Corporate Characteristics And The Level Of Earnings Management In The Industrial Goods Sector In Nigeria.

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Abstract: The study examined whether corporate characteristics had significant effect on the level of earnings management in the industrial goods sector in Nigeria. In this study, company size, return on asset and leverage are the dimensions of the independent variable. The level of earnings management is measured by using a discretionary accruals estimation method: the Modified Jones model and Asset turnover margin diagnostics. This effect was examined by employing a multiple regression model using a sample of 14 firms in the industrial goods sector listed on Nigeria stock exchange (NSE) from 2009 - 2019. The results suggest that industrial goods sector in Nigeria context shows that the level of earnings management is not directly affected by company characteristics except leverage. This could imply that audit firms should improve their performance and that regulatory agencies should improve their supervision in order to enhance audit quality and restrain earnings management. Although prior (international) research predominantly does show significance, the absence of significance in this study could be explained by the relatively small sample size or the context in which the study takes place. It is recommended Forensic auditing has intensive expert power to detecting fraud committed by doctoring the earnings worth of a firm, thus small audit firms should go the field with forensic experts to double check assurance work.

Key words: Company Size. Leverage. Return on Assets. Asset Turnover. Discretionary Accruals

Introduction

Earnings management is the opportunity for managers to reduce the variability of reported earnings and thereby improve earnings quality, and subsequently reduce the information asymmetry between managers and investors (Gul, Chen & Tsui (2003); Ghosh and Olsen, 2009). The negative perspective of earnings management is that the process complicates equity evaluation as it conceals companies' actual performance and masks underlying trends in revenue and earnings growth that help to build expectations of future growth (McNichols & Strubben, 2008).

The prevalent impact of earnings management has attracted attention from scholars to find ways or methods to measure earnings management (Dechow, Hutton, Kim, & Sloan, 2012). Most of the methods of measuring earnings management end with problems with misspecification or the models have no power of detecting earnings management due to problem in isolating a variable in the existing models. Some models available to detect earnings management have been tested in other developed and emerging countries such as models developed by Dechow and Dichev (2002), Dechow et al. (2012), Dechow, Sloan, and Sweeney (1995), Dechow and Skinner (2000), Heal (1985), Jones (1991), Kasznik et al. (1999), and Kothari, Leone, and Wasley, (2005). Researches have outlined some of the limitations of those methods of detecting earnings management and suggested various improvement methods (Dechow et al., 2012). However there are misspecifications in detecting earnings management. Despite a large amount of research on the impact of larger audit firms (DeAngelo 1981; Dye 1993; Palmrose 1988; Becker et al. 1998; Francis and Krishnan 1999; DeFond 1992; Farber 2005) there is little extant research on company characteristics and earnings manipulations in Nigeria.

 In addition, very few studies address the influence of corporate characteristics which may require different measurement   model of detecting earnings management in the industrial goods sector in Nigeria.

Objectives of the Study

The aim of this study is to examine the relationship between firm characteristics and earnings manipulation of quoted industrial goods companies in Nigeria. The specific objectives are:

(i)   Determine the relationship between company size and discretionary accruals of quoted industrial goods manufacturing sector firms in Nigeria

(ii) Determine the relationship between company size and asset turnover/profit margin diagnostics of quoted industrial goods manufacturing sector firms in Nigeria

(iii)   Find out the relationship between leverage and discretionary accruals of quoted industrial goods manufacturing firms in Nigeria

(iv)Determine the relationship between leverage and asset turnover/profit margin diagnostics of quoted industrial goods sector firms in Nigeria

(v) Find out the relationship between Return on Asset and discretionary accruals of quoted industrial goods firms in Nigeria

(vi)Examine the relationship between Return on Asset and asset turnover/profit margin diagnostics of quoted industrial good sector firms in Nigeria

Research Hypotheses

The following hypotheses are hereby stated:

HO1: There is no significant relationship between company size and discretionary accruals of quoted industrial goods firms in Nigeria.

HO2: There is no significant relationship between company size and asset turnover/profit margin diagnostics of quoted industrial goods manufacturing sector firms in Nigeria.

HO3: There is no significant relationship between leverage and discretionary accruals of industrial goods manufacturing firms in Nigeria.

HO4: There is no significant relationship between leverage and asset turnover/profit margin diagnostics of quoted industrial goods manufacturing firms in Nigeria.

