Impact of Accounting Information on Stock Price Volatility (A Study of Selected Quoted Manufacturing Companies in Nigeria)

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ABSTRACT: This study examined the impact of accounting information on stock price volatility on selected quoted manufacturing companies in Nigeria for a period of ten years (2005-2014). This research work was necessitated by the fact that quoted manufacturing companies on the Nigerian Stock Exchange has undergone many turbulent times caused by the crumbling interest of investors in quoted manufacturing companies with volatile stock prices.

This study adopted an ex-post facto research design as it relied on secondary source of data extracted from the annual reports of five quoted manufacturing companies and daily stock prices for these companies were sourced from the Nigerian Stock Exchange for the stated period. The population for this study was the manufacturing companies listed on the Nigerian Stock Exchange. Data from the annual report were basically drawn from the statement of comprehensive income and statement of financial position. The data collected for this study were analyzed using Ordinary Least Square method of data estimation with the help of econometric views (E-views) software.

The results of cross section fixed effect model show that accounting information has a strong positive significant impact on stock price volatility.

It was therefore concluded that since accounting information has been found as one of the causes of stock price volatility, it is therefore the responsibility of management to ensure proper preparation and presentation of accounting information to enable potential investors make economic and investment decisions, as this will lead to less volatile stock price. This study recommends that proper regulation of accounting information should be put into place as accounting information has the ability to cause either an increase or decrease in the stock price of a company.

Keywords: Cross Section Fixed Effect Model, Accounting Information, Stock Price Volatility, Quoted Manufacturing Companies.

I. INTRODUCTION

The primary objective of every investor trading on the stock market is to make a fortune rather than a misfortune. This could be attributed to why a good understanding of the stock price of companies in which investment will be made is vital to investors. The importance of accounting information can be judged by the ability of financial information contained in the financial statements to explain stock markets measures (Vishnami&Krishah, 2008, cited in Paul and Juliana, 2015). It is widely believed that efficient stock market serves as a catalyst for economic growth and development of a country and in a bid to enhance private capital for the development of companies in Nigeria, the Nigerian Stock Exchange (NSE) was established in 1961 to facilitate the improvement of the capital market (Maku and Atanda, 2010). Therefore, reliable accounting information has been considered to be an essential pre-requisite for stock market growth as investors require adequate information about the stock market to take informed investment decision (Oyerinde, 2006).

Junjie, Gang and Chao (2013) suggest that in stock market, many factors such as financial policy, monetary policy, industrial policy, foreign trade policy, accounting information, investors’ expectation, market supervision and other internal factors can possibly cause a change in the stock price. But amongst all these, accounting information has been perceived to be the most important factor used by investors, as investment decisions can be made on the basis of a company’s stock and an organization’s stock price is a comprehensive reflection of the company’s future profit (Serife&Uger, 2012).

It is germane to note that financial statements will only be employed by an investor when evaluating the stock price of an enterprise on the Stock Exchange Market only if it provides useful information to them. For this purpose, accounting information must certainly encompass two qualitative features: relevance and reliability; to be acceptable and useful to investors (Adaramola and Oyerinde, 2014). To this end, accounting information obtained from the financial statement will be redundant if either or none of the two qualitative
features exist. Beisland (2009) opined that one of the major objectives of financial reporting is to provide equity investors with information relevant for estimating company value.

In the capital market, two factors are important in share price determination; these factors are accounting or non-accounting information (Khanagha, 2011; Cheng, Shamsher and Annuar, 2008, cited in Ejuvbekpokpo and Edesiri, 2014). Accounting information refers to the means by which we measure and communicate economic events whether in the management of a business enterprise, making investments or in being observant in the receipt and disbursement of money (Bo, 2009). It originates in the form of ratios, which could be earning per share, dividend per share, book value per share, net assets per share, dividend cover amongst others. Non-accounting information on the other hand refer to information other than accounting which can be speculation, gambling and rumour (Ejuvbekpokpo and Edesiri, 2014).

Stock prices serve as the basis for the valuation of whether a business enterprise is breaking even or not. These prices are relevant measurement of the returns accruing to the stakeholders, therefore the value attached to them serves as a major boost to both existing and prospective investors in the capital market (Glezakos, Mylonakis and Kafourous, 2012).

Volatility is simply defined as a measure of dispersion around the mean or average return of a security; it is a measure of the range of an asset price about its mean level over a fixed amount of time (Abken and Nandi, 1996, cited in Mgbame and Ikhatua, 2013). If a stock is said to be volatile, then it is acceptable to conclude that there will be a systematic variance of its mean over time. Equally, a less volatile stock will have a price that will change relatively little over time (Faride, Munes and Hosna, 2014).

