### **CHAPTER ONE**

# **INTRODUCTION**

#### **1.1 Background of the Study**

The main objective of accounting information through financial statements is to provide information about the financial position and performance of an entity that is useful to the stakeholders in making economic decisions. Investors are among the most important users of such information and since it is concluded that if financial statements meet investors need, it will also meet most of the needs of other users, besides, high quality accounting information is necessary for well-functioning capital market and the economy as a whole. Hence, it should be of considerable importance to investors (Perera & Thrikawala, 2010). A basic attribute of accounting quality is value relevance, that is the ability of accounting information to be relevant for equity valuation. Value relevance is being defined as the ability of information disclosed by financial statements to capture, summarize and explain the value of the firm (Beaver, 1968). Value relevance can be measured through the statistical relations between information presented by financial statements and stock market values or returns (Suadiye, 2012).

The equity market has been of significant interest to financial managers due to its ability to provide access to capital for companies and returns to investors with minimum risk (Gatua, 2013). Equity markets are important in sustaining growth in an industry and a country's economy as a whole and serves as a measurement tool for future growth (Nirmala, Sanju & Ramachandran, 2011). According to Irfan and Nishat (2002) equity market can be defined as the market in which shares of public companies are issued and traded either through exchanges or over-the-counter. Equity investments provide several other benefits such as dividend income, capital gain, limited liability, control and ownership, however, equity investments are solely

dependent on share prices because they serve as indicators on whether investors should invest in a particular share.

Around the world, studies on value relevance of accounting data is motivated partly because listed companies use these data to communicate with investors and the public (Sharma, Kumar & Singh, 2012). However studies conducted in advanced and developed countries have made the impression that the financial statements of the companies are losing their value relevance (Sharma, Kumar & Singh, 2012). The value relevant of accounting measures, as earnings, book value of equity, book value of assets, could be evaluated by the user's response to accounting information provided by reporting companies in any period (Barth, Beaver & Landsman, 2001).

Financial reports have a primary objective of providing information for investment decision making. Consequent upon this, the relevance of information contained in financial reports depends upon their usefulness for investment decision making. From investors' perspective, information is relevant if it contributes to the equity investment decisions of the investor. Useful accounting information must possess the primary attributes of relevance and reliability. Relevant accounting information must possess the capacity to influence the decision of the investor (Holthausen & Watts, 2001). Financial accounting information can be seen as the outcome of accounting systems that measure and routinely disclose audited, financial position and performance of an enterprise. Audited statement of financial position, income statements, and cash-flow statements, along with supporting disclosures, form the foundation of the financial accounting information users. Financial accounting information supplies a key quantitative and qualitative representation of individual corporation that supports a wide range of contractual relationships.

According to Baumann and Erlend (2004), financial statements must properly reflect the organization's financial and economic reality, so that the users are not induced to take decisions on misleading information. Financial accounting information also enhances the information environment of the reporting entity and those associated with it. The quality of financial disclosure can impact firms' cash flows directly, in addition to influencing the cost of capital at which the cash flows are discounted. Accounting information, such as that conveyed in publicly disclosed accounting reports, is also critical to the analysis of temporal liquidity positions of equity markets (Bushee & Noe, 2000).

Various stakeholders take their decisions relative to a firm's performance and position based on the accounting information supplied by it in its annual financial reports and accounts. As stated by Meyer (2007) accounting plays a significant role in the generation and communication of the wealth of companies. As financial reports still remain the most important source of externally feasible information of companies, it importance has led the standards setters and the stock market regulators to continuously devise ways of improving their quality, consequently the need for studies on the relevance of financial statements (Utami & Noraya, 2010). This study empirically analyzes the value relevance of accounting information and share price reaction of listed companies with a few accounting information indexes such as Earning per share, Dividend per share, Book value of equity per share, Return on equity and cash flow from operations.

### **1.2 Statement of the Problem**

Value relevance is the most important proxy for quality of accounting reporting, because it provides direct usefulness of accounting information to its end users in the capital market. The

relationship between value relevance of Accounting Information and share prices is stimulating considerable interest across an eclectic range of researchers. (oaB & Chow, 1999; Beisland et al., 2010; Chen, Chen, & Su, 2001; Clarkson et al., 2009; Germon & Meek, 2000; Ivica & Marijana, 2014; Olubukola et al, 2016; Ijeoma, 2015; and Oyerinde, 2009). Moreover, empirical results are sometimes mixed; the results presented in the literature are contradictory. For example, Collins, Maydev and Weiss, (1997); Francis and Shiper, (1999); Mayadunne (2017) found an increasing trend in value relevance of accounting information, while Lev and Zarowin (1999), Core, Guatemala and Buskirk, (2003); Balachandran and Mohanram, (2011); Manisha (2014) Muammed (2017) found evidence of decreasing value relevance of accounting information.

More so, prior studies focused exclusively on the relation between earnings and book value as the two primary accounting summary measures and Share price to explain value relevance of accounting information. In Nigeria, there is a limited study that has explored multiple independent variables as proxies for accounting information to the best of the researcher's knowledge. This study used multiple accounting information indicators such as book value of equity per share, earning per share, dividend per share, return on equity and cash flow to explore the value relevance of accounting information. The use of multiple proxies enables us to choose a combination of accounting information variables that are most highly associated with share price.

Furthermore, in terms of geographical coverage, to the best of our knowledge no study has been carried out in Nigeria to consider the relationship between value relevance of accounting information and share price covering sampled two African countries (Nigeria and South-Africa). This study seeks to bridge the gap by investigating the relationship between value relevance of accounting information and share price of manufacturing firms in Nigeria representing West Africa and South Africa rather than just firms from Nigeria alone or firms from just West Africa countries.

Finally, all the previous studies relate to a certain time frame and given the dynamic nature of accounting, and given the possibility of window dressing and doctoring of accounts prevalent among reporting firms (e.g Cadbury Plc case) that can affect the integrity of accounting information and the import of Value relevance, there is vital need for updated study to fill the gaps of what is currently known about the state of value relevance of accounting information in Nigeria. This study updates the research in this area up to 2016.

# **1.3** Objectives of the Study

The broad objective of this study is to ascertain the relationship between value relevance accounting information and share price of listed manufacturing companies on both the Nigerian Stock Exchange (NSE) and Johannesburg Stock Exchange (JSE) respectively.

The specific objectives are to:

- ascertain the extent to which Book Value of Equity per Share relates to Share Price of manufacturing firms listed on Nigerian Stock Exchange (NSE) and Johannesburg Stock Exchange (JSE).
- determine the extent of relationship between Earnings per Share and Share Price of manufacturing firms listed on Nigerian Stock Exchange (NSE) and Johannesburg Stock Exchange (JSE).

- evaluate the extent of relationship between Dividend per Share and Share Price of manufacturing firms listed on Nigerian Stock Exchange (NSE) and Johannesburg Stock Exchange (JSE).
- examine the extent of relationship between Return on Equity and Share Price of manufacturing firms listed on Nigerian Stock Exchange (NSE) and Johannesburg Stock Exchange (JSE).
- verify the extent of relationship between Cash Flow and Share Price of manufacturing firms listed on Nigerian Stock Exchange (NSE) and Johannesburg Stock Exchange (JSE).

## **1.4 Research Questions**

In the light of the above objectives, the following specific research questions were formulated:

- 1. to what extent does Book Value of Equity per Share relates to Share Price of manufacturing firms listed on NSE and JSE?
- 2. how do Earnings per Share relate with Share Price of manufacturing firms listed on NSE and JSE?
- 3. what is the extent of relationship between Dividend per Share and Share Price of manufacturing firms listed on NSE and JSE?
- 4. to what extent does Return on Equity relates to Share Price of manufacturing firms listed on NSE and JSE?

5. what is the extent of relationship between Cash Flow and Share Price of manufacturing firms listed on NSE and JSE?

## **1.5 Research Hypotheses**

In order to address the above research questions and to validate data analysis, the hypotheses of this study were stated in the null form:

- **Ho<sub>1</sub>:** There is no significant relationship between Book Value of Equity per Share and Share Price of manufacturing firms listed on NSE and JSE.
- Ho<sub>2</sub>: There is no significant relationship between Earnings per Share and share price of manufacturing firms listed on NSE and JSE.
- Ho<sub>3</sub>: There is no significant relationship between Dividend per Share and Share Price of manufacturing firms listed on NSE and JSE.
- Ho<sub>4</sub>: There is no significant relationship between Return on Equity and Share Price of manufacturing firms listed on NSE and JSE.
- **Ho<sub>5</sub>:** There is no significant relationship between Cash Flow and Share Price of manufacturing firms listed on NSE and JSE.

## 1.6 Significance of Study

This study will be of immense benefit to diverse interest groups namely:

## **Fund managers**

Fund managers will be able to assess whether increase or decrease of cash flow will lead to either increase or decrease of their stock prices. Knowledge of the relationship between accounting information and share price will enable funds managers in identifying and evaluating investment opportunities"

## Academicians/Researchers

This research study will add more knowledge to academicians and researchers who will intend to use the finding of this study as a basis of their research to either fill research gaps or contribute to their learning process.

# Local and International Investors

This study will enable both local and international investors to have more insight on the relationship between accounting information and stock prices hence make sound investment decisions on which stocks to purchase so as to achieve profitable returns on their investments.

### **Financial consultants and analysts**

Financial consultants and analysts will benefit from this study in that they will be able to identify firms which are performing well thus advise their potential clients on firms having high stock prices and returns which are good for investment.

## **Standard Setters:**

A primary focus of the FASB and other standard setters is equity investment. The from this study will serve as proof of the quality of accounting standards, accounting practice.

# 1.7 Scope of Study

This study provides insight into value relevance of accounting information in the Nigerian and South African stock market which includes; Book Value of Equity per Share, Earnings per Share, Dividend per Share, Return on Equity and Cash Flow. covered a period of ten (10) years from 2007 to 2016. The choice of this period is necessitated by the rapid growth in the Nigerian stock market in 2007. In addition, during those years, the Nigerian Stock Market recorded a significant rise in activity, and share prices rose considerably only to collapse in the second half of 2008. The global financial crisis that began in 2007/2008 which led to the clamor for quality financial reporting among quoted firms is the basis for selecting this period.

### **1.8 Limitation of the Study**

The study intended to cover all the manufacturing firms quoted on the NSE and JSE, but experienced difficulty in getting all the required data from all these manufacturing firms especially that from JSE, hence the researcher limit the study to those firms that their data were made available for the study.

# **1.9 Operational Definitions of Variables**

# Book value of equity per share (BVPS):

BVPS is a ratio that divides common equity value by the number of common stock shares outstanding. The book value of equity per share is one factor that investors can use to determine whether a stock price is undervalued. If a business can increase its BVPS, investors may view the stock as more valuable, and the stock price increases.

BVPS = Value of Common Equity # of Shares Outstanding

# **Earnings per Share (EPS)**

Earnings Per Share (EPS) are the portion of a company's profit that is allocated to each ordinary shares of common stock, serving as an indicator of the company's profitability. It is often considered to be one of the most important variables in determining a stock's value.

EPS is calculated as:

 $EPS = net income \div average outstanding common shares$ 

# **Dividend per Share (DPS)**

Dividend per share (DPS) is the sum of declared dividends issued by a company for every ordinary shares outstanding. Dividend per share (DPS) is the total dividends paid out by a business, including interim dividend, divided by the number of outstanding ordinary shares issued. A company's DPS is usually derived using the dividend paid in the most recent quarter, which is also used to calculate the dividend yield. DPS can be calculated by using the following formula:

 $\mathsf{DPS} = \frac{\mathsf{D} - \mathsf{SD}}{\mathsf{S}}$ 

- D Sum of dividends over a period (usually one (1) year)
- SD Special, one time dividends
- S Shares outstanding for the period

### **Return on Equity (ROE)**

Return on equity (ROE) is a measure of the profitability of a business in relation to the book value of shareholder equity, also known as net assets or assets minus liabilities. ROE is a measure of how well a company uses investments to generate earnings growth.

ROE = Net Income x 100

Shareholder Equity

# **Cash Flow**

Cash flow is the net amount of cash and cash-equivalents moving into and out of a business. One key use of the cash flow measures is that they are expected to provide value relevant information about the growth opportunities of the firm or lack of it

Positive cash flow indicates that a company's liquid assets are increasing, enabling it to settle debts, reinvest in its business, return money to shareholders, pay expenses and provide a buffer against future financial challenges. Negative cash flow indicates that a company's liquid assets are decreasing. Net cash flow is distinguished from net income, which includes accounts receivable and other items for which payment has not actually been received. Cash flow is used to assess the quality of a company's income, that is, how liquid it is, which can indicate whether the company is positioned to remain solvent. It refers to the cash received or loss because of the internal activities of a company such as the cash received from sales revenue or the cash paid to the workers. The ability of the firm to meet its internal needs for cash is indicated by the operating cash flow

# **Share Price**

A share price is the price of a single share of a number of saleable stocks of a company, derivative or other financial asset. In layman's terms, the stock price is the highest amount someone is willing to pay for the stock, or the lowest amount that it can be bought for.

### **CHAPTER TWO**

# **REVIEW OF RELATED LITERATURE**

### **2.1 Conceptual Framework**

#### **2.1.1 Value Relevance of Accounting Information**

Value relevance is being defined as the ability of information disclosed by financial statements to capture and summarize firm value (Beisland, 2009). Value relevance can be measured through the statistical relations between information presented by financial statements and stock market values or returns (Kothari & Sloan, 1992). The concept of value relevance refers to the strength of relationship between accounting variables and market value of equity of a firm (Ohlson, 1995).

In a more detailed discussion, Francis and Schipper (1999) offer four interpretations of value relevance. First interpretation is that financial statement information affects stock prices by capturing intrinsic share values toward which stock prices drift. Under second interpretation, they state that financial information is value relevant if it contains the variables used in a valuation model or assists in predicting those variables, while third and fourth interpretations are based on value relevance as indicated by a statistical association between financial information and prices or returns. Following Francis and Schipper's (1999) fourth interpretation, the researcher defines value relevance of accounting information as the ability of accounting numbers to summarize information that affects the firm's value which can be measured by the aggregate market reaction to accounting information.

According to Nilson (2003), value relevance of accounting information deals with the usefulness of financial statement in equity valuation. It investigates the association between a security price

and a set of accounting variables (Beaver, 2002). Scott, (2003) claims that accounting information is value relevant if it leads investors to change their beliefs and actions towards investing in a particular stock of a particular firm. In order to be relevant, accounting data must among others, be quick to respond to users' needs, particularly the investors.

The primary purpose of the financial statements is to provide information about a firm that will aids users to make better decisions, especially the investors to make optimal investment decisions. (Germon & Meek, 2001) Financial accounting information should also increase the knowledge of the users and give a decision maker the capacity to predict future value of the firm. Accounting exists primarily to satisfies the users' information, and if this need is not met, those who have money to invest and lend would take the money to where the need for information necessary for their decision to invest are met (Germon & Meek, 2001). In essence, the investors in particular, should be supplied with information to help them make appropriate appraisals and take good investment decision.

Some researchers regard the measurement view of value relevance, that is the ability of accounting information to summarize business transactions and other events, as sufficient proof of value relevance of accounting data. Others place greater emphasis on the prediction view of value relevance that is the ability of accounting information to aid investors in earnings prediction. Again some emphasizes on the - information view of value relevance, that is information content of accounting data. Overall, Value relevance of accounting information is the ability of any information contained in the financial statements to enable the financial statement users determines the value and performance of the company.

Value relevance studies usually have two goals (Klimczak, 2009). The first is to test whether accounting data are relevant for equity valuation in the local stock market. The second aim is to compare the results of the test with results obtained by previous researchers of rich countries and draw conclusions about the state of the local economy. Klimczak (2009) states that in both cases value relevance is treated as proof of the quality and usefulness of accounting numbers.

A value relevance study is concern with the evaluation of the relationship between accounting information and capital market values (market values). Beaver (2002) indicated that the theoretical groundwork of value relevance studies adopting a measurement approach is a combination of valuation theory and accounting theory- contextual accounting and financial reporting arguments that allows the researcher to predict how accounting variables and other information relating to market value will behave.

Holthausen and Watts, (2001) suggest that value relevance studies use two different theories of accounting and standard setting to draw inferences: Direct valuation theory and Inputs-to equity-valuation theory. Direct valuation theory suggest a link between accounting earnings and stock market value. In Direct valuation theory, accounting earnings is intended to measure the changes in equity market values. Zaleha et al. (2008) point out that the usefulness paradigm proposes that accounting information is useful if utilized by users of financial statements for, or significantly associated with their decision making. (Riahi-Belkaoui, 2000) stated that even though the information might not be stated at their best current value while (Scott, 2000) is of the view that within this conception, the main users are those who make decisions that relates to the firms' value, specifically decision-making by capital market participants.

In discussing the concept of value relevance with regard to accounting information, Riahi-Belkaoui, (2000) believes that accounting information is relevant if the information can influence decisions made by decision makers. Chen, Chen and Su (2001) also defined Value relevance of accounting information as the ability of information disclosed by financial statements to capture and summarize firm value. Muhammed, (2012) Value relevance can be measured through the statistical relations between information presented by financial statements and stock market values or returns.

A business enterprise, specifically a firm according to Nirmala & Florence, is a conscious, deliberate and purposeful, independent and a separate legal entity created for satisfying the aspiration of a particular section of the society at large. The survival, stability and growth of such entity within society largely depend on the wealth created by it through the collective efforts of all the stakeholders:– Equity providers or Shareholders, providers of loan capital, employees, host communities and the government. These stakeholders are the parties to whom the result of operations of business is communicated and therefore the users of such information.

Therefore, Accounting data relating to financial performance of the firm through Comprehensive Income Statement, statement of financial affairs (Balance sheet) and cash flow statement generated by the conventional financial accounting system are meant to satisfy the needs of these users, giving emphasis on the interest of shareholders (Oyerinde, 2009; Perra & Thrikawala, 2010).

The Comprehensive Income Statement does not provide any information showing the extent of the value or the wealth created by the company for a particular period. Contribution to the company by other stakeholders cannot be accessed through the Comprehensive Income Statement. Hence, there is a need to modify the existing accounting and financial reporting system so that a business unit is able to give importance to judge its performance by indicating the value or wealth created by it. To this direction inclusion of the Value Added Statement (VAS) in financial reporting system is a newly developed technique, which is regarded as a part of social responsibility accounting and reporting (RSiti U &, Noraya, 2010; Suadiye , 2012).

The value relevance of such accounting measures, as earnings and book value of assets, could be evaluated by the market's response to accounting information provided by reporting companies in any period (Dontoh, Radhakrishnan & Ronen, 2004). Share prices reflect the aggregate behavior of investors in the stock market (Dung, 2010). The market response to published accounting information is measured by the coefficient in a regression model using share price or stock return as the dependent variable and accounting measures, such as earnings, book value and cash flow as the independent variables (Francis, Schipper, 1999; Habib & Elhamawy, 2009).

Financial reports have a primary objective of providing information for investment decision making. Consequent upon this, the usefulness of information contained in financial reports depends upon their usefulness for investment decision making (Ghayoumi, Nayeri, Ansari, & Raeesi,2011). From investors' perspective, information is relevant if it contributes to the equity investment decisions of the investor (Glezakos, Mylonakis, & Kafuoros, 2012). Useful accounting information must possess the primary attributes of relevance and reliability. Relevant accounting information must possess the capacity to influence the decision of the investor (Halonen, Pavlovia, & Pearson, 2013).

The primary purpose of the financial statements is to provide information about a company in order to make better decisions for users particularly the investors. (Germon and Meek, 2001). It

should also increase the knowledge of the users and give a decision maker the capacity to predict future actions. Therefore, relevance accounting information can be described as an essential pre requisite for stock market growth (Oyerinde,2009).

Actually the information content of accounting numbers is inferred from changes in the level or in the variability of stock prices and from changes in the volume of security trades over a short time period during which these data are publicly released (Nirmala, 2012). One of the most common methods of investigating the quality of accounting information is value relevance.

This was firstly applied by Ball and Brown (1968) in Tharmila and Nimalathasan, (2013). By examining the correlation of earnings with share returns, they concluded that high correlations are interpreted as a sign of accounting information of high quality. The analysis of Ball and Brown (1968) in Tharmila and Nimalathasan, (2013) generated many studies that compared value relevance of accounting information with different accounting standards.

Collins and Kothari (1989) in Pushpa and Sumangala, (2012) concentrated on the stock price change associated with a given unexpected earnings change. It is based on cross-sectional intertemporal data. Dechow, Hutton and Sloan (1999) attempts to establish the statistical relationship with equity value, earnings and book value. Collins and Kothari (1989) tries to establish the leading relationship between stock returns, change in EPS and firm size. Ohlson and Juettner-Nauroth, (2005) established relationship between equity value, earnings yield, change in profitability, change in capital investment, change in growth opportunity and change in discount rate. Generally, investors are not in a situation to directly assess the performance of companies in which they intend to invest. They usually depend on financial statements prepared by the management of such organization. The primary purpose of financial statements is to provide information concerning the financial situation of the company, its operational results, any changes of control in the company and cash flow (Nirmala & Florence, 2011). The study impact of financial statement information on capital markets indicators ( share price, volume of trade etc) is referred to as the value relevance studies and it is part of the Capital market-based accounting research. Information is considered 'value relevant' if stock price movements are associated with the release of such information (Holthausen & Watts 2001)).

Ball and Brown, (1968) originally researched the correlation between accounting information and stock price. After they empirically studied the correlation between annual report earnings data and stock price, they found that if a company had excess earnings, then investors could get an abnormal return. This shows the relationship between accounting earnings and stock price.

Benninga (2008) asserted from another perspective that a company's financial reporting and accounting information could influence stock price. Chen and Shen, (2009) empirically studied the influence of earnings information and operating cash flow information on stock price. They found that the earnings information is better correlative, but not absolute.

In an analysis of Colombo stock exchange consisting twelve listed manufacturing companies Tharmila and Nimalathasan, (2013) found that earning per share (EPS) significantly impact on market Vulnerability. King and Langli, (1998) in the study on stock exchange of Germany, Norway and The United Kingdom found that the relationship between share price and EPS is high but the Return on equity is very low. A different scenario is found in another study on CSE taking 6 commercial banks from 2005-2009 that Return on equity is significantly related with the share price (Perrera & Thrikawala, 2010).

## 2.1.2 Book Value of Equity per Share (BVPS)

The value of a firm is based on what the market perceives about its performance, and accounting disclosures provide the essential information so as to form the basis of such perception. Many studies have examined the value relevance of earnings per share (EPS), book value of equity per share (BVPS), and cash flows. Such studies have reported that earnings and book values have significant information content for equity valuation of a firm (e.g., Dechow, 1994; Cheng *et al.*, 1996; Pfeiffer *et al.*, 1998; Holthousen and Watts, 2001; Choi *et al.*, 2006; Kwon, 2009). Earnings and book values are considered more value relevant for firm's valuation than cash flows, as cash flows usually have severe matching and timing problems (Ohlson, 1995; Barth *et al.*, 1998; Collins *et al.*, 1999). Studies have also suggested that the value relevance of earnings is accompanied by increase in value relevance of book values (Berger *et al.*, 1996; Burgstahler and Dichev, 1997; Collins *et al.*, 1997).

Book value of equity per share (BVPS) is a ratio that divides common equity value by the number of common stock shares outstanding. The book value of equity per share is one factor that investors can use to determine whether a stock price is undervalued. If a business can increase its BVPS, investors may view the stock as more valuable, and the stock price increases. The book value of equity per share (BVPS) is calculated as:

# BVPS = <u>Value of Common Equity</u> Number of Shares Outstanding

The book value of equity per share (BVPS) is accounting measures that enables investors to assess the financial health of a company. The BVPS can gauge whether a stock is undervalued or overvalued by using a snapshot of its current common equity and shares outstanding (Setven, 2015). The BVPS is calculated by dividing a company's common equity value by its total number of shares outstanding. For example, assuming a company YZ's value of common equity is \$100 million and it has outstanding shares of 10 million. The company book value per share will be exactly \$10 per share (i.e. \$100 million/10 million).

## 2.1.3 Earnings per Share (EPS) and Share Price

Earnings is an important variable affecting the market value of equity share. Company producing and selling goods and services useful to citizens in a society and earning revenue covering its cost of production add and build up its reserve (Retained earning reserve). Once a successful company starts building up reserves it will also look out for expansion in its scale of operations and thus increase its earnings the more. Once a company starts earning attractive sum, the equity share will have more and more demand which will result in increase in market value of the equity. (Hendricks, 1976 in Tharmila & Nimalathasan, 2013).

A large part of literature has identified earnings per share (EPS) and book value per share (BVPS) as the two most important accounting measures that have a significant positive association with market value of a firm, proxy by share prices (e.g., El-Gazzar et al., 2006; Clarkson et al., 2009; Oyerinde, 2009; Alfaraih and Alanezi, 2011; Khanagha et al., 2011, Aruwa, 2016). Aruwa, (2016) study revealed that the earning per share (EPS) information is the most considered by investors when deciding the share price. Hunt et al. (1997) reported that the incremental explanatory power of BVPS has been found to be higher than that of EPS. The explanatory power of earnings and book value for stock prices in China had increased over time

through 1992 to 1996 (Bao & Chow, 1999). Using a return and price model, Chen et al. (2001) examined the relationship between accounting information represented by EPS and BVPS, and stock price in the Chinese stock market during 1991-1998. Their findings showed that accounting information was value relevant according to both pooled cross-section and time-series regression.

Safajou *et al.* (2005) examined the empirical relationship of EPS and BVPS with stock market value, using the Ohlson (1995) model for the period 1997-2003. The results showed that there was a significant relationship between EPS, BVPS and price. Ragab and Omran, (2006) also investigated the value relevance of earnings and book values in the Egyptian market from 1998-2002 and explained that, based on both returns and price models, EPS and BVPS were all relevant and explained about 40 percent of the variation in stock prices.

Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serve as an indicator of a company's profitability.

# Calculated as: EPS = <u>Net Income – Dividend on Preferred Stock</u> Average Outstanding Shares

When calculating earnings per share , it is more accurate to use a weighted average number of shares outstanding over the reporting term, because the number of shares outstanding can change over time. However, data sources sometimes simplify the calculation by using the number of shares outstanding at the end of the period. Earnings per share are generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio (Ryan, 2017).

### 2.1.4 Dividend per Share and Share Price

Dividend policy is a major financing decision that involves the firm paying back to shareholders in return of their investments in the shares of the company. Every firm operating in a given industry follows some sort of dividend payment pattern or dividend policy and obviously it is a financial indicator of the firm. Thus, demand of the firm's share should to some extent, dependent on the firm's dividend policy.

Dividend policy is one of the most widely researched topics in the field of finance, but the question of whether dividend policy affects stock prices still remain debatable among managers, policy makers and researchers for many years. Dividend policy is important for investors, managers, lenders and for other stakeholders. It is important for investors because investors consider dividends not only the source of income but also a way to assess the firms from investment points of view. It is the way of assessing whether the company could generate cash or not. Many investors like to watch the dividend yield, which is calculated as the annual dividend income per share divided by the current share price. The dividend yield measures the amount of income received in proportion to the share price. If a company has a low dividend yield compared to other companies in its sector, it can mean two things: (1) the share price is high because the market reckons the company has impressive prospects and is not overly worried about the company's dividend payments, or (2) the company is in trouble and cannot afford to pay reasonable dividends. At the same time, however, a high dividend yield can signal a sick company with a depressed share price. Dividend yield is of little importance for growth companies because, retained earnings will be reinvested in expansion opportunities, giving shareholders profits in the form of capital gains.

Selecting a suitable dividend policy is an important decision for the firm because flexibility to invest in future projects depends on the amount of dividends that they pay to their shareholders. If company pay more dividends, then little funds will be available for investment in future projects. Borrowers/Lenders are also interested in the amount of dividend that a company declares, because if more amounts is paid as dividend from the firm's earnings, that means less amount would be available to the company to pay off their obligations.

Kalama, (2013) said that dividends are the only cash payment a stockholder receives directly from firm and these are the foundation of valuation for common stocks. Stock price response to an unexpected dividend change announcement, but the shareholders reaction to dividend change announcement is related to the dividend preferences of the marginal investor in that firm other things being equal (Dong, Robinson & Veld, 2005). When a company changes its dividend policy, it is expected to experience upward or downward trends in share price (Yilmaz, & Gulay, 2006). Higgins, (1995) said that if the company paid out chunk amount of its dividends and have less money to invest, the firm will have to raise more money from external sources to make the same investments, this will reduce the stockholders claim on future cash flow and consequently reduces share price appreciation in spite of the above of the above, during dividend announcement period stock price also fluctuate due to announcement of dividend. With this believe, Higgins (1995) said that value of stock increase by more dividend payment and share remain undervalued by lower dividend policy.

There are two schools of thought regarding the effect of dividend on stick price; first is that dividends do not affect share market price and the second is that dividend policies have profound effects on a firm's share market price. Benartzi et al. (1997), Ofer and Siegel's (1987) and Bae

(1996) found a positive correlation between share price and dividend. Campbell and Shiller, (1988) in Collins (2015) also found a relationship between stock prices, earnings and expected dividends and concluded that earnings and dividends is powerful in predicting stock returns over several years. In the same vein, Farsio, Geary & Moser (2004) suggested that, dividend cut results in fall of share price. It is however important to note that if capital markets are perfect, dividends have no influence on the share price as suggested by (Miller and Modgliani, 1961). Main while, if the market is imperfect, dividend may affect stock price Miller & Modgliani, (1961).

Dividend per share (DPS) is the sum of dividends declared by a company for every ordinary share outstanding. It is the total dividends paid by the firm including interim dividends divided by the total number of outstanding ordinary shares issued by the company. Dividend per share of a company is derived using the dividends paid in the most recent quarter. DPS is calculated with the following formula:

$$DPS = \frac{D-S}{S}$$

Where,

D – Sum of dividends over a period (usually one (1) year)

SD – Special, one time dividends

S - Shares outstanding for the period

Dividend per share (DPS), in its simplest form, can also be calculated by first deriving the company's net income per share as (net income divided by outstanding shares) multiply by the company's payout ratio - which is the amount of income paid in dividends divided by the total net income.

Dividend per share is important because the number one goal of a company is to return value to its shareholders. Investors receive value through dividend payments and appreciation in the price of the stock itself. Therefore, a company's profits and the amount it pays out in dividends, drives shareholder value (Ryan, 2017).

### 2.1.5 Return on Equity and Share Price

The Primary aim of financial reporting is to provide information about the financial position and performance of companies provided by numbers disclosed in financial statements which was considered to be a guide the users of accounting information in order to evaluate and forecast the profitability, equity growth, cash flow and dividends of the corporate entity so as to make their investment decisions. The users rely more on data arising out of financial statements or its components than any other information.

Investors are looking for opportunities to invest their surplus resources in the most efficient capital markets and one of the main factors that every investor has in making his/her decision is to give special attention to stock price. Numbers in financial reporting could affect investor confidence in financial markets.

Return on equity, along with return on assets, is one of the all-time favorites and perhaps most widely used overall measure of corporate financial performance (Rappaport,1986). This was confirmed by Monteiro, (2006) who stated that return on equity is the most important ratio an investor should consider. The fact that return on equity represents the end result of structured financial ratio analysis (Du Pont analysis) accounts for its popularity among analysts, financial managers and shareholders (Stowe, Robinson, Pinto & McLey, 2002; Correia, Flynn, Uliana & Wormald, 2003; Firer, Ross, Westerfield & Jordan, 2004).

The ultimate purpose for any profit-seeking organization is to create wealth for its owners. It is the goal of a street vendor, as well as for a large listed company. The only difference is that the street vendor operates for the benefit of one person whereas a listed company operates for the benefit of a large number of shareholders. According to Black, Wright and Davies, (2001) shareholder value is created when the equity returns of a company exceed the cost of that equity.

Reimann, (1989) states that shareholder interests have been recognised as very important for a long time, but that performance measures rarely show that this objective is achieved. He argues that it is so because managers often do not know how to do it. Muehlhauser, (1995) recognises that communicating results of company's performance to shareholders are as important as choosing business strategies for enhancing the performance. The process of determining whether objectives are met, and not the setting the objectives, is what makes creating of shareholder value one of the most difficult management tasks.

