

Firms Determinants on Earnings Quality of Consumer Manufacturing Firms in Sub-Saharan Countries

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Abstract: The study examined the impact of firms determinants on earnings quality of consumer manufacturing firms in Sub-Saharan countries. The secondary data was collected from 20 consumer firms listed on the Nigerian Stock Exchange, Ghana Stock Exchange and Kenya Stock Exchange over a period of 2010-2019 from their annual reports. The study used a panel data and a descriptive research design where a population of 40 consumer firms and 20 sampled firms was tested. The study used earnings quality proxies :discretionary accruals and income smoothing as dependent variables and firm characteristics, corporate governance and ownership control, firm performance, capital market control, auditors control and liquidity as independent variables. The residuals from the modified Jones model by Dechow et al 1995 was used to proxy earnings quality. The research work was tested using Hausman effect, descriptive statistics, multiple regression analysis, correlation coefficient. The results of the study showed that firm performance, firm characteristics, liquidity and capital market has a positive and significant relationship on earning quality. Governance, ownership and control and auditors control has positive and insignificant effect on earnings quality of sub-Saharan countries. The study concludes that firm determinants have positive effect on the level of earnings quality management. The findings of the study showed that firm performance, firm characteristics has significant effects while others showed insignificant effects. The study recommends that management of consumer manufacturing firms in Sub-Saharan countries should formulate policy that will be geared toward enhancing earnings quality management. The study also recommends that management should increase the performance of capital market instrument to improve the market value of the manufacturing companies. Management in their drive to increase to enhance earnings quality should increase and improve firm characteristics and also should formulate policy that will be geared towards enhancing earnings quality in Sub-Saharan Countries.

Keywords: firms determinants, earnings quality, Governance, Ownership, capital market incentives

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INTRODUCTION

Evaluating earnings quality is an important work of financial analysis and evaluation. Contextualizing the analysis can be done not only through business models, management

incentives ,ability to manipulate earnings but also through non- financial indicators of earnings sustainability (Nissin, 2021). The concept of earnings quality has brought about a serious concerns among managers, financial regulators , investors, other market participants and researchers. Managers are concerned about reaching the forecast by maintaining sustainable growth of companies. Analysts are interested in knowing the best measure of quality of earnings to maximize profit. Earnings quality is an important part of financial reporting as contained in the obtained companies earnings. This happens because investors are going to buy the future earnings from the current year reported by the managers. This concept has become a point of concern due to the series of corporate failures on both developed and developing economies. It has led to doubts in the minds of stakeholders on the credibility and reliability of financial report.

The financial statement is a good indicator that shows if earnings quality management are practiced by managers of firms or not. All information about enterprise earnings are included in the financial statement. It is also the better way of measuring the companies performance as well as other measurements such as return on investment and earnings per share. The earnings information resulted from the discretionary accrual is closely related to earnings quality(Dechow & Dichew, 2002) which are very influencing to the users of financial statement such as creditors, investors which use it as basis of investment and contracting decisions. The contracting decisions in relation to quality of earnings can be used to make decisions that relates to corporate governance control and determine manager's performance compensation. The earnings management of the firms may be manipulated by the managers of the firms to show impressions of smooth annual earnings by giving high profit for the fiscal year at the expense of the future earnings to lower the current earnings in order to produce a higher earnings in the future in that case mislead the users of information.(Ronen & Yaari,2008).

The preparation of misleading report may be as a result of higher demand of return by shareholders on their investment, the desire to maintain a giant corporate status in the eyes of the business community, competitiveness and also the demand of company's insiders (Shehu,2012). This can lead to insolvency on part of the firm. When a firm cannot maintain its financial solvency , it becomes unhealthy and it can lead to business failure (Wu, 2010). In the world this year , one main issue that remains on the frontier is how to build investors confidence in the domestic economy through corporate and financial reports .Current global trend indicates the anxiety for the examination into the practice of earnings manoeuvre, which has become ignored following the current global trend of corporate failures that have fallen large organizations such as Health South, Global Crossing, Parmalat, Hollinger, Adecco, TV Azetca, Enron, World com And Tyco (Uwuigbe, 2013 ;Sayari et al ,2013). The tragic collapse and scandals of giant firms inarguably stemmed from earning window dressing due to fraudulent practices by corporate managers. This phenomenon has led to heated debate among regulators, financial analysts and researchers to find a solution to the unprecedented corporate failures. The Cadbury Nigeria Plc scandal in 2006 was tagged the Nigeria version of Enron corporation scandal. The Chief executive officer they overstated the financial statement of number of years(2002-2005) up to \$122Millions(₦15M) in order to exceed ad get to growth targets which affected the companies affiliates worldwide (This Day Live,2012).It shows the information management to assess the extent of firms performance. The health of a manufacturing companies depends on the ability to achieve profit and maintain financial solvency.

Earnings quality management is the deliberate action of the managers of the firms to manipulate its financial report in order to achieve their aims. Earnings or profit are a central part of financial statement that help a large number of stakeholders or users of accounting of information to evaluate firm performance. Earnings serve as a basic determinant of dividend policy, investment decision as well as a main measure of a firm's performance, an effective criteria on stock pricing and eventually an instrument utilized to make predictions (Mohammady, 2012). Panyam (2013) further explained that earnings quality is one of the most important characteristics of financial reporting system. Earnings quality is an essential part of financial report as contained in the obtained companies earnings. This is as a result of the investors going to buy earnings of the current years reported by the companies. This means that high quality earnings information is a sign for reducing the information risk (Armstrong et al 2011). High quality is believed to improve capital market efficiency, therefore investors and other users should be interested in high-quality of corporate performance. Earnings quality involves ways in which management manipulate reported earnings using certain accounting method, creative methods or changing methods, recognizing non-recurring items and short term earnings. Earnings quality are done through financial statement or financial report. Earnings quality is the honest expression of the reported profit. It is the way to represent earnings to show a picture about the companies and that it will continue in the future (Salawu, 2017). Earnings quality management is an attempt to manipulate profits to achieve certain aims as targeted by management by smoothing the actual income ending up with fixed gains.

1.2 Statement of the problem

How is firms performance related to earnings quality is one of the problem that will lead to the study. How is earnings quality related to performance that has been a question of how firm performance affects earnings quality of manufacturing companies in Sub-Saharan countries.

Problems of earnings quality is very high especially in developing countries (Dyreg et al, 2011). Since the capital market is at the growth stage firm may want to register to acquire the public funding there are possibilities of earnings management in order to attract investors to buy the shares.

Problems of corporate governance, ownership and control is that many firms may not comply with corporate governance requirements. Corporate governance requires high disclosure especially on management and directors. Some studies Okiro (2014) on capital market of Kenya, Tanzania and Uganda stated that significant relationship between corporate governance and performance showed that financial disclosure is very necessary for performance and reducing earnings management activities of the firms. Patrick et al (2014) on corporate governance reported that some companies do not comply with corporate governance requirement. Financial scandals and corporate mismanagement and the collapse of some multinational corporations were found to be as a result of unethical accounting and earnings manipulations (Hussain & Guang, 2015).

Since there has been a lot of problems inherent in firms characteristics that has affected earnings quality management. Ahmed, (2012), Laura et al (2013), Uweigbe et al (2015) has tried to analyze the relationship between firm characteristics and earnings quality. The areas affected will be discussed under the following :

Leverage is a commonly determinants of earnings quality. The problem is can high leverage be an indication of low performance in companies in Sub-Saharan countries. High leverage is an indication that a firm is close to debt covenant violation and could manipulate financial statement to avoid debt covenant violation. There is no extant literature that have come to a conclusion on amount to which leverage affects earnings quality. The question is to what extent does leverage affects earnings quality in manufacturing companies' in Nigeria and Ghana. Hashen (2011) Oluwoekere (2016) stated that high leverage signifies that a firm is close to debt violation or manipulation and could manipulate from them

Problem of firms size and how it affects earnings quality is a concern. Ahmed (2012) related firm size to agency costs. As firms size increases agency costs is expected to rise or increase. It gives room for greater managerial discretion (Isah, 2017). Lesile, & Okoeguale (2013), Hussain et al (2014), Chalaki Dider and Riahinezhard (2012) stated that larger firms attract a large number of supplier customer which requires high demand for information resulting to higher earnings quality. Therefore the study seeks to address the question . Does firm size affects earnings quality.

Liquidity is ability of firm to take care of short term debt obligations, many firms' lack incentives to manipulate earnings. Liquidity is identified as one of the major factors that has led to companies failure. However, the question that researcher still need to answer is how does liquidity affect the earnings quality of companies in Nigeria. In this regard, virtually all firms use earnings management techniques to present results in a particular light (that is overstate or understate their true profitability or financial condition).The challenges therefore is identify companies that significantly misstate their true profitability by aggressive accounting. It should be noted that not all earnings problems are intentional acts by management.

1.3 Objectives of the study.

The main objective of the study is to examine the effect of firm determinants on earnings quality management of listed companies in Sub-Saharan Africa. The specific objectives include:

1. Examine the effect of firm performance on earning quality management of listed companies in Sub-Saharan Africa.
2. Investigate the effect of firm characteristics on earning quality management of listed companies in Sub-Saharan Africa..
3. Appraise the effect of Governance, Ownership and control on earning quality management of listed companies in Sub-Saharan Africa..
4. Ascertain the effect of auditors control on earning quality management of listed companies in Sub-Saharan Africa..
5. Examine the effect of capital market incentives on earning quality management of listed companies in Sub-Saharan Africa..
6. Examine the effect of liquidity on earning quality management of listed companies in Sub-Saharan Africa.

1.4 Statement of Research Questions

The following research questions guide this study:

- 1.To what extent does firm performance affect the earnings quality management of listed companies in Sub-Saharan Africa?

2. Does firm characteristics affect the earning quality management of listed companies in Sub-Saharan Africa?
3. To what extent does governance, ownership and control affect earnings quality management of listed companies in Sub-Saharan Africa?
4. In what ways does auditors control affect earnings quality management of listed companies in Sub-Saharan Africa?
5. To what extent does capital market incentives affect earnings quality of listed companies Sub-Saharan Africa?
6. Does liquidity affect earnings quality of listed companies Sub-Saharan Africa?

1.5 Research hypotheses

The following are the null hypotheses formulated for the study

HO₁: Firm performance has no significant effect on earnings quality management of listed companies in Sub-Saharan Africa.

HO₂: Firm characteristics has no significant effect on earnings quality management of listed companies in Sub-Saharan Africa.

HO₃: Governance and control has no significant effect on earnings quality management of listed companies in Sub-Saharan Africa.

HO₄: Auditors control has no significant effect on earnings quality management of listed companies in Sub-Saharan Africa.

HO₅: Capital market has no significant effect on earnings quality management of listed companies in Sub-Saharan Africa.

HO₆: Liquidity will have no significant effect on earnings quality management of listed companies in Sub-Saharan Africa.

1.7 Scope of the study

Periodic scope: This study focused on the impact of firms' determinants and earnings quality management in manufacturing firms quoted in stock exchange in Sub-Saharan countries between 2010 and 2019. The period under consideration is for ten years.

Content scope: The variables used are: Firms characteristics(firm growth, firm size, firm debt or leverage), Governance, ownership and controls(board of directors size, managerial ownership, equity compensation); Auditors (auditors size and auditor fees); Liquidity (current assets and quick assets); Firms performance(return on assets, return on investment and earnings per share) and Capital market incentives(turnover, capital incentives and executive compensation).

Sector scope: There are so many sectors they include consumer goods, Financials, consumer services, Industrials, utilities, oil and gas. The sector will be considering in this study is the consumer goods sector. The companies in Nigeria consumer goods sector are ; Nigeria: PZ Cussons limited, UAC, Nestle limited, Vitafoam Nigeria limited, Flour mills Nigeria limited, Cadbury Nigeria limited, WAMCO Friesland, Ghana : Cocoa processing company, Fan milk limited, Benson oil processing limited, PZ Cussons limited and Tullow limited. Kenya: Mumais sugar company, Kakuzi Tea, Kapchuora Tea, Limuru tea, Unga group, williamson Tea company, and Kenya orchard.

Geographical scope:

Those companies were quoted in; Nigeria, Ghana, Liberia, Kenya,

These companies were selected for the comparative analysis because they have the three biggest stock exchanges in Sub-Saharan countries.