Therefore, this study aims at examining the impact of accounting information on stock price volatility in the Nigerian manufacturing industry.

**Statement of the Research Problem**

Although, accounting information provide a basis by which users of financial information can make economic, financial and investment decisions, in a situation where there is no regulatory system and information transparency to guide and facilitate the value of such information on which investors and other users of financial information base their confidence, this could pose a very big threat, thereby leading to a reduction in the stock price of firms (Saheb& Muhammad, 2013).

Also, despite the fact that the Nigerian Government through the Central Bank of Nigeria and the Securities and Exchange Commission have been playing their roles in creating a stable market for investors, lack of both fundamental and technical knowledge about the Nigerian Stock Exchange market by users of Accounting Information, has drastically impaired the activities of the relevant capital market authorities (Jenrola and Daisi, 2012).

Similarly, Ayuba (2011) in Njiforti (2015) found that an aggregate of investments worth trillions of U.S dollars was lost globally, the stock markets around the globe crashed and became highly volatile and this led to the reduction of investors’ confidence as the fear of what could subsequently happen in the capital market heightened. In Nigeria alone, the total market capitalization which stood at N12.40 trillion in March 2008 fell to N4.69 trillion in march 2009, which represented a whooping decline of 62.18% (Sanusi, 2010). This could be attributed to the lack of appropriate investments by investors currently witnessed in Nigeria.

Again, the observation of investors and finance managers of the effect of accounting variables on stock prices has necessitated this study. Accounting information variables such as Price per share, Earnings per Share, Book value per share per Share (BVPS), Dividend per share (DPS), Cash flow per share will help investors to determine the expected returns on their investment and variations if any from one accounting period to another (Wan, 2010).

Based on the foregoing therefore, it becomes pertinent that this study investigate the relevance of accounting information in determining the stock price of manufacturing companies listed on the Nigerian Stock Exchange (NSE).

**Statement of the Research Objectives**

The main objective of this study is to evaluate the impact of accounting information on stock price volatility of selected quoted manufacturing companies in Nigeria. More specifically, the study aims at:

1. Assessing the extent to which earnings per share affect stock price volatility of quoted companies in the Nigerian manufacturing industry with a view to determine the level of profitability of a company.
2. Examining the impact of price-earnings ratio on the stock price volatility of quoted companies in the Nigerian manufacturing industry with a view to assess the relative worth of a share.
3. Ascertaining the impact of book value per share on the stock price volatility of quoted companies in the Nigerian manufacturing industry with a view to determine the level of safety associated with each individual share after all debts have been paid off.
4. Establishing the impact of dividend per share on the stock price volatility of quoted companies in the Nigerian manufacturing industry with a view to ascertain the amount paid as dividends for each ordinary share.

**Literature Review and Hypotheses Development**

**Concept of Accounting Information**

Hendricks (1976) asserts that the main reason for which accounting information is generated is to facilitate decision making. However, for financial reporting to be effective, among other requirements, it should be relevant, complete and reliable. These qualitative characteristics require that the information must not be unfair nor has predisposition of favouring one party over the other. Thus, accounting information should give a decision maker the ability to predict future actions. It should also increase the knowledge of the users to recognize similarities and differences in two types of information.

Recent research works has suggested that accounting information have lost their importance to investors significantly over the past few decades this is because accounting information contained in financial statement need to be accurate and transparent enough to provide an indication of a business performance and financial condition to decision makers which includes investors, therefore, it has been discovered that investors tend to focus on information other than the published accounting information such as non-financial information, short term capital gains and tend to be speculative or irrational to unusual events (Perera and Thrikawala, 2010).

The main objective of financial statements is to provide useful information to both internal and external users. Owners, managers, employees, prospect and potential investors, financial institutions, suppliers and other creditors, customers, governments and their agencies and other stakeholders use the information to make rational decisions on investment. Listed companies generally use accounting information contained in financial statements as one of the major mediums of communication with stakeholders, as a result of this, stock market regulators and accounting standards setters try to improve the quality of financial statements in order to increase the transparency level in financial reporting (Vishnani and Shah, 2008 in Menike and Man, 2013).

**Stock Price Volatility**

Stock price volatility is an indicator that is most often used to find changes in trends in the market place, most times, an increase or decrease in volatility results from changes in investor’s reaction in the market place and as such, stock price volatility tends to rise when new information is released into the market, however the extent to which it rises is determined by the relevance of that new information as well as the degree in which the news surprise investors (Ajao and wemambu, 2012).

