



## EFFECT OF EARNINGS ATTRIBUTES ON SHARE PRICE OF LISTED CONSUMER GOODS FIRMS IN NIGERIA STOCK EXCHANGE

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### Abstract

**E**arnings attributes has evolved as an issue of interest to potential investors, financial analyst and other financial operators in view of the fact that it is one of the most striking and challenging issues in the field of Accounting. While managers are much concerned about meeting analyst forecast by maintaining sustainable growth of the companies as means to protect themselves analysts are interested on how best to measure the quality of earnings. This study investigated the effect of earnings quality properties on share price of listed consumer goods firms in Nigeria stock Exchange. The population of the study comprised all the 11 listed consumer goods firms on the Nigeria Stock Exchange as at 31st December 2019 on which filters were employed to arrive at an adjusted population of 8 firms. The entire firms within the adjusted population were studied based on

census approach. Panel data were extracted from the annual financial statements of the firms for the period 2015 to 2019 to ascertain the

### KEYWORDS:

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effect of earnings quality properties represented by accruals quality and earnings variability on share price of the firms. The result of the robust Ordinary Least Square (OLS) revealed that of the two earnings quality attributes used in the study, accruals quality have significant inverse relationship with share price, while earnings

*variability has significant positive relationship with share price. Based on the result, the study recommended among others that the Security and Exchange Commission (SEC) should continually subject the earnings of consumer goods firms to quality investigation.*

## INTRODUCTION

**E**arnings are one of the fundamental elements of accounting information variables. It is considered as the most significant accounting variable reported and presented in financial information in form of reports. It serves as a key factor in determining a firm's dividend policy, a tool for investment and decision making, a core measure of a firm's financial performance, an effective criterion in the share pricing, and eventually an instrument utilized to make predictions. This explains the reason why standard setters across the globe strive to develop accounting standards that improve the quality of reported earnings. Many recent changes in auditing, corporate governance, and enforcement have been found to target a similar objective.

Abundant literature suggests that investors use accounting earnings to among other things estimate share returns (e.g. Lev, 1989; Choi, Collins & Johnson, 1997; Kallunki and Martikainen, 1997; Beaver, 1998). This suggestion is supported by the fact that since the study of Ball and Brown (1968), a long line of research has empirically demonstrated that accounting earnings contained in financial reports are related to share returns (Kormendi & Lipe, 1987; Collins & Kothari 1989; Easton & Zmijewski, 1989; Easton & Harris, 1991; Wild, 1992; Das & Lev, 1994; Lipe, Bryant & Widener, 1998; Liu & Thomas, 2000). According to the studies, investors consider reported earnings to be a useful tool in estimating future returns and share prices, thus the need to understand the nexus between quality of reported earnings and share prices. According to Ekoja (2004), understanding the relationship between earnings quality and share price is important to the extent that good earnings quality builds confidence in the minds of existing and potential investors as well as other stakeholders.

According to Teets (2002), earnings quality is accounting earnings that reflect information about the value of a company. It represents the degree to which reported earnings of an entity truly reflects the actual income (Penman & Zhang, 2002; Schipper & Vincent, 2003). Srinidhi et al. (2011) described it as the ability of current reported earnings to reflect the future cash flow and earnings. In this

context earnings quality refers to how best current reported earnings can predict future performance of an entity.

Earnings attribute is expressed through a number of properties also referred to as earnings quality proxies. Penman and Zhang (2002), Francis, LaFond, Olsson and Schipper (2004) and Dechow, Ge and Schrand (2010) identified up to eight properties of earnings quality that have been widely used in accounting research. The properties are further divided into accounting-based and market-based earnings properties. The accounting-based earnings properties are accruals quality, income smoothing, persistence and predictability of earnings while the market-based properties are earnings variability, value relevance, timeliness of earnings and earnings conservatism. According to Easton and Haris (1991), Schipper and Vincent (2003) and Francis (2004), of these eight variables, accruals quality, income smoothing, earnings variability, timeliness of earnings, and earnings conservatism seemed to have dominated earnings quality studies.

Studies on the relationship between earnings attributes and share price of firms have documented mixed and inconsistent results. Different constructs and measurement of earnings quality attributes were used in studying the relationship in different countries and domains mostly without consideration for sector specifics. In addition, most studies in the area have focused just on one dimension of the attributes of earnings quality (e.g., Collins & Hribar, 2000; Barth et al., 2001; Dechow & Dichev, 2002; Penman & Zhang, 2002; Beneish & Vargus, 2002; Cohen, Dey & Lys, 2004; Dan, Carla & Sharon, 2009; Bill, Iftekhar & Lingxiang, 2011; Hashem & Mehdi, 2011) thereby making the studies unable to present a complete picture of the effect of earnings quality attributes on share price. The mixed findings reported in the literature coupled with one-dimension focused of most previous studies have made the area still amenable for further research. They have also provided a motivation for using more acceptable measures of generally applicable earnings quality constructs for domains that have attracted little or no attention of previous researchers.