HO5: There is no significant relationship between Return on Asset and discretionary accruals of quoted industrial goods producing firms in Nigeria.

HO6; There is no significant relationship between Return on Asset and asset turnover/profit margin diagnostics of quoted industrial goods manufacturing firms in Nigeria.

Theoretical Framework

Jones Accrual Detection Model: Accruals, relative to other methods, are preferred in detecting earnings management. Nevertheless, the major challenge for researchers using accruals to detect earnings management is the ability of the model correctly separate accruals into discretionary and non-discretionary accruals. Non-discretionary accruals are the portions that resulted from a firm''s normal operations without management intervention. Discretionary accruals are subject to management manipulation. Neither is observable directly in financial statements. Previous studies have used different models to separate these two components, with a heavy reliance on the assumption of accruals. Despite the popularity of the Jones-based model, the validity and reliability of the model in estimating discretionary and nondiscretionary accruals have often been criticized. First, researchers found the omitted operating cash flows can result in model misspecification. McNichols and Wilson (1988) constructed ten operating cash flow portfolios and found systematic negative association between operating cash flows and accounting discretions across portfolios. Specifically, when operating cash flows are unusually high, managers tend to decrease earnings. When operating cash flows are poor, managers tend to increase earnings. However, if operating performance is extremely poor, some firms may decrease income further. This is the so-called „taking a bath" strategy. Dechow (1994) also found that change in cash flow from operations is negatively correlated with total accruals. In addition, Dechow et al. (1995) showed that cash flows from operations influence the magnitude of discretionary accruals. A higher level of operating cash flows is associated with lower level of discretionary accruals. In order to control cash flow effects, Kasznik (1999) added the change in operating cash flows into the Modified Jones Model as an additional variable to control for a firm''s operating cash flow performance. He modelled discretionary accruals as a function of the change in revenue adjusted for the change in receivables, the levels of property, plant and equipment and the change in operating cash flows. Barua et al. (2006) applied this model and found discretionary accruals are used to achieve earnings benchmarks. Finally, Shuto (2007) used this model and detected earnings management to be associated with executive compensation in Japanese firms. Second, the model may also be misspecified without controlling for extreme earnings performance. In fact, Kaszink (1999) showed the correlation between the discretionary accrual estimates and firm''s earnings performance that firms with higher (lower) earnings exhibit significantly positive (negative) discretionary accruals. Presumably this arises because firms with abnormally high (low) earnings have positive (negative) shocks to earnings that include an accrual component. As a result, researchers are more likely to detect income-increasing earnings management for

higher profitable firms and income-decreasing earnings management for lower profitable firms. In order to address the correlated omitted variable problem that resulted from earnings performance, Kaszink (1999) suggested a Performance Adjust Technique (also known as Matched Portfolio Approach) to adjust estimated discretionary accruals by removing the effect of firm‟s earnings performance. He sorted the estimated discretionary accruals into percentiles based on earnings performance (measured by return on assets). Then, he computed the median discretionary accruals for each percentile and subtracted it from each observation‟s discretionary accruals in that percentile. These adjusted discretionary accruals are the proxy for earnings management and are used in the subsequent tests. By doing that, evidence on earnings management is suggested to be more reliable as measurement errors that are potentially correlated with earnings performance are removed. Other modifications which attempt to control for firm performance include Kothari et al. (2005) who directly introduced return on assets as an additional independent variable into the modified Jones model or adopt a performancematched approach. This approach calculated performance-matched discretionary accruals by matching the firm-year observation of the treatment firm with the firm-year observation for the control firm from the same industry and year with the closest return on assets in the current year or the prior year and then subtracting the control firm‟s discretionary accruals from the treatment firm‟s discretionary accruals. Kothari et al. (2005) found that matching based on the current year return on assets performs better than matching on the prior year return on assets and this performance-matched approach is superior to just including a performance variable in the regression model. Kang and Sivaramakrishnan (1995) proposed an instrumental variables (IV) approach to measuring the discretionary and non-discretionary accruals. The IV approach involves replacing the independent variables that are correlated with the error terms with instruments that are assumed to be highly correlated with the original variables, but uncorrelated with the error terms. Although their approach is claimed to be superior to the Jones types of model for detecting earnings management, it has not yet been thoroughly tested or widely adopted, primarily because of the data requirement and the complexity in applying the IV approach. Researchers also use a current accruals approach to replace the traditional total accruals approach. DeFond and Jiambalvo (1994) and Teoh et al. (1998a, 1998b) segregated total accruals into current accruals versus long-term accruals. The current portion of accruals represents changes in current assets and liabilities related to the day-to-day operations, whereas the long-term portion reflects changes in net fixed assets. The justification for this classification is based on the argument that managers have greater discretion over current accruals than over long-term accruals. Moreover, long-term accruals are less likely to reflect period-specific earnings management, which is of critical importance in an event-specific earnings management investigation. Thus, instead of modelling discretionary total accruals, they estimated discretionary current accruals by dropping the property, plant and equipment term from the original Jones specification.