REVIEW OF RELATED LITERATURE

2.1 Theoretical Review

2.1.1 Stewardship theory

Stewardship theory as propounded by Friedman (1970), states that directors have to fulfill their duties towards the shareholders and also that directors are trustworthy. It ensures that the main goals of the firms are achieved by the managers through completion of hard tasks. The directors need and also desires respect from friends and their bosses to perform their duties effectively. The stewardship theory when compared with agency theory shows that managers act as the steward who controls all the activities of the firms to ensure that financial performance are is well enhanced(Daily et al.2003).

2.1.2 Resources Dependency Theory

Resources dependency theory was developed by Pfeffer(1973) and Pfeffer and Salanick (1978). The theory explains the ability of the firms to use its resources in the attainment of its objectives (Flore,2007). Its study was based on internal resources of the firms rather on external environment surrounding the firm. The resources are the primary determinants of its performance and may contribute to its competitiveness advantage. (Tokudo, 2005). Barney (1991) ,the concept of resources dependency stated that they may include all accounting capabilities, firm attributes, governance and control such as board characteristics, managerial ownership, equity compensation and capital incentives. the resources dependency theory was originally formulated to show relationship between firms and their individual structures . Earnings quality preferred to suggest the effective way to involve corporate governance that can lead to generation of resources. Board of directors for instance help firms through providing of expertise and linkage to firms and institutions to encourage better value for the firms. The board can be human or social capital . Human capital can be director's advice or resources which is also known as board capital.(Dalton et al.,1998 Pfeffer ,1992).

Firm performance variables have an impact on the quality of the report of financial report which helps the managers in exercising accounting discretionary in an efficient manner, thereby maximizing their value. It highlights the responsibilities of the board of directors to get resources that will eventual increase their performance and for them to achieve their stated goals and objectives. Farooqi and Ngo(2014) there are four categories of directors of a company. They include experts in business(those people that provide advice for business growth), insiders (the executives either former or current members), specialists (such as insurance company, lawyers) and the community at large(university faculty and the social or community organization.).Elizabeth and Elliot (2014) said that external directors play a major role in the firm because they monitor and control the activities of the board, The theory is based on the background that firm's directors advice are greatly relied upon .

2.1.3.Signalling Theory

The signaling theory was propounded by Spencer (1978). It explain the asymmetrical information available to the firm. The theory shows the presence of asymmetric information to

be sent to the market.(Ross,1977). Market efficiency means that investors are rational at any given time (Fanma, 1970). The product of the information asymmetry between management and owners can make the managers to select the account strategies that help know the true worth of the company. Managers can take discretionary action to manipulate earnings so as to show favourable or unfavourable information of the financial market, Salu ,(2010) states that in order to manage reported earnings of the company ,the company might shift in business which are discretionary from actual cashflow. Earnings management might signal to investors that there may be rise in earnings and cashflows in the future. Sun and Rath (2008) the management of a company my involve in earnings management so as to signal their performance .Signalling theory exposes the managers edit and change in earnings to show the companies information and prospects based on increasing earnings to attract more investors.(Connelly et al., 2011).

2.2 Empirical Studies

Adeleye (2020) examined the relationship between firm characteristics and earnings quality of quoted manufacturing firms in Nigeria. The study used annual data from 2011 to 2018 of six manufacturing firms (Livestock PLC, May and Baker PLC, AG Leventis PLC, Nestle Nigeria PLC, Nigeria Bottling Company and Champions Brewery). Panel data analysis was adopted and Hausman Test was used to determine which of the appropriate method to adopt for the analysis. The study found a positive and significant relationship between firm characteristics (measured by return on asset and current ratio) and earnings quality (measured by persistence). The study recommended that Manufacturing firms may choose to go for more debt especially where the interest rate is considerably low and also increase their liquidity asset and turnover as it has been found empirically so as to enhance the quality of firms reported earnings.

Aguguom, Akintoye, & Salawu, (2018). examined the trend and impact of earnings quality on the financial performance of firms from the perspective of accounting information usefulness, aimed at resolving a missing link between current and expected firm performance, due to existing gap between managers and investors on information asymmetry and opportunistic earnings tendencies, in improving managerial and investment decisions and forecast abilities of the analysts towards increasing the level of earning quality and firm performance. The study proposed accounting-based earnings quality measures of accruals quality (AQ), earnings persistence (EPERS), earnings predictability (EPRED) and earnings smoothness (ESMOTH) as proxies to measure earnings quality and Tobin's Q to measure firm financial performance. Asampled of 51 firms listed on the Nigerian Stock Exchange over the period of 2000-2016 were purposively selected. Panel data were extracted from the audited published financial statements. Descriptive and inferential statistics were used for the specified models. The findings revealed that earnings quality proxies jointly had a positive significant effect on the financial performance of the firms. Individual coefficient estimate of each of the variables revealed that AQ, EPRED and ESMOTH each had negative effect on Tobin's Q, while EPERS had a positive significant effect on Tobin's Q. The study recommended that analysts, investors, policy makers and other stakeholders should pay attention to the earnings consistency of time-series behavioral pattern of earnings as measured by predictability and persistence as a guide in managerial and investment decisions and forecasting of future earnings.

Olaoye, & Adewumi, (2020) examined the impact of corporate governance on earnings quality in listed firms in Nigeria. The specific objective is to investigate the effect of board size, board independence and board gender diversity on earnings quality. This study was carried out with secondary data retrieved from corporate annual reports of the sampled companies and the data was analysed using panel regression on a sample of 37 quoted manufacturing companies for the period 2011-2017. On the overall, the result reveals that Board size, board independence and board gender diversity used for measuring corporate governance show significant impact on earnings quality. In addition, corporate governance variables appear to be quite sensitive to the measure of earnings quality used. Based on the findings, the study recommends the need for comprehensive evaluation of corporate governance systems of companies. The study recommends the need for more level of board independence. The diversity issue though is gaining momentum in corporate governance literature can still be regarded as not as dominant as compared to others especially as it relates to protecting shareholder rights and framing dividend policy. The significance of the variable nevertheless suggests that companies should thrive to achieve an appropriate diversity mix

Ado, Norfadzilah, .Mustapha, & Ademola, (2020). explored the financial determinants of Earnings Management and the profitability of listed companies in Nigeria. The objective is to investigate the level of financial determinants of Earnings Management on the profitability of companies. This study employed a panel data approach on 84 listed companies on the NSE with 756 firm-year observations for the period 2010-2018 financial years. The study employs a secondary method to retrieve data from annual statement of listed companies and Thompson Reuters DataStream. The data is analysed with the using multiple regression to examine the model. The current study reveals that earnings ability shows a significant and positively related to the profitability, which was measured using ROA. This result from this study indicates that the more the earnings ability of a company, the profitability of the listed companies in Nigeria will increase. Financial structure ability shows a significant negative association with the ROA. This further indicates that any increase in financial structure ability, profitability of listed companies in Nigeria will also increase in the same value. Furthermore, the statistical results offer evidence that non-financial factor is positively and significantly associated with the ROA. This implies that a percentage increase in non-financial factor will result in the increase of profitability of listed companies in Nigeria. The result also indicates that companies that engaged in financial determinants of Earnings Management are also seen to be more profitable. Overall, this present study explains the connection between the financial determinants of earnings management and the profitability of listed companies in Nigeria

Omoye, & Eriki, (2014).examined corporate governance determinants of earnings management: evidence from Nigerian quoted companies. A sample of 130 companies were drawn from quoted companies on the Nigerian stock exchange over the period of 2005 to 2010 and to identify the unique firm's corporate governance characteristics and control variables that influence firms' decision to engage in earnings management, we conducted descriptive statistics, correlation matrix, diagnostic test and binary regressions analyses of the data. The study revealed that, quoted companies in Nigeria prefer to use high earnings management practices; Board independence had a positive and significant influence on the probability of Nigerian companies adopting absolute high earnings management, Audit committee independence had a negative and significant influence on the probability of Nigerian companies adopting absolute high earnings

management, Board gender representation had a negative and significant influence on the probability of Nigerian firms adopting absolute high earnings management and Also Board size and CEO shareholding were found to be statistically not significant in influencing the likelihood of Nigerian quoted companies adopting high earnings management levels. The control variables; firm size, auditors type and industry class were found to be positive and statistically significant in determining absolute high earnings management levels of Nigeria quoted companies.. This study recommended that stakeholders in quoted companies in Nigeria should promote sound audit independence, intensify the independence of board composition and encourage more female representation on the board

METHODOLOGY

3.1 Research Design.

The research work adopted *Ex-Post Facto* research Design .The secondary data used was sourced from the annual financial reports of the selected firms Nigeria Stock Exchange, Ghana stock exchange and Kenya stock exchange website from period of 2011-2019. The researcher used a panel data for twenty quoted manufacturing companies over ten(10) years.

3.2 Area of the study

The study was conducted using listed firms on consumer goods sector of countries in Sub-Saharan countries for a period of 2010-2019.The listed firms consists of several sectors classified using the Global Sector classification Index (GICS). The Global Sector Classification Index (GICS) classified all listed firms into eleven (11) sectors, twenty-four (24) sub sector group and sixty- eight sub industries (68). The companies to be used were those quoted under the consumer goods sector.

3.3 Sources of Data

The study utilized the secondary data . The data for our variables were sourced from the annual financial reports of all the companies selected for the study. The data collected covered period of ten years between 2010-2019.

3.4 Population of the study

The total population of this study was all consumer goods companies quoted on the floor of Nigeria Stock Exchange Market ,Ghana stock exchange market and Kenya stock exchange market. The Nigeria stock exchange has a total of twenty (20) consumer goods companies as at December, 2019, in line with Global Sector Classification Index(GICS) , The Ghana stock exchange has a total of eight(8) quoted consumer goods companies as at December, 2019, in line with Global Sector Classification Index(GICS). The Kenya stock exchange has twenty(12) quoted consumer goods companies as at December, 2019, in line with Global Sector Classification Index(GICS) . The total population of the study consists population is forty(40) . Those consumer goods are the population of the study. The comprehensive list of firms are shown on appendix 1.

Table1: showing population of the countries under study.

Sector	Name of country	Total number of population of consumer goods companies
Consumer	Nigeria	Twenty(20)
Consumer	Ghana	Eight (8)
Consumer	Kenya	Twelve (12)
Total		Forty(40)

3.5 Sample Size

The sample size of the study is twenty (20) Consumer goods companies listed in the Nigeria, Ghana and Kenya stock exchange. The total of the sample size was divided thus, sample size of eight(8) consumer goods companies quoted in Nigeria Stock Exchange Market , Five(5) consumer goods companies quoted in Ghana stock exchange and seven (7) consumer goods companies quoted in Kenya stock exchange was selected. The sample is based on the availability and accessibility of corporate annual reports of the companies under study.

3.6 Method of data analysis

3.6.1 Statistical tools: Data was analyzed using ordinary least square and Descriptive statistics . The descriptive statistics was used to evaluate the characteristics of the data: Mean, maximum, minimum, and standard deviation and the test for normality of the data. The correlation analysis was used to test the relationship between the variables and to check for multi- co linearity .Diagnostics test was also carried to ascertain the normality of the data, test for multi-colinerality using variance inflation factor analysis.

3.6.2 Country specific analysis: There are differences in the legal and other policies ruling in the stock exchange and individual companies in Sub-Saharan countries. In other words the quoted countries differ across the countries selected in terms of their nature of business, risk profile and degrees of operations. The study carried analysis in country by country in other to capture their specific uniqueness. The study also considers such differences which may impair our estimation process and generalization.

3.6.3 Interaction analysis: The study carried out interaction analysis to select the best variables that reduces earnings quality management of the firms.

Panel regression analysis: The study used panel data as it considers the cross sectional and time series nature of data used. The panel data analysis of the model uses Hausmann effect test to select random or fixed effect statistical significance test (t-test) and the overall statistical significance test R-squared(adjusted) while the goodness of fit of the model was tested using the F-statistics.. The estimation result would be evaluated based on individual

3.6.4 Fixed effects and Random Effects Test model (FEM)

Variables measurement Fixed panel effects are conducted when the same individual or entities are observed for each period when there is heterogeneity or individual effect which may or may

not observed. The fixed effects model can be used to control the unobserved characteristics. The Hausman's specification test in panel model was conducted for fixed and random effects models.