In Nigeria, the consumer goods firms are one of the largest employers after government. The sector also provides a major component of the country's Gross Domestic Product (GDP). The fact that the primary purpose of financial reporting is to provide information that is useful to both existing and potential investors, creditors and other users in making rational decisions relating to investment, credit and others, and that shareholders are now interested in knowing the reliability and integrity of accounting information in Nigeria, it is desirable to

undertake an empirical study that will investigate the subject of earning attributes effect on share prices of consumer goods firms in Nigeria.

### **Statement of the Problem**

Considerable studies have been conducted on the relationship between earnings quality properties and share price of companies particularly in developed nations and some parts of Asia with mixed results (e.g. Jegadeesh & Lakonishok, 2006; and Cahan, Emmanuel & Sun, 2009; Dan, Carla & Sharon, 2009; Bill, Iftekhhar & Lingxiang, 2011; Hashem & Mehdi, 2011; Aref, Ardekani & Mohammad, 2012; Nuryaman, 2013; Sonia, Faycal, Alain & Abdelwahed, 2013; Alexandra, 2015). A common phenomenon in most of these studies is that earnings quality properties were not studied in relation to their influence on share price. Considering the role of earnings quality properties in accounting information, which is meant to facilitate efficient allocation of capital in an economy, and the increasing demand by investors for information on share returns, the importance of studying the earnings quality attributes in relation to share prices cannot be overemphasized. Though, few studies in advanced economies and a few others in developing nations such as Levitt et al (1998), Deakin and Konzelmann (2004), Jiang, Lee and Anandarajan (2008) have associated earnings equality with share price using either market-based attributes or accounting-based attributes of earnings quality, the approach is considered inadequate in the sense that ignoring either category of the attributes in a study on share prices would not be able to capture the real effect of the different measures of the properties. Even, more recent studies that identified both categories of earnings quality properties in their conceptualisation, such as Faris (2010), Al- Shubiri, (2010), Lee, Alan, Zabihollah and Hassan (2011), Menike and Prabath (2014), Mohammad (2014), Geetha, Ti and Swaaminathan (2015) and Taimur, Harsh and Rekha (2015) ended up testing for either accounting or market based properties of earnings quality.

In Nigeria, some studies were conducted on earnings quality. However, the Nigerian-based studies were mostly concerned with corporate governance mechanism and accounting-based attributes of earnings quality. Olayinka (2012) studied earnings management and corporate governance using income smoothing to proxy earnings management for the period 2006-2010; Fodio, Ibikunle and Oba (2013) investigated the effect of corporate governance mechanisms on reported earnings quality using accruals for the period 2007-2010; Augustine, Famous and Augustine (2014) evaluated the relationship between

audit quality and cash-based earnings management; Augustine (2014) assessed the effect of audit firm size on cash-based earnings management for the period 2006.2011; Muhammed (2014) investigated the relationship between some sets of corporate governance mechanisms and unethical accounting practice of 25 listed manufacturing firms in Nigeria based on income smoothing; and Omoye and Eriki, (2014) classified Nigerian quoted companies into high and low earnings management levels and used the classification to investigate the effect of corporate governance mechanisms on earnings management levels of 130 firms from 2005 to 2010 using discretionary accruals.

In addition, some studies took a different but wrong dimension to study earnings quality. Muhammad and Tijjani (2013) for instance assessed the relationship between share prices and firm earning per share (EPS) in Nigeria from 2005 to 2009. The weakness of the research lies in the selection of independent and dependent variables because since EPS is known to be one of the measures of share price, using it as an outcome variable clearly points to a serious technical error. Another study that suffered a similar technical error is Oliver and Caroline (2014) who worked on the relationship between earnings per share and market price of ordinary shares in the Nigeria brewery industry from 2000 to 2013.

Overall, of all the available Nigerian-based studies on quality of earnings, only Agnes, Chenga, Joseph and Ling (2012) and Adaramola (2014) related earnings quality with share price. The study of Chenga, Joseph and Ling investigated the association between earnings quality and price synchronicity. However, the study used only income smoothing as proxy of earnings quality. Adaramola (2014) examined the value relevance of accounting information in the Nigerian stock market from 1991 to 2010. The study was also restricted to accruals quality as a measure of quality of earnings. In view of the fact that today, earnings quality is regarded as one of the most striking and challenging issues in studies related to Accounting and finance, there is a need to conduct a study that will extend its scope to both accounting and market attributes of earnings quality. Furthermore, the peculiar and sensitive nature of consumer goods industry as well as the reforms it has continued to undergo in Nigeria underscore the need for special attention. So far, the sector has attracted little or no research effort with respect to earnings quality. This study therefore represents an attempt to fill these gaps that have been identified.