Real Earnings Manipulations
As a solution to the problems caused by the inconsistency in the definitions of earnings management, this paper distinguishes earnings management from earnings manipulation, earnings fraud, and creative accounting. In the paper, "earnings manipulation" means that management takes deliberate steps to bring reported earnings to a desired level; "earnings management" refers to the earnings manipulation through

exercising the discretion accorded by accounting standards and corporate laws, and/or structuring activities in such a way that expected firm value is not affected negatively; "earnings fraud" refers to the earnings manipulation by violating accounting standards and corporate laws, and/or structuring activities in such a way that reduces expected firm value; while "creative accounting" refers to the earnings manipulation practices that do not violate accounting standards or corporate laws because of the lack of relevant standards or laws, for example, when firms engage in business innovations. Earnings manipulation has five distinctive features under the proposed definition. First, earnings are manipulated by management rather than accountants. Second, earnings are manipulated knowingly and intentionally. Hence, earnings manipulation is different from unintentional errors such as mistakenly entering incorrect numbers by accountants. Third, the steps taken for earnings manipulation include not only accounting choices but also real business decisions. For instance, accelerating the timing of sales through increased price discounts or more lenient credit terms might lead to an increase in the current period's reported earnings but a decrease in expected firm value. Earnings manipulation by means of business decisions is named as "real earnings manipulation", while earnings manipulation by means of accounting choices is "paper earnings manipulation". Fourth, the type of earnings manipulated in paper earnings manipulation is reported earnings, while the type of earnings manipulated in real earnings manipulation is economic earnings. However, the ultimate purpose of real earnings manipulation is to influence the reported earnings. Fifth, the extent of earnings manipulation (i.e. how far would earnings manipulation go) totally depends on the level of reported earnings desired by management. Earnings manipulation has three different forms: earnings management, earnings fraud, and creative accounting. The three are exhaustive and mutually exclusive. Earnings manipulation through exercising the accounting discretion accorded by accounting standards and corporate laws is "paper earnings management". "Real earnings management" – earnings manipulation through restructuring activities or business transactions in a legitimate way – has either a positive impact (e.g. adding a new profitable product line) or a neutral impact (e.g. accelerating the timing of sales at unchanged prices) on expected firm value. On the other hand, earnings manipulation by violating accounting standards and/or corporate laws is "paper earnings fraud". "Real earnings fraud" refers to the earnings manipulation through restructuring activities or business transactions in such a way that expected firm value is reduced, while the restructuring may or may not violate corporate laws and/or accounting standards. Business transactions that do not violate accounting standards or corporate laws but reduce expected firm value indicate the existence of significant defects in the accounting standards or corporate laws. For instance, some accounting standards are so sketchy as to leave too much room for manipulation. In terms of Enron case, its business transactions with related companies, though not violating GAAP or corporate laws of United States, reduced expected firm value because firm risks were increased due to considerably increased debts. Accordingly, what Enron did is real earnings fraud. Real earnings fraud might have negative impacts on firm's expected and book value (e.g. overproduction, accelerating sales by offering reduced listed price to increase current period's revenues at the expense of next period's revenues), and a neutral or positive impact on firm's book value in current period but a negative impact on expected firm value (e.g. transferring bad property to a subsidiary, bribing auditors). Since accounting standards and corporate laws differ from country to country, under the proposed definitions, it is then possible for the same type of practice to be categorized as earnings management in