3.6.5 Diagnostic test: The descriptive statistics was used to evaluate the characteristics of the data: Mean, maximum, minimum, and standard deviation and the test for normality of the data. The correlation analysis was used to test the relationship between the variables and to check for multi- co linearity . The Jarques - Bera was used test the data.

3.7 Model Specification and justification

The study will use the annual data for the period of 2008-2017, which shall be collected from twenty manufacturing companies in Nigeria ,Kenya and Ghana. The following model was specified for this study, first is the model in its functional form:

3.8. Autocorrelation: The study was autocorrelated among themselves. The data among the countries of the sub-saharan African countries was aggregated and common currency the Dollar (\$) was used to compute each of the analysis. That is Nigeria, Kenya, Ghana currency was equated to its equivalence in dollar respectively.

Model 1:- Smoothness model

It examined the impact of firms determinants on smoothness of manufacturing companies quoted in the West Africa. The model assumes dependent variable is a linear function of the independent variables with consideration to heterogeneity in the pooled companies.

The model is expressed as follows

$$SMT = f(FP, FC, CGOV, AUD, CMKT, LIQ) \text{-----} 5$$

This is econometrically expressed as:

$$SMT_{it} = C_0 + C_1FP_{it} + C_2FC_{it} + C_3CGOV_{it} + C_4AUD_{it} + C_5MKT_{it} + C_6LIQ_{it} + \epsilon_{it} \text{---} 6$$

Where:-

SMT= Smoothness

FP= Firm performance

FC = Firm characteristics

CGOV= Corporate Governance

AUD = Auditors Control

CMKT = Capital Market Incentives

LIQ = Liquidity

C₀= Constant

C₁-C₆ = is the coefficient of the regression equation

e = error terms

i= is the cross section of Firms used

t = Years.

Model 2: Discretionary accrual.

Model 2 examined the effect of firm determinants on the discretionary accrual of manufacturing companies quoted in the West Africa. The model assumes dependent variable is a linear function of the independent variables with considerations to the heterogeneity of the pooled companies .

The model is expressed as follows:

$$DCA = f(FP, FC, CGOV, AUD, CMKT, LIQ) \text{-----7}$$

$$DCA_{it} = \mu_0 + \mu_1 FP_{it} + \mu_2 FC_{it} + \mu_3 CGOV_{it} + \mu_4 AUD_{it} + \mu_5 MKT_{it} + \mu_6 LIQ_{it} + \varepsilon_{it} \text{---8}$$

Where:-

DCA = Discretionary accrual

FP= Firm performance

FC = Firm characteristics

CGOV= Corporate Governance

AUD = Auditors Control

CMKT = Capital Market Incentives

LIQ = Liquidity

C₀= Constant

C₁-C₆ = is the coefficient of the regression equation

e = error terms

i= is the cross section of Firms used

t = Years.

Summary of accrual models used to test the variables

A variety of models have been used to measure discretionary accruals. The research models will be used to test the hypotheses presented. The quality of the models varies according to the nature of earnings management and its calculations and estimation.

1. Healy Model

This is the model used to measure the level of earnings quality management. Healy model used discretionary and non-discretionary accrual as a proxy to determine if earnings quality is carried out in the period which it happened and also in the estimation period when no earnings quality management occurred.

The non-discretionary accruals are =

$$NDA = \frac{\sum rTA_t}{T}$$

Where:

NDA_t= Estimated non-discretionary accruals.

TA_t= Total accruals scaled by total assets.

r= A year subscript for a year i the event

T= A year subscript for years included in the estimation period.

2. The DeAngelo Model:

De Angelo (1986) model of non-discretionary accruals assume total accrual as non-discretionary

$$\text{Non-discretionary Accruals}_t = \frac{\text{Total Accrual}_{(t-1)}}{\text{Total Assets}}$$

3. The Jones Model.

Jones (1991) propounded a model for non-discretionary total accruals which are controlled by changing conditions of the firms such as property, plant and equipment, revenue and total assets. Accruals is regarded as a function of revenue growth. the changes in revenue was included as the measure of the firms' operation

The formula given as :

$$NDA_t = \alpha_1 (1/A_{t-1}) + \alpha_2 (\Delta REV_t / A_{t-1}) + \alpha_3 (PPE_t / A_{t-1})$$

Where:

NDA_t = Estimated non-discretionary accruals .

A_{t-1} = Total assets in year t-1.

ΔREV_t = change in net revenue of firms in year t

PPE_t = Gross property ,plant and Equipment of firms in year t.

5. The modified Jones Model

Dechow, Sloan and Sweeney (1995) it involves the

1. Discretionary accrual quality

It can be measured of as the degree to which accrual can be achieved in the firms cash flow.

The accrual model include:

$$\text{Accrual quality} = \frac{\text{Earnings} - \text{CFO}}{\text{Average Assets}}$$

Where:

Earnings=Earnings before taxes

CFO= Cash flows from operation .

The model used for this study to analyze the discretionary accrual is the modified Jones models.

Dechow et al.(1995) and other researched literature of earnings management, total accrual was put thus as lagged total assets and are computed using the following equations below:

$$TACC_t = \frac{(\Delta CA_t - \Delta CL_t - \Delta Cash_t + \Delta Debt_t - Dep_t)}{A_{t-1}}$$

Where:-

TACC_t = Total accruals.

ΔCA = Change in current assets.

ΔCL_t = Change in current liabilities.

$\Delta Cash_t$ =Change in cash and cash equivalents.

$\Delta Debt_t$ = Change in debt included in current liabilities.

The current study used discretionary accrual (DA) as a measure for earnings quality (Shah,2009;Amar,2014;Tsipouridou & Spathis,2014)

$$DA = \frac{TA_{it}}{A} - NDA_{it}$$

Where:-

DA= Discretionary components of accrual in year t

TA_{it} = Total accrual in year t

NDA_{it}= Non-discretionary accruals in year t

The level of discretionary accrual for a firm is calculated as the differences between companies total accruals

3.7 Model Estimation

The analyses of the five objectives of the study . The description of the variables aims to explain the measures adopted and its justification.

determinants dependent and independent variables

	Determinants	Variables	Definition	Researchers	Proxy	Appropriateness
Independent	Firm characteristics	Firm growth	Turnover divided by current turnover	Tesfaye et al(2013),	FG	+
		Firm size	Natural logarithm of total assets	Sun & Rath, 2009, Agrawal and Chatterjee, 2015;Iqbal, Zhang & Jebran,2015, Ahmed(2012)	Fsize	+(-)
		Firm debt/ leverage	The total liability divided by the total assets	Sun& Rath,2009; Agrawal and Chatterjee ,2015; Iqbal, Zhang & Jebran,2015; Asagri, Pour, Zadeh	LEV	+
	Governance, ownership and controls	Board of directors size	Logarithm board of directors size	Beasley,1996 & Peasnel et al 2006;Hassan, 2011;	BOD	-
		Managerial ownership	Percentage of manager's ownership	Shehu(2011); Saleem,2016; Praveen et al.2016.	MOWN	-

	Auditors	Auditor size	Big four firms (KPMG, PwC, Deloitte and EY)		Asize	1 for yes , 0 otherwise
		Auditor fees	Log of audit fees or Log ₁₀		AF	-
	Liquidity	Current assets ratio	Current assets - current liabilities	Agyei Mensah (2013)	CR	+(-)
		Quick assets ratio	Current assets - stock/ current assets	Agyei Mensah (2013)	QR	+(-)
	Performance	Return on investment	Profit/total assets	Kothari et al (2005);Shehu et al.(2014)	ROI	+(-)
		Earnings per share	Profit attributable shareholders/ number of shares	Kothari et al (2005);Shehu et al.(2014)	EPS	+(-)
		Return on assets	Profit after taxes/total assets		ROA	+(-)
	Capital Market	capital incentives	Logarithm of incentives to directors		CI	-
			Logarithm			

		Turnover	of sales		Tover	-
Dependent	Earnings Quality	Discretionary accrual quality	Current assets - cash-current liabilities - depreciation/ total assets	Dechow and Dichev (2002); Francis et al (2004);modified Jones, HealyModel, TheDeAngelo(1986) Model,Jones(1991) , Ajit, Malik,& Verma,2013; Kaur,Sharma &Chatterjee, 2015,; Iqbal, Zhang & Jebran,2015; Ajay & Madhumathi, 2013.	DAC	+(-)
		Smoothness	The ratio of earnings variability towards the cash flow variability =earnings/ $\sigma\Delta$ Cash flows	Francis et al (2003); Francis et al(2004), Dechow et al 2010,Chang et al (2008) and Ahmed (2014).	SMT	+(-)

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Data Presentation

The secondary data were collected from cross section of consumer goods companies in Nigeria, Ghana and Kenya. The data were collected from those consumer goods companies for many years. The study adopted the Ordinary Least Square Regressions analysis to identify the causal effects relationship that exists between firm determinants and earning quality management. The study however conducted some preliminary analysis such as descriptive statistics, correlation analysis to ascertain the normality of the data and check for the presence of multi-collinearity.

4.1.1 Descriptive Statistics

The descriptive statistics result shows the mean value for each of the variables, their maximum values, minimum values, standard deviation and the normality test. Table 4.1 below, is the descriptive statistics result of the data used for the study.

The result also reveals that consumer goods manufacturing companies in Sub-Saharan African countries doesn't practice earnings quality and also does not manipulate their financial statement. in terms of earning quality proxies: The mean value of discretionary accrual is 0.40, maximum value is 9.27 and minimum value is 9.05. This means on the average manufacturing companies in West Africa use discretionary accrual to monitor the earnings quality in companies in West Africa. Smoothness has a mean value of 1.56, maximum of 9.01 and minimum value of 0.85. The result revealed that the use of smoothness in consumer goods companies in West Africa is lower than that of discretionary accruals

However, in firm characteristics, the result of means of Firm growth results showed that mean is 0.375 or 37.5%, maximum 0.11 or 11% and minimum 0.06. This signifies that firm growth is of usefulness in combating earnings quality problems. The mean statistics of leverage /debt indicates that consumer goods manufacturing firms in West Africa continuous prefer to finance their assets through debt rather than equity. The companies are highly levered. The firm size mean of 6.84 shows that the indication that there are some large companies in the cohort companies. corporate governance which comprises the board of directors, internal control and managerial ownership showed a positive significant relationship. The mean of board of directors is 1.223, maximum of 8.12 and minimum of 0.05. This shows that board of directors are significant to earnings quality in Sub-Saharan Africa. This also signifies that there are outside directors in the board. Internal control, the mean value is 1, maximum value is 1 and minimum value is 1. This signifies that internal control is strong and they are positively and strongly related or significant to earnings quality. Managerial ownership show a mean value of 5.293 or 52.9%, maximum value of 4.82 and minimum value of 0.10.