There is still some controversy regarding the measurement of shareholder value. The controversy is not about measuring shareholder value itself, but about identifying and measuring the internal driver(s) of performance that have the greatest impact on shareholder value. Numerous authors, Finegan (1991), Stern (1993), O'Byrne (1996), Uyemura, Kantor and Pettit (1996), Dodd and Chen (1996), Milunovich and Tsuei (1996), Kramer and Pushner (1997), Makelainen (1998) and Biddle, Bowen and Wallace (1999) have studied the impact of internal drivers on shareholder value. The approach used by all these studies was to test the correlation between a measure of shareholder value (shareholder returns/share prices) and a chosen internal performance measure (e.g. earnings per share, dividend per share).

Return on equity (ROE) is a measure of profitability that calculates how many Naira of profit a company generates with each Naira of shareholders' equity. Return on equity (ROE) is calculated with the following formula:

# ROE = <u>Net Income</u> Shareholders' Equity.

ROE is sometimes called "return on net worth." Return on equity (ROE) is a ration that provides investor with insight into how efficiently a company or more specifically, its management team is managing the equity that shareholders have contributed to the company. The denominator for ROE is equity, or more specifically shareholders' equity. Shareholders' equity is assets minus liabilities on a firm's balance sheet and is the accounting value that is left for shareholders should a company settles its liabilities with its reported assets. ROE then becomes: Net income  $\div$ shareholders' equity (Ryan, 2017).

### 2.1.6 Cash Flow and Share Price

The main purpose of preparing financial statements is to present information which is needed for investors and users in financial decisions. The most important issues which have always been considered by the participants in the stock market has been stock value, which depends on the company's earnings and operating cash flow. The first step in investment decisions is to obtain stock value of the companies in which the prospective investors and the existing investors respectively intend to invest or have invested. Today's views of financial theories indicate that the value of a company can be judged from its cash flow. Earnings alone cannot provide appropriate information for investors. since earnings is derived based on accrual method of accounting, and earnings figure can also be affected by the choice of applications of alternative accounting principles and assumptions. Earnings figure presented in the financial statements can be easily affected by managers' choices and actions. In contrast, cash flow is more subjective and less affected by managers' actions. Though Earnings and book value are commonly used as the basis for firm valuation the reliability of earnings may be affected by the earnings management, it may affect the relevance of earnings in determining firm value. The main aim of cash flow statements is to provide information about cash receipts and cash payments of an institution during a financial period. The term cash flows include the cash that is received and paid. In addition, cash flow statement also reflects all the information related to investment and financing activities of the during a financial period (Hutton, et al. 2009).

Results of various studies have indicated that cash flows contain more information content and thus higher efficacy on decisions of investors (Foroughi, Hadi, & Manouchehr, 2011). Ortega (2006), suggested that cash flow may provide additional information about firms and financial situations not captured in earnings and book value. Historical information related to cash flow can help users of financial statements to judge the timing, the amount, actualization and reliability of future cash flows. The company cash flow position indicate the manner of relationship between the profitability of a firm and its ability in generating cash to meet up obligations. Therefore, cash flow indicates quality of the earnings obtained by the firm.

Analysts and other users of financial information often use models either formally or informally to assess and compare present value of future cash flows of firms. According to Khodadi and Janjani (2010), the historical cash flow information of the firms can be useful for accurate evaluations of the relationship between activities of the firm and its receipts and payments.

Statement of cash flow provides information about the cash flow of a firm during the reported financial period, but it is not adequate for evaluating future cash flow because some cash flows

may have resulted from transactions that have occurred in previous financial periods and are sometimes expected to result in other cash flows in one of the future periods. It was in this vein, that (Morck et al., 2000) suggested that statements of cash flow should be used along with other financial statements (comprehensive income statement and the statement of financial position/balance sheet) of the firm, for the assessment of future cash flows,

Cheng et al. (2012) investigated the relationship between cash flow, opacity in earnings and stock price crash risk. Their results suggested an inverse relationship between operating cash flow and stock price crash risk. In fact, increase in operating cash flow generally reduced stock price crash risk; also, operating cash flow decreased opacity associated with earning. Barth *et al.* (2010) shows that in measuring the summary of the performance of companies, information about companies' cash flows naturally plays a crucial role than others performance summary such as sales income, comprehensive earnings.

### 2.1.7 Share Price

A share price is the price of a single share of a number of saleable stocks of a company. In a layman terms, the stock price is the highest amount someone is willing to pay for a unit of share or the lowest amount that it can be bought for (Lo & MacKinlay, 2008).

In economics and financial theory, analysts use random walk analysis techniques to model and forecast share prices in the stock markets. This practice is based on the assumption that investors are rational and without biases and at any moment estimate the value of sock based on their future expected returns. According to the random walk share price analysis all existing information available in the market affects the price of the stock, which can only change when new information is made available. Ehrhardt and Brigham, (2010) summaries that new information appears randomly in the stock market and influences the stock price randomly.

### 2.1.8 Accounting Information and Share Price

In considering the effect of accounting information on share prices, the issue of the relevance of the accounting information is a key factor. Relevance as a characteristic of accounting information helps users to evaluate the potential effects of past, present and future transactions or other events on future cash flows, and confirmatory value (Ibadin & Izedonmi 2013). According to Beisland (2009) value relevance is the ability of financial statement information to capture and summarize firm value. Value relevance of accounting information deals with the usefulness of financial statement in equity valuation (Nilson, 2003). Beaver, (2002) explained that Value relevance investigates the association between a security price and a set of accounting variables. According to him, accounting information is value relevant if it leads investors to change their beliefs and actions about investing in a stock. In order to be relevant therefore, accounting data must be able to decision needs of the users, particularly the investors.

Germon and Meek, (2001) stated thus: Accounting exists because it satisfies the users' primary needs for information and if this need is not met, those who have money to invest and lend would take the money to where this need is met. Chouinard and Youngman (2008) viewed accounting information as a key determinant in the efficient market economy. Oyerinde (2011) argues that value relevance measures the relationship between accounting information and market value or returns on shares, thus, an accounting information is valueless if it has no significant relationship with the market value of security or operational efficiency of an organization. Francis & Schipper,( 1999) defined value relevance as a statistical association between financial information and share prices or returns. This definition of value relevance

conforms to the statement of the Framework for the Preparation and Presentation of Financial Statements issued in 1989 (IASB, 2010), which provided that information is relevant if it influences the economic decisions of users by helping them evaluate past, present and future events".

Katerina, (2005) defined value relevance from the investors' perspective, as information which contributes to investors' equity investments decisions. Katerina , (2005) stated that Value relevance can be evaluated from two major perspectives –The signalling perspective and the measurement perspective. The signaling perspective aims to study whether there is a reaction to the announcement of accounting information, while the measurement perspective measures the explicit relationship between market indicators of the value of the company such as share price and accounting measures.

It was from Francis and Schipper, (1999) fourth interpretation and in the light of Katerina, (2005) measurement perspective that Oyerinde, (2011) defines value relevance of accounting information as the ability of accounting numbers to summarize information that affects the firm's value which can be measured by the aggregate market reaction to accounting information.

Ohlson (1995) assesses the value relevance of accounting information (earnings, and book value) where he come up with a valuation model relating price with book value and abnormal earnings. Empirical evidence on value relevance of accounting information provides mixed results. Keener, (2003) carried out a study on the impact of accounting information on price by examining changes in value relevance over a more recent time period. He finds that the joint value relevance of earnings and book value has not decreased over the sample period. The study also demonstrates that the incremental value relevance of earnings has increased and of book value has stayed constant for the sample period. He concludes that there is no incremental value

relevance of earnings and book value across industries. The omission of intangible assets from the valuation model and the nature of the firms in his sample accounted for this findings. This study aimed at determining the relationship between value relevance of accounting information and share price of manufacturing firms in Nigeria and South Africa, using original model (see researcher's conceptual model below).



# **Researcher's Conceptual Model**

Value relevance as defined in the researcher's model above, is the association between accounting numbers and security market values ( Share Price). That is the measure of the statistical association between financial statement information and stock market values (Share Price).

The key commonality in all the definitions given so far is that an accounting amount is deemed value relevant if it has a significant association with security market value (Share Price). The researcher's model states that value relevance is treated as proof of the quality and usefulness of accounting numbers.

### **2.2 Theoretical Framework**

# **2.2.1 Market efficiency theory**

The Efficient Market Hypothesis is a cornerstone of modern financial theory and was summed up by Eugene Fama in his influential article on Efficient Capital Markets in 1970, states that it is impossible to "beat the market" as financial markets should widely be seen as efficient regarding to the distribution of information. According to this, it is impossible, by means of information, to gain exceedingly high returns on investment in comparison to the whole market. Since market participants behave rational, stocks are always traded at their fair value and represent the net present value of all future cash flows of the concerning investment. There are no under- or overvalued stocks.

When information arises, the news spread very quickly and they are incorporated into the prices of securities without delay. This can be seen as a result of the stock market efficiency which causes that share prices always reflect all relevant information. Furthermore, they do not follow a certain pattern; hence, they are not predictable. Thus, neither technical analysis, which is the study of past stock prices, nor even fundamental analysis, which describes the analysis of financial information such as company earnings, asset values, etc. would enable an investor in the long term to achieve returns greater than those that can be obtained by holding a randomly selected portfolio of individual stocks with comparable risk. So, it does not matter how much the investor informs him beforehand as the extent of the attainment of returns is due to chance and the only way to get higher returns seems to be a holding in riskier investments.

An efficient market can be defined as one where the current market price and the fair value resemble as all pertinent information is incorporated immediately. But even within the definition of efficient markets the occurrence of errors according to the valuation of the market price is permitted as long as they are random. As the deviations are random the chance of a stock being over- or undervalued should be equal and they should not correlate with certain variables like, e.g. a lower or higher PE ratio. This implies that no group of investors is able to consistently outperform the market over a long period of time by using any investment strategy as well keeping in mind that it is extremely unlikely that all markets are efficient to all investors. Instead, different tax rates and transaction costs impede investors from having all the same advantages.

However, the idea of market efficiency is that the market price is right. Thus, efficiency comes about as the result of competition. It always depends on the way of how investors draw a conclusion out of the competing behavior of all stockholders who invest into the market. All investors try to be the first to get the information that will affect security prices. By trading on this information, the price will quickly reflect the new information.

If an investor is about to find out some relevant news, e.g. increased sales figures, about a company, he would think about buying a stock. This action drives the price up, but if it rises too

much it is possibly sold. Following this, information and competition are the essential principles guiding market efficiency. Moreover, if you think of an asset price being based on anticipating future conditions like future supply, demand, competition, etc., it needs to be kept in mind that these forecasts are made by using the information available which financial economists call information sets. The larger the information sets are the more accurate is the forecasted price. Information is the key to success.

Furthermore, there is one common error which does not admit the perfection of markets. If markets are efficient, it does not mean that it is impossible to make any money. It only means that one will not earn more than it should be earned for assuming that level of risk. Therefore, beating the market means earning a profit above and beyond the required profit for that level of risk. It is extremely unlikely that all markets are efficient to all investors, but it is entirely possible that a particular market (e.g. the New York Stock Exchange) is efficient with respect to the average investor. It is possible that some markets are efficient while others are not, and that a market is efficient with respect to some investors and not to others. This is a direct consequence of different tax rates and transaction costs which confer advantages on some investors relative to others. Definitions of market efficiency are also linked up with assumptions about what information is available to investors and reflected in the price. For instance, a strict definition of market efficiency that assumes that all information, public as well as private, is reflected in market prices would imply that even investors with precise inside information will be unable to beat the market.

Malkiel (2003) notes that neither technical analysis, which is the study of past stock prices in an attempt to predict future prices, nor even fundamental analysis, which is the analysis of financial
information such as company earnings, asset values, etc., help investors to select stocks. However, most investors focus on companies rather than on stocks. Froidevaux, (2004) asserts that investors need to understand that a good company is not necessarily a good investment. The basis of efficient market hypothesis is that any variable change announcements should only have an impact on stock prices if they are unanticipated by capital market participants. Thus the individual investor lacking prior knowledge of any expected earnings or dividends announcements will react to this new information and affect share prices at the stock market.

Ball and Brown (1968) first assumed the Efficient Market Hypothesis in their study to calculate information value of accounting earnings. Though the adoption of Efficient Market Hypothesis was criticized on the ground of Modigliani & Miller propositions, which explicitly connect firm value with the expected returns (Modigliani & Miller, 1958). Modigliani –Miller propositions use expected return in estimating the return on share of stock , not actual return. Earnings, which is reported in financial statements, influence stock return only indirectly through its impact on expected earnings. The attribute of Modigliani & Miller propositions in Market Efficiency Hypothesis is a significant concern in Capital Market studies especially in emerging and developing economies where capital market are not well developed, but often have market inefficiency.

The question is whether market efficiency is necessary for Value relevance studies to produce reliable results. Aboody & Liu, (2002) suggested that the semi-strong market efficiency is necessary, if economic inferences are to be unbiased. Even if a market is not efficient, investors and their decisions can be significantly affected by accounting information. It has been argued

that the semi-strong form of market hypothesis is relevant for accounting information because it is the primary source of public information through the issue of financial reporting (Hadi, 2006),

The main ideals of the Efficient Market Hypothesis is that testing value relevance, requires a market where investors are free in making their decisions and where investors' decisions affect Share prices. Otherwise, even if accounting numbers are of highest quality, they will not have an impact on stock prices. Efficient Market Hypothesis portray that the stock market must be free from manipulation by the authorities, or people in power. This means that restrictions on trading must not be too strict or subject to authorities' discretion such as setting a narrow limit on daily price fluctuations and freezing trading. In an inefficient market, preferences of investors are not reflected in prices, so accounting information which influence these decisions are not relevant in determining share prices. It must also be noted that, the existence of an efficient market does not necessarily imply value relevance. Accounting information may still be of doubtful quality due to manipulation by reporting firms: accounting methods may not be well defined and so subject to manipulation; internal and external controls over Market activities may not be in existence. In such a case, rational investors will not base their decisions on accounting information.

This study is anchored on Market efficiency theory (Semi-strong), because the idea of market efficiency is that the market price is right and again in emerging countries like Nigeria the goal of Value relevance studies is only to determine if accounting information are at all relevant in determining share prices.

### 2.3 Review of Related Studies

Several literature now exists which investigates the Value relevance of accounting information to stock price and different scenario was found in different studies. The initial studies of financial information value relevance for stock market started in the late 1960s when Ball and Brown, (1968) and Beaver, (1968) first performed empirical studies to examine the usefulness of accounting numbers for stock market performance. The two studies proved that accounting earnings does have information content and is useful for stock market participant. They applied Value relevance to analyzed the reaction of security market to earnings announcements by firms listed on the stock exchange and from their findings claimed that accounting information is relevant to investors in estimating the expected security returns, hence concluded that earnings are value relevant in estimating stock value.

Pankoff and Virgil, (1970) presented an ingenious and ambitious laboratory experiment to measure the usefulness of accounting and other information to security analysts who participated as subjects in the laboratory stock market. According to them "Usefulness of information"- is defined as " the extent to which information facilitates decision-making". They proposed five contemporary measures of usefulness of a given information. These are: The subject demand for the information item; the degree to which the item affects the subject's forecasts; the extent to which the item leads to good forecasts; the degree to which the item affects the subject's decisions and the extent to which the item leads to good decisions. Although the authors stated that their experiment yields data concerning all the five measures, the paper present results on only four. Pankoff and Virgil viewed that there are many valid ways to assess the usefulness of information item.

Frankel and Lee (1998) investigate the association between share price and accounting variables using data from 20 countries including America and Japan. The accounting variables examined were the current earnings, current book value and earnings forecast to assess the value relevance

of accounting information. Result from the study found that accounting information is significantly related to Share price.

Al-Khalayleh, (1999) aimed to test the relationship between profits- measured by earning per share and stock return- measured by the change in the share price in the long term. The study use a sample of 41 industrial and service companies listed on the Amman Stock Exchange and cover a period of 10 years from 1985-1994. The results indicate a weak and not statistically significant relationship between earnings and stock returns, but shows that the relationship becomes better and had a better explanatory power with longer period of time.

Al-Khalayleh, (2001) aimed to test the impact of accounting performance indicators measured by the return on equity, return on assets, profit margin and asset turnover on stock return. The study sample included 40 industrial and service companies listed on the Amman Stock Exchange for the period from 1984 to 1996. The results of correlation analysis and regression analysis revealed that there is a statistically significant and positive relationship between the stock return and return on equity and also return on assets.

Oyerinde, (2009) is reputed to be among studies relating Value Relevance of accounting information in Nigeria. He investigated the value relevance of accounting data in the Nigerian Stock Market, with the objective of establishing the relationship between accounting numbers and share prices. The study measures value relevance by the correlation coefficient between stock prices and some accounting numbers with the use of linear regression on a sample of 30 firms listed in the Nigeria stock exchange with highest yield for a period of 4 years from 2001 to 2004. The study shows that accounting information has the ability to capture information that affects equity values and that there is relationship between accounting numbers and share prices.

in Nigerian Stock Market. It was therefore concluded that Nigerian listed firms' accounting information is value relevant. This study however shows a number of serious limitations: the time scope for this study and the sample size was narrow such that conclusions from the study could not be compared to studies done in more matured markets. It also did not take into cognizance the factor of scale as well as the effects of heteroscedasticity.

Karunarathne and Rajapakse (2010) investigated value relevance of accounting information in the Sri Lanka stock market with the use of Ohson's 1995 model, but introduced other variable into the model. The independent variables (accounting information) used in the study were earnings and cash flow. It was found that there was a relationship between financial statement information and Share price in the Sri Lanka stock market and suggest that accounting information has the ability to capture and summarizes information that affects share value.

Michalis, John and Charalampos (2011) examines the impact of earnings and book value in the formulation of stock prices on a sample of 38 companies listed in the Athens Stock Market during the 1996-2008 period. The study adopted the Ohlson's (1995) model and used simple linear regression to calculate the coefficient of determination for the explanatory variables. The result of their study suggests that there is joint explanatory power of earnings and book value in stock prices and that increases over time; however earnings appear to play an increasingly diminishing role in the interpretation of stock prices, compared with the book value. Therefore it was assumed that investors strive more towards fundamental parameters of firms, than stock market data.

Ali, et al; (2011) investigated empirically the value relevance of accounting information to domestic investors in Tehran stock exchange from 1999 to 2006. The study considered the

impacts of two factors - Positive vs. Negative earnings and the firm size on share prices. The authors used earnings per share and annual change of earnings per share as the income statement indices, and book value of equity per share as the balance sheet index. Return and Price modeled through regression analysis are deployed in order to test the research hypothesis. Results depicted that accounting information is value-relevance to domestic investors in Tehran Stock Exchange. However, income statement information has more value-relevance than the balance sheet information. Especially, positive vs. negative earnings and firm size were found to be more value relevance.

Jamal, (2011) examined the value relevance of accounting information in pre and post periods of International Financial Reporting Standards (IFRS) implementation using the regression and portfolio approaches for sample of the UAE companies. The results obtained from a combination of regression and portfolio approaches, show accounting information is value relevant in UAE stock market. A comparison of the results for the periods before and after adoption, based on both regression and portfolio approaches, shows a decline in value relevance of accounting information after the reform in accounting standards. It could be interpreted to mean that the adoption of IFRS in UAE did not improve value relevancy of accounting information.

Ahmad, (2011) carried out a study to enhance the understanding of value relevance and to empirically investigate value relevance of accounting information of deposit money banks in Nigeria from 2003-2010. The research emphasized on value relevance of earnings and equity book values. Multiple regressions was used as a tool of analysis. The result reveals that the information contained in the financial statements of Nigerian deposit money banks is of relevance within the period of the study. The study recommends that all the predicted variables under consideration should be maintained by the banks in order to ensure consistence in the value relevance of Nigerian deposit money bank.

Oyerinde, (2011) investigated the value relevance of accounting data in the Nigerian stock market, with a view to determining whether accounting information has the ability to capture data that affect share prices of firms listed on the NSE. It also examines the difference in perception of institutional and individual investors about the value relevance of various items of financial statements in equity valuation. This study used secondary and primary data to investigate the value relevance of accounting numbers. Secondary data were obtained from the Nigerian Stock Exchange Fact book, Annual Financial reports of 68 companies listed on the Nigerian Stock Exchange and the primary data were obtained through survey questionnaires administered on respondents who are Stock Brokers or Investment Advisers or Portfolio Managers in 152 stock broking firms in the Nigeria stock exchange. The study covers a period of 7 years from 2002 to 2008. Ordinary Least Squared (OLS), Random Effects Model (REM), Fixed Effects Model (FEM) with the aid of STATA SE10 statistical soft ware were use to carried out the analysis of the analysis of primary data.

The findings from the study shows that there is a significant relationship between accounting information (earnings per share, dividends and book value) and share price of companies list on the Nigerian Stock Exchange. Earnings and dividend were discovered to have same individual incremental power in share prices. The study also finds that there was a significant but negative relationship between negative earnings and share prices of companies listed on the Nigerian Stock Exchange. The study also observes that there is no significant difference between the

perception of institutional and individual investors about the value relevance of Profit and Loss accounts, Balance Sheet and Value Added Statement. Finally the study discovered that the is no difference in the perception of institutional and individual investors about value relevance of Cash flow statement shows a significant difference

The study therefore suggests that the firms should improve the quality of earnings because earnings, of which dividends are sub-sets can easily be manipulated to influence the share prices. The study recommended that, there should be firm and stiff penalty by the national standards setters against perpetrators for manipulating earnings in the Nigerian stock market. It is also recommended that all companies listed on Nigerian Stock Exchange should prepare Simplified Investor's Summary Accounts (SISA) with emphases on the most widely used accounting information along the required mandatory detailed financial statements to suit Nigerian peculiarities.

Pushpa and Sumangala, (2012) studied the impact of Earnings per share (EPS) on the market value of an equity share in the Indian context. The study is based on data of 50 companies over a period of 5 years. The 50 companies that have been selected are the first 50 companies in the list of India's most valuable companies as per the Business Today Survey of 2010. The study concluded that EPS have impact on the market value of an equity share in the Indian context.

Hussain and Mustafa, (2012) used the panel data approach for 270 Malaysian Shariah-compliant companies over the period of three years from 2007 to 2009 to examine the relationship between some board of directors characteristics represented in the board of directors size, number of independent non-executive directors in the board, the CEO duality, and the number of Muslim directors in the board and Value relevance of accounting information. In addition, some

company's specific characteristics, namely, company's size, company's leverage, company's profitability and size of audit firm (Big4) were regressed in the model as control variables. The Ohlson's (1995) Valuation Model was used to examine these relationships. Furthermore, three panel data estimations namely Pooled OLS, Fixed and Random effects models were conducted. The findings after correcting for heteroscedasticity and autocorrelation, making sure that the model does not suffer from multi-collinearity, and after transforming the data to be normally distributed indicate that the board size is not an important factor to affect the value relevance of accounting information, because of their negative non-significant relationship. Additionally, it was revealed that there is a positive but non-significant relationship between the board independency and value relevance of accounting information. The result also indicates that there is not strong influence for availability of Muslims in board of director on value relevance of accounting information.

Omokudu, (2012) examined the value relevance of accounting information for firms quoted in Nigeria Stock exchange for 20 years period from 1990 to 2009. Basic linear model was employed with four estimation technique to carry out the data analysis. Share price as independent variable was regressed with the dependent variable proxy by earning per share, book value per share, dividend per share and cash flow.. The result of the study indicates that the coefficient estimates of earnings, cash flow and dividend were significantly value relevant and cash flow from operations were more incrementally value relevant over earnings.

Mgbame and Ohiorenuan, (2013) ascertained if accounting information contributes to stock volatility in the Nigerian Capital Market. Specifically, the study examines if book value per

share, dividend per share and earnings per share have a sign effect on stock volatility in Nigeria. To capture stock returns volatility clustering, leptokurtosis and leverage effects on the share price series, the GARCH models were used. Specifically, the GARCK (1, 1), TGARCH (1, 1) and EGARCH (1, 1) were utilized. Using the simple random sampling technique, a sample size of 10 quoted companies was selected using the simple random sampling technique for the period 2000-2010 and this gives a total of 100 company years/data points. Secondary data retrieved from the financial statements of the sampled companies were employed for the study. E-views 7.0 was utilized for data estimation. Findings from the study revealed that there are enough evidences to reject the assumptions of conditional normality in stock prices data series and accept the existence of stock volatility in Nigerian stock market. In addition, an evaluation of the three models shows that book value per share (BVPS) as a determinant of stock volatility appeared to be significant in the TGARCH (1,1) and EGARCH (1,1). Also earning per Share (EPS) appeared to be significant in the TGARCH (1,1) and EGARCH-1(1,1) and dividend per share (DPS) as a determinant of stock volatility also appeared to be significant in GARCH (1,1). TGARCH (1,1) and EGARCH (1,1) respectively. The study concludes that accounting information influences stock volatility and as such the regulation of disclosures may be an area for consideration by the relevant agencies alongside the need to address volatility issues in the Nigerian capital market.

Samina and Murtaza, (2013) aimed at identifying the influence of various fundamental factors in determining the market price of shares in Dhaka Stock Exchange (DSE). For this study 14 listed pharmaceutical companies have been considered which comprises of 70% (14 companies out of 20) of the total listed companies under pharmaceuticals and chemical industry (PCI) in Dhaka Stock Exchange (DSE) for the period of seven (7) years from 2005 to 2011. Two stage analysis was carried out in the study. The first stage of the study attempted to find out the correlation

between market price of the stocks and the companies' performance proxy by earning per share (EPS), dividend per share (DPS), return on equity (ROE), return on assets (ROA), and the ratio of fixed asset to total asset (FA/TA). In the second segment, the market price of the sampled stocks was compared to their fundamental or intrinsic price. The study suggest that the ideal value of stock to be Net Asset Value (NAV). The study depicts that the market price is very insensitive toward fundamentals of companies and current market price is highly overvalued compared to the ideal value of stocks, which reinforces that fact that the impact of unauthorized information has a greater influence in determining the price of stocks in pharmaceuticals and chemical industry in DSE.

Tharmila and Nimalathasan (2013) examined the impact of value relevance of accounting information on market vulnerability of the listed manufacturing companies in Colombo stock exchange (CSE). Using one of accounting based measure of market vulnerability which is measured by market price per share. The sample of this study composed of twelve companies listed in the CSE and period of 5 five years from 2009 to 2013. The required data and information for the study were gathered from published annual reports, fact book, and website of listed companies in CSE from 2009 to 2013. Descriptive and inferential statistics were used for this purpose for the study. The results revealed that earning per share (EPS) and net assets value per share (NAVPS) significantly impact on market vulnerability. Further EPS and NAVPS are significantly correlated with market vulnerability.

Daye (2013) examined the empirical relationship between earnings and equity share prices of 42 sampled companies listed at the Nairobi Securities Exchange (NSE) from 2007 to 2012. Multiple. linear regression analysis was used to establish the relationship between the dependent

variable (Share price) and earnings per share (EPS) the explanatory variable. Dividend per share (DPS), price/earnings (P/E) ratio, payout ratio (POR) and price to book value ratio (PBV) were used as control variables. The findings showed that there was a positive significant relationship between earnings and share prices of firms quoted at the Nairobi Securities Exchange (NSE). It was also found that there were other variables significantly correlated with share price. These included DPS and PBV which were used as control variables in the study. DPS was found to have a stronger, positive and significant relationship with share price than EPS. The other variables used, P/E and POR, were found to have no significant relationship with share price.

Sibel, (2013) investigated the value relevance of accounting information in pre- and postfinancial periods of International Financial Reporting Standards' (IFRS) adoption for Turkish listed firms from 1998 to 2011. Market value is related to book value and earnings per share by using the Ohlson model (1995). Overall book value is value relevant in determining market value or stock prices. The results show that value relevance of book values has improved in the post-IFRS period (2005-2011) while such improvements was not been observed in value relevance of earnings.

Adaramola and Oyerinde (2014) examined the value relevance of accounting information of quoted companies in Nigeria using trend analysis. Secondary data were sourced from the Nigerian Stock Exchange Fact Book, Nigerian Stock Market annual data. And Annual Financial Reports of Sixty-six (66) quoted companies consisting of financial and non-financial firms in Nigeria. The study employed Ordinary Least Square (OLS) regression method of data analysis. The study reveals that accounting information of quoted companies in Nigeria is value relevant, however, the value relevance of accounting information does not follow a particular trend within

the period under study. While the value relevance was weak in the periods of political crisis caused by military dictatorship (1992-1998) and global economic crisis (2005-2009), it was high in the other periods. Based on the finding that accounting information directly influences the value of securities in the capital market, it is therefore recommended that Accounting Standards should be complied with by Nigerian companies and that more standards that can curtail information overload should be introduced. As a result of the trend experienced between 1992 and 1998, the study also advocates stable political atmosphere in Nigeria.

Ivica and Marijana, (2014) analysed value relevance of accounting information based on a sample of 97 corporations listed the following capital markets: Ljubljana Stock Exchange, Zagreb Stock Exchange, Sarajevo Stock Exchange, Banja Luka Stock Exchange and Belgrade Stock Exchange. The study results show that accounting information is value relevant on all the observed markets. Value relevance analysis for the period 2005–2010 has shown that there was no increase in the explanatory power of accounting variables, instead results indicated decreases or large oscillations in the value relevance for the observed period.

Oshodin and Mgbame, (2014) conducted a comparative study on the value relevance of accounting information in the Nigeria banking and Petroleum sectors to compare the value relevance of accounting numbers in these sectors. 10 companies where randomly selected from each of these sectors. Secondary data were collected on the dependent variable- Market price per share and the independent variables- earning per share, book value of equity, and leverage used in the study from the annual financial reports of the selected companies. The study covers a period of 5 years from 2007-2011. Multiple regressions analysis and the Ordinary Least Square was used for the analysis of data. The results from the study indicated that that the financial

information in the oil and gas is more value relevant compare to the financial information disclosed by companies in the banking sector. Also earning per share was found to be the most considered accounting information by investors when deciding share prices in both sectors.

Manisha, (2014) analyzed the combined, individual and incremental value relevance of accounting information produced by firms listed on the S&P BSE-500 for the financial year 2006 to 2010 and changes therein over the period. The study found that accounting information is value relevant for BSE-listed firms, earnings per share and book value per share are significantly relevant to share prices of the BSE-listed firms. It was also found that the combined value relevance of accounting information represented by earnings per share and book value per share has declined while there have been insignificant changes in the incremental value relevance of accounting information.

Abdullah, (2014) empirically estimated excess stock market returns for all the thirty (30) banks listed in Dhaka Stock Exchange for the period of 2007 to 2011. The study to examined the relationship between dividend policy and stock market returns of private commercial banks in Bangladesh so as to assess the extent to which the returns on stocks can be explained by their respective dividend policy for the period of the study. Various theories related to dividend policy were tested and various articles were reviewed in the study to see the significance of dividend policy on the stock prices and to compare the results of the study with those conducted earlier. The sample of the study includes all the listed commercial banks on Dhaka Stock Exchange. Panel data and ordinary least square regression approach was for data analysis. Overall results of this study indicate that dividend policy has significant positive effect on Stock Prices and can explain the variations in the market prices of shares. The result also revealed that while return on

equity and retention ratio have positive and significant relationship with stock prices, dividend yield and profit after tax have negative but insignificant relationship with stock prices.

Adaramola and Oyerinde, (2014) examined the value relevance of accounting information in the Nigerian stock market with a view to determining whether accounting information has the ability to significantly affect share prices of quoted firms between 1997 and 2013. The study used secondary data sourced from the Nigerian Stock Exchange Fact Books, Annual Financial reports of companies quoted on the Nigerian Stock Exchange and the Nigerian Stock Market Annual reports to investigate the value relevance of accounting data. panel model analysis and generalized Least Squared (GLS) regression method were employed for the statistical analysis of data. The study adopted the Ohlson's (1995) valuation model to examine the value relevance or the extent of the relationship between the independent variables (Earnings per share, book value of equity per share, dividends per share, c ash flow from operations and the dependent variable (share price). The results of the pooled regression indicates there is a significant relationship between accounting information and share prices of companies listed on the Nigerian Stock Exchange. Specifically, earnings is found to have a statistically significant and positive relationship with share prices in Nigeria, book value of equity has a significant positive relationship with share prices dividend payments has a significant positive relationship with share prices and also accounting information on cash flows from operations has a positive relationship with share prices in Nigeria, this simply means information on earnings, dividend, book value and cash flows can be used to predict share prices of quoted firms. The implication of these findings is that accounting information serves as a guide to investors' investment decisions in Nigeria. The study recommended based on its findings that accounting standards should be

complied with by Nigerian companies and that more standards that can improve quality of accounting information should be issued.

