CORPORATE GOVERNANCE MECHANISM AND ACCOUNTING CONSERVATION OF LISTED MANUFACTURING COMPANIES IN NIGERIA

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Abstract:

This study assessed the relationship between Corporate Governance Mechanism (CGM) and Accounting conservation of selected listed companies in Nigeria. The study adopted an expo-facto research design. The population of the study was 57 companies listed on the Nigeria Exchange group. The sample was determined using Taro Yamane formula which gave a sample size of 25 companies. The study covered the period 2007 to 2021 financial year. The study used secondary data. The data were analyzed using descriptive statistics and linear regression analysis. The result of the analysis shows that the effect of Board Size on the accounting conservatism of listed manufacturing firms in Nigeria is statistically significant. Board independence has a significant influence on the accounting conservatism of listed manufacturing firms in Nigeria. It was recommended that companies should avoid small board sizes and target maintaining the optimal number of members on their boards consistent with governance codes of practice. Evidence from

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this study shows that large board size has significant positive trade-off on accounting quality and conservatism.

1. Introduction

The upsurge of accounting scandals which resulted in the sudden collapse of high-profile companies such as Enron and WorldCom in the United States of America, HIH, One-Tel and Harris Scarfe in Australia and some companies in Nigeria like AIB Plc and AP Oil have led regulators, investors, academics and the general public to focus on improving corporate governance and accounting quality. Anecdotal evidence suggests that weak corporate governance and earnings manipulation were the main drivers of these collapses. For example, to a large extent Enron's Collapse was caused by the audit committee's lack of independence, which resulted from poor governance, and the corporate Governance report stated that a common attribute of recent Australian failed companies is that all had poor corporate governance (Agus, Kiswanto & Indra, 2020).

Likewise, the collapse of Enron, World Com, Tyco International was caused by poor corporate governance. The concept of conservatism in accounting practices has remained a predominant characteristic of the accounting field for several centuries. Conservative accounting has been practiced by firms for centuries and it is an important attribute of earnings. It has also been used to measure earnings quality by prior studies. Initially, conservative accounting was generally viewed as an accounting bias that resulted in low book values (Hawley, Kamath & Williams, 2021).

Despite the significance of conservatism as a governance tool employed by directors, most studies on corporate governance mechanisms in Nigeria are sparse and fragmented. More so, deploying conservatism might be influenced by the corporate governance structures of adopting companies (Adindu, Ekung & Ukpong, 2022). Exploring the linkages between corporate governance (CG) and conservatism opens up companies to not just the impact of conservatism on earnings, but the impact of CG on conservatism. Conservatism is an accounting principle that tends to generate profit and asset values. Conservatism slows revenue recognition and accelerates cost recognition which arises from the application of the principle of conservatism. Conservatism critics argue that this principle causes the financial statements to be biased so it cannot be used as a tool to evaluate corporate risk (Hansen, Hong, & Park, 2018).

Particularly, corporate governance comprises all the provisions and mechanisms that guarantee that the assets of the firm are managed proficiently and in the interest of the providers of finance (Uford, 2017), moderating the unsuitable usurpation of resources by managers or any other party to the firm. The acceleration in the recognition of bad

news provides the board of directors with early cautioning signals to investigate the origin of such news (Ahmed, Alabdullah, Thottoli, & Maryanti, 2020). A corporate governance structure combines controls, policies and guidelines that drive the organization toward its objectives while also satisfying stakeholders' needs (Uford & Duh, 2021). A corporate governance structure is often a combination of various mechanisms.

However, it has been argued that prudence and conservatism are not desirable qualities of reported information and are considered to be inadequate ways of dealing with uncertainty, due to the consistent undervaluation of net assets. It was asserted that accounting conservatism biases financial statement numbers and results in inefficient decision-making (Jun, Pinghsun, & Yan, 2020).

Thus, empirical evidence has shown a direct association between corporate governance mechanisms and the implementation of conservative accounting policies. In spite of the importance of these two issues and their significant advantages as well as robust international literature, there is a paucity of literature in, Nigeria (Shiiyanbola, Folajimi, & Rafiu, 2019). Looking at the studies, time lag, and different proxy selected as well as techniques for data analyses. This study filled the gap in academic research by ascertaining Corporate Governance mechanism and Accounting conservation of listed manufacturing companies in Nigeria.

Hence, the main objective of this study is to assess the relationship between Corporate Governance mechanism (CGM) and Accounting conservation of selected listed companies in Nigeria. The following hypotheses were thus formulated:

Ho₁: Board size has no significant effect on accounting conservatism of listed manufacturing firms in Nigeria.

Ho₂: Board independence has no significant effect on accounting conservatism of listed manufacturing firms in Nigeria.