The volatility of ordinary stock is the systematic risk faced by investors who possess ordinary stock investments (Guo, 2002). It is a measure used to define risk, and represents the rate of change in the price of a security over a given time. Usually, the greater the volatility, the greater the chances of a gain or loss in investment in a short period of time as it is a measure related to the variance of a security’s price. Thus, if a stock is said to be volatile, its price would greatly vary over time, and it is more difficult to say in certainty what its future price will be, in other words the lesser the volatility of a given stock, the greater its desirability to investors (Criss, 1995 cited in Okafor and Mgbame, 2011).

Investors are by nature risk averse and therefore, the volatility of their investments is of importance to them as it is a measure of the level of risk they are exposed to (Okafor and Mgbame, 2011).

Kamuti(2013) explains that the volatility of stock is a measure of uncertainty about the returns provided by the stock, and it is generally not observable equally a market is said to be volatile if the past prices of stocks reflect in the future stock prices. Thus, to be able to input the estimates of the volatility of an underlying asset, one can only observe the stock return series, therefore, in the financial market; volatility is often referred to as the standard deviation or variance.

Rajni and Mahendra (2007) highlighted a couple of negative implications of stock price volatility amongst which includes that it affects consumers spending, a fall in stock prices will weaken consumer confidence, stock price volatility may also affect business investments, and economic growth directly. Similarly, a rise in stock price volatility can often be interpreted as a rise in equity and thus a shift of funds to less risky assets, this move have been known to lead to a rise in the cost of funds to firms and thus new firms (new entrants) might bear this effect as investors turn to the purchase of stocks in mainly well-known firms.

**Accounting Information and Stock Price Volatility**

**Earnings per Share and Stock Price Volatility**

The International Accounting Standards Board (IASB) in its International Accounting Standards (IAS) 33 define Earnings per share as the amount of current period earnings or profit (or loss) attributable to a unit of ordinary share. Earnings per share has a significant impact on the stock price of an entity as it affects the calculation of an entities stock price (Idekwulim, 2014).
Earnings per share can be used as a performance indicator of the financial standing of the company during the year and it indicates the progress of the company in the near future. In other words, Earnings per share is a measurement of a business performance as the net income figure takes into account both the results of the company’s operations and the effect of financing (Seetharaman and Raj, 2011).

There are two arguments regarding the predictive power of earnings per share on stock prices. One group argues that, stock prices go up and down as this can be observed in a situation when there is good news or higher earnings per share reports, the price of the firm goes up, but if there is bad news, the price goes down. This group maintains that stock prices are not directly determined by earnings per share, but it is directly determined by the balance between the demand and supply of firm stock prices and this demand and supply causes the stock prices to fluctuate. In contrast, the other group argues that earnings per share does not determine stock prices (Umar and Musa, 2013).

The future profit of the firm is the most fundamental factor that affects stock prices and the earnings information has been considered to contain the greatest informational content of all the accounting information because it contains the important discussion concerning the relationship between accounting earnings and stock prices (Chang, Yahn-Shir, Chi-Wei, Ya-Wen, 2008).

While a company's earnings per share will often influence the market price of its stock, the relationship is rarely inverse, as a company's earnings per share is determined by dividing the earnings by the number of outstanding shares. A company with strong earnings per share might see the market price of its stock rise, with this; a higher stock price might create a positive impression of the company's products in the minds of investors, resulting in greater demand, increased sales and ultimately higher earnings. The inverse might also occur, as poor earnings per share might depress stock prices resulting in lower consumer confidence, fewer sales and ultimately lower earnings per share, but these relationships are circular and not direct (Islam, Khan, Choudhury and Adnan, 2014).

**Book Values per Share and Stock Price Volatility**

With the passage of time, a company will generate income, much of which is paid out to creditors (as interest) and to shareholders (as dividends). Any remainder is added to the amount shown as cumulative retained earnings on the organization’s books. The sum of the cumulative retained earnings and other entries under stockholder’s equity is the book value of the equity of the entity (William, Gordon and Jeffery, 2004).

Book value per share is one of the important variables which affect the market value of equity share as it is the value of own funds of a company per share and it expresses the worth of each share in a company. The book value is a reflection of the past earnings, dividend distribution policy of the company and investment decisions, hence, a high book value indicates that a company has huge reserves and is a potential bonus entity, while a low book value signifies a liberal distribution policy of bonus and dividends, or a poor track record of profitability (Pushpa and Sumangala, 2013).