Ordu, Enekwe and Anyanwaokoro, (2014) conducted a study on the effect of dividend payment on the market prices of shares in Nigeria: A study of 17 quoted firms using time series data on dividend per share, dividend yield and dividend payout ratio for the period 2000 to 2011.

Ordinary least squares was used for analysis of the data collected. The researchers empirical results arising from the panel least squares suggests a positive effect between market price per share and dividend per share confirming that a rise in dividend per share brings about an increase in the market price per share of quoted firms; result from the study also revealed that dividend yield does not have a significant positive effect on the market prices of shares of quoted firms in Nigeria but there exists a direct relationship between market prices per share and dividend payout ratio of selected firms on the NSE. The study further explained that earnings remain the most significant determinant of dividend payment and therefore has a significant influences on the market value of public quoted firms. Conclusively, dividend payment, dividend per share, dividend yield, dividend payout ratio and earnings per share are significant in explaining the observed differences in share market prices of quoted firms in Nigeria.

Anike, (2014) examined the impact of dividend yield on stock prices of Nigerian banks; the impact of earnings yield on stock prices of Nigeria banks and the impact of payout ratio on stock prices of Nigeria banks. The study adopted the ex-post-facto research design and make use of secondary data collated from annual reports of banks and the Nigeria Stock Exchange daily official list for the period of 5-years 2006-2010. The Ordinary Least Square Regression Model was used to estimate the relationship between the independent variables - dividend yield,

earnings yield and payout ratio and stock prices and the dependent variable- Share price (Daily stock price average was used), The result from this study indicates that dividend yield has a negative and significant influence on stock prices of commercial banks in Nigeria, earnings yield had negative and significant impact on stock prices of commercial banks in Nigeria and finally dividend payout ratio had negative and non-significant impact on stock prices of commercial banks in Nigeria. The study concluded that dividend yield, earnings yield and payout ratio are not factors that influences stock prices rather the bank size was found to have positive and significant impact on stock prices. The study therefore recommends among others that managers should act in the best interest of investor so as to reduce the agency problem.

Edward, (2014) sought to find out the impact of dividend payment and its relationship on the share price of some listed companies in the Ghana Stock Exchange (GSE) and how dividend payment influences shareholders decision on whether to maintain or withdraw their investment from one firm and reinvest in another firms. The study make use of both secondary and primary data. The primary data was collected with the use of questionnaire which was administered on sixty (60) respondents who were shareholders of Eco bank, Cal Bank and AngloGold Ashanti that form the sample of the study The secondary data consisted of information on dividend payment policy obtained from the internet, journals such as the journal of risk finance, national tax journal, journal of finance and corporate finance. The theoretical and empirical findings of the study confirms that as the dividend of companies increase, the shares price also rises due to the pressure on the shares from increase in demand for the share in the market . This suggest that the shares price of firms with higher dividend payment will go up as a result of higher demand for the shares. On the other hand, the shares price of firms with lower dividend payment will go down, all things being equal.

Ahmad and Zayyad, (2014) investigates the effect of IFRS adoption on the value-relevance of accounting information in Nigeria. The study builds on the explanation of extant finance theories on the value and timing of information. IFRS was measured with more disclosure of economic events as well as the fair valuation of economic events under IFRS. The study adopts a survey research design approach. The authors used structured questionnaire items to elicit information from the professional members of The Institute of Chartered Accountants of Nigeria (ICAN) practicing as financial analysts in the Nigerian Stock Exchange who form the population of the study, on their perceived change in the value-relevance of accounting information since the adoption of IFRS in Nigeria. Descriptive statistics and log-linear analysis were used for data analysis with the aid of SPSS 17. A log-linear test was run to test the relationship of dependent variable and the independent variables and the significance of such relationship. A significant relationship was found between each of the independent variables and the dependent variable at 5% level of significance. The authors concludes that IFRS adoption has enhanced the value relevance of accounting information in Nigeria. However, recommendation was made that more measures should be put in place to ensure full compliance of IFRS by all affected Nigerian entities.

Oloidi and Bolade (2015) analyzed the major variables that determine the equity shares prices of listed companies on the Nigerian Stock Exchange using their accounting data as published for the financial year 2011/2012. They examined eighty (80) companies and used the ordinary least square regression to regressed the quoted price of the company's shares as at 4th January of 2011 against the other explanatory variables - prior year share price, earnings and dividends. The result of the study revealed that the prior year share price significantly and positively influenced equity share price at  $\alpha$ =0.000, earnings per share was negatively significant at  $\alpha$ =0.05 and

dividends per shares had positive and significant influence on the equity share price at  $\alpha$ =0.014. The combined explanatory power of the studied variables (prior year share price, earnings and dividends) explained the variation in equity shares prices at an adjusted R – square value of 0.969. This showed that about 97 percent of the determinants of equity shares prices had been explained by these three explanatory variables.

Ijeoma, (2015) studied value relevance of accounting information in Nigeria to ascertain whether certain accounting variables affect share prices in Nigeria stock market. The study population is made of 200 listed firms, out of which a sample of 120 firms were selected because of non-availability of data for all the 200 listed firms. Secondary data sourced from Nigerian Stock Exchange fact book was used to carry out the study. Ordinary Least Square estimation technique was used in analyzing the data obtained on the dependent variable (share price) and the independent variables (book value per share, earnings per share and return on equity). The data analysis was carried out with the aid of SPSS-Statistical Package for Social Sciences.

Results of the study found that a significant relationship exist between earnings, book value, returns on equity and share prices of listed firms on the Nigerian Stock Exchange. This implied that certain variables of accounting information have significant influence on share prices in Nigeria capital market. Consequently, accounting information can be said to be value-relevant in Nigeria in line with the findings of this study. The author recommended amongst others that in addition to the preparation and presentation of the statutory and mandatory detailed financial statements, listed firms on the Nigerian Stock Exchange should also prepare Simplified Investors' Summary Accounts (SISA) with emphasis on the most widely used accounting information to suit Nigerian peculiarities.

Collins, (2015) established the relationship between earning per share and dividend per share of companies listed at the Nigeria Stock Exchange. Secondary data of 38 firms listed on the Nigeria Stock Exchange drawn out of the population of 64 firms listed on the exchange as at December 31, 2014 was used in the study. The study covered a period of 10 years from 2005 to 2014. Data analysis of the study was carried out with the use of descriptive statistics, correlation analysis and multiple regression model. After the regression of the independent variables upon the dependent variable, it was found that , earnings per share had a positive and significant relationship with dividends per share. Leverage, Liquidity and retained earnings on the other hand were found to have negative but insignificant effects on dividend per share. The study concluded from the findings that the dividend policy of a listed firm in Kenya is strongly influenced by earnings per share, the higher the earnings per share, the higher the dividend per share. The study recommended that firms should focus on improving their earnings since higher earnings translate to higher dividend payment.

Musa, (2015) investigated the value relevance of accounting information in listed Industrial Goods firms in Nigeria using data obtained from the Nigerian Stock Exchange fact book for annual reports of the firms and the daily price list on the Cash Craft website from 2007-2013.

The study was anchored on the semi-strong form of Efficient Market Hypothesis and applied the Ohlson's (1995) valuation model. Initially, Ordinary Least Square (OLS), Fixed Effects (FE) and Random Effects (RE) models were employed as tools of analysis but after conducting relevant tests, REM is used in testing the hypotheses of the study The population of the study consisted of all the twenty-five (25) firms that were listed on the Nigerian stock exchange under industrial

goods sector of the economy but a sample of 16 firms were selected as sample for the study after filtering sampling method was used.

The results revealed that all the explanatory variables statistically and significantly influence the explained variable. This implies that accounting information published by listed industrial goods firms in Nigeria have high value relevance to the investors in making their investment decision on the firms. Specifically, earnings per share are the most value relevant accounting information followed by dividend per share, then book value per share. It was therefore recommended that the management of Nigerian industrial goods firms should maintain stability and consistency in their earnings by diversifying their operations. The study also recommended that the accounting standards setters should also enhance the quality of the financial reporting in order to increase the value relevance of financial statements.

Umobong and Akani, (2015) investigated the differences in the quality of accounting information of manufacturing firms in Nigeria pre and post IFRS adoption. Secondary data from financials of a sample of 4 listed cement manufacturing firms and 7 listed breweries companies was collected for five years period 2009-2013. The study adopted the cross-sectional field survey , multiple regression analysis was perform on the accounting variables and t-test was carried out for equality of mean to compare pre and post IFRS. Findings of their study indicates a decline in accounting quality using earning management, Value relevance, and timely loss recognition as independent variables. Earnings and book value of equity are found to be less Value relevant and timely loss recognition is less in post IFRS compared to Pre-period. This study however shows a number of limitations in terms of the time scope and sample size

Mwila, (2015) provided empirical evidence concerning value relevance of earnings per share, book value per share, return on equity and assets turnover ratio on the share price of public sector banks listed in Bombay stock exchange (S&P BSE 500) from 2009-2013. Study utilizes secondary data for testing the research hypotheses drawn. Two panel data techniques; the Fixed Effect Model (FEM) and the Random Effect Model (REM) were employed to test the data collected for assessing the value relevance of accounting information in public sector banks stock.

The results of the study found that earnings per share has positive and statistically significant relationship with share price, while book value per share, return on equity and assets turnover ratio were found to have negative, but insignificant relationship with share price.

The result of correlation analysis between the dependent and the independent variables indicated a positive correlation between share price and earnings per share, book value per share and return on equity. However, the positive correlation between return on equity and share price was reported to be very low.

Okuns and Peter, (2015) uses the basic Ohlson's (1995) model and the modification of the model that includes cash flow from operation, and dividends, to ascertain the value relevance of accounting information in Nigeria. The study employs a pooled and panel data in the regression of share price and returns on accounting numbers. The ordinary least square (OLS) estimation and dynamic model estimation, with the Random and Fixed effects variants were used to regress the dependent variable- Share price with the independent variables (Earning per share, Book value, Cash flow and Dividend . The study make use of a random sample of forty-seven (47) firms in all industries excluding firms in the financial industry listed on the Nigeria stock

exchange with secondary accounting data collected from the financial statements of the sample firms, Nigerian Stock Exchange Fact books and Nigeria Stock Exchange daily price quotations for 20 years period from 1994 to 2013. The result of their study indicates that earnings, cash flow and dividends were statistically significantly associated with firm value but book value was related but not statistically significant. Based on these findings, it is suggested that the focus of investors should be on earnings, dividends and cash flows while less emphasis be placed on book values. Besides, the accounting information for investment purposes should be communicated to the investing public; and such information should be of high quality to avoid sub-optimal investment decisions by investors, with negative consequences for the overall economy.

Olubukola, Uwalomwa, Jimoh, Ebeguki and Olufemi, (2016) examined the value relevance of financial statements on share price of firms in Nigeria by examining the relationship between earnings and share prices of the firms. To achieve the research objective, secondary data sourced from the Nigerian Stock Exchange fact books and published audited financial statement of listed banks between the period of 2010 to 2014 was used for the study. The study sample was made up of 15 banks listed on Nigerian stock exchange within the period covered by the study, that were purposively sampled. The Fixed Effects Panel technique was utilized for analyzing the secondary data collected for the study.

Findings from the study showed that a significant positive relationship exist between earnings per share (EPS) and share price. The study recommends the need for banks in the country to improve on the quality of the earnings reported in their financial statements, since earnings has a stronger ability in explaining share prices of firm. Webster, (2016) study of value relevance of accounting information was focused at determining the relationship between the level of free cash flows and stock price. of non-financial firms listed at the Nairobi securities exchange. the population of the study was made up of the forty- two non-financial firms listed on the Nairobi Stock Exchange, the study covers 5 years period from the year 2011 to 2015. The study made use of secondary data extracted from the published annual financial statements the firms and publications and reports of the Nairobi Stock Exchange. Data collected for the study was statistically analysed with multiple linear regression. The result from the statistical regression indicated that the a relationship between free cash flow level and share prices of the firms. Free cash flow was found to have positive influence on stock prices.

Samuel and Pradeep, (2016) sought to found out the firms' factors that determine their share market prices. Based on the objective of their study, fourteen (14) companies listed on the Johannesburg stock exchange from period the 2009-2013 was selected for the study. multiple regression analysis statistical tool was use to analysed the secondary data collected on the firms., the independent variables for the study were dividend per share, earnings per share, and price-earnings ratio and the dependent variable was the share prices. The study found that dividend per share, earnings per share, and price-earnings ratio account for about 57.8% of share prices changes in the market. The independent variables ratio were found have positive and significant correlation with share prices the dependent variable. The implication of the result of this study is that, firms can create value for their shareholders by increasing the earnings per share, dividend per share, and the price-earnings.

Philip and John, (2016) assessed the value-relevance of accounting information on share prices, by determining whether accounting information of banks listed on Nigerian Stock Exchange have the ability to influence the demand and prices of their prices in the Nigeria Sock Market.

Twelve (12) banks of the banks listed on the Nigeria Stock Exchange were selected for the purpose of the study. The study made use of secondary data sourced from published financial statements and other publication of the Nigeria Stock Exchange. Correlation and panel data regression analysis statistic, along with Random Effect Model was used to test the hypothesis developed for the study.

Independent variable in the study were; Book Value per share, Dividend per Share and Earnings per Share while the dependent variable is the Market Value per Share (Price per share).

The results of the study indicated that book value per share, dividend per share and earnings per influenced the market prices use significantly. Shares prices of banks listed on the Nigeria Stock Exchange were found to have significant positive relationship dividend per Share(DPS), so was earnings (EPS). The study recommended that banks in Nigeria should provide quality and reliable accounting information in their financial statements. This will assist existing and prospective investors in taking informed investment decisions. They also pointed out that regulators in the Stock market have a role to play in order to ensure the information prepared and presented by the banks are of quality and reliable.

Dhiaa and Ibrahim, (2016) examined whether company's characteristics, namely, stockholders number, listing status and company's age affect its accounting information relevance and which stock price measure, among average price, closing price and after three months price, is more dependable in pointing out the accounting information value relevance for a sample of 91 companies in the services and industrial sectors in Jordan within 2004-2013. Using price model, it was found that companies with larger stockholder numbers, listed on Amman Stock Exchange primary market, and that are older in age had their earnings per share and book value per share to be more value relevance for.

It was found that book value was mostly value relevance over other accounting information variables used in the study (earnings per share and dividend per share and cash flow) and the book value per share was found to be the best predictor for firm value, earnings and dividends also showed significant value relevance, but cash flows showed insignificant results. The study also found that closing price is the most dependable, among the three stock price measures to be used in the study of value relevance in Jordan.

Marek, Rafał, Monika and Aleksander, (2016) modeled the relationship between financial reports of companies listed on the Warsaw Stock Exchange and market valuation of their shares. The study focused on overview of the contemporary issues that arise in the value relevance studies with reference to the methodology and econometrics issues, the outcome of the study on value relevance of annual report vis-a- viz- quarterly reports, the results of the study by Bilicz on the association between earning to price (E/P) ratio and quarterly accounting data, and the findings by Pernach on the relationship between ROIC or revenue and the market value. The theoretical findings shows that there exist various connections between financial statements and valuation companies, depending on the approach used in the study.

Zahid, (2016) investigated the impact of corporate governance on value relevance of accounting information of firms on KSE. Secondary data of ninety (90) non-financial companies listed on

the Exchange for the time period of 11 years, 2005- 2014 was utilized for the study. The dependent variable used in the study was share price and independent variable were Corporate governance and accounting information. Corporate Governance was proxy by (board independence, board size and audit quality and accounting information by (earnings per share and book value per share). The study use panel data estimation technique and fixed effect model to regress the independent variables over the dependent variable after introducing some control variables of firm size, sale growth, firm leverage and profitability which the authors believe could affect the result of the study were introduced.

Findings of the study revealed that corporate governance has significant affect on value relevance of accounting information. The individual correlation of the variables with each other indicated that board independence and board size have positively and significant impact on Earnings per share. Audit quality have insignificant impact on Earnings per share while the Board independence, Board size and audit quality have insignificant affect on Book value per share. Moreover, the result of control variable conclude that profitability and firm leverage are negatively correlated with the earnings per share. Firms' leverage and sales growth have no affect on earnings per share and Book value per share.

Thomas, (2016) investigated the importance of financial ratios derived from financial statements in predicting stock price trends in the emerging capital markets. A statistical examination of the prediction power of 12 financial ratios were tested . The financial ratios were derived from secondary data of fifteen (15) companies listed on the Kuwaiti Stock Market drawn from three (3) sectors. The study covered a period of ten (10) years from 2005–2014. The study model was constructed as an equation to estimate stock prices in each of the three sectors and multiple

regression model was use to analysed coefficient between the financial ratios and share price after eliminating non-effective variables with the aid of STEPWISE statistics.

The results showed that some financial ratios have strong positive and significant relationships with stock price. The most effective ratios that relate with stock price in the industrial sector were return on assets (ROA), return on equity (ROE) and net profit (N/P) ratio .While the most effective ratios that relate with stock price in the service sector and investment sector were return on assets (ROA), return on equity (ROE), Price earnings (P/E) and earnings per share (EPS) ratio. Based on the findings the study concluded that some set of financial ratios can be relied upon to forecast or predict stock price in sector that was studied

Mayadunne, (2017) analyzed the value relevance of accounting information on investor's decisions. The research objectives were to identify the relationship between value relevance of accounting information and market price and to find out the impact of value relevance of accounting information on investor's decisions. For this study a sample of 21 banking, finance and insurance companies were used in Colombo Stock Exchange in Sri Lanka over period of 5 years from 2009 to 2013. Market prices were used as dependent variable and return on equity, earning yield, net assets value per share, earning per share were used as independent variables. Accounting dependent variables. The result revealed that return on equity, earning per share has a positive significant relationship on market price. Further and earning yield has no significant relationship with market price. Moreover finding revealed that the return on equity, earning per share and net assets value per share has a positive significant relationship on market price. Further and earning yield has no significant relationship with market price. Moreover finding revealed that the return on equity, earning per share and net assets value per share has significant impact on market price.

Muhammad, (2017) examines the impact of IFRS adoption on value relevance of accounting information. The study adopted a re-modified Ohson's (1995) model price regression model. Ordinary least square regression was used to regressed the dependent variable proxy by Market share price with the independent variable, accounting information proxy by book value per share, earnings per share, dividend per share, Cash flow from operations and IFRS adoption. Sampled data from 20 insurance firms listed on Nigeria stock exchange from 2009 to 2014 was used in the study. While the result of the study shows that the adoption of IFRS has decreased the combined value relevance of accounting information of the listed insurance firms, the individual independent variables: book value per share, earnings per share, dividend per share and Cash flow from operations increase in value relevance after the adoption of IFRS and have positive relationship with the market share price.

Authors	Location/D	Title	Methodology	Findings
	ata Span			
Ahmad (2011)	Nigeria	value relevance of	Multiple	information contained in the
	(2003-2010)	accounting information of	regressions	financial statements of Nigerian
		Deposit Money Banks in		Deposit Money Banks
		Nigeria		
Oyerinde (2011)	Nigeria	Effect of value relevance	Questionnaire,	there is a significant
		of accounting information	Ordinary Least	relationship between
		on share price	Squared (OLS), T-	accounting information and
			test	share prices of companies listed
				on the NSE
Jamal (2011)	United	value relevance of	regression analysis	IFRS in UAE didn't improve
	Arab	accounting information in		value relevancy of accounting
	Emirates	pre and post periods of		information
		International Financial		
		Reporting Standards		
Ali, et al; (2011)	Tehran	value relevance of	regression analysis	firm size seems to have
	(1999-2006)	accounting information to		significant impact on value
		domestic investors		relevance of accounting
				information.
Pushpa and	Indian	impact of Earnings per	Correlation and	EPS impacts the market value
Sumangala	(2006-2010)	share (EPS) on the	regression analysis	of an equity share
(2012)		market value of an equity		
		share		
Hussain and	Malaysia	relationship between	Fixed and Random	there is a positive but non-
Mustafa (2012)	(2007-2009)	board of directors	effects models,	significant relationship between
		characteristics and the	heteroscedasticity,	the board independency and
		relevance of accounting	Regression	value relevance of accounting
		information.		information

 Table 2.1: Synthesis of Empirical Literature

# Table 2.1 Continue

Authors	Location/Data	Title	Methodology	Findings
Daye (2013)	<b>Span</b> Nairobi (2007- 2012)	relationship between earnings and equity share prices	Multiple linear regression analysis	DPS was found to have a stronger, positive and significant relationship with share price than EPS had
Samina and Murtaza (2013)	Dhaka (2005- 2011)	Determinants of market price of shares	Correlation analysis	current market price is highly overvalued compared to the ideal value of stocks
Tharmila and Nimalathasan (2013)	Colombia (2009- 2013)	impact of value relevance of accounting information on market vulnerability	Multiple regression analysis	earnings per share (EPS) and net assets value per share (NAVPS) significantly impact on market vulnerability
Sibel, (2013)	Turkey (1998- 2011)	value relevance of accounting information in pre- and post-financial periods of International Financial Reporting Standards	OLS regression analysis	value relevance of accounting information has improved in the post-IFRS period (2005-2011) considering book values while improvements have not been observed in value relevance of earnings
Mgbame and Ikhatua (2013)	Nigeria (2000- 2010)	accounting information and stock volatility in the Nigerian Capital Market	Regression analysis	There is the existence of stock volatility in Nigerian stock market
Edward (2014)	Ghana	impact of dividend payment and its relationship on the share price	Questionnaire	As the dividend of companies increase, the share price also rises due to the pressure on the share.

# Table 2.1 Continue

Authors	Location/Dat	Title	Methodology	Findings
	a Span			
Anike (2014)	Nigeria (2006-2010)	impact of dividend yield on stock prices of Nigerian banks	Ordinary Least Square Regression Model	dividend yield had negative and significant impact on commercial banks' stock prices in Nigeria
Ordu, Enekwe and Anyanwaoko ro (2014)	Nigeria (2000-2011)	effect of dividend payment on the market prices of shares	ordinary least squares techniques	dividend yield does not have a significant positive effect on the market prices of shares
Adaramola and Oyerinde (2014)	Nigeria (1997-2013)	value relevance of accounting information and share prices of quoted firms	The Generalized Least Squared (GLS) regression method	there is a significant relationship between accounting information and share prices of companies
Manisha (2014)	Malaysia (2006-2010)	incremental value relevance of accounting information produced by firms	OLS regression	The combined value relevance of accounting information represented by earnings per share and book value per share has declined while there have been insignificant changes in the incremental value relevance of accounting information.
Abdullah (2014)	Bangladesh (2007 to 2011)	relationship between dividend policy and stock market returns of private commercial banks	Correlation and regression analysis	Dividend Yield and Profit after Tax has negative, insignificant relation with stock prices

Table 2.	1 Co	ntinue
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Authors	Location/Dat	Title	Methodology	Findings
	a Span			
Oshodin and Mgbame (2014)	Nigeria (2007- 2011)	value relevance of accounting information in the	Multiple regressions analysis	no difference in the value relevance of accounting information in both the
		Nigeria banking and Petroleum sectors		banking and oil and gas sectors
Adaramola and Oyerinde (2014)	Nigeria (1992- 2009)	value relevance of accounting information of quoted companies in Nigeria using a trend analysis	Ordinary Least Square (OLS) regression method	accounting information on quoted companies in Nigeria is value relevant
Ivica and Marijana (2014)	Ljubljana (2005-2010)	value relevance of accounting information	Regression Analysis	accounting information is value relevant on all the observed markets
Okuns and Peter (2015)	Nigeria (2013- 2014)	accounting information and associated firm value	ordinary least square (OLS) estimation	earnings, cash flow and dividends were statistically significantly associated with firm value but book value was related but not statistically significant.
Mwila (2015)	India (2009- 2013)	value relevance of earnings per share, book value per share, return on equity and assets turnover ratio on the share price	Fixed effect model and Random effect model	book value per share, return on equity and assets turnover ratio found to have negative relationship and statistically insignificant with share price.

# Table 2.1 Continue

Authors	Location/Data	Title	Methodology	Findings
	Span			
Musa (2015)	Nigeria (2007- 2013)	value relevance of accounting information in listed Industrial Goods firms in Nigeria	Ordinary Least Square (OLS), Fixed Effects (FE) and Random Effects (RE) models	earnings per share are the most value relevant accounting information followed by dividend per share, then book value per share
Collins (2015)	Nigeria (2005- 2014)	relationship between EPS and DPS for companies listed at the NSE	correlation analysis and multiple regression model	EPS had a negative but insignificant effects on DPS
Oloidi and Bolade (2015)	Nigeria (2011- 2012)	Determinants of equity share price of firms in Nigeria	OLS regression	A significant negative relationship between earnings per share and negatively significant and share price
Ijeoma (2015)	Nigeria (2001- 2013)	Effect of value relevance of accounting information on share price	Ordinary Least Square estimation technique	A significant relationship between earnings, book value, returns on equity and share prices
Thomas (2016)	Kuwaiti (2005- 2014)	Effect of financial statements on stock price	multiple regression	The most effective ratios on the stock price for the industrial sector are ROA, ROE and net profit ratio.
Zahid (2016)	Karachi (2005- 2014)	Impact of corporate governance on value relevance of accounting information of	Fixed effect model	corporate governance have significant affect on value relevance of accounting information
Marek, Rafał, Monika and Aleksander (2016)	Warsaw	relationship between financial reports and market valuation.	Correlation and Ordinary least square	results show that various connections between financials and valuation exist, depending on the approach

# Table 2.1 Continue

Authors	Location/Data	Title	Methodology	Findings
	Span			
Dhiaa and Ibrahim (2016)	Jordan (2004- 2013)	Effect of company's characteristics on accounting information relevance	Correlation and multiple regression	closing price is the most dependable among the three stock price measures in detecting the accounting information value relevance in Jordan.
Philip and John (2016)	Nigeria (2007- 2015)	Effect of value- relevance of accounting information on share prices of listed banks in Nigeria	Correlation, regression analysis and hausman test	Book Value per share (BVS) and Dividend per Share (DPS) can significantly predict MPS at 5% significance
Samuel & Pradeep (2016)	South Africa	Determinants of share prices	multiple regression analysis	dividend per share is negatively correlated to share prices
Olubukola, et al; (2016)	Nigeria (2010- 2014)	Effects Of Value Relevance Of Financial Statements On Firms Share Price In Nigeria.	Fixed Effects Panel data method of data analysis technique	A significant positive relationship existed between earnings per share (EPS) and Last day share price (LDSP).
Webster (2016)	Nairobi 2008-2014)	Free cash flows and stock price	Multiple linear regression	Free cash flow has a positive effect on stock prices
Mayadunne (2017)	Sri Lanka (2009-2013)	Value relevance of accounting information and market price	Correlation analysis	Return on equity, earning per share and net assets value per share has significant impact on market price.
Muammed (2017)	Nigeria (2009 - 2014)	IFRS adoption and Value Relevance of Accounting Information: Study of listed Insurance Firms in Nigeria.	Ordinary Least Square Regression Model	IFRS adoption decreased the value relevance of accounting information. BVPS, EPS, DPS have positive relationship with the market share price.

Source: Researcher's extract from 2.3

#### 2.4 Summary of Reviewed Literature

Financial statements must properly reflect the organization's financial and economic reality, so that the users are not induced to take decisions on misleading information. Financial accounting information also enhances the information environment of the reporting entity and those associated with it. Accounting information is a unified structure within an entity, such as a business firm, that employs physical resources and other components to transform economic data into accounting information, with the purpose of satisfying the information needs of a variety of users (Dey, 2007).

The study was anchored on Market efficiency theory; because the idea of market efficiency is that the market price is right. Thus, efficiency comes about as the result of competition. It always depends on the way of how investors draw a conclusion out of the competing behavior of all stockholders who invest into the market. Beisland (2009) opined that one of the major objectives of financial reporting is to provide equity investors with information relevant for estimating company value.

Germane related literatures were also reviewed and mixed results were found. For instance, disclosure of accounting information arguably reduces information asymmetries amongst investors (Amihud & Mendelson, 1986) as cited in (Mgbame & Ohiorenuan, 2013). As argued by Black (2000) and Ball (2001), timely financial accounting disclosure system that is a prerequisite to the very existence of efficient stock markets in which stock prices to a considerable extent reflects all public information and incorporates private information as well as communicate the information set to managers, current and potential investors. However, there are several disclosing methods available. The choice of the most adequate method depends on the nature and relative importance of the information to be disclosed. Otavio and Luis (2009) in
Ajao (2012) notes that the most common methods are the following: Formal financial statements, information between parentheses, explanatory notes, supplementary statements and exhibits, audit report, annual administration report and management discussion and analysis reports. The disclosure level partially depends on the sophistication level of the reader that uses it, as well as on the disclosure standard considered more desirable. However, Ang and Chen (2006) in Mgbame and Ikhatua (2013) argued that firms endogenously choose the level of disclosure based on the costs and benefits of direct communications with the market.

#### 2.5 Gap in Literature

A plausible theoretical link can be established between accounting information and stock price. Fundamentally, the theory of market efficiency suggests that the conditional variance of accounting information is part of the conditional variance of stock returns. Thus if current accounting information is more uncertain, thereby increasing the uncertainty of firm's future cash flows, future stock returns are expected to be more volatile (Mollah, 2009). Review of literature suggests that a number of studies have been carried out to establish the relationship between accounting information and Share price. Studies have been concentrated in developed countries (Bao, & Chow, (1999), Barth *et al.*, (2000), Beisland et al., (2010), Chen, Chen, & Su, (2001), Clarkson et al., (2009), Germon & Meek, (2000), Ivica and Marijana (2014) Oyerinde (2011); Ahmad (2011); Mgbame and Ikhatua (2013); Anike (2014); Adaramola and Oyerinde (2014); Okuns and Peter (2015); Oloidi and Bolade (2015); Philip and John (2016). Although much has been written on the subjects of value relevance of accounting information using data from developing countries like Nigeria. It may not be an overstatement to say that Capital Market in Nigeria and other Africa countries will not function well without relevant and reliable accounting information. Deficiency in the Capital Market will affect the economy because capital market is

the engine of economic growth. With the role that accounting information played in the development of capital market and the economy at large it is pertinent to carry out a detailed assessment of the value relevance of accounting information in meeting Nigerian emerging stock market speedy needs for growth and development. There is need to know the state of value relevance of accounting information in Nigeria and other developing counties in Africa.

The Scopes of most of the existing Value relevance studies in Nigeria in terms of geographical coverage is limited and do not covers sample countries in Africa at large (Oyerinde, (2009), Ahmad,(2011), Oyerinde,(2011), Omokudu,(2012), Adaramola & oyerinde,(2014), Mohammad,(2017)). This study bridge the gap by investigating the relationship between accounting information and Share price in Nigeria representing West Africa and South Africa.

Value relevance of accounting information has well been documented in literature, but there exists a contradiction on the direction of change in relevance and its source, Collins, Maydev and Weiss (1997), Francis and Shiper (1999) demonstrated an increasing trend in value relevance of accounting information, while Lev and Zarowin (1999), Core, Guatemala and Buskirk (2003), Balachandran and Mohanram (2011) found evidence of decreasing value relevance of accounting information. In the light of the above, there is yet no consensus as to the extent to which accounting information relates with stock prices, hence, it can be concluded that there hasn't been an acceptable conclusion on the relationship between accounting information and share price in different countries of the world. The above divergences call for further research, most especially in the developing economy like Nigeria and other Africa countries to see if the result will agree or disagree from the previous studies.

Investors usually take into account multiple accounting information indicators such as Book Value of Equity per Share, Earning per Share, Dividend per Share, Return on Equity and Cash Flow to explore the value of the share of firms before taking decision to invest. Prior studies focused exclusively on the relation between Earnings and Book Value as the two primary accounting summary measures and Share price to explain Value Relevance of accounting information. This study use multiple accounting information indicators such as Book Value of Equity per Share, Earning Per Share, Dividend per Share, Return on Equity and Cash Flow to explore the Value Relevance of accounting information.