2. Literature Review

2.1 Conservatism

Conservatism is interpreted as representing the accountants' tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses (Basu,1997). This interpretation reflects the asymmetrical verification requirements for gains vs. losses and also describes conservatism from the point of gains and losses. While the definition provided by Givoly & Hayn (2000) defined accounting conservatism as a selection criterion between accounting principles that leads to the minimization of cumulative reported earnings and net assets by lower revenue recognition and lower asset valuation. Conservatism is the differential verifiability required for the recognition of profits versus losses (Watts, 2021). Therefore, conservatism is having higher verification requirements for losses than gains (Basu, 1997). This interpretation, however, does not make a clear distinction between conservatism associated with the recognition of anticipated losses but not gains and conservatism associated with the asymmetric

timely recognition of actual losses and gains (ex-post sense). Accounting conservatism could also be defined as the selection of conservative accounting methods (Givoly & Hayn, 2000).

Traditionally accounting conservatism is defined as "*anticipate no profit, but anticipate all losses*". However, accounting conservatism in this extreme form has been traded in for a less severe form. Nowadays, accounting conservatism is viewed as an asymmetry in the level of verification needed to recognize gains and assets on the one hand and losses and liabilities on the other. To recognize gains or assets a higher level of verification is required relative to the recognition of expenses or liabilities (Watts, 2021).

2.2 Corporate Governance

Cohen, Krishnamoorthy, & Wright (1998) define corporate governance as the process by which organizations are directed, controlled and held to account. This implies that corporate governance encompasses the authority, accountability, stewardship, leadership, direction and control exercised in the process of managing organizations. Since this definition recognizes the need for checks and balances in the process of managing organizations, it can be considered to be more comprehensive (Gregory, 2000).

The known Organization for Economic Corporation and Development (OECD) (1999) also defined corporate governance as "*a system on the basis of which companies are directed and managed*" as cited in (Ukpong, 2012).

In another perspective, Almashhadani & Almashhadani (2022) contend that there exists a narrow approach to corporate governance, which views the subject as the mechanism through which shareholders are assured that managers will act in their interest. Almashhadani & Almashhadani (2022, p.41) define corporate governance as "*being concerned with holding the balance between economic and social goals and between individuals and communal goals. The corporate governance framework is there to encourage efficient use of resources and equally to report accountability for the stewardship of those resources*" the aim is to align as near as possible the interest of individual, corporation and society.

2.3 Corporate Governance Mechanism

Corporate governance mechanism of each country is shaped by its political, economic and social history and also by its legal framework. Despite the differences in shareholder philosophies across countries, good governance mechanisms need to be encouraged among all corporate and non-corporate entities (Hillman & Dalziel, 2003; Inseng & Uford, 2019). Some of the mechanisms are examined below.

2.4 Board Independence

In corporate governance, independence is important in a number of contexts. It is vital that external auditors are independent of their clients, that internal auditors are independent of the colleagues they are auditing, and that non-executive directors have a degree of independence from their executive colleagues on a board. But what do we mean

by 'independence' as a concept? Independence is a quality that can be possessed by individuals and is an essential component of professionalism and professional behaviour. It refers to the avoidance of being unduly influenced by a vested interest and to being free from any constraints that would prevent a correct course of action from being taken. It is an ability to 'stand apart' from inappropriate influences and to be free of managerial capture, to be able to make the correct and uncontaminated decision on a given issue.

If, for example, an auditor is a longstanding friend of a client, the auditor may not be sufficiently independent of the client. Given that it is an auditor's job to act on behalf of shareholders and not the client, the friendship with the client may compromise the auditor's ability to effectively represent the interests of the shareholders. The auditor may not be as thorough as he ought to be, or he may be influenced to give the benefit of the doubt to the client when he should not be doing so.

The same could apply to non-executive directors (NEDs). In some countries, NEDs are referred to as independent directors to emphasise this very point. NEDs are appointed by shareholders in order to represent their interests on company boards. The primary fiduciary duty that NEDs owe is, therefore, to the company's shareholders. This means that they mustn't allow themselves to be captured or unduly influenced by the vested interests of other members of the company such as executive directors, trade unions, or middle management.

Berghe and Baelden (2005) examined the issue of independence as an important factor in ensuring board effectiveness through the monitoring and strategic roles of the directors. The ultimate factor for the board's independence is by acquiring enough numbers of independent directors on board. They stated that the director's ability, willingness and board environment might lead to the independent attitude of each director. Kakabadse, Yang and Sanders (2010) narrated that the effectiveness of non-executive directors in China is determined by their formal independence, information accessibility, incentives provided and competency. However, they found out that the non-executive director system in China was weak because there was too much intervention of controlling shareholders and there was a lack of understanding of the functions of non-executive directors. Johari, Saleh, Jaffar and Hassan (2008) indicated that the minimum composition of the independent director by the Malaysia Code of Corporate Governance is still not adequate enough to monitor the management. They concluded that the composition of the independent directors on the board was not associated with earning management. They found out that most of the firms in Malaysia have 1/3 or 33% of the independent directors on the board, but it did not have any effect on the earning management. Besides, Wooi and Ming (2009) indicated that independent directors have failed in their internal monitoring role in Malaysian Government Linked Companies (GLCs).