Table 4.1 DESCRIPTIVE STATISTICS

Variables	Definition	Mean	Median	Q5	Maximum	Minimum	Q95	Std. Dev.	Skewness	Kurtosis
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PANEL A:- Earnings quality proxies:

Discretionary Accrual		0.40	0.20	0.36	9.27	9.05	-9.27	2.07	0.46	16.67
Smoothness		1.56	0.79	1.64	9.01	0.85	0.05	1.95	2.14	4.38

PANEL B: Firm Determinates Proxies

Firm characteristics:

Firm Growth		0.37568	0.11	5.75	0.06	0.97	0-97	0.91654	4.235	20.208
Firm size		6.844	7.6	8..92	8.07	0.59	0-52	1.955	2.037	3.7459
Leverage		0.6472	0.57	8.12	0.69	0.05	0-05	0.8170	7.8461	71.227

Corporate Governance:-

Board of Directors		1.223	0.95	1.2232	1.00	0.3	0.03	1.4	5.234	28.087
Managerial ownership		5.2981	5.014	6.735	4.82	0-10	0.1	1.8151	1.14690	0.9028

Auditor:

Auditor Size		1	1	1	1	1	1	1	1	1
Auditor Fees		3.979	2.87	3.979	5.37	0.11	0.11	1.0262	1.8255	2.656

Liquidity:-

Current Asset		1.538	1.275	1.538	7.68	0.12	0.11	1.276	3.005	2.716
Quick Asset		1.089	0.79	1.089	6.11	0.06	0.06	1.047	2.774	9.041

Firm performance:-

Return on Investment		0.3248	0.13	0.3248	10	0	0	0.9765	9.293	92.213
Earnings Per share		6.67	0.505	6.54	72.5	0.88	0.88	13.429	3.035	10.391
Return on Assets		0.225	0.1	0.21	2.9	0	0	0.478	4.456	20.48

Capital Market:-

Turnover		7.057	7.48	8.00	8.59	4.17	4.17	1.1949	0.890	0.440
Capital incentives										

DESCRIPTIVE STATISTICS CONTINUED

DESCRIPTIVE STATISTICS CONTINUED

PANEL A	Jarque- Bera	Probability	sum	sumsq.Dev.	Observation
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Earnings quality proxies

Discretionary Accrual	84.32	0.000	223.86	1.38	280
Smoothness	97.35	0.000	115.75	1.40	280

PANEL B

Firms Determinants Proxies:

Firm Characteristics

Firm Growth	24.696	0.0000	41.7	0.067	280
Firm size	15.422	0.0000	780.22	5.910	280
Leverage	26.816	0.0000	65.371	0.140	280

Corporate Governance:-

Board of Directors	45.72	0.0000	115.03	3.639	280
Managerial ownership	30.6363	0.0000	312.59	1.822	280

AUDITOR:

Auditor Size	25.2083	0.0000	118.00	1.180	280
Auditor Fees	10.770	0.0000	366.11	1.754	280

Panel C:

Liquidity:

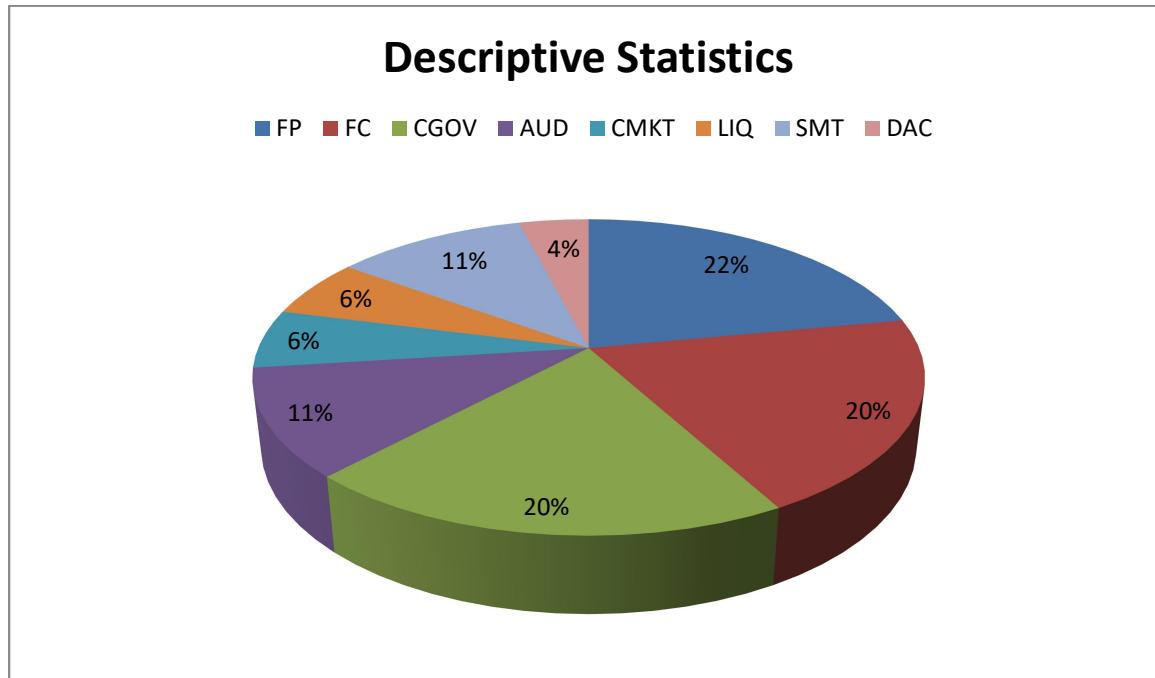
Current Asset	21.296	0.0000	163.08	4.1042	280
Quick Assets	56.297	0.0000	114.0049	2.60854	280

Firm Performance:

Return on investment	44.078	0.0000	1135.08	1.4368	280
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Earnings per share	72.94	0.0000	69.3956	23.6804	280
Returns on assets	25.02	0.0000	25.08	30.8174	280
Capital Incentives:					
Turnover	16.9738	0.0000	825.76	5.667	280
Capital Incentive	26.5828	0.0000	65.37	10.140	280

Figure 1. showing comparisons of Descriptive statistics: Mean, median ,maximum and minimum of the independent variables and dependent variables.



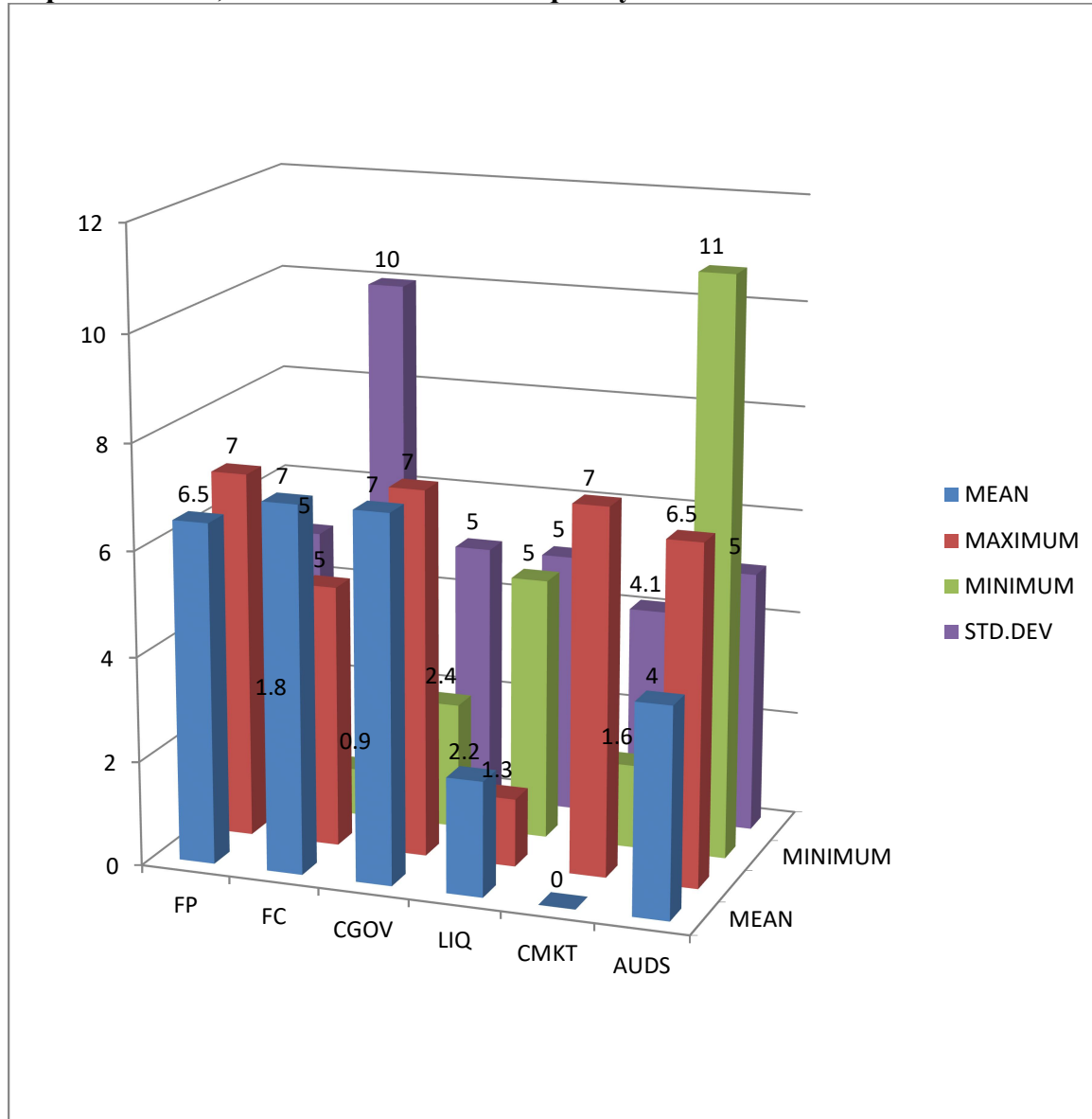
Source: Researchers computation, 2021.

This depicts the relationship between total percentage of mean, median, maximum and minimum of the dependent and independent variables of all the companies under study in the Sub-Saharan Africa countries.

Figure 2: Result Of The Histogram Normality Test

Figure 1 represents the bell shaped histogram of variables. It is the test that indicates the normality of the data. The Jarque-Bera statistics is(649.7712) with a significant probability of(0.0000) the kurtosis of (14.561) is above benchmark of 3 and show leptokurtic residual. the mean of skewness depicts a value of (3.97). The figure is shown in appendix 11.

Figure 3 showing : Chart Showing The Relationship Between Descriptive Statistics Of Independent Variables: Firm performance, Firm Characteristics, Corporate Governance, Capital Market ,Auditor Control And Liquidity.



4.2 Correlation matrix of dependent and independent variables.

The correlation analysis helped to ascertain whether there is a multicollinearity problems among the independent variables based on the standard criteria the correlation value of less than 0.10 would not pose any serious multicollinearity problems and affect the validity of the findings Table 2 shows that none of the correlation value exceeds 0.10. Hence there was no serious multicollinearity problems among the independent variables. Colinearity means that there is a strong relationship between the independent and dependent variables in the model. Firms characteristics which consists of firm growth is highly correlated with discretionary accruals and smoothness variables. also firm leverage and firm size suggests that high bank borrowing and

profit increase earnings quality whereas large firms are expose to low volume of earnings quality.

4.2.1 Variance Inflation Factor

variance inflation factor test (VIF) is to detect the multicollinearity problem among explanatory variables. Variance inflation factor in relation to all the variables considered are consistently less than 10 and also the tolerance value statistics are consistently greater than 0.10 for all the variables considered. This situation confirmed the absence of multicollinearity among the explanatory variables. variance inflation factor is measured by $1/1-R^2$ where R^2 known as Pearson correlation coefficient squared.

Table 3 : Showing multicollinearity of variables

Variables	VIF	1/VIF
FP	0.12	0.8774
CGOV	0.069	0.9307
CMKT	0.09	0.9901
AUDS	0.26	0.7489
LIQ	0.33	0.6643
PROFIT	0.07	0.9294

Source: Researchers computation,2021.

The result means that there is no evidence of multicollinearity among the explanatory variables.

4.3 Regression analysis

This study adopted the panel regression analysis to identify the possible effects of firms determinants on the earnings quality of quoted manufacturing companies in Sub-Saharan Africa. However, due to the heterogeneity nature of the panel data, the study used the Hausman effect test to test its effect on the data.

Decision Rule for hypotheses testing:

Accept H_0 and reject H_1 – when the probability value is above 10%

Accept H_1 and reject H_0 – when the probability value is less than 10%

Decision rule for Hausman effect test:

H_0 – random effect is more preferable than fixed effect

H_1 – fixed effect is more preferable to random effect

When chi-square probability value is less than 10 – rejects H_0 and accepts H_1

When chi-square probability value is greater than 10 – accepts H_0 and rejects H_1 .

4.3.1 Model 1: Smoothness Model.

Fixed and Random Effect Test:

The summary result of smoothness model, Hausman effect test used by the study to select between fixed and random effect, which affect the data used in the study is presented below.

Table 4.3.1 Correlated Random Effects - Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.917837	5	0.7892

Source: Summary of Hausman effect test result (2020) from e-view 8

The Hausman effect test result shows a chi-square value of 3.92 and probability value 0.79, the chi-square probability value is above 10 percent. Based on the result, the study accepts the random effect and rejects the fixed effect. The study therefore used the random effect to correct the problem of heterogeneity in the data used for the study. Table 4.4 below is the regression result adjusted for random effect (detail of the result is presented in table 6 under the appendix).