### **Objectives of the Study**

The overall objective of this study is to examine the effect of earnings quality properties on share price of listed consumer goods firms in Nigeria. The specific objectives are to:

- i. Determine the effect of Accrual Quality on Share Price of listed Consumer goods firms in Nigeria Stock Exchange.
- ii. Examine the effect of Earnings Variability on Share Price of listed Consumer goods firms in Nigeria Stock Exchange.

### **Research Hypotheses**

In line with the objectives of the study, the following hypotheses are formulated:

H01 Accrual quality has no significant effect on share price of listed Consumer goods firms in Nigeria Stock Exchange.

H02 Earnings variability has no significant effect on share price of listed Consumer goods firms in Nigeria Stock Exchange.

### **LITERATURE REVIEW**

Earnings quality refers to the ability of the current earnings to forecast future earnings (Penman & Zhang, 2007). Earnings are of good quality if no earnings reversals are forecasted. With valuation in mind, the investors are interested in future earnings, that is, they buy future earnings using the current ones. Further, earnings are said to be of poor quality if the current reported earnings are not good indicators of future ones. Schipper and Vincent (2003) described earnings quality as the extent to which reported earnings truly represent Hicksian income, including the change in net economic assets other than transactions with owners. Hicksian income is the maximum that could be spent while leaving real wealth intact.

Dechow and Schrand (2004) provided two definitions that tend to be similar. Firstly, a high-quality earnings number is one that accurately reflects the company's current operating performance, is a good indicator of future operating performance, and is a useful summary measure for assessing firm value. Secondly, earnings quality refers to a situation when the earnings number accurately annuitizes the intrinsic value of the firm. These definitions by Dechow and Schrand indicate the absence of impairment of earnings figure. Dechow, Ge and Schrand, (2009) considered quality of earnings to be the extent to which net reported income on the income statement do not differs from true earnings. In view of the definitions stated above, quality of earnings could be seen in two ways; firstly, reported earnings would be of quality if it reflects the underlying economic performance of a firm in that particular period. Secondly, earnings quality portrays how well accounting earnings convey information about the share prices

responses. From the foregoing, earnings quality refers to the one that is free from accruals that is not driven by accounting fundamentals or innate factors (discretionary accruals), but are sustainable and are not being impaired in order to artificially reduce the variability in earnings.

Francis, LaFond, Olsson and Schipper (2005) posited that earnings quality is a multi-dimensional concept. The choice of an earnings quality measure will depend on the research and the availability of data and estimation model. Some researches call for a measure of earnings quality that is linked to investors' perceptions of earnings. For example, studies that examine the value relevance of earnings presume earnings are useful to a particular class of market participants (namely investors) whose aggregate judgments and decisions are summarized by share prices and returns. They argue that other studies focus on direct measures of earnings quality constructed using accounting data alone (i.e., without reference to share prices or returns). Yet another dimension that is important for some researches is the distinction between total, innate and discretionary earnings quality.

### **Properties of Earnings Quality**

The literature has documented a number of earnings quality properties. The properties are broadly classified into accounting and market based. Brief discussion on each of the properties is given below:

### **Accounting-Based Properties of Earnings Quality**

The literature has identified accruals, earnings persistence, income smoothing, and earnings predictability as the accounting-based properties of earnings quality. These properties use cash or earnings (or other measures that can be derived from these, such as accruals) as the reference construct, and are estimated using accounting data. According to Francis, LaFond, Olsson and Schipper (2005), earnings which map more closely into cash flows are more desirable. Earlier, Richardson, Sloan, Soliman and Tuna (2004) argued that earnings' cash component provides both relevant and reliable information, and thus linked earnings quality to cash components of earnings in terms of persistence.

Barragato and Markelevich (2003) also argued that an earnings stream that is predictor of future operating cash flows is generally considered to be of high quality. The difference between cash from operating and recorded earnings generated by business indicates accrual quality (Richardson et al. 2001, Desai et al.

2006). The larger the value obtained from each method implies poor earnings quality and small value obtained from each method indicates high quality earnings. The use of accruals as a proxy for earnings quality has become commonplace in the extant accounting literature. Various measures of accruals have been utilized and the measures themselves refined and ostensibly improved over time. Francis et al. (2005) provided convincing empirical evidence suggesting that investors price the accrual quality. They noted that the debt and equity markets impound information regarding the quality of earnings that is represented by accruals. They found that firms with low accruals quality have significantly larger earnings-price ratios than other firms in the same industry. In addition, they investigated the effect of accruals quality on CAPM betas and discover that higher betas are associated with lower accrual quality indicating that decreased accruals quality increases systematic risk. They also examined debt ratings and similarly find accruals quality is negatively associated with the cost of debt. These findings demonstrate that investors extract fundamental valuation information from firm level accruals.

#### **Market-based Properties of Earnings Quality**

The literature documents earnings variability, value relevance, timeliness of earnings and earnings conservatism as the market-based properties of earnings quality. Taking a market-based approach, Bauwman (2009) defined conservatism as the differential ability of accounting earnings to reflect economic losses (measured as negative share returns) versus economic gains (measured as positive share returns). Following Basu (1997), Ball measured conservatism as the ratio of the slope coefficients on negative returns to the slope coefficients on positive returns in a reverse regression of earnings on returns. Accounting earnings are deemed value relevant due to the association between share returns and accounting earnings (e.g. Kormendi & Lipe, 1987; Easton & Harris, 1991).