2.5 Board Size

The earliest literature on board size is by Lipton and Lorch (1992) and Jensen (1993). Jensen (1993) argued that the preference for smaller board size stems from technological

and organizational change which ultimately leads to cost-cutting and downsizing. Hermalin and Weisbach (2003) argued the possibility that larger boards can be less effective than small boards. When boards consist of too many members agency problems may increase, as some directors may tag along as free-riders. Lipton and Lorch (1992) recommended limiting the number of directors on a board to seven or eight, as numbers beyond that it would be difficult for the CEO to control. A large board could also result in less meaningful discussion, since expressing opinions within a large group is generally time-consuming and difficult and frequently results in a lack of cohesiveness on the board (Lipton and Lorch, 1992).

In addition, the problem of coordination outweighs the advantages of having more directors (Jensen, 1993) and when a board becomes too big, it often moves into a more symbolic role, rather than fulfilling its intended function as part of the management (Hermalin and Weisback, 2003). On the other hand, very small boards lack the advantage of having the spread of expert advice and opinion around the table that is found in larger boards. Furthermore, larger boards are more likely to be associated with an increase in board diversity in terms of experience, skills, gender and nationality (Dalton and Dalton, 2005). Expropriation of wealth by the CEO or inside directors is relatively easier with smaller boards since small boards are also associated with a smaller number of outside directors. The few directors on a small board are preoccupied with the decision-making process, leaving less time for monitoring activities (Ukpong and Ukpe, 2023).

3. The Link between Corporate Governance Conservatism and Accounting Conservatism

A firm is a nexus of contracts and hence the link between corporate governance and conservative accounting stems from the important role of each in facilitating efficient contracting. These contracts exist to mitigate agency problems associated with the separation of ownership and control within the firm. One of the most important contracts is the contract between shareholders and managers of the firm. Since managers may act on maximizing their own wealth rather than shareholders' wealth, accounting conservatism mechanisms are put in place to mitigate these problems (Dwevedi and Jain, 2005).

The board of directors plays a central role in corporate governance, an effective board is likely to demand that managers adopt conservative accounting practices to prevent overcompensation and to reduce the probability and magnitude of corporate collapses; since managers tend to be optimistic. Therefore, board independence is an important element of board effectiveness. Since boards need to be independent of the managers in order to monitor them effectively, hence, boards will be motivated to demand a conservative accounting to reduce litigation risks.

4. Empirical Reviews

Chiedu, Emeka-Nwokeji and Owa, (2022) examined the nexus between ownership structure and accounting conservatism using non-financial listed firms in Nigeria. They adopted ex-post facto research design was then adopted and the study covered the period from 2010-2019. The sample consists of 75 non-financial companies quoted on the Nigerian Stock Exchange (NSE) as of December 31, 2020. In their study, secondary data, by way of annual reports and accounts of the sampled companies in Nigeria and some relevant Nigerian Exchange Group fact books were used to collect data. The effect of ownership structure on accounting conservatism was analyzed using panel regression. The findings of the study reveal that ownership structure has a significant impact on accounting conservatism. Particularly, the effect of managerial ownership is persistent particularly for MTB and income statement indicators while the significant effect of foreign ownership holds for MTB measure of accounting conservatism.

Ogiriki and Suwari (2022) assessed the relationship between accounting conservatism and firm structure in Nigeria. Ex post facto research design was adopted for studying existing events, and a sample of thirty-eight (38) publicly listed manufacturing firms were employed. Data of accounting conservatism (earnings accrual) and firm structure (equity-to-asset and asset tangibility ratios) was obtained from 2012-2020. The Fixed (FE) and Random effects (RE) regression statistical technique was used. They found evidence that a firm with more conservative financial disclosure of its earnings accrual adjusts its asset structure towards the company's target more rapidly; this in particular is common for publicly listed manufacturing firms that rely on external financing for adjustment. Moreover, they found that the level of accounting conservatism positively and significantly affects the firm structure and this effect arises due to debt issuance.

Saeed (2020) investigated the relationship between corporate governance and accounting conservatism. The researcher employed panel data of three hundred firms from Bangladesh, India and Pakistan for the period 2009 to 2015. Corporate governance was examined on two levels. First, corporate governance mechanisms were examined. Afterwards, a composite score of firm governances was developed by employing principal component analysis and its impact was evaluated. The dependent variable was accounting conservatism and the independent variable of corporate governance mechanisms was proxied by audit committee independence, board activity, board independence, board size, CEO duality, CEO turnover, gender diversity on board, institutional shareholding, managerial shareholding and type of the auditor. The control variable included Firm Size, Leverage, Profitability, and growth in Sales. The empirical results showed that among the considered governance measures, only institutional shareholding and CEO duality had an impact on accounting conservatism in the case of Bangladesh. The researcher concluded that corporate governance had an influence on accounting conservatism.