Finally, all the previous studies relate to a certain time frame, given the dynamic nature of accounting and given the possibility of window dressing and doctoring of accounts prevalent among reporting firms (e.g Cadbury Plc case) that can affect the integrity of accounting information and the import of Value relevance, there is vital need for updated study to fill the gaps of what is currently known about the state of Value Relevance of accounting information in Nigeria.

#### **CHAPTER THREE**

#### METHODOLOGY

#### 3.1 Research Design

The research design employed in this study is *ex-post facto* research design. An Ex-post Facto research determines the cause-effect relationship among variables. Ex-post Facto seeks to find out the factors that are associated with certain occurrence, conditions, events or behaviours by analyzing past events or already existing data for possible casual factors (Kothari & Garg, 2014).

#### 3.2 Population of the Study

The population of this study comprises of the one hundred and three (103) manufacturing firms listed on JSE and sixty (60) manufacturing firms listed on NSE during the ten year period 2007-2016 as at December 2016, thereby, making the population to be one hundred and sixty three (163) (See Appendix I).

#### 3.3 Sample Size and Sampling Method

Conditions (Elimination) Sampling Method was adopted to select twenty-four (24) manufacturing firms from JSE and thirty-eight (38) manufacturing firms from NSE. In this vein, sixty-two (62) manufacturing firms serve as the sample size of this study (Appendix II). To select the sample firms, sample selection technique is performed by the following criteria: sampled firm is listed each year on the NSE and JSE respectively from 2007 to 2016; The firm provides complete financial statements for December 31 and successively registered with the NSE and JSE respectively from 2007 to 2016; to ensure some homogeneity of information, the firm's shares is registered with and actively traded at the NSE and JSE respectively from 2007 to 2007 to

2016. Those firms with increment or decrement level of earnings component and cash flow that are considered outliers are removed from the sample. Those firms whose data are adequate and made their financial statements available consistently to the NSE and JSE respectively from 2007 to 2016 were chosen for the study. In the light of the above consideration, a random sample of sixty- two (62) firms was obtained, giving a sample of 620 firm-years.

#### **3.4** Source of Data

This study primarily made use of secondary data. The data were sourced from publications of the Nigerian stock exchange (NSE), Johannesburg Stock Exchange (JSE), fact books and the annual report and accounts of the listed manufacturing firms, particularly the comprehensive income statement and statement of financial positions of these companies as well as their respective notes to the accounts. Both the dependent and independent variables were computed from the data extracted from publications of the Nigerian stock exchange (NSE) and Johannesburg Stock Exchange (JSE), the annual report and accounts of the listed firms and ratios were computed from the figures as reported in the annual reports.

#### **3.4.1 Research Variables**

#### Market Price Per Share (MPS)

This is the arithmetic of day to day or monthly closing equity prices. Some authors may prefer to use share prices prevailing on the day immediately following the cross-section year. It could, however, be argued that share prices prevailing at any one day may contain random or temporary disturbances (Marris & Singh, 1966). On the other hand, an average of monthly prices may be relatively free of temporary disturbances.

The market price of public traded company which is determined by the forces of market supply and demand is highly volatile due to its dependent on the expectations of the buyers and sellers (Menaje, 2012).

#### Book value per share (BVPS)

Book value per share is the owners' equity over the number of shares in circulation. The term "book value" is a company's assets minus its liabilities and is sometimes referred to as stockholder's equity, owner's equity, shareholder's equity, or simply equity. The book value per share formula is used to calculate the per share value of a company based on its equity available to common shareholders. Book value per share is determined by dividing value of common equity by the number of shares outstanding for the respective periods.

Book Value per Share = Common stockholder's Equity divided by Number of Common Share Outstanding.

#### Earnings per Share (EPS)

The earnings per share is a parameter that can be used to measure the earnings ability of firms required to be disclosed by companies quoted or about to be quoted in the public security market. Earnings per share considered as the most frequently used accounting information in value relevance studies used in examine its significant relationship with share price. Earnings per share calculated by taking earnings after tax, interest and depreciation divided by the total number of outstanding shares.

 $EPS = \frac{EATID}{No of outstanding shares}$ 

Where, EATID = Earnings After Tax, Interest and Depreciation.

#### **3.5 Method of Data Analysis**

This study employed Ordinary Least Square (OLS) estimate using panel data from 2007 to 2016 covering a period of ten (10) years for 62 manufacturing firms, to estimate and provide evidence on the nature of relationship between accounting information and share price. This was carried out with the aid of E-view 9.0 statistical software, using coefficient of correlation which is a good measure of relationship between two variables, in order to show the strength of relationship and the direction of relationship as well. OLS Regression Analysis was used to predict the value of a variable based on the value of the other variables and to explain effect of changes in the values of the variables.

In order to confirm the veracity of the result, diagnostic tools were employed using Granger Causality test and Co-integration test.

#### **3.6 Model Specification**

The researcher adopted Ohlson (1995) price model from two financial reports indicators (financial position and comprehensive income) is being used to test the value relevance of financial reporting. This was used to explore the relationship between market value with two main financial reporting variables; the book value per share which represents financial position and earnings per share which represents comprehensive income.

By the Ohlson (1995) Model: MKTPjt =  $\beta 0 + \beta 1$  BVSHjt +  $\beta 2$  EPSjt + ejt Where: MKTPjt = the market price per share (SP) of firm j at time t BVSHjt = Book value per share of firm j at time t EPSjt = Earnings before extraordinary items per share of firm j at time t

 $\beta 0 = \text{Constant or intercept.}$ 

 $\beta$ 1-3 = Coefficients of explanatory variables.

 $\varepsilon_{jt} = \text{Error term.}$ 

In the empirical models, share price is a linear function of Book Value of Equity per Share, Earnings per Share, Dividend per Share, Return on Equity and Cash Flow. Significant (positive or negative) estimates of regression co-efficient for the accounting variables indicate the relationship between the variables. The researcher therefor modified the Ohlson (1995) Model as follows:

$\mathbf{SP}_{it} = \beta \mathbf{o} + \beta_1 \mathbf{BVPS}_{it} + \mathbf{\pounds}_{it}$	(3.1)
--	-------

$SP_{it} = \beta o + \beta_1 EPS_{it} + \pounds_{it}$	(3.2)
---	-------

$SP_{it} = \beta o + \beta_1 DPS_{it} + \pounds_{it} $ (3)	.3)	)
--	-----	---

$$SP_{it} = \beta o + \beta_1 ROE_{it} + \pounds_{it}$$
(3.4)

$$SP_{it} = \beta o + \beta_1 CF_{it} + \pounds_{it}$$
(3.5)

#### Where:

 $SP_{it}$  = share price for firm *i* at the end of year t

BVPS = book value of equity per share for firm *i* in year t

 $EPS_{it}$  = earnings per share for firm i at the end of year t

 $DPS_{it}$  = dividends per share for firm i at the end of year t

 $ROE_{it}$  = return on equity for firm i at the end of year t

 $CF_{it} = cash flow for firm i at the end of year t$ 

f = error term (part of the share price which is not interpreted by the model)

 $\beta o =$  the intercept

 $\beta_1$  is the coefficient of explanatory variable.

#### **3.7 A Priori Expectation**

The theoretical priori expectations about the signs of the coefficients are as follows:  $\beta o >0$ ,  $\beta_1>0$ . It is expected that the sign of the coefficients of Accounting Information parameters (BVPS, EPS, DPS, ROE and CF) should be positive. The resulting evidence should suggest that accounting information parameters have significant influence on share price and they have joint explanatory power in determining share prices of listed firms in Nigeria and South Africa respectively.

#### **Decision Rule**

Accept the alternative hypothesis  $(H_1)$  if the p-value of the test is less than 0.05, otherwise reject.

#### **CHAPTER FOUR**

#### DATA PRESENTATION AND ANALYSIS

#### **4.1 Data Presentation**

The secondary data that were extracted from the sampled manufacturing firms and for the

studied period are presented in Appendix1

#### 4.2 Data Analysis

### Table 4.1 Descriptive statistics for quoted manufacturing companies in Nigeria

	SP	BVPS	EPS	DPS	ROE	CF
Mean	3.368358	3.850000	5.242629	2.673734	1.044317	9.002269
Median	3.770060	2.410000	5.795469	2.593544	0.951787	8.844627
Maximum	5.869230	9.600000	7.778064	3.206257	2.752148	10.44880
Minimum	0.836192	1.220000	1.815821	2.156951	0.112000	7.253992
Std. Dev.	1.707119	3.127271	2.532009	0.350168	0.887162	0.980705
Skewness	-0.266159	0.895816	-0.149778	0.237096	0.709844	-0.023286
Kurtosis	1.926221	2.104814	1.202730	1.802358	2.533913	2.340410
Jarque-Bera	0.598485	1.671378	1.383297	0.691335	0.930312	0.182178
Probability	0.741380	0.433576	0.500750	0.707748	0.628037	0.912936
Sum	33.68358	38.50000	52.42629	6.737336	10.44317	90.02269
Sum Sq. Dev.	26.22829	88.01840	57.69965	1.103556	7.083513	8.656049
Observations	10	10	10	10	10	10

Source: Researcher's computation using E-Views 9.0, 2017

From the above table, SP = share price for firm BVPS = book value of equity per share for firm EPS = earnings per share for firm, DPS = dividends per share for firm, ROE = return on equity for firm, CF = cash flow for firm.

	SP	BVPS	EPS	DPS	ROE	CF				
Mean	5.022933	4.309426	2.449010	2.688364	1.528350	6.093529				
Median	4.269050	3.434204	1.801428	2.705225	1.632129	5.835306				
Maximum	11.64925	10.45076	4.444257	2.904313	2.796069	6.930840				
Minimum	0.013228	0.600254	1.417519	2.349277	0.596294	5.245937				
Std. Dev.	3.688234	3.294215	1.173313	0.177393	0.713410	0.555425				
Skewness	0.661993	0.890239	0.531945	-0.576388	0.248091	0.193910				
Kurtosis	2.419523	2.511658	1.596896	2.440154	1.992403	1.744185				
Jarque-Bera	0.870789	1.420242	1.291902	0.684300	0.525603	0.719781				
Probability	0.647009	0.491585	0.524164	0.710242	0.768894	0.697753				
Sum	50.22933	43.09426	24.49010	6.883640	15.28350	60.93529				
Sum Sq. Dev.	122.4276	97.66669	12.38997	0.283215	4.580580	2.776469				
Observations	10	10	10	10	10	10				
Source: Resear	cher's comp	Source: Researcher's computation using E-Views 9.0, 2017								

### Table 4.2 Descriptive statistics for quoted manufacturing companies in South Africa

#### Interpretation

Table 4.1 and Table 4.2 show the comparison on descriptive statistics between quoted manufacturing companies in Nigeria and South Africa. Based on the table above, it can be observed that on average, as indicated by the mean, the share price for manufacturing firms in Nigeria is 3.37%, while that of South-Africa manufacturing firms is 5.02%. However, throughout the period of 2007 to 2016, the maximum share prices for both Nigeria and South Africa manufacturing firms are 5.87% and 11.64% while the minimum share prices for manufacturing firms in Nigeria and South Africa are 0.84% and 0.01% respectively.

The book value equity per share which is measured by common equity value/number of common stock shares outstanding has a mean of 3.85% with a standard deviation of 3.13% for Nigeria manufacturing firms, implies that manufacturing companies in Nigeria increased its BVPS by 3.85%. while the BVPS for South Africa companies has a mean of 4.31% and standard deviation

of 3.29, which implies that the BVPS for South African manufacturing companies increases by 4.31%.

The earnings per share for Nigeria manufacturing with a mean value of 5.24% and standard deviation of 2.53%, implies that 5.24% of the company's profit is allocated to each outstanding share of common stock. While, the mean and standard deviation of South Africa firms are 2.45% and 1.17% respectively, implying that 2.45% of manufacturing company's profit is allocated to each outstanding share of common stock.

The dividend per share for both Nigeria and South Africa is expressed in percentage and has a mean of 2.67% and 2.69% respectively for Nigeria and South Africa manufacturing companies which denotes that quoted manufacturing companies in Nigeria and South Africa give out 2.67% and 2.69% of their earnings as dividend.

Further observation that can be made following the return on equity value is that, shareholders for public listed manufacturing companies in South Africa have higher profitability following the higher value of ROE where the shareholders in South Africa enjoys 1.53% higher return on every naira invested in comparison to that for Nigeria.

The mean of the cash flow value of public listed companies in Nigeria is 9% on average with a standard deviation of 0.98%. The highest net cash flow is possessed by Nigeria companies and the lowest cash flow is possessed by one of the manufacturing companies listed in South Africa with an average mean of 6.09% and standard deviation of 0.56%. The above interpretation is graphically represented below:



Figure 4.1: Descriptive Statistics for the Dependent and Explanatory Variables of manufacturing firms in Nigeria

Source: E-Views 9.0 Output, 2017



**Figure 4.2: Descriptive Statistics for the Dependent and Explanatory** 

#### Variables of manufacturing firms in South Africa

Source: E-Views 9.0 Output, 2017

	SP	BVPS	EPS	DPS	ROE	CF
SP	1.0000	-0.5538	0.0365	-0.1396	-0.1881	-0.3147
BVPS	-0.5538	1.0000	0.6287	0.4795	-0.2462	0.8553
EPS	0.0365	0.6287	1.0000	0.1831	-0.6871	0.8520
DPS	-0.1396	0.4795	0.1831	1.0000	0.4873	0.2074
ROE	-0.1881	-0.2462	-0.6871	0.4873	1.0000	-0.6080
CF	-0.3147	0.8553	0.8520	0.2074	-0.6080	1.0000

### Table 4.1: Pearson correlation matrix on variables for sample of public listed manufacturing companies in Nigeria

Source: E-Views 9.0 Correlation Output, 2017

### Table 4.2: Pearson correlation matrix on variables for sample of public listed manufacturing companies in South Africa

	SP	BVPS	EPS	DPS	ROE	CF
SP	1.0000	0.7154	0.5434	0.7878	0.5112	-0.0366
BVPS	0.7154	1.0000	-0.5232	0.8041	0.4926	-0.1048
EPS	0.5434	-0.5232	1.0000	-0.0980	-0.1966	0.2917
DPS	0.7878	0.8041	-0.0980	1.0000	0.5360	-0.1919
ROE	0.5112	0.4926	-0.1966	0.5360	1.0000	0.0246
CF	-0.0366	-0.1048	0.2917	-0.1919	0.0246	1.0000

Source: E-Views 9.0 Correlation Output, 2017

#### **Pearson Correlation Matrix Result**

Table 4.1 and Table 4.2 show comparison on correlation analysis on the dependent and independent variables in separate data of Nigeria and South Africa. Based on Table 4.1 and Table 4.2, SP has a negative moderate correlation with BVPS in Nigeria and otherwise for South Africa with a positive high correlation. Similarly, SP has a weak positive correlation with EPS for Nigeria and moderate positive correlation with EPS for South Africa. SP has a negative correlation with DPS and ROE for Nigeria but otherwise South Africa.CF for both countries indicate negative correlation with SP. Overall correlation analysis on sample of public listed

companies in Nigeria and South Africa shows no collinearity problem based on the magnitude of the correlation. Therefore, the overall model shows no collinearity problem for both countries.

#### 4.3 Test of Hypotheses

#### 4.3.1 Test of Hypothesis I

Ho1: There is no significant relationship between Book Value of Equity per Share and Share

Price of manufacturing firms listed on NSE and JSE.

H<sub>1</sub>: There is significant relationship between Book Value of Equity per Share and Share Price of

manufacturing firms listed on NSE and JSE.

### Table 4.3: Regression analysis output for SP and BVPS of quoted manufacturing companies in Nigeria

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 08:22 Sample: 1 380 Included observations: 380

Variable	Coefficien	t Std. Error	t-Statistic	Prob.
C BVPS	3.422900 -0.015626	0.235083 0.085682	14.56038 -9.182368	0.0000 0.0000
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.000088 -0.002557 2.431219 2234.293 -875.7833 10.33258 0.000000	Mean de S.D. dep Akaike in Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	3.386559 2.428117 4.619912 4.640650 4.628141 1.488252

Source: E-Views 9.0 regression analysis output, 2017

### Table 4.4: Granger Causality Test showing the Causality between SP and BVPS of manufacturing companies in Nigeria

Pairwise Granger Causality Tests Date: 12/06/17 Time: 08:23 Sample: 1 380 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
BVPS does not Granger Cause SP SP does not Granger Cause BVPS	378	6.818630.00370.485230.6159

Source: E-Views 9.0 output, 2017

#### Table 4.5: Johansen Co-integration Test between SP and BVPS in Nigeria

Date: 12/06/17 Time: 08:03 Sample (adjusted): 6 380 Included observations: 375 after adjustments Trend assumption: Linear deterministic trend Series: SP BVPS Lags interval (in first differences): 1 to 4

#### Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Valu	e Prob.**
None *	0.140526	84.92718	15.49471	$0.0000 \\ 0.0000$
At most 1 *	0.072292	28.13930	3.841466	

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level \* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.140526	56.78788	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.072292	28.13930	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level \*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 output, 2017

### Table 4.6: Regression analysis output for SP and BVPS of quoted manufacturing companies in South Africa

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 12:53 Sample: 1 240 Included observations: 240

Variable	Coefficien	t Std. Error	t-Statistic	Prob.
C BVPS	1.801679 0.865003	0.246458 0.050561	7.310297 17.10810	$0.0000 \\ 0.0000$
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.551525 0.549641 2.163015 1113.515 -524.7018 292.6872 0.000000	Mean de S.D. dep Akaike in Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	5.276230 3.223146 4.389182 4.418187 4.400869 1.234853

Source: E-Views 9.0 regression analysis output, 2017

### Table 4.7: Granger Causality Test showing the Causality between SP and BVPS of manufacturing companies in South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 12:55 Sample: 1 240 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
BVPS does not Granger Cause SP SP does not Granger Cause BVPS	238	7.85946 0.0007 0.72557 0.4851

Source: E-Views 9.0 output, 2017

#### Table 4.8: Johansen Co-integration Test between SP and BVPS in South Africa

Date: 12/06/17 Time: 12:55 Sample (adjusted): 6 240 Included observations: 235 after adjustments Trend assumption: Linear deterministic trend Series: SP BVPS Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s) Eigenvalue		Statistic	Critical Value Prob.**	
None *	0.149505	52.18581	15.49471	0.0000
At most 1 *	0.058358	14.13059	3.841466	0.0002

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.149505	38.05521	14.26460	$0.0000 \\ 0.0002$
At most 1 *	0.058358	14.13059	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 output, 2017

#### Table 4.9: Regression analysis output for sample on public listed manufacturing companies in Nigeria and South Africa

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 15:29 Sample: 1 620 Included observations: 620					
Variable	Coefficien	t Std. Error	t-Statistic	Prob.	
C BVPS	2.127971 0.667737	0.168449 0.045327	12.63269 14.73171	0.0000 0.0000	
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.259901 0.258703 2.505681 3880.076 -1448.248 217.0232 0.000000	Mean dep S.D. dep Akaike in Schwarz Hannan-( Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	4.118045 2.910247 4.678219 4.692509 4.683773 1.292996	

Source: E-Views 9.0 regression analysis output, 2017

#### **Interpretation of Regression Output**

Table 4.9 shows the output of regression for overall sample on public listed manufacturing companies in Nigeria and South Africa and the result for the model can be written as follows:

 $SP_{it} = 2.127971 + 0.667737 BVPS it + \pounds_{it}$ 

The result shows that at 95% confidence level, BVPS have a significant positive relationship towards Share Price for companies listed on Nigeria and Johannesburg Stock Exchange following the F-statistics of 217.02 with p<0.05. Therefore, hypothesis H<sub>1</sub> is accepted. Based on t-statistics, the result further indicates that the independent variable (BVPS) is significant in determining share price. It can be inferred that with a 1% increase in BVPS, the share price increases by 66.77% per year.

The Durbin-Watson Value of 1.292996 buttressed the fact that the model does not contain autocorrelation, thereby, making the regression fit for prediction purpose.

The R-Squared of 0.259901 shows that 26% of the systematic variation in SP could be explained by BVPS, while the remaining 74% is explained by the error term as part of the share price which is not interpreted by the regression model.

#### Decision

The significant positive relationship that is displayed in the output result contradicts with the hypothesis developed earlier saying that there is no significant relationship between Book Value of Equity per Share and Share Price of manufacturing firms listed on NSE and JSE. Thus,  $Ho_1$  is rejected.

### Table 4.10: Granger Causality Test showing the Causality between SP and BVPS of manufacturing companies in Nigeria and South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 15:35 Sample: 1 620 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
BVPS does not Granger Cause SP SP does not Granger Cause BVPS	618	9.07851 0.0000 1.10967 0.3303

Source: E-Views 9.0 causality output, 2017

#### **Decision Rule:**

If the F-value of the causality test is statistically significant at 5%, then causality is established. This implies that the Independent variable granger causes the dependent variable. Hence,  $H_1$  is accepted, otherwise accept Ho.

#### **Interpretation of Post Regression Analysis**

Table 4.10 shows that there is a unilateral causality between BVPS and SP since the P-value are statistically significant at 5% level. Moreover, at two (2) lags there is a statistically significant relationship between BVPS and SP. On the other hand, there is no reverse causation from SP to

BVPS. This reinforces the fact that BVPS granger causes SP. Consequently, the null hypothesis is rejected for the alternative which states that a significant relationship exist between Book Value of Equity per Share and Share Price of manufacturing firms listed on NSE and JSE at 5% level of significance.

#### Table 4.11: Johansen Co-integration Test between SP and BVPS of sampled manufacturing companies in Nigeria and South Africa

Date: 12/06/17 Time: 15:35 Sample (adjusted): 6 620 Included observations: 615 after adjustments Trend assumption: Linear deterministic trend Series: SP BVPS Lags interval (in first differences): 1 to 4 Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s) Eigenvalue		Statistic	Critical Value Prob.**	
None *	0.092741	103.1162	15.49471	0.0001
At most 1 *	0.067924	43.25968	3.841466	0.0000

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

U	nrestricted	Cointegration	Rank Test	(Maximum	Eigenval	ue)	
		6			<u> </u>		

Hypothesized		Max-Eigen	0.05	
No. of CE(s) Eigenvalue		Statistic	Critical Value Prob.**	
None *	0.092741	59.85653	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.067924	43.25968	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 cointegration output, 2017

#### **Interpretation of Diagnostic Result**

In table 4.11, the Johansen co-integration test was used to determine the existence of long-run equilibrium relationship among the variables under study. The Trace Statistic value and Max-Eigen Statistic are shown to be greater than the critical values at 1% and 5% levels, thus indicating 2 co-integrating equation at 5% levels. Therefore, the null hypothesis is rejected and it is concluded that there exists long run equilibrium relationship between the dependent variable (SP) and independent variable (BVPS). This implies that the regression model is not spurious and the conclusion thereof is valid.

#### 4.3.2 Test of Hypothesis II

**Ho<sub>2</sub>:** There is no significant relationship between Earnings per Share and Share Price of manufacturing Firms listed on NSE and JSE.

**H**<sub>2</sub>: There is significant relationship between Earnings per Share and Share Price of manufacturing Firms listed on NSE and JSE.

#### Table 4.12: Regression analysis output for SP and EPS of quoted manufacturing companies

#### in Nigeria

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 08:15 Sample: 1 380 Included observations: 380

Variable	Coefficien	t Std. Error	t-Statistic	Prob.
C EPS	4.237420 0.205367	0.200283 0.038647	21.15719 5.313908	0.0000 0.0000
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.069510 0.067048 2.345304 2079.170 -862.1116 28.23762 0.000000	Mean dep S.D. depe Akaike in Schwarz Hannan-O Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	3.386559 2.428117 4.547956 4.568694 4.556185 1.618388

Source: E-Views 9.0 regression output, 2017

### Table 4.13: Granger Causality Test showing the Causality between SP and EPS of manufacturing companies in Nigeria

Pairwise Granger Causality Tests Date: 12/06/17 Time: 08:18 Sample: 1 380 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
EPS does not Granger Cause SP SP does not Granger Cause EPS	378	8.49950 0.0002 1.34989 0.2605

Source: E-Views 9.0 regression output, 2017

#### Table 4.14: Johansen Co-integration Test between SP and EPS in Nigeria

Date: 12/06/17 Time: 08:21 Sample (adjusted): 6 380 Included observations: 375 after adjustments Trend assumption: Linear deterministic trend Series: SP EPS Lags interval (in first differences): 1 to 4 Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	e Prob.**
No. of CE(s) Eigenvalue		Statistic	Critical Valu	
None *	0.138178	69.06362	15.49471	0.0000
At most 1 *	0.034842	13.29889	3.841466	0.0003

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized		Max-Eigen	0.05	
No. of CE(s) Eigenvalue		Statistic	Critical Value Prob.**	
None *	0.138178	55.76473	14.26460	0.0000
At most 1 *	0.034842	13.29889	3.841466	0.0003

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 regression output, 2017

### Table 4.15: Regression analysis output for SP and EPS of quoted manufacturing companies in South Africa

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 13:15 Sample: 1 240 Included observations: 240

Variable	Coefficien	t Std. Error	t-Statistic	Prob.
C EPS	5.787079 0.274234	0.324313 0.134163	17.84410 2.044033	0.0000 0.0421
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.017252 0.013123 3.201927 2440.057 -618.8418 4.178071 0.042051	Mean de S.D. dep Akaike i Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Watson stat	5.276230 3.223146 5.173681 5.202687 5.185368 1.223345

Source: E-Views 9.0 regression output, 2017

### Table 4.16: Granger Causality Test showing the Causality between SP and EPS of manufacturing companies in South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 13:19 Sample: 1 240 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
EPS does not Granger Cause SP SP does not Granger Cause EPS	238	9.84340 0.0000 0.14660 0.8637

Source: E-Views 9.0 Causality output, 2017

#### Table 4.17: Johansen Co-integration Test between SP and EPS in South

#### Africa

Date: 12/06/17 Time: 13:19 Sample (adjusted): 6 240 Included observations: 235 after adjustments Trend assumption: Linear deterministic trend Series: SP EPS Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s) Eigenvalue		Statistic	Critical Value Prob.**	
None *	0.135068	56.61147	15.49471	0.0000
At most 1 *	0.091350	22.51196	3.841466	0.0000

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.135068	34.09951	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.091350	22.51196	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 Cointegration output, 2017

Compa Dependent Variable Method: Least Squa Date: 12/06/17 Tin Sample: 1 620 Included observation	anies in Nig : SP res ne: 15:37 ns: 620	geria and So	outh Africa	pie on puon	c listeu	manuractur
Variable	Coefficien	t Std. Error	t-Statistic	Prob.		
C EPS	5.122948 0.308213	0.169644 0.039206	30.19820 7.861284	0.0000 0.0000		
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.490909 0.389438 2.777056 4766.040 -1512.003 61.79979 0.000000	Mean de S.D. dep Akaike i Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Watson stat	4.118045 2.910247 4.883880 4.898170 4.889435		

Table 4.18: Regression analysis output for sample on public listed manufacturing

Source: E-Views 9.0 Regression output, 2017

#### **Interpretation of Regression Output**

Table 4.18 shows the output of regression for overall sample on public listed manufacturing companies in Nigeria and South Africa and the result for the model can be written as follows:

 $SP_{it} = 5.122948 + 0.308213EPS_{it} + \pounds_{it}$ 

The result shows that at 95% confidence level, EPS have a significant positive relationship towards Share Price for companies listed on Nigeria and Johannesburg Stock Exchange following the F-statistics of 61.79979 with p<0.05. Therefore, hypothesis  $H_1$  is accepted. Based on t-statistics, the result further indicates that the independent variable (EPS) is significant in determining share price. It can be inferred that with a 1% increase in EPS, the share price increases by 30.82% per year.

The Durbin-Watson Value of 1.360478 buttressed the fact that the model does not contain autocorrelation, thereby, making the regression fit for prediction purpose.

The R-Squared of 0.49 shows that 49% of the systematic variation in SP could be explained by EPS, while the remaining 51% is explained by the error term as part of the share price which is not interpreted by the regression model.

#### Decision

The significant relationship that is displayed in the output result contradicts with the hypothesis developed earlier saying that there is no significant relationship between Earnings per Share and Share Price of manufacturing firms listed on NSE and JSE. Thus, Ho<sub>1</sub> is rejected.

### Table 4.19: Granger Causality Test showing the Causality between SP and EPS of manufacturing companies in Nigeria and South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 15:38 Sample: 1 620 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
EPS does not Granger Cause SP SP does not Granger Cause EPS	618	12.9629 3.E-06 5.41771 0.0400

Source: E-Views 9.0 Causality output, 2017

#### **Interpretation of Diagnostic Result**

The result of the Granger causality test in table 4.19 above indicates a bi-directional relationship between EPS and SP at 5%. It implies that EPS granger causes SP and SP granger causes EPS at 5% respectively; the causation does not run in the reverse sense.

The Granger Causality test result reveals evidence of casual relationship between EPS and SP,

thereby confirming the hypothesis that EPS has a significant relationship with SP of sampled

manufacturing companies in Nigeria and South Africa.

### Table 4.20: Johansen Co-integration test between SP and EPS of sampled manufacturing companies in Nigeria and South Africa

Date: 12/06/17 Time: 15:39 Sample (adjusted): 6 620 Included observations: 615 after adjustments Trend assumption: Linear deterministic trend Series: SP EPS Lags interval (in first differences): 1 to 4 Unrestricted Cointegration Rank Test (Trace)

Hypothesized	l	Trace	0.05	ie Prob.**	
No. of CE(s)	Eigenvalue	Statistic	Critical Valu		
None *	0.105456	90.33205	15.49471	$0.0000 \\ 0.0000$	
At most 1 *	0.034819	21.79561	3.841466		
Trace test indicates 2 cointegrating eqn(s) at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values Unrestricted Cointegration Rank Test (Maximum Eigenvalue)					

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.105456	68.53644	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.034819	21.79561	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 Co-integration output, 2017

#### **Interpretation of Diagnostic Result**

In table 4.20, the Johansen co-integration test was used to determine the existence of long-run equilibrium relationship among the variables under study. The Trace Statistic value and Max-Eigen Statistic are shown to be greater than the critical values at 1% and 5% levels, thus indicating 2 co-integrating equation at 5% levels. Therefore, the null hypothesis is rejected and it is concluded that there exists long run equilibrium relationship between the dependent variable

(SP) and independent variable (EPS). This implies that the regression model is not spurious and

the conclusion thereof is valid.

#### 4.3.3: Test of Hypothesis III

Ho3: There is no significant relationship between Dividend per Share and Share Price of

manufacturing firms listed on NSE and JSE.

H<sub>3</sub>: There is significant relationship between Dividend per Share and Share Price of

manufacturing firms listed on NSE and JSE.