Model 2: Discretionary accruals

Fixed and Random Effect Test:

The study used Hausman effect test used by the study to select between fixed and random effect, which affect the data used in the study is presented below.

Table 4.3.2 Correlated Random Effects - Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	12.409164	5	0.1879

Source: Summary of Hausman effect test result (2020) from e-view 8

The Hausman effect test result shows a chi-square value of 12.40 and probability value 0.19, the chi-square probability value is above 10 percent. Based on the result, the study accepts the random effect and rejects the fixed effect, hence we use the fixed effect to correct the problem of

heterogeneity in the data used for the study. Table 4.4 below is the regression result adjusted for random effect.

Regression Analysis Result for Model 1

Below is the analysis of smoothness model and discretionary accrual model. The details of the result is in table 6 under the appendix

Model 1: Smoothness

Table 4.3.2 Cross-section random effects test result

Cross-section random effects test equation:

Dependent Variable: SMT

Method: Panel Least Squares

Date: 03/103/21 Time: 10:20

Sample: 2010 2019

Periods included: 10

Cross-sections included: 30

Total panel (unbalanced) observations: 280

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.192175	0.469772	4.090814	0.0000
FP	0.886438	0.460432	1.925231	0.0554
FC	0.005478	0.005744	0.953705	0.3412
CGOV	1.081697	1.036461	2.043645	0.0047
LIQ	0.110081	0.580250	0.189712	0.8497
CMKT	0.002341	0.004663	0.501968	0.2561
AUDS	0.008931	0.009331	0.957160	0.3394
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.531662	Mean dependent var	1.229324	
Adjusted R-squared	0.421900	S.D. dependent var	0.917705	
S.E. of regression	0.859954	Akaike info criterion	2.655256	
Sum squared resid	181.1826	Schwarz criterion	3.121379	
Log likelihood	-337.0634	Hannan-Quinn criter.	2.842197	
F-statistic	2.110577	Durbin-Watson stat	2.141850	
Prob(F-statistic)	0.000563			

Source: Regression result from e-view 8

The analysis result of the smoothness model shows an R-sq of 0.532 and R-sq (adj) 0.422 respectively. The R-squared adjusted value of 0.42 (42%) indicates that firm determinants can explain about 42 percent of changes in earning quality management in Nigeria, Kenya and Ghana. That is, about 42% changes in smoothness value among the manufacturing industries in Nigeria, Kenya and Ghana can be attributable to the firm determinant. The F-statistics value of 2.11, and its probability value of 0.00, shows that the smoothness regression model used is well specified and the specification is statistically significant at 1% levels. The Durbin Watson value of 2.141 reveals the absence of autocorrelation in our model.

Regression analysis result

Below is the analysis of discretionary model. The detail of the result is in table 6 under the appendix.

Table 4.3.4 DCA: Cross-section random effects test equation:

Cross-section random effects test equation:

Dependent Variable: DCA

Method: Panel Least Squares

Date: 03/03/21 Time: 10:30

Sample: 2009/ 2018

Periods included: 10

Cross-sections included: 30

Total panel (unbalanced) observations: 280

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.679628	0.166710	4.076708	0.0001
FP	0.090715	0.114604	0.791551	0.0294
FC	0.246826	0.257981	-0.956760	0.3396
CGOV	0.230980	0.001430	2.685237	0.0018
LIQ	0.068528	0.152988	-0.447931	0.6546
CMKT	0.001470	0.001161	-1.266098	0.2067
AUDS	0.001747	0.002322	0.752151	0.4527
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.488352	Mean dependent var	0.586085	
Adjusted R-squared	0.415259	S.D. dependent var	0.279916	
S.E. of regression	0.214047	Akaike info criterion	-0.126107	
Sum squared resid	11.22499	Schwarz criterion	0.340017	
Log likelihood	53.71806	Hannan-Quinn criter.	0.060835	
F-statistic	6.681281	Durbin-Watson stat	1.620473	
Prob(F-statistic)	0.000000			

Source: Regression result from e-view 8

The result of the R-squared adjusted value of 0.42 (42%) indicates that firm determinants can explain about 42 percent of changes in the level of discretionary and smoothness of the manufacturing companies in Nigeria, Kenya and Ghana. That is, about 42% changes in earning quality management of the manufacturing industries in Nigeria, Kenya and Ghana can be attributable to the firm determinant. The F-statistics value of 6.68, and its probability value of 0.00, shows that the discretion regression model used is well specified and the specification is statistically significant at 1% levels.

Hypotheses

H01: Firm Performance has no significant effect on earnings quality management in Sub-Saharan Africa.

The analysis result of the effect of Firm performance (Return on assets, Earnings per share and Return on investment) on earning quality management shows coefficient value of 0.886 and

0.091 for smoothness and discretionary accrual model respectively. This indicates that profitability positively affected the level of smoothness and discretionary accrual of the manufacturing companies in Sub-Saharan Africa.. The probability value of 0.055 and 0.029 for smoothness and discretionary accrual showed that the positive effect of profitability on smoothness is statistically significant among consumer goods manufacturing industries in Sub-Saharan Africa. Thus increasing the profitability can positively affect earnings quality management of consumer goods manufacturing companies in Sub-Saharan Africa.. Based on the result, the study rejects the null hypothesis and concludes that profitability has significant effect on earnings quality management in Nigeria, Kenya and Ghana .

H02: Firm characteristics has no significant effect on earnings quality management in Sub-Saharan Africa.

The analysis result of the effect of firm characteristics(firm growth, firm size, firm debt / leverage) on earnings quality management (smoothness and discretionary accrual) shows coefficient value of 1.082 and 0.230980 for smoothness and discretionary accrual model respectively. The coefficient value indicates that a firm characteristic positively affects smoothness and discretionary accrual of manufacturing firms in Sub-Saharan Africa. The probability value of 0.0047 and 0.0018 for smoothness and discretionary accrual showed that the positive effect of firm characteristic on smoothness and discretionary accrual is significant among the consumer goods manufacturing industries in Sub-Saharan Africa. Based on the result, the study rejects the null hypothesis and concludes that firm characteristics has significant effect on earnings quality management in Nigeria, Kenya and Ghana.

H03: Governance and ownership control has no significant effect on earnings quality management in Sub-Saharan Africa.

The analysis result of the effect of governance and ownership control on earning quality management shows coefficient value of 0.002341 and 0.001470 for smoothness and discretionary accrual model respectively. The coefficient value indicates that governance and control positively affects earnings quality management (smoothness and discretionary accrual) of consumer goods manufacturing companies in Sub-Saharan Africa. The probability value of 0.501968 and 0.2067 for smoothness and discretionary accrual indicate that increasing governance and control does not significantly drive manufacturing companies in Sub-Saharan Africa. Based on the result, the study rejects the alternate hypothesis and concludes that governance and control has no significant effect on earnings quality management in Nigeria ,Kenya and Ghana.

H04: Capital market has no significant effect on earnings quality management in Sub-Saharan Africa.

The analysis result of the study coefficient value of 0.002341 and 0.001470 for smoothness and discretionary accruals respectively and probability value of 0.2561 and 0.2067 for smoothness and discretionary accruals respectively, which means that capital market has positive and significant effect on earning quality management in Kenya and Nigeria Based on the result, the study rejects the null hypothesis and concludes that capital market has significant effect on earnings quality management in Ghana, Kenya and Nigeria.

H05: Auditors control has no significant effect on earnings quality management in Sub-Saharan Africa.

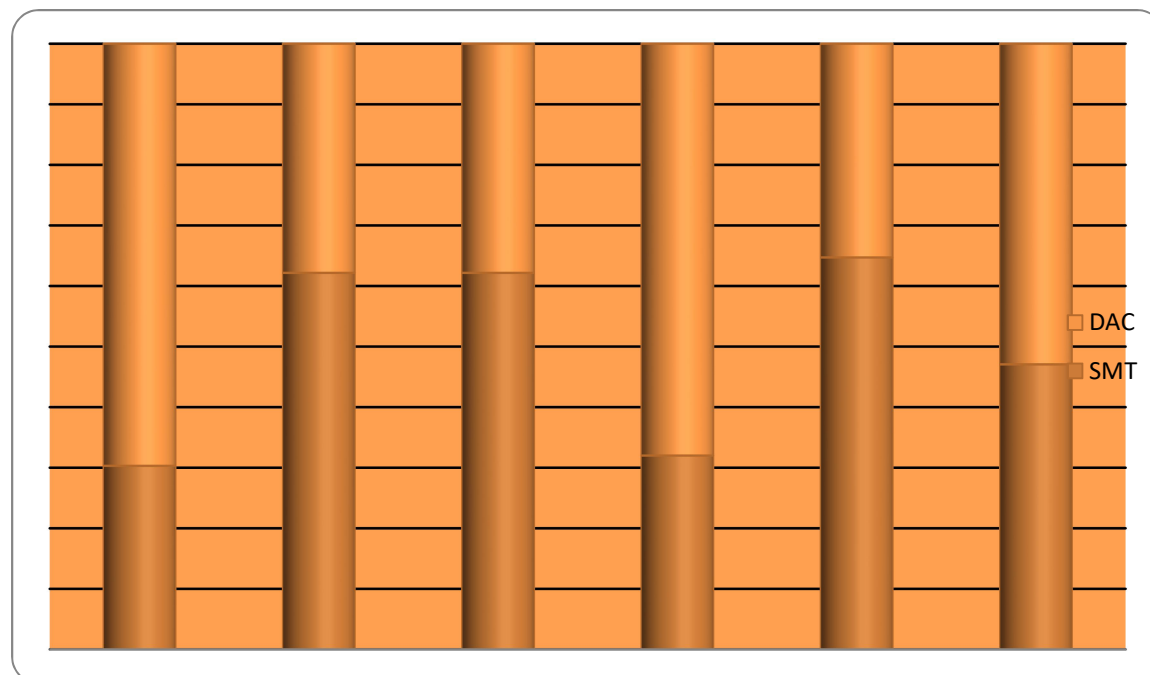
The analysis result of the effect of auditors control on earnings quality management shows coefficient value of 0.008931 and 0.001747 with the probability value of 0.3394 and 0.4527 for smoothness and discretionary accrual respectively . The implication of the result is that auditors control has positive but insignificant effect on earnings quality management in Sub-Saharan Africa. Based on the result, the study rejects the alternative hypothesis and auditors control has no significant effect on earnings quality management in Sub-Saharan Africa.

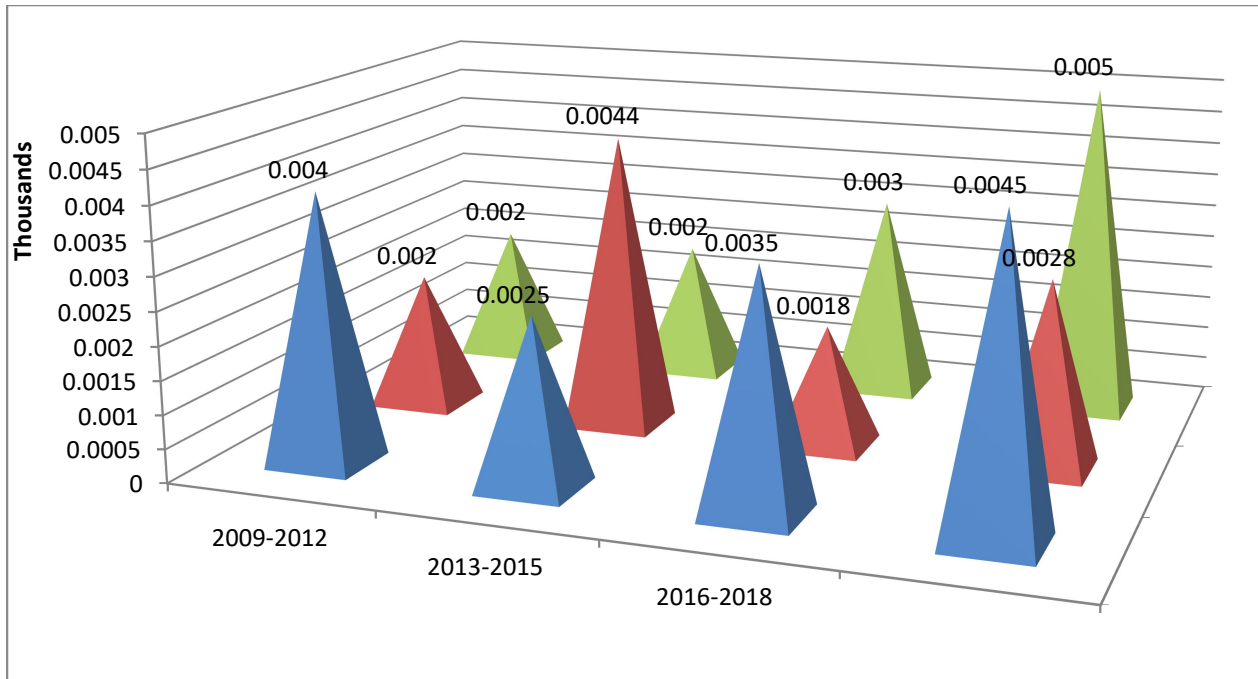
H05: Liquidity has no significant effect on earnings quality management in Sub-Saharan Africa.