Phapho, Pichetkun and Ngudgratoke, (2020) studied the effects of the characteristics of the board on accounting conservatism in Malaysia and Singapore. The population of the study was registered firms that operated and submitted their annual reports in 2018, including 789 firms from Bursa Malaysia and 488 firms from the Singapore Exchange. The study used multiple regression to test the hypotheses. The dependent variable accounting conservatism is measured using Ball and Shivakumar model. The independent variable of the study was board size, independence of the board and audit committee. The multiple regression results indicated positive significant effects of both board size (+0.058) and independence board (+0.571) on accounting conservatism. The result of the study further explained that the expertise and experience of the audit committee were sufficient for their effectiveness. There was the possibility that more audit committee sizes could lead to problems of communication and coordination and decrease the ability to control management.

Suleiman, Jamilu, and Jamilu, (2020) investigated the effect of board attributes on the financial reporting quality of the twenty (20) listed consumer goods firms on the Nigerian Stock Exchange for the period 2013 to 2018 viz-a-viz conservatism. Samples of thirteen (13) companies were selected using census techniques after applying two filters. The study uses Ex-post facto research design, panel data were collected from the annual reports and accounts of the population studied. The Ordinary Least Square (OLS) Model Regression was used in testing the hypotheses stated. Findings showed that board expertise was statistically significant and positively related to financial reporting quality at a 5% level of significance, thus, it implies any increase in the number of expertise on the board will lead to an increase in the financial reporting quality of consumer goods companies, while board independence and board diversity were found to be insignificantly related to financial reporting quality at 5% level of significance. Therefore, the study concluded that board attributes especially board expertise affect financial reporting quality and by extension influence conservatism (Thomas, Ukpong & Usoro, 2022).

Jaimuk, Nilapornkul and Ngudgratoke, (2020) examined the impact of board director characteristics, ownership structure and information communication technology on accounting conservatism (Con-ACC). The dependent variable was firms' accounting conservatism measured using the market-to-book ratio approach. In the study, the explanatory variables included two major groups: corporate governance (CG), in terms of characteristics of board directors and ownership structure; and information communication technology (ICT). CG consisted of board size, board independence, board meeting and duality directors; while ownership structure included the highest percentage of shares held. For ICT variables, the study employed the percentage of internet use by business sectors. Furthermore, the researchers employed firm size and firm leverage as control variables. Statistical tools for analysis were Pearson correlation and multiple regression models. The result revealed that CG and ICT significantly influenced Con- ACC only in two industries: Industry Group and Property & Construction Group. For the industry sector, CG including board leadership and board

meeting provided a statistically significant positive relation to CON-ACC at 1% significance level.

Chukwuani and Ugwoke, (2019) researched on the adequacy of the financial reporting quality of Nigerian quoted firms under IFRS adoption. Their study examined the adequacy of financial reports with the objective of determining if significant differences in four proxies of financial reporting quality existed: earnings, conservatism; accruals and average financial reporting quality before and after the adoption of IFRS in Nigeria. Data were sourced from the published audited financial statements and accounts of firms quoted on the Nigeria Stock Exchange (NSE). Although there exist twelve (12) industrial classifications on the NSE only ten (10) sectors were purposively sampled for twelve (12) years (2006 – 2017). Due to the choice of variables adapted, the financial services industry was not withdrawn. Again, there are no firms recorded under the Utility sector. The study employed the parametric statistical pooled variance/ paired sample t-test model structured in a way to enhance a significant test between the pre-and post-IFRS periods. The study reveals that there are significant differences in the degree of accounting conservatism of quoted Nigerian firms after the adoption of IFRS in 2012. Further findings reveal that there are no significant differences in the degrees of earnings quality, accrual quality and the aggregate financial reporting quality of quoted Nigerian firms after the adoption of IFRS in 2012. Based on the findings from the study, recommendations include that firms should eliminate the incentives to carry out unethical practices which can only occur in the short term since in the long term the market penalizes those manipulative companies. Firms in Nigeria are enjoined to adopt complete accounting conservatism as this approach tends to reduce risks such as litigations.

Mohammed, Ismail and Amran, (2019) did a study on Corporate Governance and Accounting Conservatism. The objective of the study was to investigate the influence of board characteristics and audit committee characteristics on accounting conservatism with respect to the influence of family ownership in Turkey. Multivariate analysis regression was used to determine corporate and accounting conservation as the moderating role of family ownership. The findings explained that clients' demand for accounting conservatism improved because of board characteristics such as board size, independence and women on board and committee characteristics such as audit committee independence and audit committee expertise. The study concluded that family ownership undermined the impact of board characteristics and the audit committee characteristics to demand accounting conservatism which would be an unfavorable outcome for the minority shareholders.

