indicating significance)

Source: Data Analysis (2023)

### 3.6 Robustness Analysis and Endogeneity Test

According to Roberts & Whited (2013) the most remarkable pitfalls encountering empirical studies in corporate finance are driven by endogeneity. The ambiguous findings in a prior study on the relationship between ownership structure and corporate disclosure are a consequence of the endogeneity issue. Hence, for robust analysis and comparison with GMM estimates presented in the following subsection, it reported the findings from pooled OLS and FE models in Table 10. Model 1 reports pooled OLS findings. The adjusted coefficient of determination (adjusted  $R^2$ ) showed that the explanatory variables explained almost 77% of the variation in the dependent variable “LCD.” Moving to the P-value, our model revealed congruous findings. The overall P-value of F test was statistically significant (32.43,  $P < .01$ ). Therefore, one could draw an indisputable conclusion that the empirical model fitted the data better than the intercept-only model. The OLS results also indicated that there was a statistically significant impact of board characteristics dimensions (BSize, BIN and DirRem) on LCD.

Moving to Model 2, the FE results revealed that the statistical significance of the estimated coefficient of (BSize), (BIN) and (DirRem) disappeared when one take into account the unobserved firm FE. Hence, this denoted that the findings yielded from pooled OLS estimator were likely to be affected by omitted firm-level attributes. In this context, the results, therefore, were

consistent with a number of prior researchers (Abang' & Wang'ombe, 2020; Alquatermeen *et al.*, 2020). Although the results mentioned above were in alignment with a stream of previous studies, the findings were expected to be sorely distorted by other sources of endogeneity, which had not been taken into account by OLS/FE models such as; simultaneity and dynamic endogeneity. Hence, the two-steps system GMM approach developed by Arellano and Bond (1991) and Blundell and Bond (1998), for dealing with the endogeneity problem was employed, which allowed us to control for the different sources of endogeneity (Wintokiet *al.*, 2012). After running GMM, the results revealed that the effects of all variables remained unchanged. More interestingly, the findings in all models were similar to somewhat.

#### **4.0 Conclusion**

The results suggested that the board characteristics were significant in explaining the level of corporate disclosure in annual reports. First, the results showed that the disclosure level varied substantially among the Tanzanian listed firms, and the disclosure level was moderate because it was above average. The study concluded that board size, board independence and director remuneration were positively related to the overall disclosure level. The positive relationship between board size and corporate disclosure suggested that as the number of directors on a company's board increases, the level of corporate disclosure also increases. This implied that larger boards might be associated with more transparent and informative disclosure practices. Moreover, independent directors were less likely to have conflicts of interest and may be more inclined to prioritize transparency and disclosure for the benefit of shareholders and stakeholders. Again, this is a correlation, and further research would be needed to establish causation. Moreover, the positive relationship between director remuneration and corporate disclosure suggested that companies that pay their directors more tend to disclose more information. One possible explanation for this relationship is that companies paying higher director remuneration may be more sophisticated or larger firms that naturally have more extensive disclosure practices. However, additional research is needed to explore the underlying reasons for this relationship. These findings provided valuable insights into the factors that may influence corporate disclosure practices in the Tanzanian context.

#### **5.0 Implication of the Findings**

Listed companies should consider carefully structuring their boards to include a balanced mix of executive and independent directors. Independent directors should be actively engaged in decision-making and provide oversight to ensure corporate disclosure practices are robust and transparent.

Listed companies should review and assess their director compensation structures to ensure they are competitive, transparent, and aligned with the company's long-term strategy. Disclosure of director compensation should be clear and detailed in annual reports and proxy statements, including the rationale behind compensation decisions. Regulators and policymakers should consider implementing or strengthening regulations related to corporate governance and disclosure practices. Listed companies should ensure compliance with all relevant regulations and disclosure requirements.

## **6.0 Recommendations**

Based on the positive relationships between board size, board independence, and director remuneration with the LCD in listed companies it is that listed companies are encouraged to appoint a higher proportion of independent directors to their boards. Independent directors can provide impartial oversight and are more likely to prioritize transparency and disclosure. It's essential for companies to establish clear criteria for board independence and regularly evaluate the independence of their directors. Secondly optimization of board size: While a larger board size is correlated with higher corporate disclosure, it's important for companies to strike a balance. They should aim for a board size that is appropriate for their specific needs and industry. Thirdly, companies should adopt transparent and fair director remuneration practices. This includes disclosing the structure of director compensation, including salaries, bonuses, stock options, and other benefits. Policymakers and regulators should consider implementing or strengthening regulations related to board composition, independence, and disclosure practices. Clear guidelines and reporting requirements can encourage companies to adopt better governance practices. Companies should conduct benchmarking exercises to compare their disclosure practices with industry

The study had a number of limitations. First, the LCD data were collected from annual reports only, and other sources like companies' websites and press releases were not taken into account. This represents an opportunity for future studies. Secondly, this study covered only listed companies at DSE in Tanzania. Other non-listed companies were not accounted for in the sample. Moreover, the study covered companies listed in Tanzania only. Future studies can examine the same variables in other countries.

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