Earnings management can be used as proxies for earnings quality in the returns-earnings model. In particular, the model's focus is on measuring the improvement in the overall explanatory power of earnings by introducing earnings management, as well as examining the connections among earnings management, and the value-relevance of earnings. Accounting earnings are deemed value relevant due to the association between share returns and accounting earnings (Kormendi & Lipe, 1987; Easton & Harris, 1991). The association is based on shareholders' reaction to accounting earnings, which is

dependent on shareholders. perception of earnings usefulness and reliability. Empirical results show earnings to be modestly informative in explaining movements in share prices (Lev, 1989; Ryan & Zarowin, 1993; Collins et al., 1994; Ramakrishnan & Thomas, 1998).

### **The Concept of Share Price**

Share price is the cost of purchasing a security on an exchange. It is affected by a number of things including volatility in the market, current economic conditions, and popularity of the company. According to Ronen and Yaari (2008), the invention of double entry book keeping in the 14th century led to company's valuation which is based upon ratios such as price per unit of earnings (from income statement), price per unit of net worth (from balance sheet) and price per unit of cash flow (cash flow statement). The next advance was to price individual price shares rather than the whole company. A price per dividend was the next advancement. Analysts find it appropriate to use discounted cash flow that is based on time value of money to estimate the intrinsic value of share rather than price per dividend of share prices.

A part from firm specific variables, a number of macroeconomic variables are also said to have influence on share price movement. For example, Faris (2010) found for a study of 14 commercial banks listed on Amman Stock Exchange for the period 2005 -2008 that gross domestic product, inflation and interest rates play significant role in share price movement. Some studies that include Larry, Yang and Paul (2004) and Lee, Alan, Zabihollah and Hassan (2011) considered the effect of announcement relating to merger or takeover, distress or boost on share prices. They assessed stock market response to management earnings forecasts. Both studies documented evidence showing that share price movement is affected by announcement in the market.

### **Review of Empirical Studies on Earnings Quality and Share Price**

A number of studies on the association between share prices and earnings quality properties have been carried out over the last few decades as a result of wide corporate scandals involving a number of corporations in both developed and developing economies. The studies have produced divergent opinions and mixed findings on the impact of earnings quality on share price. The studies that are considered relevant to this research are reviewed under the following headings:

- 1. Accruals Quality and Share prices**

Teoh, Welch and Wong (1998) examined earnings management and the under-performance of seasoned equity offerings and whether unusually aggressive management of earnings leads investors to be overly optimistic about the issuer's prospects. That is, investors may misinterpret high earnings reported at the time of the offering, and consequently overvalue the new issues. The study obtained data from AMEX in conjunction with CRSP data file from 1976 to 1989 and a final sample of 1,649 firms from different industry. The study documented that discretionary current accruals grow before the offering, peak in the offering year, and decline thereafter. The accruals pattern causes net income to grow before, peak in the period, and decline after the offering year, despite low pre-issue and improved post-issue cash flow from operations. The post-issue net income decline is especially pronounced for issuers that aggressively manage discretionary current accruals before the issue and document also a negative relation between pre-issue discretionary current accruals and post-issue earnings and share returns. The findings provided evidence of post-issue return differences in cross-section is consistent with an earnings management scenario.

Rangan (1998) confirmed this finding using quarterly accruals. Among the four accrual measures, discretionary (i.e. managed) current accruals were shown to predict subsequent poor share price performance. Roosenboom, Goot, Van-der and Mertens (2003) studied the pattern of discretionary accruals over time. They took a sample of 64 Dutch initial public offerings (IPO) companies on the Euronext Amsterdam from 1984 to 1994. The findings revealed that managers manage earnings of a company in the year of initial public offering. In terms of long term share price performance of the initial public offering, the study documented a negative relationship between the size of the discretionary accruals and the IPO in the first year the company went public.

Ekoja (2004) presented a cross sectional analysis of discretionary accruals in detecting earnings management by 20 quoted banks in Nigeria for the year 2003. He employed a regression analysis following Jeter and Shivakumar (1999)'s cash flow model. The study found that the total accruals are not from a normal distribution and the F test of the regression showed that there is evidence that earnings management exist in the banks on a cross sectional basis. The result may however, be different if it is a time series analysis.

Aref, Ardekani and Mohammad (2012) examined the relationship between earnings management and performance of acquiring firms in Malaysia during the period 2004-2010. The study measured earnings management using discretionary accruals derived from modified Jones model and firm's performance estimated by monthly Cumulative Abnormal Return (CAR). The results indicated that share acquirer firms unlike cash acquirers manipulated their earnings preceding acquisition announcement date. Fodio, Ibikunle and Oba (2013) investigated the effect of corporate governance mechanisms on reported earnings quality of listed Insurance companies in Nigeria for the period 2007-2010 based on modified Jones. (1991) model. The multiple regression revealed board size, board independence and audit committee size have significant negative effect on earnings management while audit committee independence and independent external audit have positive relationship with discretionary accruals.