one country but as earnings fraud in the other. Earnings fraud is specific to and punished by individual countries. Unless countries share the same accounting standards and corporate laws can this problem be solved. The distinction between earnings management and management fraud used to be a thin line (Brown, 1999). Under the definitions proposed above, however, the line is made relatively easier to be determined and measured when accounting standards or corporate laws are violated, no matter how many, paper earnings fraud is committed; the more standards and laws are violated and/or the greater amount is involved, the more material will paper earnings fraud be. The examination of the compliance of standards and laws resembles the process of auditing, and can be conducted using multiple approaches, including face-to-face interviews, questionnaires and scrutinizing notes of financial statements. The difficulty in the examination of real earnings management is the explicit determination of the impact on firm value. Creative accounting occurs when, for example, an accounting standard is too specific to cope with business innovations. Creative accounting is mutually exclusive with earnings management and earnings fraud, and it is neither a fraudulent nor a legitimate practice. In other words, in terms of applying accounting standards and corporate laws, there is no overlap between creative accounting and earnings management or earnings fraud. However, in terms of the impact on firm value, creative accounting overlaps with earnings management if it does not decrease expected firm value, and overlaps with earnings fraud it does so. Creative accounting can also be performed through accounting choices or real actions; the former is "paper creative accounting", while the later is "real creative accounting"

Evaluation Of Earnings Management Definition

There has been no clear consensus on what is earnings management in the literature (Dechow et al., 1996; Messod, 2001). Although SEC sources often mention "earnings management", none of the SEC sources explicitly defines earnings management (Dechow & Skinner, 2000). The various attempts at defining earnings management in the accounting literature can be categorized into four approaches. Defined in terms of management intent, earnings management is a purposeful intervention in the external financial reporting process, with management intent of obtaining some private gain (Schipper, 1989; Cormier & Magnan, 1996; Bagnoli & Watts, 2000) via, for example, masking the true consequences of management's decisions (Levitt, 1998); the form of the gain might be management benefit and/or firm's benefit (Eighme & Cashell, 2002). On the other hand, Healy & Wahlen (1999) posit that earnings management involves managers using their judgment in financial reporting and in structuring transactions to alter financial statements so as to either mislead some shareholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers. The problem with this approach is that management intent is unobservable. No one can be certain if earnings are manipulated for management or firm's benefit, or to mislead information users. Consequently, the unit 'earnings management' is impossible to be measured directly or operationalized accurately via attributes of reported accounting numbers. In terms of the quality of reported earnings information, United State's former SEC Chairman Levitt defined earnings management as practices by which "earnings reports reflect the desires of management rather than the underlying financial performance of the company" (See Duncan, 2001). In other words, earnings management is the manipulation of reported earnings so that they do not accurately represent economic earnings at every point in time (Goel & Thakor, 2003). The problem with this approach is that no one knows a firm's

underlying or economic earnings due to information asymmetry, making the direct measurement of earnings management defined in this way impossible too.

According to Watts & Zimmerman (1990) and Evans III & Sridhar (1996), earnings management is the strategic exercise of management discretion over accounting numbers with or without restrictions. For Levitt, earnings management is to exploit an advantage of the flexibility in accounting so as to keep pace with business innovations (Levitt, 1998), namely, earnings management is a practice of creative accounting. In a word, earnings management is neither a legitimate nor an illegal practice so long as management discretion over accounting numbers or accounting flexibility is exercised. This approach of defining earnings management in terms of management reporting discretion is also empirically problematic, because there is unlikely to be a control group of "earnings management": managers of all firms are expected to use their discretion of reporting if they are rational and opportunistic. Definitions of earnings management in terms of accounting standard application fall into two major types. First, earnings management is the practice of firms' misapplying accounting standards (e.g. U.S. SEC Chief Accountant Lynn Turner2; Johnson, 1999). To misapply is to use wrongly or for a wrong purpose (Procter, 1987). Thus, earnings management to Turner and Johnson is the practice of using accounting standards (i.e. within the bounds of accounting standards, or legitimate) wrongly or for a wrong purpose – consistent with the approach of defining earnings management in terms of management intent. A related view is held by Dechow & Skinner (2000). They identify three practices: (a) fraudulent accounting practices, (b) earnings management, and (c) the legitimate exercise of accounting discretion. They explained that both practices (b) and (c) are within the constraints of accounting standards, what distinguishes the two is management intent: if the practice is meant to deceive, it is (b), otherwise it is (c). These authors Magrath & Weld (2002). regard earnings management as legitimate practices but with management intent to deceive information users. However, a legitimate practice has nothing to be accursed of, no matter what the intent might be, not to mention that intent is unobservable. As for the second type of definition from this approach, earnings management is the process of taking deliberate steps within the bounds of accounting standards so as to bring reported earnings to a desired level (Brown, 1999). As can be seen, this definition is consistent with what has been discussed about paper earnings management in the section above. Defined in this way, paper earnings management is empirically measurable. To sum up, the four approaches under which earnings management has been defined indicate why earnings are manipulated, what has been manipulated, how earnings are manipulated, and the legitimacy of the way to manipulate earnings respectively. To assess the existence of earnings management for empirical researches, three major approaches have been used in the literature: accruals (i.e. the difference between reported earnings and cash flows from operations), earnings distribution, and return on assets ratio. All the three represent some of the possible consequences of earnings management. Healy & Wahlen (1999) believe that unexpected accruals (i.e. the residual item after total accruals are regressed on variables that are indicators for normal accruals and gross fixed assets) are the evidence of earnings management, because unexpected accruals are the unexplained part of total accruals. On the other hand, Messod (2001) used specific accruals (e.g. the provision for bad debt; accruals in specific sectors, such as the claim loss reserve in the insurance industry) to assess earnings management. However, the accruals approach is problematic for at least three reasons. First, although