# Table 4.21: Regression analysis output for SP and DPS of quoted manufacturingcompanies in NigeriaDependent Variable: SP

Method: Least Squares Date: 12/06/17 Time: 08:27 Sample: 1 380 Included observations: 380

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C DPS	3.443137 -0.102936	0.144482 0.132995	23.83086 -2.773981	0.0000 0.0314
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.001582 -0.001059 2.429402 2230.954 -875.4991 4.599047 0.031426	Mean dep S.D. dep Akaike in Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	3.386559 2.428117 4.618417 4.639154 4.626645 1.486251

Source: E-Views 9.0 Co-integration output, 2017

 Table 4.22: Granger Causality test showing the Causality between SP and DPS of manufacturing companies in Nigeria

Pairwise Granger Causality Tests Date: 12/06/17 Time: 08:27 Sample: 1 380 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
DPS does not Granger Cause SP SP does not Granger Cause DPS	378	4.64576 0.0122 0.20042 0.8185

Source: E-Views 9.0 Causality output, 2017

#### Table 4.23: Johansen Co-integration test between SP and DPS in Nigeria

Date: 12/06/17 Time: 08:28 Sample (adjusted): 6 380 Included observations: 375 after adjustments Trend assumption: Linear deterministic trend Series: SP DPS Lags interval (in first differences): 1 to 4 Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s) Eigenvalue		Statistic	Critical Value Prob.**	
None *	0.163766	105.7508	15.49471	0.0001
At most 1 *	0.098013	38.68319	3.841466	0.0000

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.163766	67.06760	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.098013	38.68319	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 Cointegration output, 2017

### Table 4.24: Regression analysis output for SP and DPS of quoted manufacturing companies in South Africa

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 13:27 Sample: 1 240 Included observations: 240

Variable	Coefficien	t Std. Error	t-Statistic	Prob.
C DPS	4.895774 0.434441	0.273145 0.204116	17.92371 2.128405	0.0000 0.0343
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.018679 0.014555 3.199603 2436.515 -618.6674 4.530106 0.034331	Mean de S.D. dep Akaike i Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	5.276230 3.223146 5.172229 5.201234 5.183916 1.168887

Source: E-Views 9.0 Regression output, 2017

### Table 4.25: Granger Causality test showing the Causality between SP and DPS of manufacturing companies in South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 13:28 Sample: 1 240 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
DPS does not Granger Cause SP SP does not Granger Cause DPS	238	5.70613 0.0046 1.04086 0.3548

Source: E-Views 9.0 causality output, 2017

#### Table 4.26: Johansen Co-integration test between SP and DPS in South Africa

Date: 12/06/17 Time: 13:29 Sample (adjusted): 6 240 Included observations: 235 after adjustments Trend assumption: Linear deterministic trend Series: SP DPS Lags interval (in first differences): 1 to 4

Hypothesized		Trace	0.05	
No. of CE(s) Eigenvalue		Statistic	Critical Value Prob.	
None *	0.180280	73.25935	15.49471	$0.0000 \\ 0.0000$
At most 1 *	0.106804	26.54315	3.841466	

Unrestricted Cointegration Rank Test (Trace)

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.180280	46.71620	14.26460	0.0000
At most 1 *	0.106804	26.54315	3.841466	0.0000

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 cointegration output, 2017

Compa Dependent Variable Method: Least Squa Date: 12/06/17 Tin Sample: 1 620	anies in Nig : SP res ne: 15:41	geria and So	outh Africa	ne on pu	Jine Insteu	manuractur
Included observation	ns: 620					
Variable	Coefficien	t Std. Error	t-Statistic	Prob.		
C DPS	3.932849 0.274009	0.141503 0.118891	27.79346 2.304706	0.0000 0.0215		
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.348522 0.206917 2.900164 5197.966 -1538.896 5.311669 0.021514	Mean de S.D. dep Akaike i Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Watson stat	4.118045 2.910247 4.970632 4.984921 4.976186 1.208817		

Table 4.27. Repression analysis output for sample on public listed manufacturing

Source: E-Views 9.0 regression output, 2017

#### **Interpretation of Regression Output**

Table 4.27 shows the output of regression for overall sample on public listed manufacturing companies in Nigeria and South Africa and the result for the model can be written as follows:

 $SP_{it} = 3.932849 + 0.274009 DPS_{it} + \pounds_{it}$ 

The result shows that at 95% confidence level, DPS have a significant positive relationship towards Share Price for companies listed on Nigeria and Johannesburg Stock Exchange following the F-statistics of 5.311669 with p<0.05. Therefore, hypothesis  $H_1$  is accepted. Based on t-statistics, the result further indicates that the independent variable (DPS) is significant in determining share price. It can be inferred that a 1% increase in DPS, the share price increases by 27.40% per year.

The Durbin-Watson Value of 1.208817 buttressed the fact that the model does not contain autocorrelation, thereby, making the regression fit for prediction purpose. The R-Squared of 0.35 shows that 35% of the systematic variation in SP could be explained by DPS, while the remaining 65% is explained by the error term as part of the share price which is not interpreted by the regression model.

#### Decision

The significant relationship that is displayed in the output result contradicts with the hypothesis developed earlier saying that there is no significant relationship between Dividend per Share and Share Price of manufacturing firms listed on NSE and JSE. Thus, Ho<sub>1</sub> is rejected.

### Table 4.28: Granger Causality test showing the Causality between SP and DPS of manufacturing companies in Nigeria and South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 15:42 Sample: 1 620 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.	
DPS does not Granger Cause SP SP does not Granger Cause DPS	618	5.19176 0.0026 0.22687 0.7971	

Source: E-Views 9.0 output, 2017

#### **Interpretation of Diagnostic Result**

The result of the Granger causality test in table 4.28 above indicates a uni-directional relationship between DPS and SP at 5%. It implies that DPS granger causes SP at 5%; the causation runs from DPS to SP at 5% level of significance and does not run in the reverse sense.

The Granger Causality test result reveals evidence of casual relationship between DPS and SP, thereby confirming the hypothesis that DPS has a significant relationship with share price of sampled manufacturing companies in Nigeria and South Africa.

## Table 4.29: Johansen Co-integration test between SP and DPS of sampled manufacturing companies in Nigeria and South Africa

Date: 12/06/17 Time: 15:42 Sample (adjusted): 6 620 Included observations: 615 after adjustments Trend assumption: Linear deterministic trend Series: SP DPS Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Valu	e Prob.**
None *	0.153119	150.9893	15.49471	0.0001
At most 1 *	0.076252	48.77917	3.841466	0.0000

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted	Cointegration	Rank Test	(Maximum	Eigenvalue	)
	0		<b>`</b>	0 /	

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.153119	102.2101	14.26460	0.0000
At most 1 *	0.076252	48.77917	3.841466	0.0000

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level \* denotes rejection of the hypothesis at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 leve

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 output, 2017

#### **Interpretation of Diagnostic Result**

In table 4.29, the Johansen co-integration test was used to determine the existence of long-run equilibrium relationship among the variables under study. The Trace Statistic value and Max-Eigen Statistic are shown to be greater than the critical values at 1% and 5% levels, thus indicating 2 co-integrating equation at 5% levels. Therefore, the null hypothesis is rejected and it is concluded that there exists long run equilibrium relationship between the dependent variable (SP) and independent variable (DPS). This implies that the regression model is not spurious and the conclusion thereof is valid.

#### 4.3.4 Test of Hypothesis IV

**Ho4:** There is no significant relationship between Return on Equity and Share Price of manufacturing firms listed on NSE and JSE.

**H**<sub>4</sub>: There is significant relationship between Return on Equity and Share Price of manufacturing firms listed on NSE and JSE.

### Table 4.30: Regression analysis output for SP and ROE of quoted manufacturing companies in Nigeria

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 08:30 Sample: 1 380 Included observations: 380

Variable	Coefficien	t Std. Error	t-Statistic	Prob.
C ROE	3.380297 0.001133	0.125249 0.002160	26.98855 4.524502	0.0000 0.0002
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(E statistic)	0.500727 0.401916 2.430442 2232.864 -875.6618 5.275102	Mean de S.D. dep Akaike in Schwarz Hannan- Durbin-W	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	3.386559 2.428117 4.619273 4.640010 4.627501 1.484249

Source: E-Views 9.0 regression output, 2017
# Table 4.31: Granger Causality test showing the Causality between SP and ROE of manufacturing companies in Nigeria

Pairwise Granger Causality Tests Date: 12/06/17 Time: 08:32 Sample: 1 380 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
ROE does not Granger Cause SP SP does not Granger Cause ROE	378	6.269320.00010.231900.7931

Source: E-Views 9.0 causality output, 2017

# Table 4.32: Johansen Co-integration test between SP and ROE in Nigeria

Date: 12/06/17 Time: 08:33 Sample (adjusted): 6 380 Included observations: 375 after adjustments Trend assumption: Linear deterministic trend Series: SP ROE Lags interval (in first differences): 1 to 4 Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Valu	e Prob.**
None *	0.133103	92.20763	15.49471	$0.0000 \\ 0.0000$
At most 1 *	0.097920	38.64442	3.841466	

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.133103	53.56321	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.097920	38.64442	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 cointegration output, 2017

Table 4.33: Reg	ression analysis	output for SP a	nd ROE of	quoted
manufac	cturing companie	es in South Afri	ca	

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 15:16 Sample: 1 240 Included observations: 240						
Variable	Coefficien	cientStd. Error t-Statistic		Prob.		
C ROE	4.557711 0.573944	0.271710 0.145187	16.77418 3.953123	0.0000 0.0001		
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.661615 0.557672 3.128823 2329.909 -613.2987 15.62718 0.000102	Mean dep S.D. depe Akaike in Schwarz Hannan-O Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Vatson stat	5.276230 3.223146 5.127489 5.156495 5.139176 1.249815		

Source: E-Views 9.0 regression output, 2017

# Table 4.34: Granger Causality test showing the Causality between SP and ROE of manufacturing companies in South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 15:17 Sample: 1 240 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
ROE does not Granger Cause SP SP does not Granger Cause ROE	238	2.97266 0.0486 0.43112 0.6503

Source: E-Views 9.0 causality output, 2017

# Table 4.35: Johansen Co-integration test between SP and ROE in South

# Africa

Date: 12/06/17 Time: 15:18 Sample (adjusted): 6 240 Included observations: 235 after adjustments Trend assumption: Linear deterministic trend Series: SP ROE Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Valu	e Prob.**
None *	0.132767	43.29641	15.49471	0.0000
At most 1 *	0.040931	9.821163	3.841466	0.0017

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.132767	33.47524	14.26460	0.0000
At most 1 *	0.040931	9.821163	3.841466	0.0017

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 cointegration output, 2017

Dependent Variable Method: Least Squa Date: 12/06/17 Tin Sample: 1 620 Included observation	anies in Nig : SP res ne: 15:44 ns: 620	geria and So	outh Africa	pic of pub	ine insteu	manuractur
Variable	Coefficien	t Std. Error	t-Statistic	Prob.		
C ROE	4.116481 0.020404	0.117398 0.002585	35.06430 18.56183	0.0000 0.0000		
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.670039 0.491579 2.912543 5242.435 -1541.537 23.24393 0.000000	Mean de S.D. dep Akaike i Schwarz Hannan- Durbin-V	pendent var endent var nfo criterion criterion Quinn criter. Watson stat	4.118045 2.910247 4.979151 4.993440 4.984705 1.203879		

Table 4.36. Repression analysis output for sample of public listed manufacturing

Source: E-Views 9.0 regression output, 2017

# **Interpretation of Regression Output**

Table 4.36 shows the output of regression for overall sample on public listed manufacturing companies in Nigeria and South Africa and the result for the model can be written as follows:

 $SP_{it} = 4.116481 + 0.020404 \text{ROE}_{it} + \pounds_{it}$ 

The result shows that at 95% confidence level, ROE have a significant positive relationship towards Share Price for companies listed on Nigeria and Johannesburg Stock Exchange following the F-statistics of 23.24393 with p<0.05. Therefore, hypothesis H<sub>1</sub> is accepted. Based on t-statistics, the result further indicates that the independent variable (ROE) is significant in determining share price. It can be inferred that a 1% increase in ROE, the share price increases by 2.04% per year.

The Durbin-Watson Value of 1.203879 buttressed the fact that the model does not contain autocorrelation, thereby, making the regression fit for prediction purpose.

The R-Squared of 0.67 shows that 67% of the systematic variation in SP could be explained by ROE, while the remaining 33% is explained by the error term as part of the share price which is not interpreted by the regression model.

# Decision

The significant relationship that is displayed in the output result contradicts with the hypothesis developed earlier saying that there is no significant relationship between Return on Equity and Share Price of manufacturing firms listed on NSE and JSE. Thus,  $Ho_1$  is rejected.

# Table 4.37: Granger Causality test showing the Causality between SP and ROE of manufacturing companies in Nigeria and South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 15:44 Sample: 1 620 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
ROE does not Granger Cause SP SP does not Granger Cause ROE	618	6.410800.00230.505120.6037

Source: E-Views 9.0 output, 2017

### **Interpretation of Diagnostic Result**

The result of the Granger causality test in table 4.37 above indicates a uni-directional relationship between ROE and SP at 5%. It implies that ROE granger causes SP at 5%; the causation runs from ROE to SP at 5% level of significance and does not run in the reverse sense.

The Granger Causality test result reveals evidence of casual relationship between ROE and SP, thereby confirming the hypothesis that ROE has a significant relationship with share price of sampled manufacturing companies in Nigeria and South Africa.

# Table 4.38: Johansen Co-integration test between SP and ROE of sampled manufacturing companies in Nigeria and South Africa

Date: 12/06/17 Time: 15:45 Sample (adjusted): 6 620 Included observations: 615 after adjustments Trend assumption: Linear deterministic trend Series: SP ROE Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Valu	e Prob.**
None *	0.131891	136.1694	15.49471	0.0001
At most 1 *	0.076862	49.18536	3.841466	0.0000

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted	Cointegration	Rank	Test	(Maximum	Eigenvalue	)
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Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.131891	86.98405	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.076862	49.18536	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 output, 2017

# **Interpretation of Diagnostic Result**

In table 4.38, the Johansen co-integration test was used to determine the existence of long-run equilibrium relationship among the variables under study. The Trace Statistic value and Max-Eigen Statistic are shown to be greater than the critical values at 1% and 5% levels, thus indicating 2 co-integrating equation at 5% levels. Therefore, the null hypothesis is rejected and it is concluded that there exists long run equilibrium relationship between the dependent variable (SP) and independent variable (ROE). This implies that the regression model is not spurious and the conclusion thereof is valid.

# 4.3.5 Test of Hypothesis V

**Ho5:** There is no significant relationship between Cash Flow and Share Price of manufacturing firms listed on NSE and JSE.

**H**<sub>5</sub>: There is significant relationship between Cash Flow and Share Price of manufacturing firms listed on NSE and JSE.

# Table 4.39: Regression analysis output for SP and CF of quoted manufacturing companies in Nigeria

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 08:35 Sample: 1 380 Included observations: 380

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C CF	0.640350 0.274600	0.997593 0.098985	0.641895 2.774166	0.5213 0.0058
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.019954 0.017361 2.406947 2189.903 -871.9705 7.695997 0.005809	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat		3.386559 2.428117 4.599845 4.620583 4.608074 1.536245

Source: E-Views 9.0 regression output, 2017

# Table 4.40: Granger Causality test showing the Causality between SP and CF of manufacturing companies in Nigeria

Pairwise Granger Causality Tests Date: 12/06/17 Time: 08:36 Sample: 1 380 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
CF does not Granger Cause SP SP does not Granger Cause CF	378	4.30365 0.0142 2.03517 0.1321

Source: E-Views 9.0 causality output, 2017

### Table 4.41: Johansen Co-integration test between SP and CF in Nigeria

Date: 12/06/17 Time: 08:36 Sample (adjusted): 6 380 Included observations: 375 after adjustments Trend assumption: Linear deterministic trend Series: SP CF Lags interval (in first differences): 1 to 4 Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Valu	ie Prob.**
None *	0.132823	76.33341	15.49471	0.0000
At most 1 *	0.059218	22.89132	3.841466	0.0000

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.132823	53.44210	14.26460	$0.0000 \\ 0.0000$
At most 1 *	0.059218	22.89132	3.841466	

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 cointegration output, 2017

Dependent Variable: SP Method: Least Squares Date: 12/06/17 Time: 15:19 Sample: 1 240 Included observations: 240						
Variable	Coefficient Std. Error		t-Statistic	Prob.		
C CF	3.756963 0.246453	2.323761 0.375440	1.616759 3.656439	0.1073 0.0022		
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.431807 0.282387 3.226990 2478.404 -620.7130 5.430912 0.002176	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat		5.276230 3.223146 5.189275 5.218280 5.200962 1.193072		

# Table 4.42: Regression analysis output for SP and CF of quoted manufacturing companies in South Africa

Source: E-Views 9.0 regression output, 2017

# Table 4.43: Granger Causality test showing the Causality between SP and CF of manufacturing companies in South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 15:20 Sample: 1 240 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
CF does not Granger Cause SP SP does not Granger Cause CF	238	3.25456 0.0134 0.07396 0.9287

Source: E-Views 9.0 causality output, 2017

# Table 4.44: Johansen Co-integration test between SP and CF in South Africa

Date: 12/06/17 Time: 15:18 Sample (adjusted): 6 240 Included observations: 235 after adjustments Trend assumption: Linear deterministic trend Series: SP ROE Lags interval (in first differences): 1 to 4

Hypothesized		Trace	0.05	0.05		
No. of CE(s) Eigenvalue		Statistic	Critical Valu	Critical Value Prob.**		
None *	0.132767	43.29641	15.49471	0.0000		
At most 1 *	0.040931	9.821163	3.841466	0.0017		

Unrestricted Cointegration Rank Test (Trace)

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.132767	33.47524	14.26460	0.0000
At most 1 *	0.040931	9.821163	3.841466	0.0017

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 cointegration output, 2017

Dependent Variable Method: Least Squa	anies in Nig SP res	geria and So	outh Africa	jie on pu	bite listed	manufuccu
Sample: 1 620	10. 13.40					
Included observation	ns: 620					
Variable	Coefficien	t Std. Error	t-Statistic	Prob.		
С	6.783453	0.467814	14.50033	0.0000		
CF	-0.312997	0.053284	-5.874157	0.0000		
R-squared	0.552882	Mean de	pendent var	4.118045		
Adjusted R-squared	0.551349	S.D. dep	endent var	2.910247		
S.E. of regression	2.834542	Akaike i	nfo criterion	4.924859		
Sum squared resid	4965.402	Schwarz	criterion	4.939148		
Log likelihood	-1524.706	Hannan-Quinn criter.		4.930413		
F-statistic	34.50572	Durbin-V	Watson stat	1.284417		
Prob(F-statistic)	0.000000					

Table 4.45: Regression analysis output for sample on public listed manufacturing

Source: E-Views 9.0 regression output, 2017

#### **Interpretation of Regression Output**

Table 4.45 shows the output of regression for overall sample on public listed manufacturing companies in Nigeria and South Africa and the result for the model can be written as follows:

 $SP_{it} = 6.783453 - 0.312997CF_{it} + \pounds_{it}$ 

The result shows that at 95% confidence level, CF has a significant negative relationship towards Share Price for companies listed on Nigeria and Johannesburg Stock Exchange following the Fstatistics of 34.50572 with p<0.05. Therefore, hypothesis  $H_1$  is accepted. Based on t-statistics, the result further indicates that the independent variable (CF) is significant in determining share price. It can be inferred that a 1% increase in ROE, the share price decreases by 31.29% per year. The Durbin-Watson Value of 1.284417 buttressed the fact that the model does not contain autocorrelation, thereby, making the regression fit for prediction purpose.

The R-Squared of 0.55 shows that 55% of the systematic variation in SP could be explained by

CF, while the remaining 45% is explained by the error term as part of the share price which is

not interpreted by the regression model.

## Decision

The significant relationship that is displayed in the output result contradicts with the hypothesis

developed earlier saying that there is no significant relationship between Cash Flow and Share

Price of manufacturing firms listed on NSE and JSE. Thus, Ho<sub>1</sub> is rejected.

# Table 4.46: Granger Causality test showing the Causality between SP and CF of manufacturing companies in Nigeria and South Africa

Pairwise Granger Causality Tests Date: 12/06/17 Time: 15:47 Sample: 1 620 Lags: 2

Null Hypothesis:	Obs	F-StatisticProb.
CF does not Granger Cause SP SP does not Granger Cause CF	618	7.09970 0.0009 0.50512 0.6037

Source: E-Views 9.0 causality output, 2017

#### **Interpretation of Diagnostic Result**

The result of the Granger causality test in table 4.46 above indicates a uni-directional relationship between CF and SP at 5%. It implies that CF granger causes SP at 5%; the causation runs from CF to SP at 5% level of significance and does not run in the reverse sense.

The Granger Causality test result reveals evidence of casual relationship between CF and SP, thereby confirming the hypothesis that CF has a significant relationship with share price of sampled manufacturing companies in Nigeria and South Africa.

# Table 4.47: Johansen Co-integration test between SP and CF of sampled manufacturing companies in Nigeria and South Africa

Date: 12/06/17 Time: 15:47 Sample (adjusted): 6 620 Included observations: 615 after adjustments Trend assumption: Linear deterministic trend Series: SP CF Lags interval (in first differences): 1 to 4

Ľ	Inrestricted	Cointeo	ration	Rank	Test (	(Trace)	۱
C	mesuicicu	Conneg	auon	mann	IUSU	ITACC	,

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Valu	e Prob.**
None *	0.091712	65.88427	15.49471	0.0000
At most 1 *	0.010875	6.725026	3.841466	0.0095

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level \* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Valu	e Prob.**
None *	0.091712	59.15924	14.26460	0.0000
At most 1 *	0.010875	6.725026	3.841466	0.0095

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: E-Views 9.0 cointegration output, 2017

# **Interpretation of Diagnostic Result**

In table 4.47, the Johansen co-integration test was used to determine the existence of long-run

equilibrium relationship among the variables under study. The Trace Statistic value and Max-

Eigen Statistic are shown to be greater than the critical values at 1% and 5% levels, thus

indicating 2 co-integrating equation at 5% levels. Therefore, the null hypothesis is rejected and it

is concluded that there exists long run equilibrium relationship between the dependent variable (SP) and independent variable (CF). This implies that the regression model is not spurious and the conclusion thereof is valid.

# **4.4 Discussion of Findings**

This study broad objective was concern with the assessment of the relationship between accounting information and share price, of manufacturing firms listed in the Nigeria stock market and South Africa stock market that there is significant relationship between accounting information and share price, which means that accounting information are value relevant in the determining share prices of the firms under study.

The first specific objective of this study was concerned with establishing the relationship between book value per share (BVPS) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. The null hypothesis was formulated in line with this objective and was tested using regression analysis at 5 % level of significance. The test result revealed that there is significant positive relationship between Book value per share (BVPS) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. This result is in consonant with Clarkson et al., 2009 Adaramola & Oyerinde (2014); Oyerinde (2011); Khanagha et al., (2011) who has identified book value per share (BVPS) as an important accounting measure that have a significant positive association with market value of a firm, proxy by share prices, while it contradict the findings of Mwila, (2015) who found that book value per share have negative relationship and statistically insignificant with share price and Okuns & Peter, (2015) who found that book value was related to share price but however, not statistically significant. Furthermore, the second specific objective of this study seeks to establish the relationship between earnings per share (EPS) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. Consequently, the null hypothesis was also formulated in line with this objective and was tested using regression analysis at 5 % level of significance. Result from the test shows that there is significant positive relationship between earning per share (EPS) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. This finding meet the normal expectation that earnings per share (EPS) should be a basis of making investment decisions in the capital market as it is assumed that EPS has the most influence on stock prices. The result is in line with the findings of Daye (2013); Musa, (2015); Okuns & Peter, (2015); Olubukola *et al*, (2016); and Mayadunne, (2017) who both found that earnings per share (EPS) has positive significant relationship with share price, while it contradicts the findings of Oloidi & Bolade, (2015) who found a significant negative relationship between earnings per share and share price

The third specific objective of this study was to establish the relationship between dividend per share (DPS) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. Consequently, the null hypothesis was also formulated in line with this objective and was tested using regression analysis at 5 % level of significance. The test result shows that there is significant positive relationship between dividend per share (DPS) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. This result agrees with the findings of Benartzi et al. (1997), Ofer and Siegel's (1987) Daye, (2013); Philip & John, (2016); Edward, (2014) and Musa (2015) who all found a significant positive correlation between share price and dividend , however ist contradicts the

findings of (Samuel & Pradeep, (2016) who found a significant negative relationship between earnings per share and share price

The fourth specific objective of this study was to find the relationship between return on equity (ROE) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. Consequently, the null hypothesis was also formulated in line with this objective and was tested using regression analysis at 5 % level of significance. Result from the test shows that there is significant positive relationship between return on equity (ROE) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. This result is consistent with the findings of Mayadunne, (2017); Thomas, (2016); and Al-Khalayleh, (2001) who all found that there is a significant positive correlation between return on equity (ROE) and share price. This confirmed the claim by Monteiro, (2006) who stated that ROE is perhaps the most important ratio an investor should consider. However, this finding does not agree with the findings of Mwila, (2015) who found return on equity to have negative but statistically insignificant relationship with share price.

Finally, the fifth specific objective of this study was to ascertain the relationship between Cash flow (CF) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. The null hypothesis was also formulated in line with this objective and was tested using regression analysis at 5 % level of significance. Result obtained from the test shows that there is significant negative relationship between cash flow (CF) and share price (SP) of manufacturing firms listed in the Nigeria stock market and South Africa stock market. The result of this study shows that Cash flow (CF) have a significant negative relationship towards Share Price for companies listed on Nigeria and Johannesburg Stock Exchange. This

result contradicts the finding of Webster, (2016) whose regression model portrayed that free cash flow has a positive effect on stock prices.

This study is anchored on a valuation framework that models firms' value (share price) as a linear function of accounting information (book value of equity, earnings per share, dividend per share, return on equity, and cash flow) as assumed by Efficient Markets Hypothesis. This is often stated as a limitation to the inferences that can be made from value relevance study's tests. However, the resulting inferences from this study concerning the relationship between accounting information and share price reflect the firm value implicitly assessed by investors and not necessarily the explicit and exact value of the firms , hence market efficiency is not required as we interpret only the explanatory power of the statistical tests.

Barth et al., (2001) argued that share prices is a reflection of investors' consensus beliefs about the underlying economic value of the firm and not necessarily the exact underlying economic value its self. This has an important implication for value relevance research in developing and transitory countries like Nigeria, because doubts have been raised as to whether these markets are efficient and if at all inferences derived from the study of value relevance can hold. Moreover, Aboody et al.,(2002) advised that the market efficiency limitations may be overcome by including future price changes into the research design which adjusts for delayed market reactions. This procedure is not necessary and it is not used in this study as this study does not investigate whether the Nigeria capital market is efficient or not.

#### **CHAPTER FIVE**

#### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### **5.1 Summary of Findings**

In consonance with the analysis of this study, the following findings were deduced:

There is significant positive relationship between Book Value of Equity per Share and Share Price of manufacturing firms listed on NSE and JSE.

There is significant positive relationship between Earnings per Share and Share Price of manufacturing firms listed on NSE and JSE.

There is significant positive relationship between Dividend per Share and Share Price of manufacturing firms listed on NSE and JSE.

There is significant positive relationship between Return on Equity and Share Price of manufacturing firms listed on NSE and JSE.

There is significant negative relationship between Cash Flow and Share Price of manufacturing firms listed on NSE and JSE.

#### **5.2 Conclusion**

This study examined the relationship between value relevance of accounting information and Share Price of manufacturing sector quoted on NSE and JSE for 2007 - 2016 periods. Existing literature showed that researchers are yet to reach a consensus about the relationship between value relevance of accounting information and Share Price. Therefore, the relationship is yet to be well established. This study has contributed to the research effort at empirical measure of the relationship between value relevance of accounting information and share price of manufacturing sector quoted on NSE and JSE. Data analysis revealed that a relationship exists between accounting information variables and share price of manufacturing sector in Nigeria and South Africa, and that while some components of accounting information exerted negative relationship with share price, others exerted positive relationship. As disaggregated components, Book Value of Equity per Share, Earnings Per Share, Dividend Per Share and Return on Equity exerted significant positive relationship with Share Price, while Cash Flow exerted negative but significant relationship with Share Price. However,

The overall results on accounting information variables presented in this study indicate that the book value per share, Earning per Share, dividend per share and Return on Equity have positive significant relationship with share price while cash flow from operation has significant negative relationship with share price. This study concluded that value relevance of accounting information has a statistical significance on share price at 5%.

#### **5.3 Recommendations**

The following policy recommendations were proffered from the findings and conclusion of this study:

Listed manufacturing firms on the Nigerian Stock Exchange and Johannesburg Stock Exchange should display their Book Value per Share conspicuously in their presentation to investors and analysts. This will, on the long run, assist financial analysts and other interested parties in easy determination of firm's share prices.

Since Earnings per Share significantly relate with Share Price, the management of Firms should make public offer of ordinary shares and if possible bonus offer so as to boost their shareholders funds. This may give the firms more opportunities to have funds for diversification of their investments and by so doing increase the Earnings per Share of the firms, so as to enhanced the value of their share.

With the recognition that investors are sensitive to dividend payments. Dividend policy should be such that allow the possibility of paying regular dividend since dividend is found to have impact on their share price. This is because dividends play vital role in investors' decision making on the company's on the trading exchange.

Since Return on Equity (ROE) significantly relate with Share Price, manufacturing firms in Nigeria and South Africa should create more innovative ideas and inventions that are substantial enough to project the Earnings of the organizations to acceptable level that can enhanced the return attributable to the equity holders. This should be enough to motivate existing investors and encourage prospective investors in their investment drives and opportunities.

In order to reverse the inverse relationship between Cash Flow and Share Price, this study, thus, recommends the need for firms to improve on the quality of earnings reported, since it had a stronger ability to explaining share prices of firm.

The standard setters and the stock market regulators should continuously devise ways of improving the quality of accounting information produce by companies ,Accounting standard setter in Nigeria must take necessary steps to ensure that accounting earnings quality produce by firms listed on NSE are not of doubtful quality: accounting methods should be well defined and adhered to by companies to avoid manipulation in order to increase the transparency level in financial reporting because without confidence in accounting numbers as a whole, investors will not take their investment decisions.

There should be no existence of any internal and external controls of the stock market. The market must be free from manipulation by the authorities, or other people of power. There must not be too strict restrictions on trading such as setting narrow limit on daily price fluctuation on the floor of the stock exchange. Trading should not be subject to authorities' discretion such as freezing of trading . This should be so to enables the rational investors anchor their investment decisions on accounting information.

### **5.4 Contribution to Knowledge**

This work has contributed to the body of knowledge in the following areas:

Firstly, this work exclusively determined the relationship between value relevance of accounting information and share price of manufacturing companies in Nigeria and South Africa. The study focused on the entire manufacturing firms in Nigeria representing West Africa and South Africa rather than just firms from Nigeria alone or firms from just West Africa countries. prior studies focused just firms from Nigeria or firms from just West Africa countries to the best of our knowledge.

This study bridged the gap by exploring multiple accounting information indicators such as book value of equity per share, earning per share, dividend per share, return on equity and cash flow to assess the Value relevance of accounting information, rather than utilizing only earnings, book value and dividend as the primary accounting summary measures to ascertain the Value relevance of accounting information and Share price of manufacturing Firms.

The study has contributed to value relevance literature in Nigeria by exposing the current state of value relevance of accounting information in Nigeria.

### 5.5 Policy Implication of the Research Findings

Policy makers should therefore hunt to ensure that the big sources of information to the investing public, and also those that seem to control the security valuation process, should replicate the true essential values and not be "cooked" for the purpose of unreliable or ambiguous the market, as this would result in the allocation of limited resource on the financial market to incompetent businesses. Stringent rule backed up by appropriate legislations that will ensure the Value relevance of accounting information is maintain should be implemented by policy makers. By so doing there will be absolute diligence , responsibility and accountability in the application of set accounting standards for the preparation and presentation of accounting information. This will install confidence in the Nigeria capital market and increase the economic growth.

When firms shareholders fund, which is a measure of book value of the firm is low, there is a greater likelihood that existing investors may decide to withdraw their investments and the prospective investors go for better performing firms for their investment. The significant impact of book value per share in this research signifies that the study firm's values are adequately disclosed in their annual financial statements which are not the case with some firms in Nigeria and South Africa.

Earnings per share has positive statistical significance on share price because large firms reporting high earnings usually attracts more investment opportunities than firms that consistently report loss or earnings that decrease at decreasing rate. Investors may not be willing to commit their investment in the latter firms due to fear of liquidation and subsequent lost of their investments.

Furthermore, dividend per share plays a prominent role in explaining share price of our sampled firms. Therefore, payment of dividend by these firms is likely to attract prospective investors to the firms while equally motivating the existing investors to maintain and even increase their investments. This shows that investors and stakeholders are more interested on current events of their investing firms than the historical events.

The findings of this study have important policy implications for Nigerian accounting standard setters, preparers of accounting information and government policy makers- particularly the Securities and Exchange Commission (SEC) which serves as the apex regulatory body. Results of the test serve as proof of the quality of accounting standards, accounting practice and the Nigeria stock exchange market in view of the fact that, quality of accounting standards influences the users' perception of quality of financial information. High quality accounting standards and their proper enforcement are perceived as providing relevant and reliable financial information.