Furthermore, Shehu, (2014) assessed whether firm attributes affect earnings quality of listed oil and gas companies in Nigeria for the period of 2007-2011 based on modified Jones model by Dechow et al (1995). The study found that leverage, liquidity and firm growth have significant positive effect on earnings quality while firm size, institutional ownership and profitability have significant but negative influence on earnings quality of listed oil and gas companies in Nigeria. Uwalomwa, Uwuigbe and Ranti (2015) assessed the effect of firm characteristics on earnings management of listed companies in Nigeria. Using a sample of 20 listed firms, the study employed pooled ordinary least square regression and found that while firm size and firms. corporate strategy have a significant positive impact on earnings management represented by discretionary accruals. On the other hand, the relationship between firms. financial leverage and discretionary accruals of the sampled firms in Nigeria was not significant.

## **2. Earnings Variability and Share prices**

Insiders can conceal changes in their firm's economic performance using both real operating decisions and financial reporting choices. Insiders can also use their accounting discretion to conceal economic shocks to the firm's operating cash flow. For example, they may accelerate the reporting of future revenues or delay the reporting of current costs to hide poor current performance. In either case, accounting accruals buffer cash flow shocks and result in a negative correlation between changes in accruals and operating

cash flows. Focusing on the variability of earnings based on the idea that managers tend to smooth income or earnings because they believe that investors prefer smoothly increased income.

Francis et al. (2004) examined the effect of income smoothing on the cost of equity. They find that income smoothing has a negative effect on the cost of equity, although the effect is weaker than for other properties of earnings, such as accrual quality. Taken collectively, these studies support the notion that income smoothing represents an efficient vehicle for managers to reveal private information. Using survey data, Li et al. (2009) found that the overwhelming majority of managers prefer a smooth earnings growth rate. Based upon the literature, companies with smoothed earnings are more attractive to investors than companies with widely fluctuation earnings.

### **Theoretical Framework**

Generally, two theories are commonly used in studies on accounting earnings and share price. The theories, which incidentally are opposed to each other are considered the main theories on the valuation of shares. The first theory, popularly known as the traditional view was taken by Williams (1938), which states that a share derives its value from the discounted value of all future dividends. In line with this, it is argued that investors do invest to receive a benefit and that this benefit can only take the form of dividends. The opposing theory, which was popularised by Modigliani and Miller (1961) normally referred to as M & M argued in favour of earnings orientated approach to investment. The theory postulates that at any point in time earnings are all that matter to the investor and that dividends are irrelevant for determining the economic value of a firm.

The argument of M & M is in support of the traditional earnings theory. The theory, which is anchored on financial economics theory posit that the market price of a share depends on a firm's profit. According to the theory, the value of a firm can be regarded as the present value of its cash flows. Miller.Modigliani (1961, 1966) is among the strong proponents of earnings theory. The M & M line of thinking is predicated on the belief that investors do not have any preference between current dividends and capital gains.

In view of the fact that share price is significantly influenced by earnings as explained above, this study adopts the M & M theory of share valuation to underpin the relationship between earnings quality and share price of listed consumer goods firms in Nigeria. The choice is supported by the use of the same

theory by previous researchers such as Tisshaw (1982), Pilotte (1986), Suvas (1994) and Muhammady (2011).

## **RESEARCH METHODOLOGY**

### **Introduction**

This chapter discusses the research design, sources and methods of data collection, population and sampling, techniques of data analysis employed in the research, measurement of variables, and some of the diagnostic tests conducted on the data to enhance the reliability of the results.

### **Research Design**

Correlation research design was used to describe the statistical association between the independent and dependent variables of the study based on quantitative approach. The design was considered appropriate for this study because it allows for testing of expected relationships between and among variables and the making of predictions regarding relationships in everyday life events, and in view of the fact that the study involves the measurement of several variables as well as assessment of the relationship between or among the variables. Quantitative approach, which has its root in positivism and deductive enables us to use theory to frame and thus understand the problem at hand, use systematic measurement and statistical analyses to obtain findings.

### **Population and Sample Size of the study**

The population of the study comprises all the 11 listed Consumer goods firms in Nigeria Stock and sampled 8 firms Exchange as at 31st December 2019.

### **Sources of Data Collection**

The study used data from secondary sources only because the data needed for analysis can adequately and conveniently be extracted from the audited financial reports of the selected firms within the period of the study. The data for variables of the study were all extracted from the audited financial statements of the sampled firms downloaded from the websites of the firms.