discretionary accruals might be affected by managerial choices, the relationship between earnings management and unexpected accruals can be no more than an assumption due to information asymmetry; namely, the two are not necessarily of cause-and-effect relationship. Second, unexpected accruals are a noisy variable. Third, the accrual approach is not exhaustive or inclusive, because accruals are only one type of the objects that can be manipulated, other objects include, for example, product costs; and unexpected or specific accruals represent, if may, the existence of paper earnings manipulation only. Goel & Thakor (2003) measures earnings management with earnings distribution: if earnings distribution over various accounting periods is smooth, then earnings in the firms had been managed. This approach is problematic mainly for two reasons. First, smooth earnings distribution is not necessarily caused by earnings management, it might represent actual performance. Second, earnings distribution is also a noisy variable, because earnings manipulation is only one of multiple causes of smooth earnings distribution. Balsam et al. (1995) uses return on assets (i.e. net income / average total assets) to assess earnings management. Being a noisy variable, the ratio is not a necessary cause of earnings management either. In sum, the indicators used to measure earnings management so far are not representative enough to produce reliable empirical results. Instead, they represent possible consequences of earnings manipulation rather than those of earnings management alone. Other problems in the researches on earnings management include earnings management being observed under various other names, such as "earnings manipulation", "apparent extreme earnings manipulation" (Marin et al., 2002), "window dressing action" (Dutta & Gigler, 2002), or "within-GAAP manipulation"
 (Dechow et al., 1996); and the term "earnings management" being used to represent different things by different authors. In all, earnings management has been used in the accounting literature to represent five different concepts: earnings manipulation (e.g. Healy & Wahlen, 1999), paper earnings manipulation (e.g. Watts & Zimmerman, 1990), paper earnings fraud (Marin et al., 2002), paper earnings management (Dechow & Skinner, 2000), and creative accounting (Levitt, 1998). An explanation to this phenomenon is a lack of consensus on if earnings management is different from earnings manipulation, if earnings management is fraudulent, and if there is a difference between paper earnings management and real earnings management. As a result, these problems have provoked the confusion in the research on earnings management. In the literature, earnings management is often regarded as the synonym of earnings manipulation, and sometimes as an alternative of earnings fraud. However, the attempt of distinguishing earnings management from earnings manipulation and earnings fraud has been found in the literature. Such attempts may be categorized from the perspective of the number of items identified. In the two-item approach, earnings management is distinguished from "earnings manipulation" (Dechow et al., 1996) , "truthful reporting" (Evans III & Sridhar, 1996), "fraud" (Brown, 1999), "fraudulent financial reporting" (Landsittel, 2000), or "outright fraudulent financial reporting" (Marin et al., 2002). In the three-item approach, earnings management is distinguished from "fraudulent accounting practices" and "legitimate exercise of accounting discretion" (Dechow & Skinner, 2000), or "fraud" and "accounting irregularities" (Magrath & Weld, 2002) Real earnings manipulation has often been overlooked in the literature. To Schipper, "real earnings management" is something that is "accomplished by timing investment or financing decisions to alter reported earnings or some subset of it". (Schipper, 1989) Other

works contributed to the research on real earnings manipulation include Jiambalvo (1996), Goel & Thakor (2003) and Roychowdhury (2003), the most constructive one being Roychowdhury (2003).