# 5.6 Suggestions for Further Studies

This study wish to propose the following topics for further studies:

- Corporate Governance and Value Relevance of Accounting Information: Evidence from Nigeria
- ii. Free Cash Flows and Stock Prices of Non Financial Firms Listed on Nigeria Stock Exchange
- iii. Company's Characteristics and Accounting Information Relevance

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# **APPENDIX I: Listed Manufacturing Companies in NSE**

## **Population of the Study**

- 1. Agriculture
  - Ellah Lakes Plc
  - FTN Cocoa Processors Plc
  - Livestock Feeds Plc
  - Omatek Venture Plc
  - Presco Plc
- 2. Conglomerate
  - A.G. Leventis Nigeria Plc
  - Chellarams Plc
  - John Holt Plc
  - SCOA Nig. Plc
  - Transnational Corporation of Nigeria Plc
  - UACN Plc
- 3. Consumer Goods
  - 7-Up Bottling Company Plc
  - Cadbury Nigeria Plc
  - Champion Brew. Plc
  - Dangote Flour Mills Plc
  - Dangote Sugar Refinery Plc
  - DN Tyre & Rubber Plc

- Flour Mills Nigeria Plc
- Golden Guinea Brew. Plc
- Guinness Nig Plc
- Honeywell Flour Mill Plc
- International Breweries Plc
- McNichols Plc
- Multi-Trex Integrated Foods Plc
- N Nig. Flour Mills
- Nascon Allied Industries Plc
- Nestle Nigeria Plc
- Nigerian Brew. Plc
- Nigerian Enamelware Plc
- PZ Cussons Nigeria Plc
- UTC Nig. Plc
- Unilever Nigeria Plc
- Union Dicon Salt Plc
- Vitafoam Nigeria Plc
- 4. Healthcare
  - Afrik Pharmaceuticals Plc
  - Ekocorp Plc
  - Evans Medical Plc

- Fidson Healthcare Plc
- Glaxo Smithkline Consumer Nig. Plc
- May & Baker Nigeria Plc
- Morison Industries Plc
- Neimeth International Pharmaceuticals Plc
- Nigeria-German Chemicals Plc
- Pharma-Decko Plc
- Union Diagnostic & Clinical Services

## 5. Industrial Goods

- African Paints (Nigeria) Plc
- Ashaka Cement Plc
- Austin Laz & Company Plc
- Avon Crowncaps & Containers
- Berger Paints Plc
- Beta Glass Co. Plc
- Cap Plc
- Cement Co. of North Nig. Plc
- Cutix Plc
- Dangote Cement Plc
- First Aluminum Nigeria Plc
- Lafarge Africa Plc
- Meyer Plc
- Paints and Coatings Manufacturers Plc

#### **APPENDIX II: Listed Manufacturing Companies in Johannesburg Stock Exchange (JSE)**

## **Population of the Study**

- 1. Accentuate Limited
- 2. Adcock Ingram Limited
- 3. ECI Limited
- 4. African Eagle Resources
- 5. African Oxygen Limited
- 6. African Rainbow Minerals Limited
- 7. Afrimat Limited
- 8. AH-Vest Limited
- 9. Amalgamated Electronic Corp Limited
- 10. Andulela Investment Holdings Limited
- 11. AB InBev Limited
- 12. Ansys Limited
- 13. Arcelomittal South Africa Limited
- 14. Ascendis Health Limited
- 15. Aspen Pharmacare Holdings Limited
- 16. Assore Limited
- 17. Astral Foods
- 18. Astrapak Limited
- 19. Aveng Limited
- 20. AVI Limited
- 21. Awethu Breweries

- 22. Basil Read Holdings
- 23. Beige Holdings
- 24. Bell Equipment Limited
- 25. BHP Billiton Limited
- 26. Bid Corp Limited
- 27. Bowler Metcalf Limited
- 28. Bikor Limited
- 29. British American Tobacco Plc
- 30. BSI Steel Limited
- 31. Buildmax Limited
- 32. CAFCA Limited
- 33. Capevin Holdings Limited
- 34. Cartrack Holdings Limited
- 35. Chemical Specialties Limited
- 36. Chrometco Limited
- 37. Clover Industries Limited
- 38. Compagnie Financiere Richemont SA
- 39. Consolidated Infrastructure Group Ltd
- 40. Crookies Brothers Limited
- 41. Delrand Resources Limited
- 42. Delta EMD Limited
- 43. Diamondcorp Plc
- 44. Dis-Chem Pharmacies

- 45. Distell Group Limited
- 46. Eastern Platinum Limited
- 47. Ellies Holdings Limited
- 48. Evraz Highveld Steel & Vanadium Limited
- 49. Ferrum Crescent Limited
- 50. Giyani Gold Corporation
- 51. Grindrod Limited
- 52. Group Five Limited
- 53. Hosken Consolidated Investments Limited
- 54. Howden Africa Holdings Limited
- 55. Imbalie Beauty Limited
- 56. IPSA Group Plc
- 57. Jasco Electronics Holdings Limited
- 58. Jubilee Platinum Plc
- 59. Kaap Agri Limited
- 60. KAP Industrial Holdings
- 61. Kumba Iron Ore Limited
- 62. Labat Africa Limited
- 63. Life Healthcare Group Holdings Limited
- 64. Lonmin Plc
- 65. Master Plastics Limited
- 66. Mediclinic International Limited
- 67. Merafe Resources Limited

- 68. Middle East Diamond Resources Limited
- 69. Miranda Mineral Holdings Limited
- 70. Mondi Plc
- 71. Mpact Limited
- 72. Murray and Roberts Holdings Limited
- 73. Mustek Limited
- 74. Nampak Limited
- 75. Netcare Limited
- 76. Nu-World Holdings Limited
- 77. Nutritional Holdings Limited
- 78. Oceana Group Limited
- 79. Omnia Holdings Limited
- 80. Onelogix Group Limited
- 81. Pan African Resources Plc
- 82. Petmin Limited
- 83. Pinnacle Holdings Limited
- 84. Pioneer Food Group Limited
- 85. Premier Food and Fishing Limited
- 86. Protech Khuthele Holdings Limited
- 87. Raubex Group Limited
- 88. RCL Foods Limited
- 89. Reunert Limited
- 90. Rhodes Food Group Holdings Limited

- 91. Rolfes Holdings Limited
- 92. Santova Limited
- 93. South Ocean Holdings Limited
- 94. Sovereign Food Investments Limited
- 95. Spanjaard Limited
- 96. Steinhoff International Holdings
- 97. Tawana Resources NL
- 98. The Bidvest Group Limited
- 99. Tiger Brands Limited
- 100. Tongaat Hulett Limited
- 101. Transpaco Limited
- 102. Winhold Limited
- 103. ZCI Limited

# APPENDIX III: Listed Manufacturing Companies in Nigeria Stock Exchange

## Sample Size of the Study

- A. Agriculture
  - i. FTN Cocoa Processors Plc
  - ii. Livestock Feeds Plc

#### B. Conglomerate

i. Chellarams Plc

ii. John Holt Plc

iii.SCOA Nig. Plc

#### C. Consumer Goods

i.7-Up Bottling Company Plc

ii.Cadbury Nigeria Plc

iii.Dangote Flour Mills Plc

iv.DN Tyre & Rubber Plc

v.Flour Mills Nigeria Plc

vi.Guinness Nig Plc

vii.Multi-Trex Integrated Foods Plc

viii.Nestle Nigeria Plc

ix.Nigerian Brew. Plc

x.Nigerian Enamelware Plc

xi.PZ Cussons Nigeria Plc

xii.UTC Nig. Plc

xiii.Unilever Nigeria Plc

xiv.Union Dicon Salt Plc

xv.Vitafoam Nigeria Plc

## D. Healthcare

i.Ekocorp Plc

ii.Evans Medical Plc

iii.Fidson Healthcare Plc

iv.Glaxo Smithkline Consumer Nig. Plc

v.May & Baker Nigeria Plc

vi.Morison Industries Plc

vii.Pharma-Decko Plc

## E. Industrial Goods

i.African Paints (Nigeria) Plc

ii.Ashaka Cement Plc

iii.Avon Crowncaps & Containers

iv.Berger Paints Plc

v.Beta Glass Co. Plc

vi.Cement Co. of North Nig. Plc

vii.Cutix Plc

viii.Dangote Cement Plc

ix.First Aluminum Nigeria Plc

x.Lafarge Africa Plc

xi.Meyer Plc

# APPENDIX IV: Listed Manufacturing Companies on Johannesburg Stock Exchange (JSE)

#### Sample Size of the Study

- 1. African Rainbow Minerals Limited
- 2. Arcelomittal South Africa Limited
- 3. Ascendis Health Limited
- 4. Aspen Pharmacare Holdings Limited
- 5. Astral Foods Limited
- 6. British American Tobacco Plc
- 7. Buildmax Limited
- 8. CAFCA Limited
- 9. Chrometco Limited
- 10. Diamondcorp Plc
- 11. Dis-Chem Pharmacies Ltd
- 12. Imbalie Beauty Limited
- 13. Jubilee Platinum Plc
- 14. Kaap Agri Limited
- 15. Lonmin Plc
- 16. Miranda Mineral Holdings Limited
- 17. Mondi Plc
- 18. Pan African Resources Plc
- 19. RCL Foods Limited
- 20. Rhodes Food Group Holdings Limited
- 21. Santova Limited
- 22. Steinhoff International Holdings
- 23. Tawana Resources NL
- 24. Tiger Brands Limited

# **APPENDIX V**

(NSE)	IOI IISteu	manura	cturing com	pantes in	the rug		CK Exchang
FIRM	YEAR	SP	BVPS	EPS	DPS	ROE	CF
FTN Plc	2007	4.12	2.43	2.53	1.21	2.75	8.22
	2008	3.42	1.65	2.75	0.16	1.21	8.43
	2009	1.94	1.23	1.82	0.64	2.23	7.25
	2010	2.95	2.39	3.20	0.55	1.23	8.75
	2011	5.11	2.93	4.26	0.43	0.11	8.81
	2012	5.87	1.22	7.33	0.36	0.11	8.88
	2013	4.40	1.94	7.44	0.78	0.77	9.05
	2014	4.13	7.90	7.58	1.09	0.85	9.91
	2015	0.90	9.60	7.73	1.06	1.06	10.28
	2016	0.84	7.21	7.78	0.47	0.13	10.45
Livestock Plc	2007	0.85	4.17	7.78	0.07	1.11	10.25
	2008	0.83	1.56	7.88	0.22	0.10	10.20
	2009	1.16	2.99	7.78	0.75	3.11	10.56
	2010	1.11	3.70	7.87	0.06	0.11	10.50
	2011	0.99	2.47	7.91	0.23	2.11	10.66
	2012	4.76	5.63	6.60	3.93	0.16	6.74
	2013	5.04	9.66	6.81	1.18	4.13	7.65
	2014	5.51	4.62	6.81	2.96	0.06	8.97
	2015	0.77	3.98	6.94	1.56	1.08	9.06
	2016	0.68	4.12	7.05	1.49	3.10	9.41
Chellarams Plc	2007	0.68	1.68	7.19	1.76	2.12	9.55
	2008	3.56	1.60	7.13	0.43	2.10	9.72
	2009	2.53	1.86	7.23	0.77	2.12	9.94
	2010	0.82	1.86	7.35	0.92	2.94	10.18
	2011	0.83	2.18	7.53	0.80	2.16	9.92
	2012	0.83	3.64	7.51	0.10	3.16	9.98
	2013	1.05	2.25	7.52	0.04	2.12	7.44
	2014	1.83	1.97	7.65	0.34	3.12	10.45
	2015	0.70	1.55	7.64	0.24	3.40	10.52
	2016	0.71	1.96	7.62	0.14	2.11	10.39
John Holt Plc	2007	4.00	3.29	6.98	0.73	1.08	9.78
	2008	4.07	2.78	7.00	2.13	2.10	9.56
	2009	4.75	4.65	7.08	1.87	0.13	9.74
	2010	1.06	3.97	7.12	1.82	0.22	9.60
	2011	2.03	4.13	7.44	3.04	0.86	9.89
	2012	1.55	4.00	7.23	2.08	1.39	9.81
	2013	0.83	2.32	6.90	0.77	0.10	9.56

	2014	0.71	1.73	7.07	1.28	2.39	9.87
	2015	0.88	2.18	7.33	1.03	1.11	9.67
	2016	0.91	1.88	7.50	0.42	0.14	9.60
SCOA Nig Plc	2007	1.61	0.76	7.45	0.73	1.11	9.88
	2008	1.84	0.85	7.62	0.28	0.13	10.14
	2009	1.54	8.29	7.74	0.09	0.13	9.60
	2010	1.72	0.21	7.92	0.02	2.81	9.78
	2011	5.55	7.79	6.72	0.05	2.05	9.74
	2012	5.14	2.69	7.75	0.05	0.13	10.07
	2013	5.73	2.47	7.98	0.05	0.12	9.65
	2014	1.04	2.76	6.90	0.34	1.10	10.11
	2015	1.11	1.65	7.36	0.18	0.11	9.95
	2016	1.20	2.68	7.00	0.17	1.10	10.31
7-Up Co. Plc	2007	0.98	1.19	7.32	0.42	0.11	10.00
	2008	5.06	2.26	7.00	0.88	1.10	10.06
	2009	0.65	1.17	7.23	1.04	0.11	9.64
	2010	1.03	2.80	8.07	0.06	0.13	10.35
	2011	4.46	1.90	8.10	0.06	0.12	9.96
	2012	0.71	2.15	7.53	0.04	0.11	10.19
	2013	0.44	0.98	6.88	0.09	0.11	10.17
	2014	4.43	2.40	7.53	1.87	0.13	10.33
	2015	0.71	1.79	7.56	0.07	0.12	9.96
	2016	4.13	1.97	7.59	0.08	0.11	10.19
Cadbury Nig. Plc	2007	1.27	1.82	6.55	0.51	0.14	9.71
	2008	4.65	1.65	6.67	0.08	0.14	9.79
	2009	6.82	6.45	6.80	0.43	0.16	9.71
	2010	4.44	2.41	6.85	0.08	0.14	10.13
	2011	2.89	1.78	6.82	0.00	0.14	10.15
	2012	4.30	1.94	6.87	0.10	0.13	10.18
	2013	3.26	1.31	6.94	0.24	0.11	10.30
	2014	1.57	1.38	7.03	0.29	0.10	10.34
	2015	1.17	1.42	7.19	0.65	0.11	10.58
	2016	3.04	1.18	7.35	0.42	0.11	10.66
Dangote Flour							
Mills	2007	1.68	1.31	7.44	0.12	0.11	10.50
	2008	1.53	1.92	7.55	0.32	0.11	10.83
	2009	1.52	1.61	7.66	0.03	0.12	10.55
	2010	1.47	1.95	7.70	0.13	0.13	10.69
	2011	1.44	1.78	7.68	0.13	0.13	10.75
	2012	0.26	1.39	7.15	0.67	0.22	9.14
	2013	0.44	7.15	7.29	0.29	0.17	9.31
	2014	0.40	8.05	7.38	0.59	0.18	9.42

	2015	8.63	3.27	7.44	0.47	0.19	9.62
	2016	1.61	4.78	7.40	0.12	0.15	9.70
DN Tyre Plc	2007	2.62	5.71	7.38	0.32	0.14	10.85
	2008	2.62	5.19	7.40	0.34	0.10	10.00
	2009	4.75	2.13	7.46	0.47	0.10	10.19
	2010	0.78	3.82	7.60	1.96	0.10	10.43
	2011	1.21	2.29	7.77	0.63	0.15	10.43
	2012	0.64	3.88	7.73	0.09	0.12	10.69
	2013	3.98	4.05	7.81	0.25	0.11	10.79
	2014	3.27	3.78	7.76	0.32	0.10	11.00
	2015	2.85	5.37	7.74	0.03	0.09	11.00
	2016	2.54	5.75	7.87	0.12	0.12	11.04
Flour Mills Plc	2007	3.17	1.58	3.65	0.76	0.15	6.58
	2008	4.97	1.13	3.61	0.02	0.10	6.20
	2009	1.12	1.51	3.75	0.15	0.11	6.39
	2010	0.82	1.36	3.79	0.07	0.12	6.68
	2011	0.58	0.62	3.82	0.87	0.11	6.78
	2012	1.39	0.47	3.83	0.07	0.10	6.81
	2013	5.28	0.97	4.28	2.37	0.10	7.10
	2014	1.36	4.89	3.34	0.17	0.01	7.43
	2015	1.37	4.43	4.57	0.23	0.11	7.39
	2016	1.20	3.36	4.27	0.44	0.16	7.36
Guinness Plc	2007	1.20	2.49	4.17	0.28	0.11	7.21
	2008	0.73	0.37	4.16	0.10	0.09	8.57
	2009	1.93	2.80	7.29	0.41	0.09	10.66
	2010	1.64	1.47	7.32	0.21	0.10	10.65
	2011	1.51	1.18	7.36	0.07	0.10	10.63
	2012	1.59	4.19	3.68	0.18	0.16	6.84
	2013	0.89	0.63	3.67	0.94	0.16	6.85
	2014	3.65	2.46	3.68	0.03	0.13	6.95
	2015	0.50	0.72	3.66	0.09	0.11	7.01
	2016	3.80	0.36	3.72	0.13	0.11	7.01
Multi-Trex Plc	2007	2.47	0.70	3.87	0.41	0.11	7.07
	2008	1.01	1.50	3.93	0.21	0.11	7.13
	2009	1.02	0.76	4.01	0.40	0.11	7.19
	2010	4.53	1.15	4.11	0.31	2.24	7.47
	2011	3.24	6.82	4.32	0.39	2.33	7.83
	2012	4.44	0.63	7.30	0.12	2.13	10.09
	2013	2.24	0.06	7.49	0.30	1.94	11.01
	2014	2.33	0.32	7.30	0.35	1.32	9.91
	2015	2.13	2.16	7.59	0.07	1.18	9.62
	2016	1.94	0.83	7.57	0.06	1.98	10.32

Nestle Nig. Plc	2007	1.32	1.40	6.41	0.37	1.97	8.48
-	2008	1.18	0.23	6.45	0.15	0.48	8.90
	2009	1.98	3.67	6.78	0.70	6.26	9.36
	2010	1.97	2.26	6.75	0.23	1.07	9.36
	2011	0.48	0.98	6.85	0.32	0.90	9.15
	2012	6.26	1.24	7.12	0.03	3.86	9.64
	2013	1.07	1.10	7.24	0.03	3.63	9.86
	2014	0.90	0.69	7.19	0.78	3.52	9.27
	2015	4.70	0.33	7.18	0.18	2.90	10.84
	2016	5.51	1.46	7.25	0.40	2.69	10.29
NB Plc	2007	2.10	0.15	7.06	0.54	0.10	10.11
	2008	4.63	0.95	7.53	0.29	0.21	9.88
	2009	4.34	0.22	7.36	0.35	0.13	9.69
	2010	1.65	1.07	6.67	1.31	0.12	9.91
	2011	1.56	0.53	7.56	0.14	0.11	9.49
	2012	4.42	1.60	7.13	0.43	0.10	9.72
	2013	0.71	1.73	7.07	1.28	0.09	9.87
	2014	1.14	1.65	6.67	0.08	0.14	9.79
	2015	2.53	1.86	7.23	0.77	0.12	9.94
	2016	7.18	2.16	7.12	0.51	0.10	9.95
Nig. Enamelware	2007	4.23	3.93	7.12	0.46	0.11	9.96
	2008	4.42	1.01	7.17	0.67	0.10	10.18
	2009	2.67	4.05	7.25	0.53	0.10	10.37
	2010	2.95	3.41	7.42	1.13	0.11	10.69
	2011	5.11	4.77	4.54	0.34	0.16	7.50
	2012	6.33	3.83	7.37	0.33	0.09	10.63
	2013	2.60	1.24	7.44	0.27	0.10	10.71
	2014	4.13	1.52	7.63	0.26	0.13	10.97
	2015	3.27	2.02	7.67	0.12	0.11	10.97
	2016	5.19	1.83	8.77	0.20	1.09	11.03
PZ Plc	2007	6.87	1.86	2.43	0.42	1.42	8.93
	2008	4.15	1.98	1.65	0.64	1.22	9.26
	2009	1.16	2.18	1.23	0.78	1.34	9.29
	2010	4.33	2.23	2.39	0.67	1.93	10.12
	2011	6.79	2.30	2.93	0.33	1.64	10.13
	2012	4.76	4.21	1.22	0.33	1.51	10.15
	2013	4.37	3.65	1.94	0.48	1.59	10.46
	2014	5.77	5.00	7.90	0.60	0.89	10.45
	2015	4.09	3.08	9.60	0.89	3.65	11.23
	2016	4.44	2.08	7.21	0.64	0.50	11.27
UTC Plc	2007	5.63	2.10	4.17	0.69	3.80	11.26
	2008	3.56	3.35	1.56	0.85	2.47	11.27

	2009	2.53	4.49	2.99	0.81	1.01	11.38
	2010	2.18	4.78	3.70	0.77	1.02	11.39
	2011	2.83	1.81	2.47	0.78	4.53	11.44
	2012	3.76	1.74	5.63	0.41	0.17	10.19
	2013	1.05	1.86	9.66	0.25	0.34	10.22
	2014	2.83	2.02	4.62	0.45	0.37	10.23
	2015	3.70	2.13	3.98	0.38	0.53	10.26
	2016	2.71	2.24	4.12	0.46	0.56	10.32
Unilever Plc	2007	4.25	4.10	1.68	0.43	0.74	10.32
	2008	4.38	3.08	1.60	0.49	0.62	10.54
	2009	4.28	3.08	1.86	0.40	0.71	10.73
	2010	1.37	4.00	1.86	0.04	0.48	11.07
	2011	2.03	3.65	2.18	0.20	0.87	11.07
	2012	1.55	3.21	3.64	0.89	0.73	11.07
	2013	3.83	4.03	2.25	0.07	0.97	10.97
	2014	5.09	1.42	1.97	0.28	1.22	11.03
	2015	2.18	1.67	1.55	0.85	1.21	11.14
	2016	4.66	2.71	1.96	0.43	2.10	11.31
Union Dicon Salt	2007	1.61	2.72	30.29	0.05	4.63	10.50
	2008	1.84	2.77	6.78	0.07	4.34	10.49
	2009	1.54	2.74	4.65	0.14	1.65	10.42
	2010	2.72	2.12	3.97	0.19	1.56	11.61
	2011	5.55	1.12	4.13	0.50	4.42	11.47
	2012	5.14	1.96	4.00	6.69	0.71	11.47
	2013	5.73	2.02	2.32	0.25	1.14	10.42
	2014	3.76	1.07	1.73	0.81	2.53	10.49
	2015	4.60	1.33	2.18	0.49	7.18	11.12
	2016	6.20	4.06	1.88	0.43	1.88	11.11
Vitafoam Plc	2007	4.38	2.33	0.76	0.23	1.20	11.13
	2008	5.06	2.08	0.85	0.34	1.54	11.07
	2009	4.27	3.34	8.29	0.79	0.10	11.86
	2010	1.03	2.96	0.21	0.98	0.81	11.12
	2011	4.46	2.01	7.79	0.97	0.05	11.12
	2012	1.39	2.07	2.69	0.76	4.73	10.40
	2013	2.99	3.33	2.47	0.64	5.62	10.35
	2014	4.43	3.96	2.76	0.76	0.41	10.45
	2015	3.71	2.03	1.65	0.98	0.89	10.42
	2016	4.13	2.07	2.68	0.95	0.47	10.39
EkoCorp Plc	2007	3.20	3.29	1.19	0.96	0.79	10.48
	2008	4.65	3.80	2.26	0.62	0.45	10.41
	2009	3.96	1.43	1.17	0.86	0.79	10.47
	2010	4.44	1.51	2.80	0.90	0.70	11.23

	2011	2.89	1.49	1.90	0.95	0.79	11.21
	2012	4.30	2.58	2.15	0.86	0.81	11.21
	2013	3.26	2.75	0.98	0.52	0.14	11.24
	2014	1.57	2.88	2.40	0.87	0.74	11.21
	2015	4.96	2.07	1.79	1.11	0.78	11.21
	2016	3.04	2.22	1.97	0.27	0.76	11.24
Evans Med. Plc	2007	2.68	2.29	1.82	0.65	1.85	10.16
	2008	1.53	2.39	1.65	0.74	1.70	10.23
	2009	1.52	2.43	6.45	0.71	2.35	10.25
	2010	2.41	2.44	2.41	0.71	1.80	10.40
	2011	1.44	2.48	1.78	0.73	1.17	10.59
	2012	4.07	1.35	1.94	0.83	1.11	10.65
	2013	4.25	2.61	1.31	0.58	1.04	10.77
	2014	4.40	2.77	1.38	0.02	1.03	10.89
	2015	8.63	1.92	1.42	0.03	0.38	11.53
	2016	1.61	1.08	1.18	0.02	0.53	11.55
Fidson Plc	2007	2.62	3.23	1.31	0.02	0.61	11.53
	2008	2.62	2.48	1.92	0.75	0.74	11.57
	2009	4.75	3.68	1.61	0.71	0.86	11.58
	2010	0.78	2.86	1.95	0.69	0.94	11.59
	2011	1.21	2.01	1.78	0.64	0.98	11.60
	2012	2.72	2.06	6.39	0.53	1.69	9.46
	2013	3.98	2.18	7.15	0.77	1.74	9.60
	2014	3.27	2.21	8.05	0.54	1.37	9.90
	2015	2.85	2.28	3.27	0.39	1.66	9.99
	2016	2.86	2.33	4.78	0.28	1.55	10.07
GSK Plc	2007	3.17	3.08	5.71	0.22	1.14	7.52
	2008	4.97	3.27	5.19	0.14	1.19	7.56
	2009	1.12	3.30	2.13	0.25	0.99	10.68
	2010	2.74	1.30	3.82	0.18	0.46	11.21
	2011	6.23	1.33	2.29	0.24	0.80	11.28
	2012	1.39	2.40	3.88	0.67	0.67	11.31
	2013	5.28	3.93	4.05	0.73	0.73	11.37
	2014	1.36	2.04	3.78	0.87	0.58	11.46
	2015	2.72	0.19	5.37	0.88	0.52	11.52
	2016	1.20	1.15	5.75	0.92	0.67	11.57
M&B Nig. Plc	2007	3.55	2.16	1.58	0.70	2.76	6.83
	2008	3.73	2.22	1.13	0.56	2.27	6.93
	2009	1.93	2.29	1.51	0.63	2.08	7.03
	2010	1.64	2.35	1.36	0.77	1.72	7.14
	2011	2.51	2.37	0.62	0.74	1.23	7.29
	2012	1.59	3.33	0.47	0.66	1.31	7.29

	2013	4.18	3.33	0.97	0.27	1.81	7.68
	2014	3.65	3.48	4.89	0.32	0.06	8.22
	2015	4.38	3.52	4.43	0.57	1.01	8.21
	2016	3.80	3.57	3.36	0.24	1.17	8.27
Morison Plc	2007	2.47	3.69	2.49	0.32	0.84	8.27
	2008	1.01	3.78	0.37	0.62	0.83	8.23
	2009	4.02	3.79	2.80	0.36	0.81	11.34
	2010	4.53	3.96	1.47	0.72	0.83	11.41
	2011	5.24	3.96	1.18	0.68	0.81	11.45
	2012	4.44	2.93	4.19	0.54	2.46	7.14
	2013	4.24	2.92	0.63	0.56	2.57	7.14
	2014	2.33	2.95	2.46	0.71	1.22	7.51
	2015	3.13	1.95	0.72	0.64	1.06	7.51
	2016	1.94	2.96	0.36	0.58	1.09	7.56
Pharma-Decko							
Plc	2007	2.32	1.41	0.70	0.53	1.54	7.56
	2008	1.18	1.59	1.50	0.44	0.70	7.99
	2009	4.98	0.64	0.76	0.36	0.74	7.99
	2010	1.97	0.79	1.15	0.36	0.84	8.05
	2011	3.48	1.85	6.82	0.49	0.51	8.82
	2012	6.26	1.08	0.63	0.58	0.84	7.74
	2013	1.47	2.08	0.06	0.64	0.96	11.25
	2014	0.90	2.22	0.32	0.63	0.56	11.23
	2015	4.70	2.11	2.16	0.94	0.95	11.27
	2016	5.51	2.05	0.83	0.85	0.53	11.31
AP Plc	2007	2.10	2.31	19.40	0.47	1.76	9.36
	2008	4.63	2.35	0.23	0.57	1.79	9.41
	2009	4.34	2.39	3.67	0.52	2.10	9.58
	2010	1.65	1.88	2.26	0.71	1.35	9.86
	2011	1.56	1.58	0.98	0.62	1.60	9.91
	2012	4.42	1.35	1.24	0.06	1.25	10.28
	2013	0.71	1.42	1.10	0.06	1.21	10.31
	2014	1.14	1.33	0.69	0.07	1.05	10.40
	2015	2.53	2.58	0.33	0.14	0.66	9.80
	2016	7.18	1.49	1.46	0.32	0.74	9.98
Ashaka Cement	2007	9.02	2.52	0.15	0.44	1.34	10.17
	2008	4.56	1.78	0.95	0.49	6.79	9.83
	2009	4.84	1.95	0.22	0.87	2.03	9.11
	2010	1.46	2.23	8.07	0.96	0.22	10.62
	2011	2.40	0.20	0.53	0.86	0.96	10.64
	2012	3.76	2.25	1.60	0.49	0.62	10.54
	2013	5.04	2.33	1.73	0.81	0.80	10.49

	2014	1.58	2.39	1.65	0.74	1.70	10.23
	2015	5.10	2.46	1.86	0.40	0.71	10.73
	2016	2.57	2.53	2.16	0.32	0.84	10.58
Avon Plc	2007	2.98	0.02	2.29	0.35	0.92	10.58
	2008	3.69	1.03	2.13	0.20	0.62	10.97
	2009	5.38	2.00	0.59	0.04	0.79	11.05
	2010	5.95	1.02	2.30	0.03	0.56	11.53
	2011	6.23	3.01	1.06	0.77	0.77	8.52
	2012	0.56	3.01	1.72	1.28	0.48	11.54
	2013	0.77	2.01	1.40	1.03	0.60	11.56
	2014	2.27	1.02	2.97	0.42	0.70	11.64
	2015	3.74	3.02	1.83	0.73	0.66	11.67
	2016	4.72	2.04	2.08	0.28	3.56	11.71
Berger Paints	2007	5.04	2.02	4.97	0.09	2.53	9.08
	2008	3.40	2.02	1.81	0.02	0.82	9.34
	2009	2.25	2.02	1.74	0.05	0.83	9.42
	2010	4.16	2.02	1.63	0.05	0.83	9.77
	2011	4.58	2.02	1.56	0.05	1.05	9.82
	2012	3.69	1.00	1.89	0.34	1.83	9.87
	2013	6.81	3.00	2.04	0.18	0.70	10.13
	2014	8.87	2.01	2.03	0.17	0.71	10.45
	2015	8.80	2.01	1.67	0.42	4.00	10.76
	2016	7.51	3.02	3.54	0.88	4.07	10.93
Beta Glass Plc	2007	0.28	2.03	1.34	1.04	4.75	10.90
	2008	0.42	3.02	1.88	0.06	1.06	10.98
	2009	1.47	2.03	0.77	0.06	2.03	11.24
	2010	0.17	2.02	1.36	0.04	1.55	11.26
	2011	2.33	3.01	2.59	0.09	0.83	11.35
	2012	0.35	2.02	2.07	1.87	0.71	9.43
	2013	3.04	3.56	2.47	0.07	0.88	9.75
	2014	7.49	0.03	2.19	0.08	0.91	9.80
	2015	2.52	1.02	2.17	0.51	1.61	9.99
	2016	2.60	2.01	2.25	0.08	1.84	10.06
Cement Co. Plc	2007	2.94	1.05	1.63	0.43	1.54	10.18
	2008	4.05	2.03	1.89	0.08	1.72	10.34
	2009	0.60	3.05	1.97	0.00	5.55	10.59
	2010	0.00	2.04	1.90	0.10	5.14	10.75
	2011	0.01	1.17	0.98	0.24	5.73	11.01
	2012	27.84	2.40	0.62	0.29	1.04	10.93
	2013	3.73	3.03	1.53	0.65	1.11	10.95
	2014	3.58	2.03	1.39	0.42	1.20	11.12
	2015	8.00	2.01	1.14	0.12	0.98	11.23