The analysis result of the effect of liquidity on earning quality management shows coefficient value of 0.110081 and 0.068528 for smoothness and discretionary accrual model respectively. The coefficient value indicates that governance and control positively affects earnings quality management (smoothness and discretionary accrual) of consumer goods manufacturing companies in Sub-Saharan Africa. The probability value of 0.8497 and 0.6546 for smoothness and discretionary accrual indicate that increasing governance and control does not significantly drive manufacturing companies in Sub-Saharan Africa. Based on the result, the study rejects the alternate hypothesis and concludes that governance and control has no significant effect on earnings quality management in Nigeria ,Kenya and Ghana.

Chart showing comparisons of the hypothesized independent variables with dependent variables

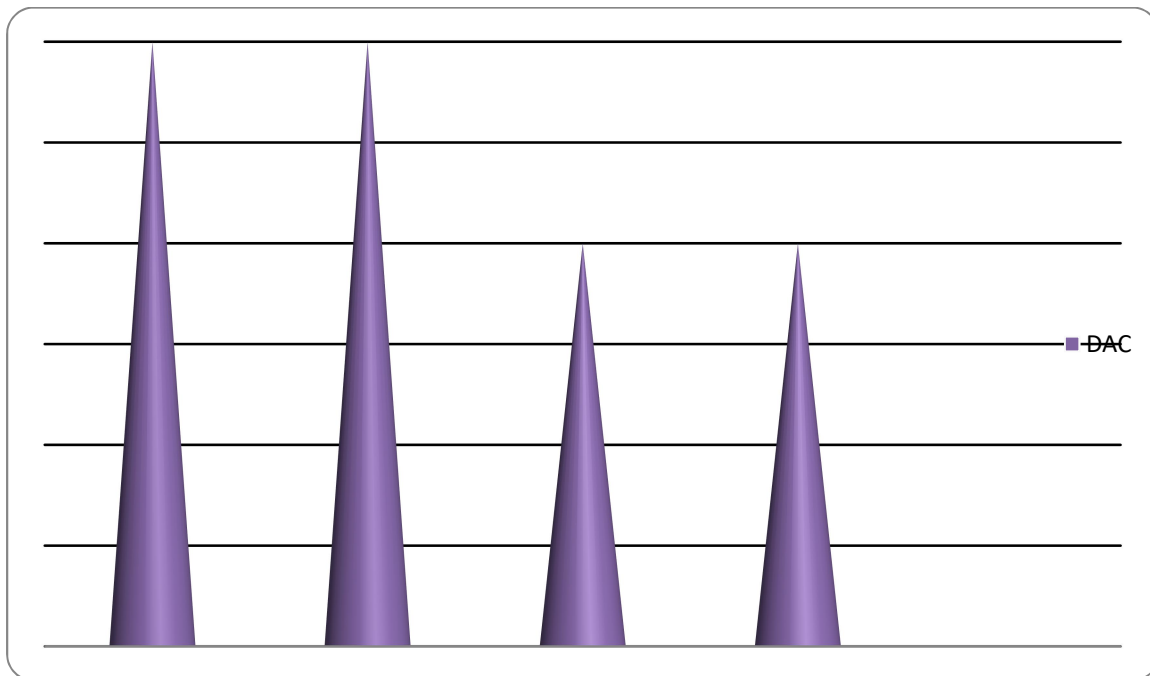
Firm Characteristics And Earnings Quality.





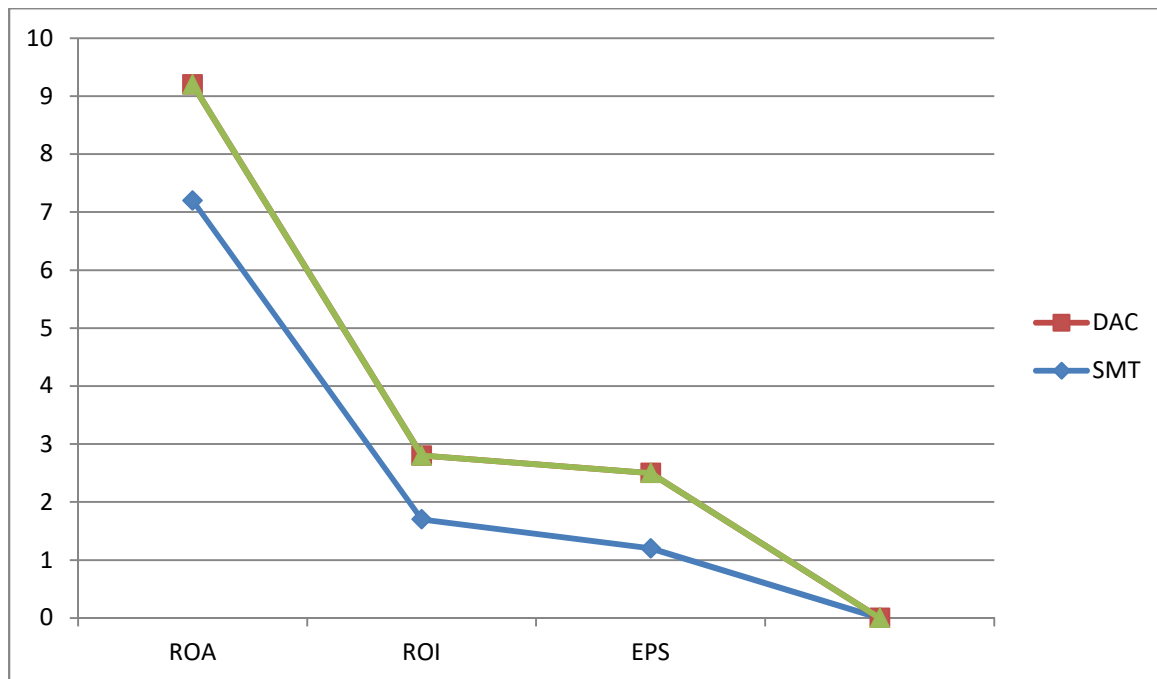
Trend analysis of liquidity and earning quality.

Earnings Quality Variables Compared With Firm Characteristics Proxies



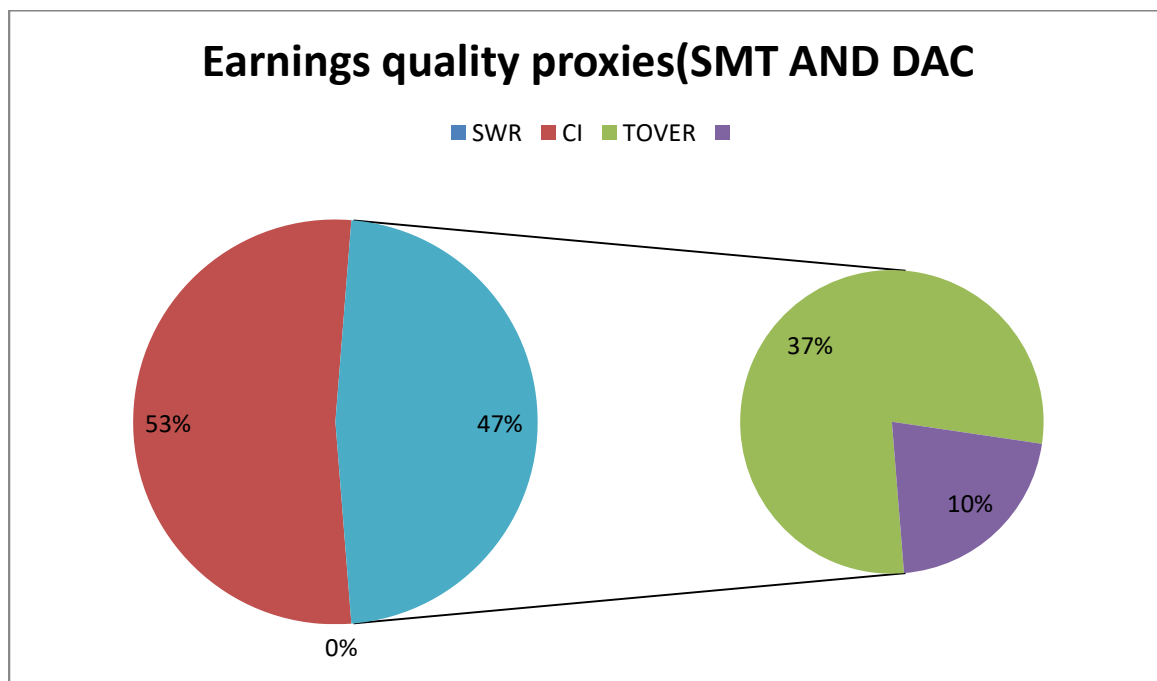
Source: Researchers computation, 2021.

Earnings Quality Compared With Firm performance Proxies



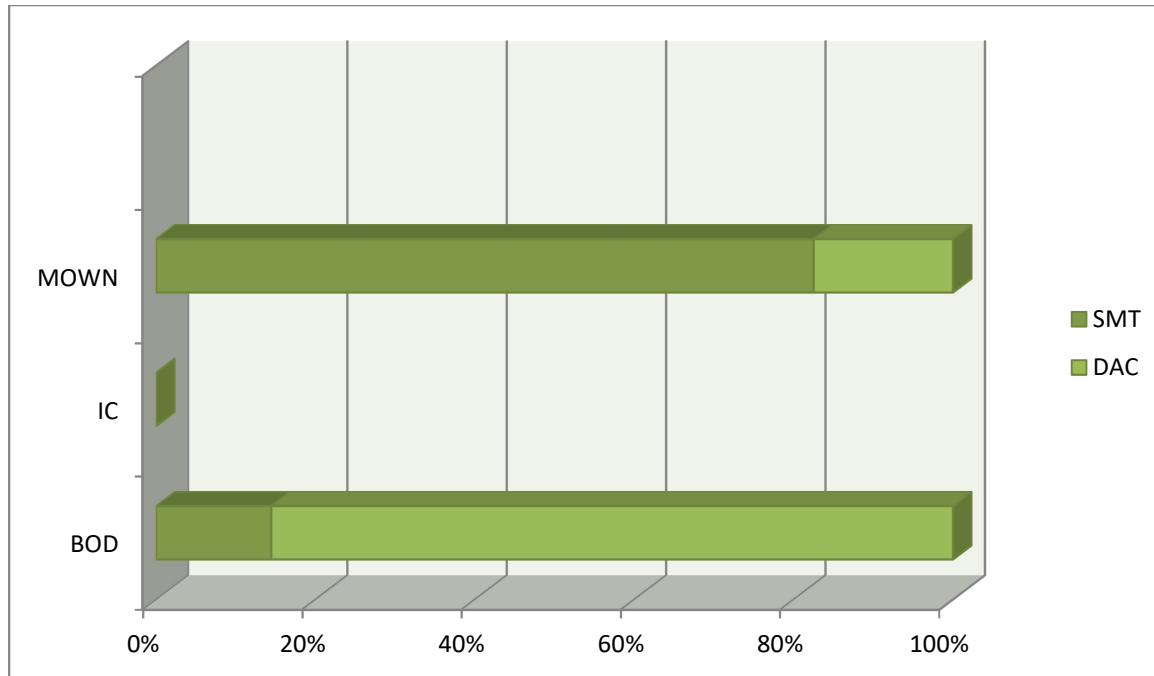
Source: Researchers computation, 2021

Earnings Quality Compared With Capital Market Proxies



Source: Researchers computation, 2021

Earnings Quality Compared With Capital Governance



4.4 Interaction Regression Analysis Approach

The study used interaction approach to select the best combination of the various firm determinants variables that has more effects on earnings quality among firms quoted in Sub-Saharan Africa. The determinants variables were cross interacted. This is done in order to ascertain the combination of many ways that can enhance the reduction of earnings quality among consumer goods manufacturing firms in Sub-Saharan Africa. The result is presented in the table below:

Interaction: Earnings quality variables

The First Interaction Regression Analysis

Dependent Variable: Earnings quality

Method: Panel Least Squares

Date: 03/03/21 Time: 10:20

Sample: 2009 2018

Periods included: 10

Cross-sections included: 30

Total panel (unbalanced) observations: 280

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.517144	0.220887	8.494352	0.0000
FP*FC	0.090715	0.114604	0.791551	0.0294
FP*FGOV	0.246826	0.257981	-0.956760	0.3396
FP*LIQ	0.230980	0.001430	2.685237	0.0018
FP*CMKT	-0.068528	0.152988	-0.447931	0.6546
FP*AUDS	0.162637	0.144427	3.126084	0.0012

0.518555 Mean dependent var 0.653191

R-squared			
Adjusted R-squared	0.062844	S.D. dependent var	0.436919
S.E. of regression	0.220727	Akaike info criterion	-1.277689
Sum squared resid	0.196897	Schwarz criterion	-3.665531
Log likelihood	27.3225	Hannan-Quinn criter.	-1.951607
F-statistic	0.006831	Durbin-Watson stat	0.32090
Prob(F-statistic)	0.99320		

Source: Regression result from DATATAB 8

The table shows the result of the interaction analysis of the firm determinants and earnings quality. The study observed almost all the manufacturing firms profit oriented, thus performance is the only variable common to all the firms. The main variable (performance) was interacted with other firm determinants variables like: Firm characteristics (firm growth, firm size and firm leverage), corporate governance(board of director size and managerial ownership), auditors (auditor size and auditors fees),capital market (capital incentives and turnover), liquidity(current assets and quick ratio) . The result shows that the combination of firm performance and firm characteristics has positive and significant effect on earnings quality management of the consumer goods firms in Sub-Saharan Africa.

The result of the interaction analysis between firm performance and corporate governance shows a positive and significant effect on earnings quality management among consumer goods companies in Sub-Saharan Africa. This means that a well managed corporate governance can reduce earnings quality in firms in Sub-Saharan Africa. The combination of firm performance and liquidity has negative effect on earnings quality among manufacturing firms in Sub-Saharan Africa. This shows that combination of firm performance and liquidity will negatively influence earnings quality management in Sub-Saharan Africa. The combination of firm performance and capital market shows they have negative but not significant effect. This shows that the combination of firm performance and capital market will negatively affect earnings quality in Sub-Saharan Africa. The interactions of the effect of auditors control on earnings quality has positive but not significant effect on earnings quality management among manufacturing companies in Sub-Saharan Africa. This shows that the combination of firm performance and auditors control can have influence on earnings quality but does not show that earnings quality may not be practiced in firms in Sub-Saharan Africa.

Comparative Analysis of the effect of firm determinants on earnings quality management among firms in Nigeria, Ghana and Kenya.

Table 7. Inter Country Analysis

Items	Nigeria		Ghana		Kenya	
	Smoothness Model	Discretionary Model	Smoothness Model	Discretionary Model	Smoothness Model	Discretionary model
FP	0.3590	0.0050	0.0003	0.0001	0.4698	0.0184
FC	0.2230	0.5000	0.8620	0.4130	0.6776	0.3612
CGOV	0.2800	0.0005	0.0001	0.4070	0.3102	0.3798
CMKT	0.3250	0.3330	0.2520	0.4960	0.0086	0.2203
AUDS	0.0133	0.0521	0.4630	0.0554	0.0220	0.0810
LIQ	0.7590	0.4060	0.4760	0.3870	0.6272	0.0698

R-squared	0.516000	0.641000	0.484850	0.737818	0.600000	0.503000
R-sq (adj)	0.300670	0.124950	0.376015	0.682427	0.200015	0.313330

The analysis result shows that firms determinants has more effects in Kenya than in Nigeria and Ghana. On the discretionary accruals model , the result reveals that firm determinants variables jointly drive about 68% of changes in discretionary accrual among manufacturing firms in Kenya, about 31.3% changes in discretionary accrual among manufacturing firms in Ghana and about 12.5% changes in many firms in Nigeria.

Under the smoothness models firm determinants variables jointly drive about 74% of changes in smoothness among consumer goods firms in Kenya, about 20% changes in smoothness among manufacturing firms in Ghana and about 30% changes in smoothness among manufacturing firms in Nigeria. The results means that profitability has significant effect on discretionary accrual in Nigeria , Ghana and Kenya and smoothness in Ghana but does not have significant effect on the smoothness in Nigeria and Kenya. This means that firm performance can reduce incidence of earnings management in manufacturing companies in Nigeria, Ghana and Kenya.

Firm characteristics shows that smoothness and discretionary accrual has no significant effect among manufacturing firms in Nigeria, Kenya and Ghana. This means that firms characteristics cannot significantly enhance the reliability of financial statement because of some opportunistic behaviour . They do not have any association with earnings quality.

Corporate governance has significant effect on discretionary accruals among diversified firms in Nigeria but no significant effect of discretionary accrual among manufacturing firms in Kenya and Ghana. The result also shows that corporate governance has significant effect among manufacturing firms in Ghana but not in Kenya and Nigeria.

Capital market shows no significant effect on the discretionary accrual of manufacturing firms in Nigeria, Kenya and Ghana. The result also shows a significant effect on smoothness among firms in Kenya but no significant relationship among manufacturing firms in Nigeria and Ghana. Auditors control has a significant effect on discretionary accrual among manufacturing firms in Kenya, Ghana and Nigeria. The result showed a significant on smoothness in manufacturing firms in Nigeria and Kenya but no significant effect on smoothness among manufacturing companies in Ghana.

Liquidity has significant effect on discretionary accrual among manufacturing firms in Kenya, but does not have significant effect in Nigeria and Ghana. Under the smoothness model liquidity does not have significant effect in Nigeria , Ghana and Kenya.

4.4 Discussion of findings

The study finding that firm determinants can positively affect about 42 percent of changes in earnings quality management of the consumer goods manufacturing industries used in the study.

The value shows that firm determinants can increase the level of earnings quality management in Ghana, Kenya and Nigeria

Firm Performance and Earning Quality Management

The result of the study indicates that firm performance has significant effect on earnings quality management in Kenya and Nigeria. The positive effect of performance on earnings quality management is significant among consumer goods companies in Kenya and Nigeria. Thus increasing the performance can positively affect earnings quality management of the manufacturing companies in Nigeria, Ghana and Kenya. The finding is in line with the finding from the study of Irom, Okpanachi, Nma and Tope (2018), who submits that firm determinants have positive effect on earnings quality management of listed manufacturing companies in Nigeria, and finds positive and significant effect on return on asset, return on investment and earnings per share.

Firm Characteristics and Earning Quality Management

The study finds that firm characteristics have significant effect on earnings quality management in Nigeria, Ghana and Kenya. The implication is that firm size, firm leverage, firm performance and firm liquidity have improved and enhanced earnings quality management in manufacturing companies in Nigeria, Ghana and Kenya. The findings from the study agree with the finding of Daniel and Tilahun (2012), they posit corporate characteristics have positive effect on earnings quality management in Ethiopia.

Corporate Governance and Control and Earning Quality Management

The finding shows that governance and control has no significant effect on earnings quality management in Kenya and Nigeria. The positive effect of governance and control on smoothness and discretionary accrual of manufacturing industries in Nigeria, Ghana and Kenya is statistically insignificant in driving level of earning quality management in manufacturing companies in Sub-Saharan Africa. The finding is in line with the finding from the study of Janthorn and Navee (2015) but contrary to the finding from the study of Mohammed (2018) who founds that governance and control have significant effect on earning quality management in Nigeria.

Auditors Control and Earning Quality Management

The result of the study indicate that auditors control has positive but no significant effect on earnings quality management in Nigeria, Ghana and Kenya

The result shows that the positive effect of auditors control on smoothness and discretionary accrual of the manufacturing industries is statistically insignificant in Kenya and Nigeria. The finding is in line with the finding from the study of Kabiru and Ibrahim (2019) who found that auditors control has insignificant effect on earnings quality management from their study on impact of firm determinant on earnings quality management of quoted consumer goods companies in Nigeria

Capital Market and Earning Quality Management

The study finds that capital market has significant effect on earnings quality management in West Africa. The positive effect of capital market on smoothness and discretionary is statistically

significant on earning quality management of manufacturing industries in Kenya and Nigeria. This reveals that increasing the performance of capital market instrument will drive the market value of the manufacturing companies in Kenya Ghana and Nigeria. The finding is in line with the finding from the study of Janthorn and Navee (2015) who found that capital market instrument has significant effect on manufacturing companies but contrary to the finding from the study of Kabiru and Ibrahim (2019).

Liquidity And Earnings Quality Management

The study finds that liquidity has significant effect on earnings quality management in Sub-Saharan Africa. The positive effect of liquidity on smoothness and discretionary is statistically significant on earning quality management of manufacturing industries in Kenya and Nigeria. This reveals that increasing the amount of money held as liquid assets will help to increase performance and reduce problem of low turnover or illiquidity of the manufacturing companies in Kenya Ghana and Nigeria.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary of Findings

The result of the R-squared adjusted value of 0. 42 (42%) indicates that firm determinants can explain about 42 percent of changes in the level of discretionary accrual and smoothness of the manufacturing companies in Nigeria, Ghana and Kenya. That is, about 42% changes in earning quality management of the manufacturing industries in Nigeria ,Ghana and Kenya can be attributable to the firm determinant. The F-statistics value of 6.68, and its probability value of 0.00, shows that the discretionary regression model used is well specified and the specification is statistically significant at 1% levels.

The findings from the various objectives of the study showed that:

1. Firm performance has positive and significant effect on earnings quality management in Nigeria, Ghana and Kenya.
2. Firm characteristics has positive and significant effect on earnings quality management in Sub-Saharan Africa.
3. Governance and control has positive and insignificant effect on earnings quality management in Nigeria, Ghana and Kenya..
4. Auditors control has positive and insignificant effect on earnings quality management in Nigeria, Ghana and Kenya.
5. Capital market has positive and significant effect on earnings quality management in Nigeria, Ghana and Kenya.
6. Liquidity has positive and significant effect on earnings quality management in Nigeria, Ghana and Kenya.