5. Methodology

The study adopted an expo-facto research design as suggested by (Uford, Charles & Ekong, 2022) for studying past events. The population of this study is made up of all manufacturing companies belonging to; the healthcare, consumer and industrial goods

sub-sectors and are listed on the floor of the Nigerian Exchange Group (NXG) for the period of 15 years from 2007 to 2021. As of 31st December 2021, the total number of listed manufacturing companies that were included in these subsectors of interest is fifty-nine (59). (Nigerian Exchange Group Factbook, 2021). Accordingly, the formula developed by Yamane (1967) was used in determining the sample size (n) for the number of firms to be investigated in this study as stated below:

$$n = \frac{N}{1 + N(e^2)}$$

Where;
N = population size (and in this case the accessible/target population of 28 listed manufacturing firms with complete published data on the study variables for the period of the study.
e = error level (5%)

Thus, given a target population of 27, the sample for the study will be:

$$n = \frac{27}{1 + 27(0.05^2)} = 25 \text{ firms}$$

There are basically two sources of data for research or this nature - primary and secondary sources.

5.1 Description and Measurement of Study Variables
Table 1 presents the operational measurement of each of the variables used for the study.

Table 1: Operationalization of Study Variables

S/N	Variables	Definition	Type	Measurement	Apriori Expectation
1	ACONV	Accounting Conservatism	Dependent	Basu 1997 Model	Neutral
2	BSIZE	Board Size	Independent	Computed as the total number of directors seated on the board	+
3	BIND	Board Independence	"	Computed as the % of non-executive directors to the total board size.	+

Source: Author's compilation (2023).

5.2 Model Specification
The model specification used in the study followed the typical panel multiple regression format functionally specified as follows:

$$Y_{it} = \int(X_{1it}, X_{2it}, X_{3it}, \ldots, X_{nit}) \tag{1}$$

Where,

Y_{it} = the dependent variable of company i in time t.

X_{it} = the series of independent variables of company i in time t.

Based on the nature of the hypotheses formulated and the outcome of various data screening/pre-estimation tests conducted, two models were considered to be appropriate for estimating the study parameters viz - Panel Generalized Method of Moments (GMM) Regression and the Moderated Multiple Regression models based on the following functional specification of the study variables:

$$ACCONV = \int(BSIZE, BIND \; FSIZE, LEV) \tag{2}$$

The panel GMM model with instrumental variables and transformation at both First Differences and Orthogonal Deviation are specified as follows:

$$LnACONV_{it} = B_1 LnACONV \, (-1)_{it} + B_2 LnBSIZE_{it} + B_3 LnBIND_{it} \; \mu_t \tag{3}$$

The researchers made use of descriptive and inferential (correlation, panel data Generalized Method of Moments and Moderated Multiple Regression) techniques to analyse the data collected.

6. Data Presentation, Analysis and Discussion

6.1 Descriptive Analysis

Table 2 shows the descriptive statistics of the transformed series used for the study.

Table 2: Descriptive Statistics of Study Variables

	LnACONV	LnBDILIG	LnBGD
Mean	-2.338966	1.453514	-1.195444
Median	-2.216407	1.386294	-1.203973
Maximum	2.442173	1.791759	-0.510826
Minimum	-6.907755	1.098612	-2.079442
Std. Dev.	1.582850	0.222951	0.335876
Skewness	-0.198057	0.193674	-0.560594
Kurtosis	3.472824	2.213420	3.188910
Jarque-Bera	3.281545	12.01165	20.19921
Probability	0.193830	0.002464	0.000041
Sum	-484.1659	545.0676	-448.2916
Sum Sq. Dev.	516.1152	18.59050	42.19197
Observations	375	375	375

Source: Computed with data in Appendix 2(a).

Table 2 shows that the natural logarithms of accounting conservatism (LNACONV) have a mean value of -2.338966, while the components of corporate governance mechanism (LNBDILIG, LNBGD) have mean values of 1.453514 and -1.195444 respectively. The dispersions or spread in the series are shown in the values of the standard deviation (Std. Dev). The table provides results for assessing the normality of the series using Skewness, Kurtosis and Jarque-Bera statistics. The asymmetry of the distribution of LNBDILIG, LNBSIVE and FSIZE are positively skewed (hence the distributions have long right tails), while those of LNACONV and LNBGD have negative skewness with a long-left tail distribution. The Jarque-Bera (JB) statistics provide a formal test for the normal distribution of the series.