	2016	4.49	3.01	1.86	0.32	5.06	11.28
Cutix Plc	2007	5.75	1.98	2.33	0.03	0.65	9.99
	2008	3.69	1.02	2.27	0.13	1.03	10.06
	2009	6.30	1.01	2.26	0.13	4.46	10.18
	2010	3.83	1.05	2.48	0.67	0.71	10.34
	2011	4.16	1.04	2.32	0.29	0.44	10.59
	2012	5.41	2.01	1.89	0.59	4.43	10.36
	2013	1.00	0.00	2.11	0.47	0.71	10.03
	2014	4.66	1.11	2.01	0.12	4.13	10.39
	2015	0.06	0.04	1.62	0.32	1.27	10.70
	2016	5.86	1.18	1.86	0.34	4.65	10.85
Dangote Cement	2007	3.49	0.05	1.45	0.47	6.82	10.76
	2008	2.46	0.10	2.78	14.96	4.44	10.87
	2009	4.01	2.02	0.30	0.63	2.89	10.85
	2010	1.80	0.02	0.68	0.09	4.30	9.80
	2011	7.09	2.02	0.66	0.25	3.26	9.82
	2012	7.45	1.01	0.69	0.32	1.57	11.08
	2013	8.12	2.07	1.53	0.03	1.17	11.10
	2014	8.86	2.02	1.26	0.12	3.04	10.06
	2015	2.43	2.35	1.23	0.76	1.68	10.37
	2016	3.75	0.01	1.62	0.02	1.53	10.06
First Aluminium	2007	4.74	3.03	1.94	0.15	1.52	10.37
	2008	5.59	0.03	2.02	0.07	1.47	10.06
	2009	5.80	2.02	0.75	1.48	1.44	10.37
	2010	5.49	0.04	0.78	0.07	0.26	11.08
	2011	5.60	0.45	2.45	2.37	0.44	11.10
	2012	4.79	0.74	4.01	0.17	0.40	11.12
	2013	8.61	3.04	2.27	0.23	8.63	10.37
	2014	6.46	1.03	0.81	0.44	1.61	11.08
	2015	7.62	0.03	0.90	0.28	6.26	11.10
	2016	9.30	2.03	1.71	0.10	6.14	11.12
Lafarge Plc	2007	6.63	2.02	0.92	0.41	4.75	10.43
	2008	7.68	1.03	1.64	0.21	0.78	10.46
	2009	9.09	2.01	0.90	0.07	1.21	10.62
	2010	3.46	0.83	6.83	0.18	0.64	10.65
	2011	4.41	0.72	0.98	0.94	3.98	10.65
	2012	4.20	1.61	1.38	0.03	3.27	10.69
	2013	5.46	2.05	1.47	0.09	2.85	10.79
	2014	4.65	2.04	1.81	0.13	2.54	10.90
	2015	4.78	0.98	1.62	0.41	3.17	11.12
	2016	4.75	1.42	1.10	0.21	4.97	11.27
Meyer Plc	2007	6.74	3.42	1.50	0.40	1.12	11.32

2008	2.22	2.03	0.54	0.31	0.82	11.44
2009	1.78	2.32	1.13	0.39	0.58	11.51
2010	3.60	1.79	1.11	0.52	5.39	11.56
2011	9.68	3.26	1.83	0.30	5.28	11.59
2012	8.12	0.62	1.46	0.35	1.36	9.69
2013	6.88	2.73	1.77	0.07	1.37	9.84
2014	5.69	3.62	1.67	0.06	1.20	10.04
2015	2.12	2.53	1.10	0.37	1.20	10.21
2016	6.46	3.52	1.51	0.15	0.73	10.26

Source: Researcher's extract from Annual reports and accounts (various issues), 2017

# **APPENDIX VI**

Operational Data for listed manufacturing co	ompanies in the Johannesburg Stock Exchange
(JSE)	

FIRM	YEAR	SP	BVPS	EPS	DPS	ROE	CF
African Ltd	2007	3.68	2.95	1.56	0.66	2.80	5.66
	2008	11.65	10.45	1.42	0.90	2.16	5.81
	2009	10.53	9.41	1.42	0.89	2.06	5.83
	2010	6.55	5.56	1.42	0.82	0.96	5.84
	2011	1.98	1.54	1.80	0.35	0.60	6.46
	2012	2.47	1.91	1.80	0.48	0.80	5.78
	2013	5.23	4.24	3.54	0.76	1.54	6.67
	2014	4.85	3.91	3.54	0.74	1.72	6.71
	2015	3.26	2.52	3.54	0.60	1.80	6.93
	2016	0.01	0.60	4.44	0.67	0.85	5.25
Arcelomittal Ltd	2007	1.19	1.08	1.80	0.08	0.73	5.94
	2008	3.20	2.47	3.54	0.60	1.80	6.66
	2009	4.72	3.80	3.13	0.74	1.79	6.72
	2010	0.85	0.91	3.41	0.10	2.15	6.58
	2011	6.22	5.27	3.12	0.81	2.86	6.92
	2012	4.22	3.34	1.12	0.70	0.91	6.00
	2013	4.73	3.65	1.34	0.73	0.89	6.06
	2014	7.84	6.38	2.09	0.84	1.57	6.03
	2015	5.46	4.16	1.93	0.76	1.71	6.09
	2016	5.36	4.18	0.44	0.76	1.15	6.16
Ascendis Ltd	2007	3.46	2.56	1.98	0.61	0.80	6.14
	2008	6.12	4.89	0.09	0.80	0.08	6.38
	2009	2.24	1.72	0.80	0.42	1.71	5.81
	2010	1.45	1.20	1.08	0.16	0.65	6.27
	2011	1.47	1.20	1.08	0.16	0.58	6.27
	2012	3.19	2.45	1.04	0.59	0.53	6.29
	2013	3.60	2.87	1.14	0.65	0.76	6.30
	2014	6.66	5.69	1.55	0.82	0.77	6.37
	2015	1.89	1.44	1.34	0.30	0.76	6.72
	2016	2.24	1.64	1.15	0.39	0.64	6.87
Aspen Ltd	2007	2.31	1.73	3.36	0.42	0.57	5.59
	2008	1.73	0.68	9.63	2.48	0.36	5.78
	2009	3.27	2.47	10.53	0.59	1.40	4.66
	2010	6.47	5.30	6.48	0.81	1.92	5.46
	2011	4.73	3.65	2.19	0.73	0.89	6.06
	2012	6.62	5.66	2.61	0.82	1.00	5.60
	2013	12.95	11.83	2.01	0.92	1.00	6.07

	2014	5.49	4.49	2.84	0.78	0.58	6.13
	2015	2.99	2.35	0.86	0.57	0.28	5.74
	2016	2.89	2.22	0.87	0.55	0.35	5.16
Astral Foods	2007	2.56	1.95	1.23	0.49	0.32	7.07
	2008	5.57	0.21	1.14	5.79	0.42	6.86
	2009	2.41	1.83	1.19	0.45	0.44	6.43
	2010	3.79	2.94	1.14	0.66	0.36	6.63
	2011	4.04	3.14	1.16	0.68	0.40	6.62
	2012	5.41	4.49	0.20	0.78	0.42	5.98
	2013	3.95	3.10	0.38	0.68	0.47	5.97
	2014	4.22	3.34	0.23	0.70	0.91	6.00
	2015	5.41	4.45	0.34	0.78	0.91	6.06
	2016	5.49	4.49	0.33	0.78	0.58	6.08
BAT Plc	2007	5.62	4.56	0.40	0.78	0.71	6.21
	2008	7.46	6.26	0.41	0.84	1.62	6.29
	2009	2.19	1.72	2.44	0.42	0.45	6.81
	2010	2.71	2.13	0.75	0.53	0.39	6.55
	2011	9.09	7.95	1.26	0.87	0.55	6.66
	2012	3.10	2.39	1.23	0.58	0.33	6.16
	2013	2.45	1.87	1.21	0.47	0.43	6.46
	2014	4.78	3.82	1.40	0.74	0.58	6.03
	2015	4.57	3.63	1.31	0.72	0.58	6.46
	2016	8.04	6.85	1.19	0.85	0.88	6.48
Buildmax Ltd	2007	4.64	3.79	1.95	0.74	0.60	5.36
	2008	1.73	0.69	0.96	2.45	0.88	5.44
	2009	1.54	0.74	1.51	2.34	0.85	6.62
	2010	9.90	8.61	0.28	0.88	2.50	5.75
	2011	1.58	0.74	0.95	2.35	1.12	6.25
	2012	6.50	5.41	1.35	0.82	0.95	6.16
	2013	3.82	3.05	1.34	0.67	1.10	6.17
	2014	3.88	3.06	0.77	0.67	0.63	6.43
	2015	1.01	0.97	0.85	0.03	1.02	5.78
	2016	2.94	2.23	1.47	0.55	0.78	6.36
CAFCA Ltd	2007	3.40	2.58	2.29	0.61	0.85	6.35
	2008	3.10	2.26	3.17	0.56	0.89	5.98
	2009	0.31	0.68	1.19	0.47	1.18	5.99
	2010	3.62	2.74	3.65	0.64	0.83	6.50
	2011	1.88	1.45	3.58	0.31	0.99	6.30
	2012	1.73	0.68	1.13	2.48	0.36	5.78
	2013	6.48	5.24	3.82	0.81	1.15	5.77
	2014	5.23	4.30	3.12	0.77	1.33	5.85
	2015	5.53	4.63	0.89	0.78	0.48	6.20

	2016	5.32	4.38	1.39	0.77	0.73	6.22
Chrometco Ltd	2007	1.54	0.74	1.51	2.34	0.85	6.62
	2008	2.61	1.99	1.17	0.50	0.26	5.67
	2009	3.26	2.53	0.92	0.60	0.33	6.17
	2010	11.70	0.08	1.01	11.79	0.69	5.90
	2011	6.30	5.00	1.07	0.80	0.70	6.06
	2012	0.47	1.85	1.05	1.54	0.56	5.84
	2013	1.37	1.14	1.03	0.12	0.53	7.38
	2014	2.88	2.26	1.66	0.56	0.14	6.04
	2015	1.02	0.99	1.61	0.56	0.10	6.50
	2016	1.03	1.00	1.59	0.06	0.13	6.49
Diamondcorp Plc	2007	9.88	8.14	1.21	0.88	1.41	6.16
	2008	4.64	3.79	0.90	0.74	0.60	5.59
	2009	6.48	5.24	2.93	0.81	1.15	5.77
	2010	5.23	4.30	1.92	0.77	1.33	5.85
	2011	7.34	6.15	0.56	0.84	1.58	6.31
	2012	7.52	6.52	1.32	0.85	0.51	6.35
	2013	19.25	18.05	2.96	0.94	0.46	6.82
	2014	14.47	13.40	1.38	0.93	0.23	6.84
	2015	5.66	4.74	3.15	0.79	0.49	6.90
	2016	12.24	10.91	1.33	0.91	1.05	6.33
Dis-Chem Ltd	2007	9.12	7.98	1.23	0.87	0.58	6.60
	2008	4.41	3.57	1.03	0.72	0.85	6.54
	2009	1.68	2.89	2.20	1.35	1.82	7.02
	2010	2.40	1.85	1.82	0.46	1.61	5.89
	2011	3.95	3.12	1.73	0.68	1.95	5.95
	2012	4.72	3.63	1.61	0.72	1.76	5.70
	2013	2.27	1.72	1.46	0.42	1.73	5.23
	2014	5.89	4.79	1.26	0.79	2.26	5.42
	2015	7.34	6.12	1.46	0.84	2.37	5.76
	2016	2.91	2.23	2.59	0.55	1.08	5.79
Imbalie Ltd	2007	1.27	1.11	2.64	0.10	1.33	4.24
	2008	3.41	2.56	1.12	0.61	2.31	5.11
	2009	5.65	4.68	0.71	0.79	0.65	6.36
	2010	6.24	5.23	3.16	0.81	0.99	6.43
	2011	6.21	5.12	3.14	0.80	1.05	6.64
	2012	6.90	5.82	2.29	0.83	1.10	6.72
	2013	6.36	5.29	1.93	0.81	1.20	6.87
	2014	2.48	1.88	2.99	0.47	2.14	6.51
	2015	2.17	1.68	2.76	0.40	1.76	6.40
	2016	3.98	3.02	2.19	0.67	1.60	6.92
Jubilee Plc	2007	6.28	5.31	0.13	0.81	0.42	5.48

	2008	2.78	2.17	0.36	0.54	0.42	5.54
	2009	6.11	5.11	0.38	0.80	1.07	5.61
	2010	7.27	6.24	0.40	0.84	1.51	5.63
	2011	12.55	11.48	0.43	0.91	0.98	5.80
	2012	11.23	10.11	0.39	0.90	1.12	5.81
	2013	2.88	2.25	0.71	0.56	0.30	6.15
	2014	2.12	1.64	0.28	0.39	0.24	6.18
	2015	2.16	1.68	6.92	0.40	0.24	5.23
	2016	6.76	0.17	2.04	6.94	3.40	6.74
Kaap Agri Ltd	2007	3.22	2.51	3.20	0.60	1.64	5.33
	2008	3.47	2.70	3.34	0.63	1.87	5.39
	2009	2.10	1.60	2.07	0.37	1.21	5.81
	2010	2.89	2.10	1.86	0.52	1.30	6.25
	2011	2.50	1.88	1.85	0.47	1.33	6.20
	2012	1.73	1.36	0.29	0.26	0.51	6.40
	2013	9.88	8.14	0.32	0.88	1.41	6.16
	2014	6.22	5.06	0.29	0.80	1.40	5.82
	2015	9.11	7.82	0.53	0.87	1.12	6.37
	2016	9.96	8.70	0.36	0.89	0.76	6.69
Lonmin Plc	2007	5.67	4.64	0.32	0.78	0.89	6.81
	2008	6.93	5.86	0.66	0.83	0.43	6.95
	2009	4.84	3.90	1.63	0.74	0.48	7.12
	2010	4.38	3.48	0.55	0.71	0.35	7.06
	2011	3.90	3.06	1.98	0.67	0.38	7.03
	2012	4.19	3.33	1.81	0.70	0.39	6.99
	2013	4.49	3.55	1.81	0.72	0.90	6.70
	2014	3.35	2.63	5.80	0.62	1.24	7.05
	2015	0.32	1.37	0.87	1.73	0.19	6.26
	2016	0.56	0.79	5.08	0.26	0.96	6.21
Miranda Ltd	2007	2.07	3.28	0.77	1.31	0.34	7.05
	2008	6.11	5.11	0.38	0.80	1.07	5.61
	2009	19.25	18.05	0.24	0.94	0.46	6.82
	2010	4.13	3.20	0.78	0.69	1.62	5.81
	2011	3.78	2.85	0.47	0.65	1.47	5.96
	2012	5.51	4.39	0.30	0.77	0.76	6.17
	2013	8.11	6.85	0.45	0.85	1.02	6.25
	2014	4.36	3.49	0.24	0.71	0.33	6.34
	2015	5.18	4.34	0.95	0.77	0.13	6.95
	2016	15.02	0.99	1.33	0.01	0.20	7.49
Mondi Plc	2007	4.82	3.90	2.75	0.74	0.50	7.64
	2008	5.55	4.57	2.84	0.78	0.62	5.63
	2009	1.59	0.73	4.48	2.36	1.10	7.07

	2010	1.95	1.51	4.61	0.34	0.80	6.67
	2011	2.29	3.35	4.00	1.30	1.27	7.23
	2012	3.41	2.56	1.12	0.61	2.31	5.11
	2013	9.00	7.67	0.73	0.87	1.93	6.00
	2014	4.76	3.77	2.67	0.73	0.53	5.87
	2015	6.17	5.13	6.66	0.81	1.05	6.09
	2016	1.10	1.03	5.75	0.03	0.95	6.24
Pan African Plc	2007	0.90	0.93	5.07	0.07	1.05	6.36
	2008	4.48	3.66	2.73	0.73	0.29	6.36
	2009	4.53	3.70	2.58	0.73	0.36	6.66
	2010	1.06	2.40	2.58	1.42	0.28	6.42
	2011	0.68	2.07	1.25	1.48	0.34	6.72
	2012	2.08	3.28	1.83	1.31	0.34	7.05
	2013	0.32	1.37	2.08	1.73	0.19	6.26
	2014	1.30	2.63	1.91	1.38	0.12	6.90
	2015	9.88	8.14	1.21	0.88	1.41	6.16
	2016	2.92	2.23	2.59	0.55	1.08	5.79
RCL Foods Ltd	2007	6.22	5.06	0.29	0.80	1.40	5.82
	2008	5.49	4.49	2.84	0.78	0.58	6.13
	2009	6.50	5.41	1.35	0.82	0.95	6.16
	2010	2.99	2.35	0.86	0.57	0.28	5.74
	2011	7.52	6.52	1.32	0.85	0.51	6.35
	2012	7.27	6.24	4.43	0.84	1.51	5.63
	2013	6.93	5.86	3.42	0.83	0.43	6.95
	2014	3.10	2.39	1.23	0.58	0.33	6.16
	2015	6.55	5.56	1.42	0.82	0.96	5.84
	2016	11.23	10.11	3.78	0.90	1.12	5.81
Rhodes Food Ltd	2007	5.18	4.34	0.95	0.77	0.13	6.95
	2008	3.85	3.01	1.04	0.67	0.42	6.61
	2009	3.09	2.41	1.01	0.58	0.29	6.57
	2010	6.01	0.14	2.26	6.16	0.16	6.22
	2011	4.60	3.76	2.29	0.73	0.28	6.37
	2012	9.88	5.80	2.09	0.88	1.41	6.16
	2013	3.54	7.25	2.64	0.59	0.71	5.15
	2014	4.20	9.99	1.88	0.66	0.68	5.24
	2015	4.03	7.34	0.46	0.65	0.65	5.32
	2016	3.87	6.12	1.18	0.63	0.64	5.34
Santova Limited	2007	3.72	7.55	1.59	0.62	0.70	5.38
	2008	4.67	5.16	1.02	0.64	0.48	5.39
	2009	5.07	0.59	1.30	0.64	0.58	5.41
	2010	10.18	2.98	1.73	0.89	1.74	6.77
	2011	2.11	9.11	2.07	0.37	1.21	5.81
			1	72			

	2012	4.40	6.73	1.56	0.69	3.09	5.57
	2013	5.25	4.56	0.75	0.76	1.38	6.07
	2014	2.12	0.60	1.11	0.39	1.05	5.80
	2015	4.86	4.47	3.36	0.97	5.06	6.05
	2016	4.08	5.29	1.28	0.69	6.04	5.87
Steinhoff Ltd	2007	8.50	6.68	0.60	0.83	3.91	5.40
	2008	8.73	2.13	0.72	0.86	8.23	5.60
	2009	8.85	4.79	2.43	0.90	5.07	6.17
	2010	8.73	8.31	3.41	0.86	3.46	6.11
	2011	8.80	8.33	1.25	0.84	5.19	6.30
	2012	8.92	5.06	0.78	0.87	2.45	5.80
	2013	7.27	4.49	0.10	1.19	2.87	7.21
	2014	7.86	4.93	0.09	0.70	7.19	5.90
	2015	8.77	5.24	0.11	0.66	10.71	6.37
	2016	9.20	5.05	1.49	0.89	9.72	7.40
Tawana Ltd	2007	9.14	3.77	1.42	0.85	1.76	7.38
	2008	8.77	5.41	1.12	0.78	2.76	6.96
	2009	9.14	3.20	4.62	0.67	5.62	7.00
	2010	9.19	4.69	3.02	0.78	4.17	5.88
	2011	9.33	2.22	1.93	0.81	1.20	6.87
	2012	8.29	8.14	0.84	0.85	0.63	5.63
	2013	7.70	2.46	1.82	0.53	2.09	5.38
	2014	8.16	2.95	1.26	0.79	2.26	5.42
	2015	8.45	2.88	1.57	0.88	0.82	5.14
	2016	8.54	2.72	1.15	0.88	0.62	5.33
Tiger Brands Ltd	2007	8.48	2.65	2.38	0.80	1.40	5.82
	2008	8.61	2.76	2.84	0.78	0.58	6.13
	2009	8.66	2.80	3.76	0.80	2.90	5.46
	2010	8.57	9.15	8.19	0.81	0.99	5.98
	2011	8.68	1.60	1.71	0.80	1.16	6.11
	2012	8.71	3.18	2.67	0.73	0.53	5.87
	2013	8.71	4.18	1.35	0.82	0.95	6.16
	2014	8.49	1.65	0.78	0.69	1.62	5.81
	2015	8.82	3.52	1.05	0.79	0.93	5.22
	2016	8.52	3.22	5.45	0.55	0.78	5.13

Source: Researcher's extract from Annual reports and accounts (various issues), 2017

# **APPENDIX VII**

**Operational Data for listed manufacturing companies in both Nigerian Stock Exchange** (NSE) and Johannesburg Stock Exchange (JSE)

FIRM	YEAR	SP	BVPS	EPS	DPS	ROE	CF
African Ltd	2007	3.68	2.95	1.56	0.66	2.80	5.66
	2008	11.65	10.45	1.42	0.90	2.16	5.81
	2009	10.53	9.41	1.42	0.89	2.06	5.83
	2010	6.55	5.56	1.42	0.82	0.96	5.84
	2011	1.98	1.54	1.80	0.35	0.60	6.46
	2012	2.47	1.91	1.80	0.48	0.80	5.78
	2013	5.23	4.24	3.54	0.76	1.54	6.67
	2014	4.85	3.91	3.54	0.74	1.72	6.71
	2015	3.26	2.52	3.54	0.60	1.80	6.93
	2016	0.01	0.60	4.44	0.67	0.85	5.25
Arcelomittal Ltd	2007	1.19	1.08	1.80	0.08	0.73	5.94
	2008	3.20	2.47	3.54	0.60	1.80	6.66
	2009	4.72	3.80	3.13	0.74	1.79	6.72
	2010	0.85	0.91	3.41	0.10	2.15	6.58
	2011	6.22	5.27	3.12	0.81	2.86	6.92
	2012	4.22	3.34	1.12	0.70	0.91	6.00
	2013	4.73	3.65	1.34	0.73	0.89	6.06
	2014	7.84	6.38	2.09	0.84	1.57	6.03
	2015	5.46	4.16	1.93	0.76	1.71	6.09
	2016	5.36	4.18	0.44	0.76	1.15	6.16
Ascendis Ltd	2007	3.46	2.56	1.98	0.61	0.80	6.14
	2008	6.12	4.89	0.09	0.80	0.08	6.38
	2009	2.24	1.72	0.80	0.42	1.71	5.81
	2010	1.45	1.20	1.08	0.16	0.65	6.27
	2011	1.47	1.20	1.08	0.16	0.58	6.27
	2012	3.19	2.45	1.04	0.59	0.53	6.29
	2013	3.60	2.87	1.14	0.65	0.76	6.30
	2014	6.66	5.69	1.55	0.82	0.77	6.37
	2015	1.89	1.44	1.34	0.30	0.76	6.72
	2016	2.24	1.64	1.15	0.39	0.64	6.87
Aspen Ltd	2007	2.31	1.73	3.36	0.42	0.57	5.59
	2008	1.73	0.68	9.63	2.48	0.36	5.78
	2009	3.27	2.47	10.53	0.59	1.40	4.66
	2010	6.47	5.30	6.48	0.81	1.92	5.46
	2011	4.73	3.65	2.19	0.73	0.89	6.06
	2012	6.62	5.66	2.61	0.82	1.00	5.60

	2013	12.95	11.83	2.01	0.92	1.00	6.07
	2014	5.49	4.49	2.84	0.78	0.58	6.13
	2015	2.99	2.35	0.86	0.57	0.28	5.74
	2016	2.89	2.22	0.87	0.55	0.35	5.16
Astral Foods	2007	2.56	1.95	1.23	0.49	0.32	7.07
	2008	5.57	0.21	1.14	5.79	0.42	6.86
	2009	2.41	1.83	1.19	0.45	0.44	6.43
	2010	3.79	2.94	1.14	0.66	0.36	6.63
	2011	4.04	3.14	1.16	0.68	0.40	6.62
	2012	5.41	4.49	0.20	0.78	0.42	5.98
	2013	3.95	3.10	0.38	0.68	0.47	5.97
	2014	4.22	3.34	0.23	0.70	0.91	6.00
	2015	5.41	4.45	0.34	0.78	0.91	6.06
	2016	5.49	4.49	0.33	0.78	0.58	6.08
BAT Plc	2007	5.62	4.56	0.40	0.78	0.71	6.21
	2008	7.46	6.26	0.41	0.84	1.62	6.29
	2009	2.19	1.72	2.44	0.42	0.45	6.81
	2010	2.71	2.13	0.75	0.53	0.39	6.55
	2011	9.09	7.95	1.26	0.87	0.55	6.66
	2012	3.10	2.39	1.23	0.58	0.33	6.16
	2013	2.45	1.87	1.21	0.47	0.43	6.46
	2014	4.78	3.82	1.40	0.74	0.58	6.03
	2015	4.57	3.63	1.31	0.72	0.58	6.46
	2016	8.04	6.85	1.19	0.85	0.88	6.48
Buildmax Ltd	2007	4.64	3.79	1.95	0.74	0.60	5.36
	2008	1.73	0.69	0.96	2.45	0.88	5.44
	2009	1.54	0.74	1.51	2.34	0.85	6.62
	2010	9.90	8.61	0.28	0.88	2.50	5.75
	2011	1.58	0.74	0.95	2.35	1.12	6.25
	2012	6.50	5.41	1.35	0.82	0.95	6.16
	2013	3.82	3.05	1.34	0.67	1.10	6.17
	2014	3.88	3.06	0.77	0.67	0.63	6.43
	2015	1.01	0.97	0.85	0.03	1.02	5.78
	2016	2.94	2.23	1.47	0.55	0.78	6.36
CAFCA Ltd	2007	3.40	2.58	2.29	0.61	0.85	6.35
	2008	3.10	2.26	3.17	0.56	0.89	5.98
	2009	0.31	0.68	1.19	0.47	1.18	5.99
	2010	3.62	2.74	3.65	0.64	0.83	6.50
	2011	1.88	1.45	3.58	0.31	0.99	6.30
	2012	1.73	0.68	1.13	2.48	0.36	5.78
	2013	6.48	5.24	3.82	0.81	1.15	5.77
	2014	5.23	4.30	3.12	0.77	1.33	5.85

	2015	5.53	4.63	0.89	0.78	0.48	6.20
	2016	5.32	4.38	1.39	0.77	0.73	6.22
Chrometco Ltd	2007	1.54	0.74	1.51	2.34	0.85	6.62
	2008	2.61	1.99	1.17	0.50	0.26	5.67
	2009	3.26	2.53	0.92	0.60	0.33	6.17
	2010	11.70	0.08	1.01	11.79	0.69	5.90
	2011	6.30	5.00	1.07	0.80	0.70	6.06
	2012	0.47	1.85	1.05	1.54	0.56	5.84
	2013	1.37	1.14	1.03	0.12	0.53	7.38
	2014	2.88	2.26	1.66	0.56	0.14	6.04
	2015	1.02	0.99	1.61	0.56	0.10	6.50
	2016	1.03	1.00	1.59	0.06	0.13	6.49
Diamondcorp Plc	2007	9.88	8.14	1.21	0.88	1.41	6.16
	2008	4.64	3.79	0.90	0.74	0.60	5.59
	2009	6.48	5.24	2.93	0.81	1.15	5.77
	2010	5.23	4.30	1.92	0.77	1.33	5.85
	2011	7.34	6.15	0.56	0.84	1.58	6.31
	2012	7.52	6.52	1.32	0.85	0.51	6.35
	2013	19.25	18.05	2.96	0.94	0.46	6.82
	2014	14.47	13.40	1.38	0.93	0.23	6.84
	2015	5.66	4.74	3.15	0.79	0.49	6.90
	2016	12.24	10.91	1.33	0.91	1.05	6.33
Dis-Chem Ltd	2007	9.12	7.98	1.23	0.87	0.58	6.60
	2008	4.41	3.57	1.03	0.72	0.85	6.54
	2009	1.68	2.89	2.20	1.35	1.82	7.02
	2010	2.40	1.85	1.82	0.46	1.61	5.89
	2011	3.95	3.12	1.73	0.68	1.95	5.95
	2012	4.72	3.63	1.61	0.72	1.76	5.70
	2013	2.27	1.72	1.46	0.42	1.73	5.23
	2014	5.89	4.79	1.26	0.79	2.26	5.42
	2015	7.34	6.12	1.46	0.84	2.37	5.76
	2016	2.91	2.23	2.59	0.55	1.08	5.79
Imbalie Ltd	2007	1.27	1.11	2.64	0.10	1.33	4.24
	2008	3.41	2.56	1.12	0.61	2.31	5.11
	2009	5.65	4.68	0.71	0.79	0.65	6.36
	2010	6.24	5.23	3.16	0.81	0.99	6.43
	2011	6.21	5.12	3.14	0.80	1.05	6.64
	2012	6.90	5.82	2.29	0.83	1.10	6.72
	2013	6.36	5.29	1.93	0.81	1.20	6.87
	2014	2.48	1.88	2.99	0.47	2.14	6.51
	2015	2.17	1.68	2.76	0.40	1.76	6.40
	2016	3.98	3.02	2.19	0.67	1.60	6.92

Jubilee Plc	2007	6.28	5.31	0.13	0.81	0.42	5.48
	2008	2.78	2.17	0.36	0.54	0.42	5.54
	2009	6.11	5.11	0.38	0.80	1.07	5.61
	2010	7.27	6.24	0.40	0.84	1.51	5.63
	2011	12.55	11.48	0.43	0.91	0.98	5.80
	2012	11.23	10.11	0.39	0.90	1.12	5.81
	2013	2.88	2.25	0.71	0.56	0.30	6.15
	2014	2.12	1.64	0.28	0.39	0.24	6.18
	2015	2.16	1.68	6.92	0.40	0.24	5.23
	2016	6.76	0.17	2.04	6.94	3.40	6.74
Kaap Agri Ltd	2007	3.22	2.51	3.20	0.60	1.64	5.33
	2008	3.47	2.70	3.34	0.63	1.87	5.39
	2009	2.10	1.60	2.07	0.37	1.21	5.81
	2010	2.89	2.10	1.86	0.52	1.30	6.25
	2011	2.50	1.88	1.85	0.47	1.33	6.20
	2012	1.73	1.36	0.29	0.26	0.51	6.40
	2013	9.88	8.14	0.32	0.88	1.41	6.16
	2014	6.22	5.06	0.29	0.80	1.40	5.82
	2015	9.11	7.82	0.53	0.87	1.12	6.37
	2016	9.96	8.70	0.36	0.89	0.76	6.69
Lonmin Plc	2007	5.67	4.64	0.32	0.78	0.89	6.81
	2008	6.93	5.86	0.66	0.83	0.43	6.95
	2009	4.84	3.90	1.63	0.74	0.48	7.12
	2010	4.38	3.48	0.55	0.71	0.35	7.06
	2011	3.90	3.06	1.98	0.67	0.38	7.03
	2012	4.19	3.33	1.81	0.70	0.39	6.99
	2013	4.49	3.55	1.81	0.72	0.90	6.70
	2014	3.35	2.63	5.80	0.62	1.24	7.05
	2015	0.32	1.37	0.87	1.73	0.19	6.26
	2016	0.56	0.79	5.08	0.26	0.96	6.21
Miranda Ltd	2007	2.07	3.28	0.77	1.31	0.34	7.05
	2008	6.11	5.11	0.38	0.80	1.07	5.61
	2009	19.25	18.05	0.24	0.94	0.46	6.82
	2010	4.13	3.20	0.78	0.69	1.62	5.81
	2011	3.78	2.85	0.47	0.65	1.47	5.96
	2012	5.51	4.39	0.30	0.77	0.76	6.17
	2013	8.11	6.85	0.45	0.85	1.02	6.25
	2014	4.36	3.49	0.24	0.71	0.33	6.34
	2015	5.18	4.34	0.95	0.77	0.13	6.95
	2016	15.02	0.99	1.33	0.01	0.20	7.49
Mondi Plc	2007	4.82	3.90	2.75	0.74	0.50	7.64
	2008	5.55	4.57	2.84	0.78	0.62	5.63