Managers may take real economic actions to affect reported earnings if the sacrifices are not too large (Bruns and Merchant 1990; Graham et al. 2005). Such real earnings management, however, is potentially more costly to shareholders in the long run. Roychowdhury (2006) indicates that managers cannot rely on accrual management alone if the gap between the actual unmanaged earnings and targeted reported earnings is too large. In addition, the manipulation of accruals is more likely to draw scrutiny by auditors and regulators than real actions such as changes in pricing and production. Therefore, managers may conduct earnings management in the form of real activities manipulation in order to lower the probability of being detected. Consistent with this view, Zang (2012) documents managers engage in real activities manipulation before accrual-based earnings management, and that these two types of earnings management are substitutes. Firms may also switch from accrual-based earnings management to real earnings management when opportunities to manage accruals are constrained. Ewert and Wagenhofer (2005) analytically demonstrate that the level of real earnings management increases with tightening accounting standards. Cohen et al. (2008) present evidence that managers switch from accrual management to real earnings management after the passage of the Sarbanes-Oxley Act, suggesting that managers tend to engage in real earnings management when the legal environment becomes increasingly strict. Chi et al. (2011) document that firms resort to higher levels of real earnings management when they have strong incentives to manage earnings in the presence of higher quality auditors, where audit quality is measured by city level auditor industry expertise or the use of Big 4 auditors.

METHODOLOGY

Research Design: The ex-post facto research design was adopted for the study because it involves the utilization of historical/past data to forecast future trends employing econometric or analytical techniques. The population of the study was made up of of all the industrial sectors' companies quoted on the floor of the Nigeria Stock Exchange from 2010 - 2019 financial years(Dangote, Berger paint, Capplc, Dnmeyer, Bettersglass, larfarge, Cartix Plc, MM Plc, Porland, Avon Crown, First Aluminum , Austin laz, Notore Plc) Purposive sampling technique was the sampling technique adopted for the study. The current study used secondary information from the quoted companies.

RESULTS AND DISCUSSION
Table 1 Random Effect Result and Analysis
Dependent Variable: ASSET_TURNOVER
Method: Panel EGLS (Cross-section random effects)
Date: 08/18/21   Time: 11:19
Sample: 2008 2019
Periods included: 11
Cross-sections included: 14
Total panel (unbalanced) observations: 151

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	P-value
K	24.03559	8.251767	2.912781	0.0041
COMPSIZE	5.26E-08	2.58E-08	2.036322	0.0435
ROASSET	1.19E-10	2.75E-09	0.043131	0.9657
LEVERAGE	-4.54E-06	1.80E-05	-0.252452	0.8010

Table 1 Random Effect Statistics

Source: STATA computation

As the model identification test has shown the acceptance of the null indicates that our model is governed by the random effect process. We can decompose and fixed the mean equations corresponding to each parameter into the following econometric equation:

$$ASSETTURNOVER = 15.60283 + 5.2608COMPSIZE + 1.1910ROASSET - 4.5406LEVRAG$$
$$\varepsilon_{it}$$

Also from the table the coefficient of company size is 5.2608% which is positive indicating that ASSET TURNOVER increases due to contemporaneous unit increase in company size received by the executives. Focusing on ROASSET we report a coefficient of 1.1910% which is positive indicating corresponding increase in asset turnover due to increase in ROASSET value among the industrial goods firms. LEVERAGE produced an estimate contradictory to the former results. Apparently, it is observed that -4.5406 of leverage variable shows inverse relationship with asset turnover of firms in the industry.

Hausman Model Identification test

The Hausman test is employed to select the best estimator given unique effect within the companies. According to the correlated random effect probability, the null of the Hausman test favouring Random effect could not be accepted at 5% level of significance, hence statistical efficiency is ignored for consistency. The *p*-value of 0.0000 is less than 0.05 level of significance which supports the acceptance Fixed Effect model. This implies that the true model of estimation is the Fixed Effect model which is consistent. Our analysis under the current discretionary ACCRUAL model is based on the results generated by the fixed effect estimator.