The book value per share is firmly rooted in financial accounting and hence can be established relatively easily. Due to this, its proponents argue that it represents an objective measure of value. A closer examination, however, quickly reveals that what is regarded as objective is based on accounting conventions and policies which are characterized by a great deal of subjectivity and arbitrariness. An allied and a more powerful criticism against the book value measure, is that the historical balance sheet figures on which it is based are often very divergent from current economic value. Balance sheet figures rarely reflect earning power and hence the book value per share cannot be regarded as a good proxy for true investment value (Prasanna, 2006).

**Price Earnings Ratio and Stock Price Volatility**

Even though few studies have been undertaken to ascertain the impact of price earnings ratio on stock price volatility, many researchers are however of the opinion that it can be used to predict a future increase or decrease in stock prices.

Jean (2015) defined price earnings ratio as a valuation measure that compares the level of stock prices to the level of corporate profits, providing investors with a sense of a stock’s value. He goes further to state that a price earnings ratio can be thought of as how long a stock will take to pay back he investment made by investors if there is no change in the business, which could then have an adverse effect on the stock price of a company at a particular period of time.

The price-earnings ratio is a valuation ratio, as they indicate how the equity stock of the company is assessed in the capital market, since the market value of equity reflects the combined influence of risk and return, valuation ratios are the most comprehensive measures of a firm’s performance. Price-earnings ratio is therefore a summary measure which primarily reflects the following factors: growth prospects, risk characteristics, shareholder orientation, corporate image, and the degree of liquidity of an organization (Prasanna, 2006).
Dividend per share and stock price volatility

Dividend per share is defined as gross dividend divided by number of ordinary shares. It indicates the retention policy of the company as investors would always prefer higher ratio to continue to retain investment in the company (Siyanbola and Adeleji, 2014).

According to Khan (2012), dividend per share is important for investors as they consider dividends not only the source of income but also a way to assess company from investment point of view and whether the company is cash generative or not and determining if a company pays more dividends than fewer funds available for investment in future projects. Also lenders are also interested in the amount of dividend that a company declares, as more amounts are paid as dividend means less amount would be available to the company for servicing and redemption of their claims.

There are mainly two schools of thoughts that presents two different opinions about the dividend policy of a company and its impact on stock price, one school of thought followed the opinion of Miller and Modigliani (1961) concept of dividend irrelevance theory in which they explain that dividend policy does not affect the stock prices and considered dividend policy irrelevant while the second school of thought followed the point of view of Gordon (1963) and considered dividend policy relevant in relation to the value of the firm and the market price of shares (Khan, 2012).

Companies also realize that investors pay close attention to their dividend returns, and that the insecurity of their investments may affect the valuation of the firm’s shares in the long run (investopedia.com). This makes the volatility of stock prices as important to firms as it is to investors (Okafor and Mgabame, 2011).

Theoretical Frame Work

Many theories have been brought to bear on the concept of accounting information and stock price, based on various researchers’ perspective such as theory of market value relevance, theory of market efficiency, mixed distribution hypothesis, sequential information arrival hypothesis, etc. However for the purpose of this research, this study is anchored on the market value relevance theory and theory of market efficiency as both theories specifically review the importance of accounting information on stock prices.

Theory of Market Value Relevance

The concept of the value relevance of accounting information is defined as the ability of accounting numbers to summarize the information underlying the stock prices, thus the value relevance is indicated by a statistical association between financial information and stock prices or returns (Jianwei and Chunjiao, 2007). Francis and Schipper (1999) define market value relevance as a statistical association between financial information and prices or returns. Accounting based measures explain market prices in a good way, under the efficient market assumption that pricing reflects available information (McLean & Zhao, 2014).

Olugbenga and Atanda (2014) assert that the concept of value relevance refers to the strength of relationship between accounting variables and market value of equity of a firm. The major attributes in these definitions is that an accounting amount is believed to be value relevant if it has a significant association with security market value.

For financial information to be value relevant, it is a condition that accounting numbers should be related to current company value because if there is no association between accounting numbers and company value, accounting information cannot be termed value relevant as financial reports are unable to fulfill their primary objectives (Barth, Beaver and Landsman, 2001).

Theory of Market Efficiency

Fama (1965) propounded the efficient market hypothesis which suggested that at any point of time, prices will fully reflect all available information about individual stock and the stock market as a whole. This is because when new information arrives, the news spread very quickly and is incorporated into the prices of securities immediately. Thus, according to the efficient market hypothesis, no market player has the advantage in forecasting stock price movements since no one has access to information that is not available to the entire market.