	2009	1.59	0.73	4.48	2.36	1.10	7.07
	2010	1.95	1.51	4.61	0.34	0.80	6.67
	2011	2.29	3.35	4.00	1.30	1.27	7.23
	2012	3.41	2.56	1.12	0.61	2.31	5.11
	2013	9.00	7.67	0.73	0.87	1.93	6.00
	2014	4.76	3.77	2.67	0.73	0.53	5.87
	2015	6.17	5.13	6.66	0.81	1.05	6.09
	2016	1.10	1.03	5.75	0.03	0.95	6.24
Pan African Plc	2007	0.90	0.93	5.07	0.07	1.05	6.36
	2008	4.48	3.66	2.73	0.73	0.29	6.36
	2009	4.53	3.70	2.58	0.73	0.36	6.66
	2010	1.06	2.40	2.58	1.42	0.28	6.42
	2011	0.68	2.07	1.25	1.48	0.34	6.72
	2012	2.08	3.28	1.83	1.31	0.34	7.05
	2013	0.32	1.37	2.08	1.73	0.19	6.26
	2014	1.30	2.63	1.91	1.38	0.12	6.90
	2015	9.88	8.14	1.21	0.88	1.41	6.16
	2016	2.92	2.23	2.59	0.55	1.08	5.79
RCL Foods Ltd	2007	6.22	5.06	0.29	0.80	1.40	5.82
	2008	5.49	4.49	2.84	0.78	0.58	6.13
	2009	6.50	5.41	1.35	0.82	0.95	6.16
	2010	2.99	2.35	0.86	0.57	0.28	5.74
	2011	7.52	6.52	1.32	0.85	0.51	6.35
	2012	7.27	6.24	4.43	0.84	1.51	5.63
	2013	6.93	5.86	3.42	0.83	0.43	6.95
	2014	3.10	2.39	1.23	0.58	0.33	6.16
	2015	6.55	5.56	1.42	0.82	0.96	5.84
	2016	11.23	10.11	3.78	0.90	1.12	5.81
Rhodes Food Ltd	2007	5.18	4.34	0.95	0.77	0.13	6.95
	2008	3.85	3.01	1.04	0.67	0.42	6.61
	2009	3.09	2.41	1.01	0.58	0.29	6.57
	2010	6.01	0.14	2.26	6.16	0.16	6.22
	2011	4.60	3.76	2.29	0.73	0.28	6.37
	2012	9.88	5.80	2.09	0.88	1.41	6.16
	2013	3.54	7.25	2.64	0.59	0.71	5.15
	2014	4.20	9.99	1.88	0.66	0.68	5.24
	2015	4.03	7.34	0.46	0.65	0.65	5.32
	2016	3.87	6.12	1.18	0.63	0.64	5.34
Santova Limited	2007	3.72	7.55	1.59	0.62	0.70	5.38
	2008	4.67	5.16	1.02	0.64	0.48	5.39
	2009	5.07	0.59	1.30	0.64	0.58	5.41
	2010	10.18	2.98	1.73	0.89	1.74	6.77

	2011	2.11	9.11	2.07	0.37	1.21	5.81
	2012	4.40	6.73	1.56	0.69	3.09	5.57
	2013	5.25	4.56	0.75	0.76	1.38	6.07
	2014	2.12	0.60	1.11	0.39	1.05	5.80
	2015	4.86	4.47	3.36	0.97	5.06	6.05
	2016	4.08	5.29	1.28	0.69	6.04	5.87
Steinhoff Ltd	2007	8.50	6.68	0.60	0.83	3.91	5.40
	2008	8.73	2.13	0.72	0.86	8.23	5.60
	2009	8.85	4.79	2.43	0.90	5.07	6.17
	2010	8.73	8.31	3.41	0.86	3.46	6.11
	2011	8.80	8.33	1.25	0.84	5.19	6.30
	2012	8.92	5.06	0.78	0.87	2.45	5.80
	2013	7.27	4.49	0.10	1.19	2.87	7.21
	2014	7.86	4.93	0.09	0.70	7.19	5.90
	2015	8.77	5.24	0.11	0.66	10.71	6.37
	2016	9.20	5.05	1.49	0.89	9.72	7.40
Tawana Ltd	2007	9.14	3.77	1.42	0.85	1.76	7.38
	2008	8.77	5.41	1.12	0.78	2.76	6.96
	2009	9.14	3.20	4.62	0.67	5.62	7.00
	2010	9.19	4.69	3.02	0.78	4.17	5.88
	2011	9.33	2.22	1.93	0.81	1.20	6.87
	2012	8.29	8.14	0.84	0.85	0.63	5.63
	2013	7.70	2.46	1.82	0.53	2.09	5.38
	2014	8.16	2.95	1.26	0.79	2.26	5.42
	2015	8.45	2.88	1.57	0.88	0.82	5.14
	2016	8.54	2.72	1.15	0.88	0.62	5.33
Tiger Brands Ltd	2007	8.48	2.65	2.38	0.80	1.40	5.82
	2008	8.61	2.76	2.84	0.78	0.58	6.13
	2009	8.66	2.80	3.76	0.80	2.90	5.46
	2010	8.57	9.15	8.19	0.81	0.99	5.98
	2011	8.68	1.60	1.71	0.80	1.16	6.11
	2012	8.71	3.18	2.67	0.73	0.53	5.87
	2013	8.71	4.18	1.35	0.82	0.95	6.16
	2014	8.49	1.65	0.78	0.69	1.62	5.81
	2015	8.82	3.52	1.05	0.79	0.93	5.22
	2016	8.52	3.22	5.45	0.55	0.78	5.13
FTN Plc	2007	4.12	2.43	2.53	1.21	2.75	8.22
	2008	3.42	1.65	2.75	0.16	1.21	8.43
	2009	1.94	1.23	1.82	0.64	2.23	7.25
	2010	2.95	2.39	3.20	0.55	1.23	8.75
	2011	5.11	2.93	4.26	0.43	0.11	8.81
	2012	5.87	1.22	7.33	0.36	0.11	8.88

	2013	4.40	1.94	7.44	0.78	0.77	9.05
	2014	4.13	7.90	7.58	1.09	0.85	9.91
	2015	0.90	9.60	7.73	1.06	1.06	10.28
	2016	0.84	7.21	7.78	0.47	0.13	10.45
Livestock Plc	2007	0.85	4.17	7.78	0.07	1.11	10.25
	2008	0.83	1.56	7.88	0.22	0.10	10.20
	2009	1.16	2.99	7.78	0.75	3.11	10.56
	2010	1.11	3.70	7.87	0.06	0.11	10.50
	2011	0.99	2.47	7.91	0.23	2.11	10.66
	2012	4.76	5.63	6.60	3.93	0.16	6.74
	2013	5.04	9.66	6.81	1.18	4.13	7.65
	2014	5.51	4.62	6.81	2.96	0.06	8.97
	2015	0.77	3.98	6.94	1.56	1.08	9.06
	2016	0.68	4.12	7.05	1.49	3.10	9.41
Chellarams Plc	2007	0.68	1.68	7.19	1.76	2.12	9.55
	2008	3.56	1.60	7.13	0.43	2.10	9.72
	2009	2.53	1.86	7.23	0.77	2.12	9.94
	2010	0.82	1.86	7.35	0.92	2.94	10.18
	2011	0.83	2.18	7.53	0.80	2.16	9.92
	2012	0.83	3.64	7.51	0.10	3.16	9.98
	2013	1.05	2.25	7.52	0.04	2.12	7.44
	2014	1.83	1.97	7.65	0.34	3.12	10.45
	2015	0.70	1.55	7.64	0.24	3.40	10.52
	2016	0.71	1.96	7.62	0.14	2.11	10.39
John Holt Plc	2007	4.00	3.29	6.98	0.73	1.08	9.78
	2008	4.07	2.78	7.00	2.13	2.10	9.56
	2009	4.75	4.65	7.08	1.87	0.13	9.74
	2010	1.06	3.97	7.12	1.82	0.22	9.60
	2011	2.03	4.13	7.44	3.04	0.86	9.89
	2012	1.55	4.00	7.23	2.08	1.39	9.81
	2013	0.83	2.32	6.90	0.77	0.10	9.56
	2014	0.71	1.73	7.07	1.28	2.39	9.87
	2015	0.88	2.18	7.33	1.03	1.11	9.67
	2016	0.91	1.88	7.50	0.42	0.14	9.60
SCOA Nig Plc	2007	1.61	0.76	7.45	0.73	1.11	9.88
	2008	1.84	0.85	7.62	0.28	0.13	10.14
	2009	1.54	8.29	7.74	0.09	0.13	9.60
	2010	1.72	0.21	7.92	0.02	2.81	9.78
	2011	5.55	7.79	6.72	0.05	2.05	9.74
	2012	5.14	2.69	7.75	0.05	0.13	10.07
	2013	5.73	2.47	7.98	0.05	0.12	9.65
	2014	1.04	2.76	6.90	0.34	1.10	10.11
	2015	1.11	1.65	7.36	0.18	0.11	9.95
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	2016	1.20	2.68	7.00	0.17	1.10	10.31
7-Up Co. Plc	2007	0.98	1.19	7.32	0.42	0.11	10.00
	2008	5.06	2.26	7.00	0.88	1.10	10.06
	2009	0.65	1.17	7.23	1.04	0.11	9.64
	2010	1.03	2.80	8.07	0.06	0.13	10.35
	2011	4.46	1.90	8.10	0.06	0.12	9.96
	2012	0.71	2.15	7.53	0.04	0.11	10.19
	2013	0.44	0.98	6.88	0.09	0.11	10.17
	2014	4.43	2.40	7.53	1.87	0.13	10.33
	2015	0.71	1.79	7.56	0.07	0.12	9.96
	2016	4.13	1.97	7.59	0.08	0.11	10.19
Cadbury Nig. Plc	2007	1.27	1.82	6.55	0.51	0.14	9.71
	2008	4.65	1.65	6.67	0.08	0.14	9.79
	2009	6.82	6.45	6.80	0.43	0.16	9.71
	2010	4.44	2.41	6.85	0.08	0.14	10.13
	2011	2.89	1.78	6.82	0.00	0.14	10.15
	2012	4.30	1.94	6.87	0.10	0.13	10.18
	2013	3.26	1.31	6.94	0.24	0.11	10.30
	2014	1.57	1.38	7.03	0.29	0.10	10.34
	2015	1.17	1.42	7.19	0.65	0.11	10.58
	2016	3.04	1.18	7.35	0.42	0.11	10.66
Dangote Flour							
Mills	2007	1.68	1.31	7.44	0.12	0.11	10.50
	2008	1.53	1.92	7.55	0.32	0.11	10.83
	2009	1.52	1.61	7.66	0.03	0.12	10.55
	2010	1.47	1.95	7.70	0.13	0.13	10.69
	2011	1.44	1.78	7.68	0.13	0.13	10.75
	2012	0.26	1.39	7.15	0.67	0.22	9.14
	2013	0.44	7.15	7.29	0.29	0.17	9.31
	2014	0.40	8.05	7.38	0.59	0.18	9.42
	2015	8.63	3.27	7.44	0.47	0.19	9.62
	2016	1.61	4.78	7.40	0.12	0.15	9.70
DN Tyre Plc	2007	2.62	5.71	7.38	0.32	0.14	10.85
	2008	2.62	5.19	7.40	0.34	0.10	10.00
	2009	4.75	2.13	7.46	0.47	0.10	10.19
	2010	0.78	3.82	7.60	1.96	0.10	10.43
	2011	1.21	2.29	7.77	0.63	0.15	10.43
	2012	0.64	3.88	7.73	0.09	0.12	10.69
	2013	3.98	4.05	7.81	0.25	0.11	10.79
	2014	3.27	3.78	7.76	0.32	0.10	11.00
	2015	2.85	5.37	7.74	0.03	0.09	11.00

	2016	2.54	5.75	7.87	0.12	0.12	11.04
Flour Mills Plc	2007	3.17	1.58	3.65	0.76	0.15	6.58
	2008	4.97	1.13	3.61	0.02	0.10	6.20
	2009	1.12	1.51	3.75	0.15	0.11	6.39
	2010	0.82	1.36	3.79	0.07	0.12	6.68
	2011	0.58	0.62	3.82	0.87	0.11	6.78
	2012	1.39	0.47	3.83	0.07	0.10	6.81
	2013	5.28	0.97	4.28	2.37	0.10	7.10
	2014	1.36	4.89	3.34	0.17	0.01	7.43
	2015	1.37	4.43	4.57	0.23	0.11	7.39
	2016	1.20	3.36	4.27	0.44	0.16	7.36
Guinness Plc	2007	1.20	2.49	4.17	0.28	0.11	7.21
	2008	0.73	0.37	4.16	0.10	0.09	8.57
	2009	1.93	2.80	7.29	0.41	0.09	10.66
	2010	1.64	1.47	7.32	0.21	0.10	10.65
	2011	1.51	1.18	7.36	0.07	0.10	10.63
	2012	1.59	4.19	3.68	0.18	0.16	6.84
	2013	0.89	0.63	3.67	0.94	0.16	6.85
	2014	3.65	2.46	3.68	0.03	0.13	6.95
	2015	0.50	0.72	3.66	0.09	0.11	7.01
	2016	3.80	0.36	3.72	0.13	0.11	7.01
Multi-Trex Plc	2007	2.47	0.70	3.87	0.41	0.11	7.07
	2008	1.01	1.50	3.93	0.21	0.11	7.13
	2009	1.02	0.76	4.01	0.40	0.11	7.19
	2010	4.53	1.15	4.11	0.31	2.24	7.47
	2011	3.24	6.82	4.32	0.39	2.33	7.83
	2012	4.44	0.63	7.30	0.12	2.13	10.09
	2013	2.24	0.06	7.49	0.30	1.94	11.01
	2014	2.33	0.32	7.30	0.35	1.32	9.91
	2015	2.13	2.16	7.59	0.07	1.18	9.62
	2016	1.94	0.83	7.57	0.06	1.98	10.32
Nestle Nig. Plc	2007	1.32	1.40	6.41	0.37	1.97	8.48
	2008	1.18	0.23	6.45	0.15	0.48	8.90
	2009	1.98	3.67	6.78	0.70	6.26	9.36
	2010	1.97	2.26	6.75	0.23	1.07	9.36
	2011	0.48	0.98	6.85	0.32	0.90	9.15
	2012	6.26	1.24	7.12	0.03	3.86	9.64
	2013	1.07	1.10	7.24	0.03	3.63	9.86
	2014	0.90	0.69	7.19	0.78	3.52	9.27
	2015	4.70	0.33	7.18	0.18	2.90	10.84
	2016	5.51	1.46	7.25	0.40	2.69	10.29
NB Plc	2007	2.10	0.15	7.06	0.54	0.10	10.11

	2008	4.63	0.95	7.53	0.29	0.21	9.88
	2009	4.34	0.22	7.36	0.35	0.13	9.69
	2010	1.65	1.07	6.67	1.31	0.12	9.91
	2011	1.56	0.53	7.56	0.14	0.11	9.49
	2012	4.42	1.60	7.13	0.43	0.10	9.72
	2013	0.71	1.73	7.07	1.28	0.09	9.87
	2014	1.14	1.65	6.67	0.08	0.14	9.79
	2015	2.53	1.86	7.23	0.77	0.12	9.94
	2016	7.18	2.16	7.12	0.51	0.10	9.95
Nig. Enamelware	2007	4.23	3.93	7.12	0.46	0.11	9.96
	2008	4.42	1.01	7.17	0.67	0.10	10.18
	2009	2.67	4.05	7.25	0.53	0.10	10.37
	2010	2.95	3.41	7.42	1.13	0.11	10.69
	2011	5.11	4.77	4.54	0.34	0.16	7.50
	2012	6.33	3.83	7.37	0.33	0.09	10.63
	2013	2.60	1.24	7.44	0.27	0.10	10.71
	2014	4.13	1.52	7.63	0.26	0.13	10.97
	2015	3.27	2.02	7.67	0.12	0.11	10.97
	2016	5.19	1.83	8.77	0.20	1.09	11.03
PZ Plc	2007	6.87	1.86	2.43	0.42	1.42	8.93
	2008	4.15	1.98	1.65	0.64	1.22	9.26
	2009	1.16	2.18	1.23	0.78	1.34	9.29
	2010	4.33	2.23	2.39	0.67	1.93	10.12
	2011	6.79	2.30	2.93	0.33	1.64	10.13
	2012	4.76	4.21	1.22	0.33	1.51	10.15
	2013	4.37	3.65	1.94	0.48	1.59	10.46
	2014	5.77	5.00	7.90	0.60	0.89	10.45
	2015	4.09	3.08	9.60	0.89	3.65	11.23
	2016	4.44	2.08	7.21	0.64	0.50	11.27
UTC Plc	2007	5.63	2.10	4.17	0.69	3.80	11.26
	2008	3.56	3.35	1.56	0.85	2.47	11.27
	2009	2.53	4.49	2.99	0.81	1.01	11.38
	2010	2.18	4.78	3.70	0.77	1.02	11.39
	2011	2.83	1.81	2.47	0.78	4.53	11.44
	2012	3.76	1.74	5.63	0.41	0.17	10.19
	2013	1.05	1.86	9.66	0.25	0.34	10.22
	2014	2.83	2.02	4.62	0.45	0.37	10.23
	2015	3.70	2.13	3.98	0.38	0.53	10.26
	2016	2.71	2.24	4.12	0.46	0.56	10.32
Unilever Plc	2007	4.25	4.10	1.68	0.43	0.74	10.32
	2008	4.38	3.08	1.60	0.49	0.62	10.54
	2009	4.28	3.08	1.86	0.40	0.71	10.73

	2010	1.37	4.00	1.86	0.04	0.48	11.07
	2011	2.03	3.65	2.18	0.20	0.87	11.07
	2012	1.55	3.21	3.64	0.89	0.73	11.07
	2013	3.83	4.03	2.25	0.07	0.97	10.97
	2014	5.09	1.42	1.97	0.28	1.22	11.03
	2015	2.18	1.67	1.55	0.85	1.21	11.14
Union Dicon Salt	2016	4.66	2.71	1.96	0.43	2.10	11.31
	2007	1.61	2.72	30.29	0.05	4.63	10.50
	2008	1.84	2.77	6.78	0.07	4.34	10.49
	2009	1.54	2.74	4.65	0.14	1.65	10.42
	2010	2.72	2.12	3.97	0.19	1.56	11.61
	2011	5.55	1.12	4.13	0.50	4.42	11.47
	2012	5.14	1.96	4.00	6.69	0.71	11.47
	2013	5.73	2.02	2.32	0.25	1.14	10.42
	2014	3.76	1.07	1.73	0.81	2.53	10.49
	2015	4.60	1.33	2.18	0.49	7.18	11.12
	2016	6.20	4.06	1.88	0.43	1.88	11.11
Vitafoam Plc	2007	4.38	2.33	0.76	0.23	1.20	11.13
	2008	5.06	2.08	0.85	0.34	1.54	11.07
	2009	4.27	3.34	8.29	0.79	0.10	11.86
	2010	1.03	2.96	0.21	0.98	0.81	11.12
	2011	4.46	2.01	7.79	0.97	0.05	11.12
	2012	1.39	2.07	2.69	0.76	4.73	10.40
	2013	2.99	3.33	2.47	0.64	5.62	10.35
	2014	4.43	3.96	2.76	0.76	0.41	10.45
	2015	3.71	2.03	1.65	0.98	0.89	10.42
	2016	4.13	2.07	2.68	0.95	0.47	10.39
EkoCorp Plc	2007	3.20	3.29	1.19	0.96	0.79	10.48
	2008	4.65	3.80	2.26	0.62	0.45	10.41
	2009	3.96	1.43	1.17	0.86	0.79	10.47
	2010	4.44	1.51	2.80	0.90	0.70	11.23
	2011	2.89	1.49	1.90	0.95	0.79	11.21
	2012	4.30	2.58	2.15	0.86	0.81	11.21
	2013	3.26	2.75	0.98	0.52	0.14	11.24
	2014	1.57	2.88	2.40	0.87	0.74	11.21
	2015	4.96	2.07	1.79	1.11	0.78	11.21
	2016	3.04	2.22	1.97	0.27	0.76	11.24
Evans Med. Plc	2007	2.68	2.29	1.82	0.65	1.85	10.16
	2008	1.53	2.39	1.65	0.74	1.70	10.23
	2009	1.52	2.43	6.45	0.71	2.35	10.25
	2010	2.41	2.44	2.41	0.71	1.80	10.40
	2011	1.44	2.48	1.78	0.73	1.17	10.59

	2012	4.07	1.35	1.94	0.83	1.11	10.65
	2013	4.25	2.61	1.31	0.58	1.04	10.77
	2014	4.40	2.77	1.38	0.02	1.03	10.89
	2015	8.63	1.92	1.42	0.03	0.38	11.53
	2016	1.61	1.08	1.18	0.02	0.53	11.55
Fidson Plc	2007	2.62	3.23	1.31	0.02	0.61	11.53
	2008	2.62	2.48	1.92	0.75	0.74	11.57
	2009	4.75	3.68	1.61	0.71	0.86	11.58
	2010	0.78	2.86	1.95	0.69	0.94	11.59
	2011	1.21	2.01	1.78	0.64	0.98	11.60
	2012	2.72	2.06	6.39	0.53	1.69	9.46
	2013	3.98	2.18	7.15	0.77	1.74	9.60
	2014	3.27	2.21	8.05	0.54	1.37	9.90
	2015	2.85	2.28	3.27	0.39	1.66	9.99
	2016	2.86	2.33	4.78	0.28	1.55	10.07
GSK Plc	2007	3.17	3.08	5.71	0.22	1.14	7.52
	2008	4.97	3.27	5.19	0.14	1.19	7.56
	2009	1.12	3.30	2.13	0.25	0.99	10.68
	2010	2.74	1.30	3.82	0.18	0.46	11.21
	2011	6.23	1.33	2.29	0.24	0.80	11.28
	2012	1.39	2.40	3.88	0.67	0.67	11.31
	2013	5.28	3.93	4.05	0.73	0.73	11.37
	2014	1.36	2.04	3.78	0.87	0.58	11.46
	2015	2.72	0.19	5.37	0.88	0.52	11.52
	2016	1.20	1.15	5.75	0.92	0.67	11.57
M&B Nig. Plc	2007	3.55	2.16	1.58	0.70	2.76	6.83
	2008	3.73	2.22	1.13	0.56	2.27	6.93
	2009	1.93	2.29	1.51	0.63	2.08	7.03
	2010	1.64	2.35	1.36	0.77	1.72	7.14
	2011	2.51	2.37	0.62	0.74	1.23	7.29
	2012	1.59	3.33	0.47	0.66	1.31	7.29
	2013	4.18	3.33	0.97	0.27	1.81	7.68
	2014	3.65	3.48	4.89	0.32	0.06	8.22
	2015	4.38	3.52	4.43	0.57	1.01	8.21
	2016	3.80	3.57	3.36	0.24	1.17	8.27
Morison Plc	2007	2.47	3.69	2.49	0.32	0.84	8.27
	2008	1.01	3.78	0.37	0.62	0.83	8.23
	2009	4.02	3.79	2.80	0.36	0.81	11.34
	2010	4.53	3.96	1.47	0.72	0.83	11.41
	2011	5.24	3.96	1.18	0.68	0.81	11.45
	2012	4.44	2.93	4.19	0.54	2.46	7.14
	2013	4.24	2.92	0.63	0.56	2.57	7.14

	2014	2.33	2.95	2.46	0.71	1.22	7.51
	2015	3.13	1.95	0.72	0.64	1.06	7.51
	2016	1.94	2.96	0.36	0.58	1.09	7.56
Pharma-Decko							
Plc	2007	2.32	1.41	0.70	0.53	1.54	7.56
	2008	1.18	1.59	1.50	0.44	0.70	7.99
	2009	4.98	0.64	0.76	0.36	0.74	7.99
	2010	1.97	0.79	1.15	0.36	0.84	8.05
	2011	3.48	1.85	6.82	0.49	0.51	8.82
	2012	6.26	1.08	0.63	0.58	0.84	7.74
	2013	1.47	2.08	0.06	0.64	0.96	11.25
	2014	0.90	2.22	0.32	0.63	0.56	11.23
	2015	4.70	2.11	2.16	0.94	0.95	11.27
	2016	5.51	2.05	0.83	0.85	0.53	11.31
AP Plc	2007	2.10	2.31	19.40	0.47	1.76	9.36
	2008	4.63	2.35	0.23	0.57	1.79	9.41
	2009	4.34	2.39	3.67	0.52	2.10	9.58
	2010	1.65	1.88	2.26	0.71	1.35	9.86
	2011	1.56	1.58	0.98	0.62	1.60	9.91
	2012	4.42	1.35	1.24	0.06	1.25	10.28
	2013	0.71	1.42	1.10	0.06	1.21	10.31
	2014	1.14	1.33	0.69	0.07	1.05	10.40
	2015	2.53	2.58	0.33	0.14	0.66	9.80
	2016	7.18	1.49	1.46	0.32	0.74	9.98
Ashaka Cement	2007	9.02	2.52	0.15	0.44	1.34	10.17
	2008	4.56	1.78	0.95	0.49	6.79	9.83
	2009	4.84	1.95	0.22	0.87	2.03	9.11
	2010	1.46	2.23	8.07	0.96	0.22	10.62
	2011	2.40	0.20	0.53	0.86	0.96	10.64
	2012	3.76	2.25	1.60	0.49	0.62	10.54
	2013	5.04	2.33	1.73	0.81	0.80	10.49
	2014	1.58	2.39	1.65	0.74	1.70	10.23
	2015	5.10	2.46	1.86	0.40	0.71	10.73
	2016	2.57	2.53	2.16	0.32	0.84	10.58
Avon Plc	2007	2.98	0.02	2.29	0.35	0.92	10.58
	2008	3.69	1.03	2.13	0.20	0.62	10.97
	2009	5.38	2.00	0.59	0.04	0.79	11.05
	2010	5.95	1.02	2.30	0.03	0.56	11.53
	2011	6.23	3.01	1.06	0.77	0.77	8.52
	2012	0.56	3.01	1.72	1.28	0.48	11.54
	2013	0.77	2.01	1.40	1.03	0.60	11.56
	2014	2.27	1.02	2.97	0.42	0.70	11.64

	2015	3.74	3.02	1.83	0.73	0.66	11.67
	2016	4.72	2.04	2.08	0.28	3.56	11.71
Berger Paints	2007	5.04	2.02	4.97	0.09	2.53	9.08
	2008	3.40	2.02	1.81	0.02	0.82	9.34
	2009	2.25	2.02	1.74	0.05	0.83	9.42
	2010	4.16	2.02	1.63	0.05	0.83	9.77
	2011	4.58	2.02	1.56	0.05	1.05	9.82
	2012	3.69	1.00	1.89	0.34	1.83	9.87
	2013	6.81	3.00	2.04	0.18	0.70	10.13
	2014	8.87	2.01	2.03	0.17	0.71	10.45
	2015	8.80	2.01	1.67	0.42	4.00	10.76
	2016	7.51	3.02	3.54	0.88	4.07	10.93
Beta Glass Plc	2007	0.28	2.03	1.34	1.04	4.75	10.90
	2008	0.42	3.02	1.88	0.06	1.06	10.98
	2009	1.47	2.03	0.77	0.06	2.03	11.24
	2010	0.17	2.02	1.36	0.04	1.55	11.26
	2011	2.33	3.01	2.59	0.09	0.83	11.35
	2012	0.35	2.02	2.07	1.87	0.71	9.43
	2013	3.04	3.56	2.47	0.07	0.88	9.75
	2014	7.49	0.03	2.19	0.08	0.91	9.80
	2015	2.52	1.02	2.17	0.51	1.61	9.99
	2016	2.60	2.01	2.25	0.08	1.84	10.06
Cement Co. Plc	2007	2.94	1.05	1.63	0.43	1.54	10.18
	2008	4.05	2.03	1.89	0.08	1.72	10.34
	2009	0.60	3.05	1.97	0.00	5.55	10.59
	2010	0.00	2.04	1.90	0.10	5.14	10.75
	2011	0.01	1.17	0.98	0.24	5.73	11.01
	2012	27.84	2.40	0.62	0.29	1.04	10.93
	2013	3.73	3.03	1.53	0.65	1.11	10.95
	2014	3.58	2.03	1.39	0.42	1.20	11.12
	2015	8.00	2.01	1.14	0.12	0.98	11.23
	2016	4.49	3.01	1.86	0.32	5.06	11.28
Cutix Plc	2007	5.75	1.98	2.33	0.03	0.65	9.99
	2008	3.69	1.02	2.27	0.13	1.03	10.06
	2009	6.30	1.01	2.26	0.13	4.46	10.18
	2010	3.83	1.05	2.48	0.67	0.71	10.34
	2011	4.16	1.04	2.32	0.29	0.44	10.59
	2012	5.41	2.01	1.89	0.59	4.43	10.36
	2013	1.00	0.00	2.11	0.47	0.71	10.03
	2014	4.66	1.11	2.01	0.12	4.13	10.39
	2015	0.06	0.04	1.62	0.32	1.27	10.70
	2016	5.86	1.18	1.86	0.34	4.65	10.85

Dangote Cement	2007	3.49	0.05	1.45	0.47	6.82	10.76
-	2008	2.46	0.10	2.78	14.96	4.44	10.87
	2009	4.01	2.02	0.30	0.63	2.89	10.85
	2010	1.80	0.02	0.68	0.09	4.30	9.80
	2011	7.09	2.02	0.66	0.25	3.26	9.82
	2012	7.45	1.01	0.69	0.32	1.57	11.08
	2013	8.12	2.07	1.53	0.03	1.17	11.10
	2014	8.86	2.02	1.26	0.12	3.04	10.06
	2015	2.43	2.35	1.23	0.76	1.68	10.37
	2016	3.75	0.01	1.62	0.02	1.53	10.06
First Aluminium	2007	4.74	3.03	1.94	0.15	1.52	10.37
	2008	5.59	0.03	2.02	0.07	1.47	10.06
	2009	5.80	2.02	0.75	1.48	1.44	10.37
	2010	5.49	0.04	0.78	0.07	0.26	11.08
	2011	5.60	0.45	2.45	2.37	0.44	11.10
	2012	4.79	0.74	4.01	0.17	0.40	11.12
	2013	8.61	3.04	2.27	0.23	8.63	10.37
	2014	6.46	1.03	0.81	0.44	1.61	11.08
	2015	7.62	0.03	0.90	0.28	6.26	11.10
	2016	9.30	2.03	1.71	0.10	6.14	11.12
Lafarge Plc	2007	6.63	2.02	0.92	0.41	4.75	10.43
	2008	7.68	1.03	1.64	0.21	0.78	10.46
	2009	9.09	2.01	0.90	0.07	1.21	10.62
	2010	3.46	0.83	6.83	0.18	0.64	10.65
	2011	4.41	0.72	0.98	0.94	3.98	10.65
	2012	4.20	1.61	1.38	0.03	3.27	10.69
	2013	5.46	2.05	1.47	0.09	2.85	10.79
	2014	4.65	2.04	1.81	0.13	2.54	10.90
	2015	4.78	0.98	1.62	0.41	3.17	11.12
	2016	4.75	1.42	1.10	0.21	4.97	11.27
Meyer Plc	2007	6.74	3.42	1.50	0.40	1.12	11.32
	2008	2.22	2.03	0.54	0.31	0.82	11.44
	2009	1.78	2.32	1.13	0.39	0.58	11.51
	2010	3.60	1.79	1.11	0.52	5.39	11.56
	2011	9.68	3.26	1.83	0.30	5.28	11.59
	2012	8.12	0.62	1.46	0.35	1.36	9.69
	2013	6.88	2.73	1.77	0.07	1.37	9.84
	2014	5.69	3.62	1.67	0.06	1.20	10.04
	2015	2.12	2.53	1.10	0.37	1.20	10.21
	2016	6.46	3.52	1.51	0.15	0.73	10.26

Source: Researcher's extract from Annual reports and accounts (various issues), 2017