Table 2 Empirical Result and Analysis- Effect Specification

Variable	Coefficient	Std. Error	t-Statistic	p-value
Dependent Variable: ACCRUAL				
Method: Panel Least Squares				
C	0.002936	0.008575	0.342368	0.7327
ACCRUAL(-1)	0.181067	0.088805	2.038925	0.0437
COMPSIZE	-2.10E-10	1.51E-10	-1.395441	0.1655
ROASSET	-5.44E-12	1.25E-11	-0.436306	0.6634

LEVERAGE	-5.49E-09	7.26E-08	-0.075511	0.9399

Effects Specification
Cross-section fixed (dummy variables)

R-squared	0.402690	Mean dependent var	-0.008285
Adjusted R-squared	0.317360	S.D. dependent var	0.070371
S.E. of regression	0.058142	Akaike info criterion	-2.729952
Sum squared resid	0.402274	Schwarz criterion	-2.346305
Log likelihood	205.0017	Hannan-Quinn criter.	-2.574047
F-statistic	4.719210	Durbin-Watson stat	2.044890
Prob(F-statistic)	0.000000		

Table 2 Test of company characteristics and earnings management in industrial goods firms with Fixed Effect

Source: STATA Computation

Rewriting the panel data model, we have the following specification with the corresponding betas.

$$ACCRUAL_{it} = 0.002936 + \alpha_i + 0.181067 ACCRUAL_{t-1} - 2.1010 COMPSIZE_{it} - 5.4909 LEVERAGE - 5.4412 ROASSET + \varepsilon_{it}$$

The table 2 result is an unrestricted model result. The evidence of the supremacy of the model incorporating specific effect is clearly observable. We have also included the lag of ACCRUAL in the model in order to have a robust result by increasing the explanatory power of our model. At the same time the value of our maximum likelihood (reported as log likelihood is 205.0017) improved contrary to initial coefficient of 209.4277 in the restricted model.[1] Similarly the coefficient of determination (r^2) improved. Nevertheless, the lag of ACCRUAL has a beta of 0.181067% which is significant at 0.0437 (4.37%). This means that history or previous records of discretionary accruals dynamically increases it future amount. Thus, ACCRUAL in the past is a necessary component in the analysis of earnings management.

However, other explanatory variables are observed to be negative. For instance, COMPSIZE has a coefficient of -2.1010% indicating that an increase in company size is tantamount to a decline in discretionary accruals amongst the firms. Similar inverse result is observed in returns on assets which reports a coefficient of -5.4412%. the implication is that as ROASSET is increasing, discretionary accrual

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The pooled OLS is an incomplete model that naturally fails to capture the dynamics of heterogeneity existing across entities. It is a restricted model by default in every analysis.

tendency is declining in the corporation. LEVERAGE which is a take-home pay of executives in a firm also has a beta of -5.4909% indicating insignificant decline in ACCRUAL subject to contemporaneous change in LEVERAGE. Considering the large- scale negative results, we subject the model candidates to redundancy test.

Overall the null hypothesis that industrial goods giants fixed effects are jointly zero ((H0 : $\eta i =$ 0) is rejected at 1% and 5% significance level   respectively for the full sample. This however indicates the usefulness of fixed effect panel model that allows for intercompany heterogeneity.
 claims.

Model Hypotheses Tests

From the outset each of the hypotheses are expressed in the null form.

Hypothesis One*:*   There is no significant relationship between company size and discretional accrual.

Interpretation*:* from the Table 2 the probability statistics of company size is *0.1655 which is greater than 0.05 level of significance. On the basis of decision criterion, the null is accepted. Conclusively there is no significant relationship between company size and discretionary accruals.*

Hypothesis Two*:*   **There is no significant relationship between company size and asset turnover/profit margin.**

Interpretation*:* From Table 1 the probability statistics of company size is *0.0435 which is less than 0.05 level of significance. On the basis of decision criterion, the alternative is inferentially accepted. Conclusively there is a significant relationship between company size and asset turnover.*

Hypothesis Three: *There is no significant relationship between leverage and discretionary accruals.*

Interpretation: *From the Table 2 the probability statistics is 0.9399 which is extremely greater than 0.05 level of significance. According to the decision criterion the null stands unrejected, thus there is no significant relationship between leverage and discretionary accruals.*

Hypothesis Four: *There is no significant relationship between leverage and asset turnover.*