5.2 Conclusion

The recent global economic instability experienced recently, couple with the desire for wealth maximization has lead most manufacturing industries to explore their firm determinants that can give them competitive edge and enhances the possibility of achieving their goals. Those firm determinants can influence their policy and decision and distinguishes one manufacturing

company from another. The study concludes that firm determinants have positive effect on the level of earnings quality management

1. Recommendations

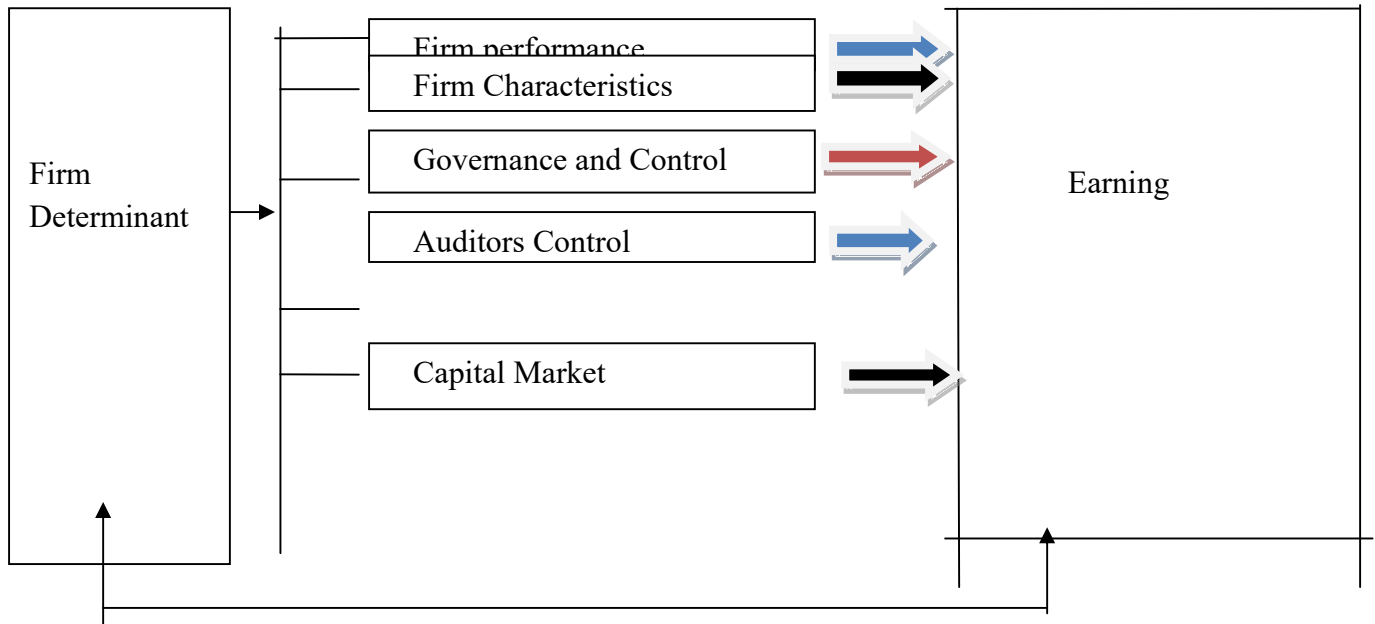
1. The study revealed that firm performance has significant effect on earnings quality management in Nigeria, Ghana and Kenya.. The study recommends that management of manufacturing industries in West Africa should formulate policy that will be geared toward enhancing earnings quality management
2. Our finding showed that firm characteristics have significant effect on earnings quality management in Nigeria, Ghana and Kenya.. The implication is that firm size, firm leverage, firm growth and firm performance have improved and enhanced earnings quality management in manufacturing companies Nigeria, Ghana and Kenya.. Thus increasing firm characteristics will significantly affect earnings quality management in manufacturing companies in Nigeria, Ghana and Kenya.. The study recommends that management of manufacturing industries in their drive to enhance earnings quality management should increase and improve firm characteristics.
3. The finding shows that governance and control has positive effect on earnings quality management but the effect is not significant therefore cannot drive earning quality management in manufacturing companies in Nigeria, Ghana and Kenya.. The study thus recommends that management of manufacturing industries should improve in governance and control.
4. The findings indicate that auditors control has positive but no significant effect on earnings quality management in Nigeria, Ghana and Kenya. The result shows that the positive effect of auditors control on smoothness and discretionary accrual of the manufacturing industries is statistically insignificant in Sub-Saharan Africa. The study recommends that management of the manufacturing industries should reduce their auditor's control, since using auditors control may pose challenges to earnings quality management
5. The study finds that capital market has significant effect on earnings quality management in Nigeria, Ghana and Kenya. The positive effect of capital market on smoothness and discretionary accrual is statistically significant on earning quality management of manufacturing industries. The study therefore recommends that management should increase the performance of capital market instrument to improve the market value of the manufacturing companies

5.4 Contribution to Knowledge

Previous studies examined some aspect of firm determinants on earnings quality management with few studies done in developing countries.

The study contributed to knowledge by introducing return on asset and firm leverage as firm determinant variable which can affect on the level of earnings quality management

The study modified existing model in this area, and updating literature in this area. This is graphically presented as follows:



Graphical presentation of contribution to knowledge

The study measure of earnings quality management using smoothness and discretionary accrual

STN = FP, FC, CMKT, CGOV, AUD, LIQ

DCA = FP, FC, CMKT, CGOV, AUD, LIQ

This study has contributed to knowledge by providing empirical evidence of how firm determinant affect earnings quality management of manufacturing industries in Nigeria, Ghana and Kenya.

References

- Adeleye O.K.(2020). Firm characteristics and earning quality of quoted manufacturing firms in Nigeria. *International Journal of Academic Research in Economics and Management Sciences*, 9(3), 45–51.
- Ado, A.B , Norfadzilah R.Mustapha, U.A & Ademola, L.S (2020). The financial determinants of earnings management and the profitability of listed companies in Nigeria. *Journal of critical reviews* 7 (9) 31-36
- Ado,A., Rashid, N., Umor,M & Ademola,S.(2020). The financial determinants of earnings management and the profitability of listed Companies in Nigeria. *Journal Of Critical Reviews*. 7.

- Agbeyi, S.(2018) .Diverse performance measurement and earnings management on quoted manufacturing companies in Nigeria. *Asian Journal of Economics, Business and Accounting*.
- Agrawal, K., & Chatterjee,C.(2015). Earnings management and financial distress: Evidence from India. *Global Business Review*, 16(5).
- Aguguom T. Akintoye, R & Salawu, R.O (2018). Earnings quality and firms financial performance: a missing link in the listed firms in Nigeria. *International Journal of Accounting & Finance*, Vol. 7(2),45-59
- Ahmed ,T.A. (2012).Managerial characteristics and earnings quality of listed deposit money banks in Nigeria. phd . dissertation submitted to the school ofpostgraduate studies, Ahmadu Bello University, Zaria.
- Daily,C., Dalton,D.,&Canella,A.(2003). Corporate governance: Decades of dialogue and data. *Academy Of Management Review*,28(3),371-382.
- Dalton,D., Daily,C.,& Ellstrand,A.(1999). Number of directors and financial performance: A meta analysis. *Academy of Management Journal*,42(6),674-686.
- DeAngelo, L., (1981).Auditor independence low balling and disclosure regulation . *Journal of Accounting and Economics* 3, 113-127.
- Dechow ,P.,& Dichev, J.D.(2002).The quality of accruals and earnings : The role of accrual estimation errors. *The Accounting review*, 77(s-1), 35-59.
- Dechow,P., Ge,W. & Schrand, M.(2010). Understanding earnings quality: A review of the proxies, their determinants, and their consequences. *Journal Of Accounting And Economics*, 50(2-3),344-401.
- Dechow,P., Hutton,A., Kim, J & Sloan, R.(2012). Detecting earnings management: a new approach. *Journal of Accounting Research*, 50, 275-334.
- Dechow,P.,Sloan,R.,& Sweeny,A.(1995). Detecting earnings management", *The Accounting Review* .7 193-225.
- Elizabeth,K,& Elliot,P.(2014). The competition between regression and artificial neural network models in earnings management prediction. *International Review Of Business Research Papers*,10(2),148-159.
- Fama,E.(1970). Agency problems and the theory of the firm. *Journal of Political Economy* 88(2) 288-307.
- Fama,E., & Jensen,M.(1983). Separation of ownership and control. *Journal of Law and Economics*, 26(2),301-325.
- Farooqi,H. &Ngo,P.(2014). Leverage, investment and firm growth. *Journal Of Financial Economics*, 40(1),3-20.
- Hauwa,S.,Ocheni,I.,&Muktar,J.(2017). The impact of earnings management on financial performance of listed deposit money banks in Nigeria .*Journal of Accounting and Financial management*.

- Healy,P .(1985).The effect of bonus scheme on accounting decisions. *Journal Of Accounting And Economics* 7 :85-107.
- Holthausen, R., Larcker,D., Sloan, R.,(1995). Annual bonus schemes and the manipulation of earnings . *Journal Of Accounting And Economics* ,19,29-74.
- Hurriaga,L.,and Hoffmann.S .(2005) . Earnings management and internal mechanism of corporate governance: Empirical evidence from chileans firms. *Journal Of Corporate Ownership And Control*, 31.
- Hussaini,B., & Gugong, K.(2014) .Audit committee characteristics and earnings quality of listed food and beverages firms in Nigeria : *International Journal Of Accounting, Auditing and Taxation* 2(8).
- Igbal,A., Zhang,Z., & Jebran, K.(2015). Corporate governance and earnings management : A case of Karachi stock exchange companies. *Indian Journal of Corporate Governance*, 8(2), 103- 118.
- Imad, Z. (2015). Earnings quality determinants of the Jordanian manufacturing listed companies. *International Journal of Economics and Finance*,7(5) 1916-9728.
- Isah ,I.(2017). Impact of firm attributes on earnings quality of listed deposit money banks in Nigeria. A Dissertation Submitted To Ahmadu Bello University Zaria.
- Lanouar. C., Rabeb, R., & Abdelwahed, O. (2020). the determinants of earnings management Sew in developing countries: A Study In The Tunisian Context. *Journal Of Research Gate*.
- Lesile, D., & Okoeguale,B.(2013). An evaluation of the implication of earnings management determinants in the banking industry: The case of Nigeria. *African Journal Of Social Science*.3(3).
- Li, J. & Park,S.(2012).Earnings management effects of IFRS adoption and ownership structure: Evidence from China. *Korea International Accounting Review*,41,121-136.
- Md.A., Siti,N.,& Suraiya,I.(2011). Earnings quality in public listed companies: A study on Malaysia exchange for securities dealing and automated quotation. *International Journal of Economics and Finance* 3(2) 228951790.
- Mohammady, A.(2012). Earnings quality constructs and measures, *SSRN Electronic Journal* 1-7
- Olaoye, F.O & Adewumi, A..A (2020). Corporate governance and the earnings quality of Nigerian Firms. *International Journal of Financial Research* 11, (5) 34-56
- Omoye, A.S & Eriki, P.O (2014). Corporate governance determinants of earnings management: evidence from Nigerian quoted companies. *Mediterranean Journal of Social Sciences*. 5 (23) 553-567
- Paiva ,I.,& Lourenco,I.(2016). Determinants of earnings management in the hotel industry: An International Perspective. *Corporate Ownership And control*.

- Payam M.,(2013) The impact of intellectual capital on earning quality: evidence from Malaysian firms, *Australian Journal Of Basic And Applied Sciences*, 7(2): 535-540
- Penman, S.H.,& Xi, Z.(2012). Accounting conservatism, the quality of earnings, and stock returns, *The Accounting Review*, 77(2).
- Pfeffer ,J. (1973). Size composition and function of corporate boards of directors: The organization environment linkage. *Administrative Science Quarterly*,18,349-364.
- Pfeffer,J. & Salancik,G. (1978). The external control of organizations : *A Resource-Dependency Perspective*. New York, NY: Harper and Row.
- Pranesh,D.(2017) Assaying The impact of firm's growth and performance on earnings management: an empirical observation of Indian Economy. *International Journal Of Research In Business Studies And Management* 4(2).
- Prawin, D.,Smith,J and Wood,D.(2009). Internal audit quality and earnings management. *Journal Of The Accounting Reviews* 84(4)1255-1280
- Shehu,U. & Ahmad,B.(2013). Firm characteristics and financial reporting quality of listed manufacturing firms in Nigeria. *International Journal Of Accounting , Banking And Management* 1(6) 47-63
- Shehu,U., & Abubakar,A.(2012). Corporate governance, earnings management and financial performance: A case of Nigerian manufacturer firms. *American International Journal of Contemporary Research*, 2(7),214-226.
- Shehu,U.H.& Farouk,M ,F.(2014). Firm attributes and earnings quality of listed oil and gas companies in Nigeria, *Review Of Contemporary Business Research*3(1),1.
- Shehu,U.H.(2011). Determinants of financial reporting quality: An in -depth study of firm structure. *Journal of modern accounting and auditing(U.S.A)*,2(4), 54-76.
- Shehu.U.,(2012). Financial reporting quality, does monitoring characteristics matter? An empirical analysis of Nigerian manufacturing sector. *The Business & Management review*,3(2).
- Shehu.U.,(2013).Adoption of international financial reporting standards (IFRS) and earnings quality in listed deposit money banks in Nigeria. *Procedia Economics And Finance*,28,92-101.
- Uwuigbe ,O.,Uwuigbe,U., & Okorie,B.(2015) Assessment of the effects of firms' characteristics on earnings management of listed firms In Nigeria. *Journal Of Asian Economic And Financial Review* 2305-2147.
- Uwuigbe, U.,(2013) An examination of the effect of ownership structure and financial leverage on the dividend policies of listed firms in Nigeria. *Journal Of Economics, Business, And Accountancy Ventura*,16(2)