6.2 Correlation Analysis
The correlation analysis results of the series used for the study are shown in Table 3.

Table 3: Correlation Results of the Study Variables

Correlated Variables	Coefficient	Probability	Strength of Association	Remarks
LnACONV ↔ LnBSIZE	-.001	.981	Very Weak	Negative and insignificant
LnACONV ↔ LnBIND	.004	.944	Very Weak	Positive and insignificant
LnACONV ↔ LnBGD	.000	.998	Very Weak	Positive and insignificant

Source: Extracted from Appendix 2(b).

Results in Table 3 indicate the strength and direction of the association between pairs of the variables studied in this work as indicated under the remarks column of the table.

6.3 Validity and Diagnostic Tests
A number of pre-estimation/data-screening tests were conducted using Cross-section Dependence Test, Unit Root Test and Co-integration Test for all the series used in the study.

6.4 Cross-Section Dependence Test
The choice of a method for carrying out Panel Unit Root test depends on the outcome of cross-section dependence test. This is because the CD test helps in determining the appropriate generation of unit root test to be conducted based on the significance of the cross-section dependence test (Yameogo & Dauda, 2020). The cross-section dependence test for each variable was conducted and the results are shown in Table 4.

Table 4: Cross-Section Dependence Test Results of Variables

Variables	Statistic	Prob.	Generation of Unit Root	Appropriate Method of Unit Root
LnACONV	0.100566	0.9199	1st Generation	LLC
LnBSIZE	9.950543	0.0000	2nd Generation	Im, Pesaran
LnBIND	13.72687	0.0000	2nd Generation	Im, Pesaran
LnBGD	31.92495	0.0000	2nd Generation	Im, Pesaran
LnBDILIG	-0.029887	0.9762	1st Generation	LLC
LnMOWN	10.77553	0.0000	2nd Generation	Im, Pesaran
LnLEV	0.877327	0.3803	1st Generation	LLC
FSIZE	23.67832	0.0000	2nd Generation	Im, Pesaran

Source: Extracted from Cross-section Dependence Test Outputs in Appendices 3(a)-(h)

Table 4 indicates that three variables (LnACONV, LnBDILIG and LnLEV) have probability values for the Pesaran cross-section dependence statistic that are greater than 0.05. This means that the series are not cross-section dependent and suggests that the first-generation unit root test is appropriate for testing the stationarity of the series. Accordingly, the Null Hypothesis of no cross-section dependence is not rejected, hence no heterogeneity issues exist. Therefore, the method of unit root test used for the series is the Levin, Lin & Chut.

However, the Pesaran criterion indicates that the CD statistic for the remaining series (LnBSIZE, LnBIND, LnBGD, LnMOWN and FSIZE) have probabilities that are less than 0.05, indicating that the series are cross-section dependent. The appropriate method to apply in testing for the stationarity of the series is the second-generation unit root test. Accordingly, the Null Hypothesis is rejected and Im, Pesaran and Shin W-stat method of Unit Root test is applied in testing the five series as it has the capacity to efficiently deal with heterogeneity and CD issues in panel data.

6.5 Panel Unit Root Test

The significance of performing unit root analyses for panel data is to understand the steadiness of the trending series (Shaw, Sorensen, 2019) using established criteria which in this case depends on the cross-section dependence results of each variable. The unit root analyses for LnACONV, LnBDILIG and LnLEV were conducted with Levin, Lin & Chu t method as a first-generation unit root, while the test for LnBSIZE, LnBIND, LnBGD, LnMOWN and FSIZE were performed with Im, Pesaran and Shin W method. The results obtained for each variable are shown in Appendices 4 to 11 and are summarised in Table 5.

Table 5: Panel Unit Root Test Results on Accounting Conservatism Model

Series	Unit Root Method	Order	Referred Appendix	t-statistic	P-value	Remarks on Order of Integration
LnACONV	Levin, Lin & Chu t	Level	4	-7.96031	0.0000	I(0)
LnBIND	Im, Pesaran and Shin W	Level	7(a)	2.09771	0.9820	I(1)
		First Differencing	7(b)	-7.35451	0.0000	
LnBSIZE	Im, Pesaran and Shin W	Level	8(a)	1.96965	0.9756	I(1)
		First Differencing	8(b)	-6.58520	0.0000	

Source: Extracted from author's computations in Appendices 4 to 11.

Table 5 provides evidence for testing the unit root null hypothesis that the series is not stationary. The result indicate that the null hypothesis of the unit root is rejected for LnACONV, LnBDILIG and LnLEV based on the Levin, Lin & Chu test statistics at level, I(0). However, LnBGD, LnBIND, LnBSIZE, LnMOWN and FSIZE are shown to be stationary based on Im, Pesaran and Shin W at 1st differencing, I(1). Since all the series are integrated either at level or first differencing, it is concluded that the series is stationary with mixed order of integration. Accordingly, Panel OLS is not an appropriate technique for estimating the model parameters as the technique is likely to yield spurious results when all the series are not stationary at level. The data collected is a short panel data with a larger number of cross-sections (25 listed manufacturing companies) and a smaller time period of 15 years (2007 – 2021) in the time series, the Panel Generalized Method of Moments (GMM) was considered to be very appropriate in estimating the parameters as earlier justified.