### **Technique and Tool of Data Analysis**

In this study, Ordinary Least Square (OLS) multiple regression was adopted to examine the effect of earnings quality properties and share price of listed

Consumer goods firms in Nigeria Stock Exchange. The study used STATA version 11 software for data analysis.

### Model Specification

In order to examine the influence of earnings quality properties on the share price of listed consumer goods firms in Nigeria, the following model was used to encapsulate the linear relationship between the dependent and independent variables in line with Dechow and Dechev (1995) and Kothari (2005):

$$SP_{it} = \alpha + \beta_1 ACCQ_{it} + \beta_3 EVAR_{it} + \epsilon_{it} \quad (i)$$

Where:

SP<sub>it</sub>: Share price for firm i at time t measured as value of shares in the market

ACCQ: Accruals quality represented by discretionary accruals

EVAR: Earnings variability

$\alpha$ : constant

$\beta_1 - \beta_3$ : Coefficients of the parameters estimate.

$\epsilon$ : error term

### Result and Discussion

#### Introduction

This section presents the analyses of the results obtained from the study.

#### Correlation Analysis

The Pearson correlation analysis matrix shows the relationship between the explanatory and the explained variables and also the relationship among all pairs of independent variables themselves. It is useful in discerning the degree or extent of relationship among all independent variables as excessive correlation could lead to multicollinearity, which could consequently lead to misleading findings and conclusions.

Table 4.1: Correlation Matrix

Variables	SP	ACCQ	EVAR
SP	1.0000		
ACCQ	-0.2481	1.0000	
EVAR	0.4773	-0.0840	1.0000

Source: Correlation Matrix from Stata Output

In correlation analysis, high level and strong form of relationship between dependent and individual independent variables are expected while low level and weak form of relationship between and among independent variables are expected. According to Gujarati and Porter (2009), a correlation coefficient between two independent variables above 0.80 is considered excessive and thus certain measures are required to correct the likely presence of collinearity and multicollinearity. From table 4.1, it can be seen that all correlation coefficients are below 0.80 suggesting that the variables are well selected and can fit in the same regression model.

The table reveals that there is an inverse correlation between the dependent variable, SP and two explanatory variables: ACCQ with coefficients of -0.25 respectively. This implies that the explanatory variables move in opposite direction with SP, which means that the lower their values the higher the share price. On the contrary, as these explanatory variables increase at individual levels, SP declines. The table also reveals that EVAR exhibit positive correlation with SP, with coefficient of 0.48. This means that this explanatory variable and the outcome variable move in the same direction. Thus, as the variable increase SP also increases.

With respect to the association among the independent variables themselves, ACCQ is found to be inversely correlated EVAR based on the value of -0.08.

It is noteworthy that the highest absolute correlation coefficient among the explanatory variables is EVAR, which is approximately -0.56 and the lowest absolute degree of association is that which is ACCQ 0.01. The rather mild correlation between the pairs of independent variables indicates that they can exist in the same model without raising concern on harmful correlation or problem of multicollinearity.

### **Robustness Tests**

The two robustness tests conducted in this study are multicollinearity and heteroskedasticity tests. These tests are important to regression estimation in order to satisfy the assumptions of the Ordinary Least Square (OLS) of homoskedasticity and absence of exact correlations among the independent variables in the model.

Table 4.2 shows the results of the value inflation factor (VIF) and tolerance value (TV). The VIF and TV are two advanced measures used in addition to the Pearson

correlation matrix to assess the presence or absence of multicollinearity between the explanatory variables.

Table 4.2: VIF Test for Multicollinearity

Variables	VIF	TV(1/VIF)
ACCQ	1.31	0.763232
EVAR	3.17	0.315643
Mean VIF	1.81	

Source: Multicollinearity test result from Stata

Table 4.2, the VIF and TV are found to be consistently smaller than 10 and above 0.10 respectively indicating the absence of multicollinearity as suggested by Neter, Kutner, Nachtsheim and Wasserman (1996), Tobachnick and Fidell (1996) and Cassey and Anderson (1999). The low mean VIF is also a pointer to the mild correlation among the regressors. This shows the appropriateness and fitness of the explanatory variables used in the model.

### Regression Results

In this section, the robust regression result is presented and analysed. The analysis is followed by hypotheses testing and discussion of policy implication of the findings. The summary of the robust OLS result is presented in table 4.3.