Interpretation: *From the random effect result the probability statistics is observed to be 0.8010 in Table 1 which is extremely greater than 0.05 level of significance. According to the decision criterion the null stands unrejected, thus by inference there is no significant relationship between leverage and asset turnover/profit margin.*

Hypothesis Five: *There is no significant relationship between returns on assets and discretionary accruals.*

Interpretation: *From our empirical result in Table 2 the probability statistic of return on asset 0.6634 which is greater than 0.05 level of significance, therefore the null remains accepted. Conclusively there is no significant relationship between returns on assets and discretionary accruals.*

Hypothesis Six: *There is no significant relationship between return on assets and asset turnover.*

Interpretation: *From our empirical result in Table 1 the probability statistic of executive stock 0.9657 which is greater than 0.05 level of significance, therefore the null remains accepted. Conclusively there is no significant relationship between return on assets and assets turnover.*

Discussions of Findings

Considering company size characteristic aspect, a negative relationship is seen. This means that earnings manipulation declines according to the size of companies. Perhaps as it is well known, big firms like Dangote Plc, Berger paints that have earned national and international recognitions might due to agency cost explained in agency theory avoid deliberate manipulation of accounting records governing value of company earnings. This indeed conflicts with expectation. Again, the negative result could be the case that giant corporations make effort to work in compliance with various accounting standards (i.e IFRS and IASs) to diligently protect their image and avoid agency conflicts that may arise out of deliberate deceit of stakeholders to the firm. these big firms would not tend to increase the tendency to manipulate accounting records in order to position themselves in a way that inappropriately appears over productive on the surface. Hence using company size protects the quality aspect of presented accounting records and figures- especially representative faithfulness.

Leverage is positively related to accruals, hence complies with expectation, though not significant (*p-value is 0.5181*). The implication could be the case that size of debt to equity (portrayed in leverage) naturally might create a climate where company executives might criminally be tempted to manipulate earnings to inform the current and future debt holders that their size of borrowing is within reasonable threshold to attract more leverage in future. In other words, increasing company gearing level is a form of motivation which in turn insignificantly empowers executives for manipulation of company earnings. By doing this leverage is a motivation to uphold information asymmetry effects which is a desperate psychology to hoard and hide critical information through window dressing of company earnings. We know that when companies report higher earnings it becomes signal to investors that the firm is leading in the market and industry, however the only way to presenting deceitful information is dropping expenses from interest costs and principal which in turn increases size of earnings. A positive leverage coefficient exposes this fact.

Return on assets violates expectation due to negative sign. This company characteristic means that earnings manipulation drops in the face of declining ROASSET. There is therefore no basis to validating normative accounting theory. This could mean that when return on asset is increasing discretionary accruals slows by insignificant amount. Thus, it discourages manipulation of earnings. This could be the case that having bigger return on asset is already a disincentive for executives to artificially give wrong account of their true earnings position.

Conclusion

On the basis of the presented empirical results, the following inferential statements guide the conclusive inference found in the body of this research.

1. Company size has a negative and insignificant effect on discretionary accruals.
2. In discussing corporate characteristics and earnings management among industrial goods manufacturing firms incorporating the lag of discretionary accruals in the analytical model is necessary.

3. As regard to the theoretical evaluation, some of our evidence validates asymmetry theory as reported in the return on assets and discretionary accruals. As a contrast we had by experience expected the opposite. Hence the study stands to make a general statement that company size does not warrant cynical presentation of accounting records in the hope for expected gains.

4. There is evidence of positive and insignificant relationship between company size and asset turnover, however between company size and discretionary accruals the evidence is positive and significant. Thus, company size exhibits dual characteristics.

5. There is inverse relationship between leverage and asset turnover/profit margin. On the basis of hypothesis this observed relationship is conclusively insignificant. Beyond asset turnover, our inference by the empirical evidence on leverage has a positive effect on discretionary accruals.

Limitations of the Study

Our current study could not confirm whether we designed a complete model to capture the dynamics in the topic. This is because company characteristics and earnings management among the firms are not limited to the selected constructs. Nevertheless, the appearance of error term is a necessary condition to overlook such potential bias.

Recommendations

Based on the findings, the following recommendations are made;

1. In the analysis of earnings management by concerned firms it is necessary that corporate entities found the catchment of industrial producing goods area.

2. Forensic auditing has intensive expert power to detecting fraud committed by doctoring the earnings worth of a firm, thus small audit firms should go the field with forensic experts to double check assurance work.

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