6.6 Generalized Method of Moments (GMM) Estimates of the Effect of Corporate Governance Mechanism on Accounting Conservatism

To select the most appropriate Panel Dynamic method of GMM between the First Differences and System Approach, three regressions were estimated – the Pooled OLS, the Fixed Effect OLS and the First Differences transformation. The choice is based on the comparative value of the coefficients of the lag of the dependent variable in the three estimates. The results obtained from the three regressions are shown in Table 6.

Table 6: Selection Criteria between First Differences and System Panel GMM Regression

Regression Approach	LnACONV(-1) Coefficient	Remarks	Decision
Pooled OLS	0.479712	Upper bound	1st Differences GMM is preferred since 0.319392 **is not lower than** 0.290906
Fixed Effect OLS	0.290906	Lower bound	
1st Differences GMM	0.319392	System GMM is preferred if LnACONVA(-1) Coefficient from 1st Diff. GMM < lower bound coefficient, otherwise 1st Differences GMM is used.	

Source: Extracted from author's computations in Appendices 12 to 14.

Since 0.319392 (1st Difference Coefficient of the lag of the Dependent Variable - LnACONV(-1)) is higher than 0.290906 (Fixed Effect Coefficient of the lag of the dependent variable), First Difference GMM is preferred as the result shows that this dynamic transformation of GMM is not downward bias. Accordingly, the results of the First Differences GMM are presented in Table 7 and are used as a basis for our discussion.

Table 7: GMM Test Results of the Effect of Corporate Governance Mechanism
on Accounting Conservatism based on 1st Differences Transformation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNACONV(-1)	0.319392	0.086972	1.372761	0.1729
LNBSIZE	0.056926	0.010977	2.018874	0.0450
LNBIND	0.184717	0.020551	4.122202	0.0001
LNBGD	0.113847	0.018958	3.865860	0.0051
LNBDILIG	0.090070	0.045584	2.508575	0.0137
LNMOWN	0.068058	0.569920	0.996734	0.3213
FSIZE	-0.047012	0.556611	-0.084461	0.9329
LNLEV	-0.040718	0.426129	-0.330223	0.7419
Effects specification				
Cross-section fixed (first differences)				
Mean dependent var	-0.097255	S.D. dependent var		1.071903
S.E. of regression	1.825894	Sum squared resid		336.7228
J-statistic	10.85379	Instrument rank		21
Prob(J-statistic)	0.623065			

Source: Extracted from GMM estimation output in Appendix 12.

Table 7 provides results to evaluate the validity of the entire model using the J-statistic of 10.85379. The probability of the J-statistic is reported as 0.623065, further indicating that the model is valid and can be relied upon in predicting the effect of corporate governance mechanisms on accounting conservatism. The results obtained also show that all the components of the corporate governance mechanism have a positive influence on accounting conservatism with four (LnBSIZE, LnBGD and LnBDILIG) being significant at 5% level. LnMOWN indicated no significant effect on the accounting conservatism of listed manufacturing companies in Nigeria.

The value of the beta coefficient for board size of 0.056926 implies that a unit increase in the number of board members will lead to about a 5.7% improvement in the level of accounting conservatism of the listed manufacturing firms in Nigeria. In the same vein, a unit increase in board independence, board gender diversity, board diligence and management ownership will respectively result in 18.5%, 11.4%, 9% and 6.8% increase in the level of accounting conservatism of the firms investigated.

7. Test of Hypotheses

This section presents the measurements of the relationships among the variables in the two hypotheses earlier formulated, using GMM test results as shown in table 7 above.

7.1 Testing for the Effect of Board Size on the Accounting Conservatism of Listed Manufacturing Firms in Nigeria

The null hypothesis is restated as follows:

H0₁: Board size has no significant effect on the accounting conservatism of listed manufacturing firms in Nigeria.

Results in Table 7 indicate that the t-statistic for Board Size of 2.018874 is significant at a 5% level (P = 0.0450< 0.05). Accordingly, the result supports the rejection of **H0₁**, with the conclusion that the effect of Board Size on the accounting conservatism of listed manufacturing firms in Nigeria is statistically significant.

7.2 Testing for the Effect of Board Independence on the Accounting Conservatism of Listed Manufacturing Firms in Nigeria

Again, the null hypothesis is restated as follows:

H0₂: Board independence has no significant effect on the accounting conservatism of listed manufacturing firms in Nigeria.