Table 4.3 Summary of Robust Regression Result

Variable	Coefficient	T-Value	Prob.
Constant	29.6029	1.68	0.096
ACCQ	-32.48465	-1.32	0.028
EVAR	516.8967	1.46	0.010
R-squared			0.38
F. Stat.			3.31
Prob. of F. Stat			0.0031

Source: Summary of Regression Result from Stata Output

Table 4.3 indicates that the aggregate influence of the explanatory variables included in the model are able to explain SP up to about 38% as indicated by the R-squared, while the remaining 62% are controlled by other factors that are not included in the model. The F-Statistics value of 3.31, which is significant at 1% shows

that the model is fitted and therefore provides substantial evidence that earnings quality has significant impact on SP of listed consumer goods firms in Nigeria Stock Exchange. Substituting the coefficients of the variables in the regression equation gives the following:

$$SP = 29.6 - 32.5 \text{ ACCQ} + 516.9 \text{ EVAR}$$

The table shows that ACCQ inversely influences SP with coefficient of -32.5 and t-value of -1.32 which is significant at 5%. This implies that 1% increase in ACCQ will lead to a decline in SP by 32 kobo and vice versa. The finding is in line with those of Neill, Pourciau and Schaefer (1995), Akintola and Chris (2000), Penman and Zhang (2002), Hirshleifer (2004), Kraft (2006) and Allen et al (2010). The finding is however, contrary to the studies of Marquardt and Wieldman (2004), Ducharme et al (2004), Ekoja (2004), Francis, Olsson and Schipper (2005), Lee, Li and Yue (2006), Zaluki (2008) and Shah et al (2009). Based on the finding, the study fails to accept the null hypothesis that ACCQ has no significant impact on SP of listed manufacturing firms in Nigeria.

The result further reveals that earnings variability (EVAR) has a positive coefficient value of 516.9 and t-value of 1.46 that is significant at 1% level of significance. This implies that variability of earnings positively influences the share prices of listed manufacturing firms in Nigeria. It suggests that a 1% increase in EVAR will lead to 516.9 kobo rise in market price of shares. It is noteworthy that this finding is contrary to the study's prior expectation that because there is a direct cause-and-effects relationship between earnings fluctuations and market risks, an inverse relationship was most likely.

The above result, which provides sufficient evidence for rejection of the hypothesis that EVAR has no significant impact on the SP of listed manufacturing firms in Nigeria is in line with the findings of Dharan (1987), Easterwood (1998), Erickson and Wang (1999), Michelson et al (2000), Bowman and Navissi (2003), Kanagarethnam (2004), Tucker and Zarowin (2006), Singer (2007), Bouwman (2009), Sanjay (2010) who all documented a significant positive interaction between variability of earnings and share prices.

### **Implication of Findings**

The findings of this study show that potential investors do not ignore earnings quality when examining the information contents of accounting earnings. Given that earnings quality and earnings management affect the information contents of earnings through its impact on shareholders. perception of the integrity of the

financial reporting process, the findings of this study should have implications on investors, accounting standard setters, auditors, financial analysts, and capital market regulators. Needless to say, corporate decision makers naturally need to satisfy existing shareholders and attract potential investors. Measuring the impact of earnings quality allows decision makers to evaluate the role of earnings quality in enhancing shareholders perception of the reliability of financial reports. Once shareholders are able to obtain reliable information about corporate performance, their response to financial performance measures becomes greater. The results from this study, therefore, will unlock a new door for investors to improve their decision-making process. In addition, measuring different aspects of earnings quality allows investors to be mindful of management's capacity to alter accounting earnings for opportunistic purposes, which helps them in evaluating the reliability and value relevance of accounting earnings.

Authorities involved in regulating earnings quality can use this study as empirical support to the development of regulations and recommendations. Stock exchanges such as the NSE can employ this study to evaluate the current disclosure requirement of earnings quality practices. For example, Nigerian corporate regulators do not currently oblige listed firms to have independent boards and board committees, but the results suggest that mandatory formation could improve financial reporting credibility. While regulatory bodies have a vested interest in monitoring the financial reporting process, legislation has also acknowledged the need to monitor financial reporting in order to protect market participants.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusions**

Earnings quality and its effect on the activities of firms has become a topical issue in the literature of Accounting and Finance. Attempt has been made in this study to examine the effect of two properties of earnings quality on share price of listed consumer goods firms in Nigeria. The study formulates two hypotheses that accruals quality and earnings variability have no significant effect on share price of listed consumer goods firms in Nigeria. Based on the result obtained, the study concludes that in so far the properties of earnings quality are concerned, their combined influence on share price of listed consumer goods firms in Nigeria is significant. The effect however gets diluted as the variables are considered on individual basis. Specifically, of the two earnings quality attributes used in the study, accruals quality have significant inverse relationship with share price, while earnings variability has significant positive relationship with share prices.

### **Recommendations**

The study offers the following recommendations based on variety of people/organizations that are involved directly or indirectly with earnings properties and share price processes in Nigeria:

- a. The Security and Exchange Commission (SEC) should continually subject the earnings of consumer goods sector to stress quality tests to insulate the investing public from possible rip off.
- b. Board of Directors and Management of consumer goods firms should avoid undue earnings management practice by limiting their choice of accounting treatment alternatives to the provision of the accounting standard on consistency of practice in order to improve financial information quality that will reduce information asymmetry and consequently lead to share price improvement.
- c. potential Investors should be mindful of a firm's earnings quality properties and its earnings management practices as these properties and practices provide value relevant information that are useful to equity market participants in the valuation process.