Results in Table 7 show that the t-statistic of Board Independence of 4.122202 is equally significant at a 5% level (P = 0.0001 < 0.05). **H0₂** is therefore rejected as the study concludes that Board independence has a significant effect on the accounting conservatism of listed manufacturing firms in Nigeria.

8. Discussion of Findings

8.1 Board Size and Accounting Conservatism

Results in Table 7 report the t–statistic for board size of 2.019 to be significant at 5% level. This is consistent with the *a priori* expectation for the study that large board size positively enhances accounting conservatism through effectiveness in monitoring processes that boost the incidence of conservative accounting. This result is consistent with findings by Christain, *et al.* (2022), Phapho *et al.* (2020), and Mohammed *et al.* (2019) who argued that in a large board, management decisions are subject to greater level of inspection from more directors with greater diversity in expertise and thus enhancing conservative reporting. However, there were other empirical works with contrary findings (Chatterjee & Chanchal, 2021; Saeed, 2020; Nasr & Ntim, 2018, Onyedokun & Salisu, 2018, Suleiman, 2014; Jarboui, 2013). In their different investigations of the effect of the components of corporate governance mechanism on accounting conservatism, they were unanimous in reporting the existence of negative reporting a negative causal link between board size and conservative reporting, arguing that an increase in board size may create agency problems as some directors may tag along as free riders and the large size may become too cumbersome for the CEO to manage. These contrary results notwithstanding, it should be noted that the rigorous data screening pre–estimation tests and the robust methodology adopted in estimating the model parameters in the present study, give credence to the findings made. Besides, the confirmatory results from post–estimation

diagnostic tests are of special appeal for the findings to be considered as valid in drawing conclusions and making policy recommendations.

8.2 Board Independence and Accounting Conservatism

Results reported in Table 7 also show that the t–statistic of Board Independence of 4.122 is statistically significant at the 5% level. This accords perfectly with our *a priori* expectation of a positive relationship between board independence and conservative reporting based on theoretical underpinning that the independence of a board of directors positively influences the extent to which policy matters are handled without undue influences and biases from persons internal to the organization. Since the independence of the board is influenced by its composition, it has been advocated that non–executive directors should be in the majority in other to enhance its independence (Fransisco & Fitria, 2022). Consistent with the findings of this study. Christian, *et al.* (2020), Phapho *et al.* (2020), El-habashy (2019), Mohammed *et al.* (2019), Nasr and Ntim (2018), Suleiman (2014), Salami (2014) and Jarboui (2013) all reported that board independence has positive and significant trade-off with conservative reporting. Inconsistent with the findings from the evidence provided in the present work, Suleiman *et al.* (2020) used accounting quality as a proxy for accounting conservatism and found a negative and insignificant causal link between them. Also, Saeed (2020), while investigating the phenomena with data drawn from emerging markets in South Asia, found that board independence has no significant impact on accounting conservatism.

9. Conclusion and Recommendations

9.1 Conclusion

Conclusively, the study has provided both empirical as well as statistical evidence on the effects of corporate governance mechanisms on the accounting conservatism of listed manufacturing firms in Nigeria. Based on the results obtained, the researchers conclude that corporate governance practices increase the quality of financial reporting by enhancing conservative reporting, and that the observed positive association between corporate governance and accounting conservatism is not significantly moderated by the size of the listed manufacturing firms in Nigeria.

9.2 Recommendations

Based on the findings and conclusions from the study, the following recommendations are made;

1) Companies should avoid small board sizes and target maintaining the optimal number of members on their boards consistent with governance codes of practice. Evidence from this study shows that large board size has a significant positive trade-off on accounting quality and conservatism. Large board size creates opportunities for management decisions to be subjected to a greater level of

scrutiny/inspection by more directors with greater diversity in expertise and experience, and this enhances conservative reporting.

2) Corporate entities should however avoid too many board members that are capable of creating agency problems with some of the directors tagging along as free riders without making positive contributions to board functioning. The optimal board size should be determined based on the nature and complexity of the business entity such that the greater the complexity the more desirable it will be to increase the size so as to accommodate more experts on the board. The Security and Exchange Commission (SEC) Code of Corporate Governance recommends that membership of the board shall not be less than eight (8), and this regulatory guideline should be used by firms as a guide in deciding on the appropriate board size for their boards.

3) In other to promote accounting conservatism and effective corporate governance, deliberate efforts should be made to maintain the independence of the board by increasing the number of non-executive directors on the board. Particular emphasis and preference should be given to persons of calibre and credibility who possess the required skills and experience to positively impact the functions of the board.

4) Accounting conservatism should be encouraged by the regulating bodies/standard setters and all other stakeholders to enhance accountability and transparency without regard to the size of the company, as the outcome of this study has shown that moderating effect of firm size in the subsisting relationship between corporate governance attributes and conservative reporting is not statistically significant.

Conflict of Interest Statement
The authors declare that there are no conflicts of interests among them.

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