### **Suggestions for Further Research**

This study is believed to have paved way for further research in the following areas:

The study made use of only two earnings properties; accrual quality and earnings variability. Other earnings properties such as predictability, persistence and value relevance were left out. It is therefore suggested that future researchers who might be interested in this area should include other properties not included in this study.

### **REFERENCES**

- Adaramola, A. O. (2014). The relationship between financial accounting information and market values of quoted firms in Nigeria. *Global Journal of contemporary research in accounting, Auditing and Business Ethics*, 1 (1) 22-39
- Adelegan O. Y. (2002). An empirical analysis of the relationship between cash flows and dividend changes; A Paper presented at the 23rd Annual congress of the European Accounting Association, Munich Germany, 5
- Bouwman, C. H. S. (2009). Managerial optimism and earnings smoothing <http://web.mit.edu/cbouwman/www/downloads/BouwmanOptimismSmooth.pdf>.
- Cahan, F. S., Emmanuel, D. & Sun, J. (2009). The effect of earnings quality and country level institutions on the value relevance of earnings. *Review of Quantitative Finance Accounting*, 33, 371-391.
- Cai, J., & Zhang, Z. (2011). Leverage change, debt overhang, and stock prices. *Journal of Corporate Finance*, 17, 391-402
- Carnes, A. T. Jones, J. P., Biggart, T. B. & Barker, K. J. (2003). Just-in-time inventory systems innovation and the predictability of earnings. *International Journal of Forecasting*, 19, 743-749..

- Dharan, B. G. (2003). Accruals management with financing and investing transactions. Rice University, Working paper.
- Donglin, X. & Song, Z. (2009). Corporate governance and accounting conservatism in China. *China Journal of Accounting Research*, 2 (2).
- Ducharme, L. L., Malatesta P. H. & Sefcik, S. E. (2004). Earnings management, stock issues and shareholder lawsuits. *Journal of Financial Economics*, 71, 27-49.
- Easton, P. & Harris, T. (1991). Earnings as an explanatory variable for returns. *Journal of Accounting Research*, 11 (2): 19-36.
- Ekoja B. E. (2004). A cross-sectional analysis of discretionary accruals. *Nigerian Journal of Accounting Research*, 2, 36-44.
- Fodio, M. I., Ibikunle, J. & Oba, V. C. (2013). Corporate governance mechanisms and reported earnings quality in listed Nigerian insurance firms, *International Journal of Finance and Accounting*, 2(5), 279-286.
- Gujarati N. Damodar & Dawn C. Porter. (2009). *Essentials of econometrics* McGraw-Hill/Irwin, New York. Fifth Edition.
- Hassan, S.U. (2012). Firms characteristics and financial reporting quality of quoted Nigerian manufacturing Firms. Un-Published Ph.D Thesis submitted to the Accounting Department, A.B.U Zaria.
- Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics* 33, 375-400.
- Muhammad S. U. & Tjjani B. M. (2013). Stock prices and firm earning per share in Nigeria. *JORIND* 11(2). [www.transcampus.org/journals](http://www.transcampus.org/journals); [www.ajol.info/journals/jorind](http://www.ajol.info/journals/jorind) 187 - 192
- Myers, L. & Skinner, D. (2000). Earnings momentum and earnings management, Working paper, University of Michigan.
- Neter, J., Kutner, M. H., Nachtsheim, C. J. & Wasserman, W. (1996). *Applied Linear Statistical Models*, Irwin Company Inc., Chicago, U.S.A.
- Nuryaman, S. (2013). The influence of earnings management on stock return and the role of audit quality as a moderating variable. *International Journal of Trade, Economics and Finance*, 4 (2), 73 . 78.
- Oliver I. I. & Caroline, O. (2014). Interactions between earnings and share prices in Nigeria brewery industry. *Research Journal of Finance and Accounting* 5 (22) 177 . 187.
- 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 . 564
- Rahimah M. Y. (2011). The effect of ownership concentration, board of directors, audit committee and ethnicity on conservative accounting. Edith Cowan University, Malaysia.
- Ramakrishnan, R., Thomas, J. (1998). Valuation of permanent, transitory, and price-irrelevant components of reported earnings. *Journal of Accounting, Auditing and Finance* 13, 301-336.
- Sanda, A. U., Mikailu, A. S. & Garba, T. (2004). Director shareholding, board size and firm performance of firms in Nigerian stock exchange. *Nigerian Journal of Accounting Research*, 1(1). 27-44
- Shehu, U. H. (2014). Firm attributes and earnings quality of listed oil and gas companies in Nigeria *Research Journal of Finance and Accounting* 5(17) 10 . 17.

- Sutton, D. (2009). The foundations for a general theory of general purpose financial reporting for business. A Published M.sc thesis submitted to the Department of Accounting, Victoria University of Wellington systems. The Accounting Review, 59, 16-34.
- Vincent, L. (2004). The assessment and implication of earnings quality: An investor perspective, Kellogg school of management working paper (accessed 15th February 2014).