Under the efficient market hypothesis, investors engage themselves in a game of chance and not skill, at any time of them buying and selling securities. Therefore, it is, however, impossible to out-perform the market as prices normally incorporates and reflects all relevant information in the market. The efficient market hypothesis is not only concerned with the type and source of information, but also the quality and speed of which it is disseminated among investors. This helps in questioning the type of information available and incorporated in stock prices (Kehinde, 2012).

Amiri, Ravanpaknodezh and Jelodar (2015) posit that an efficient market is one in which stock price is adjusted to newly issued information and such information is used for pricing as an investor is assured that securities are valuable at the market price and the price reflects relevant financial information which affects stock prices.
According to the Efficient Market Hypothesis (EMH), an operationally efficient stock market is expected to be externally and informationally efficient; thus security prices at any point in time are an unbiased reflection of all the available information on the security’s expected future cash flows and the risk involved in owning such a security (Reilly and Brown, 2003).

Fama (1970) cited in Mgbame and Ikatua (2003) and Kehinde (2012) classify the information items into three levels depending on how quickly the information is impounded into stock prices: (1) Weak form EMH, (2) Semi-strong form EMH, and (3) Strong form EMH.

Mixed Distribution Hypothesis
The Mixed Distribution Hypothesis (MDH) developed by Clark (1973) and Epps and Epps (1976) gives an alternative volatility-volume connection, in which the relation is critically dependent upon the rate of information flow into the market. The model assumes that the joint distribution of volume and volatility depends upon the arrival of information.

According to the hypothesis, all traders receive the new price signals simultaneously, which in essence causes an immediate shift to new equilibrium without intermediate partial equilibrium. This is contrary to sequential information arrival hypothesis, which assumes that there are intermediate equilibrium en route to the final equilibrium.

However, under mixture of distribution hypothesis, there should be no information content in past volatility data which can be used to forecast volume since these variables contemporaneously change in response to new information arrival. Thus, both volatility and volume change contemporaneously in response to the arrival of new information.

Sequential Information Arrival Hypothesis
This model was developed by Copeland (1976) and later advanced by Jennings, Starks and Fellingham (1981), and the model relates to the observed relationship of volume and volatility to private information.

From the model, an individual trader receives a signal ahead of the market and trades on it, thereby creating volume and price volatility. As a result, volatility and volume move in the same direction. Traders, thus, change their trading positions as new information arrives to the market.

Since not all traders receive the new information at exactly the same time, the response of each individual trader to this information represents an incomplete equilibrium. Thus, the final market equilibrium is established when all the traders have received the information and have made a trading decision based on the information. Sequential information arrival hypothesis thus suggests that a lead-lag relationship between volume and volatility exists only in the presence of information. Sequential information arrival hypothesis differs slightly with mixture of distribution hypothesis as it proposes a positive causal relationship between volumes and returns in both directions, that is, each determines the other.

However, of all the aforementioned theories, the market efficiency theory and the market relevance theory has been chosen has been significant to this study as they are of the assumption that prices will fully reflect all available information about individual stocks and the stock market and that accounting numbers summarize the available information underlying the stock prices

Research Hypotheses
Hypothesis One
H_1: Earning per share has an impact on the stock price volatility of quoted companies in the Nigerian manufacturing industry.

Hypothesis Two
H_1: Price-earnings ratio has an impact on the stock price volatility of quoted companies in the Nigerian manufacturing industry.

Hypothesis Three
H_2: Book value per share has an impact on the stock price volatility of quoted companies in the Nigerian manufacturing industry.

Hypothesis Four
H_2: Dividend per share has an impact on the stock price volatility of quoted companies in the Nigerian manufacturing industry.

II. METHODOLOGY

Data Analysis Technique
In testing the hypotheses, the explanatory power of Earnings per share, Price-earnings ratio, Book value per share and Dividend per share is estimated by comparing the coefficients of determination of the models stated below and the impact of accounting information on stock price volatility is estimated using the
Ordinary Least Square method and the panel data was used. Significance and effects is measured at 5% level of Significance using econometric views (E-views) software. However, the Hausman test was conducted to determine whether the fixed effect and random effect technique is to be adopted.

**Model Specification**

The study adopted the following models to examine the impact of accounting information on stock price volatility with the aim of fulfilling the research objectives as highlighted by the researcher. In achieving this, two variables were used in this study; they are the independent and dependent variables. The independent variable= Accounting Information (AI)
The dependent variable= Stock price volatility (SPV)
The proxies used to measure the independent variable (AI) are Earnings per share, Price-Earnings ratio, Book value per share and Dividend per share, while Stock Price Volatility was used for the dependent variable.
The functional relationship is as follows;

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \mu \]

**Model 1**

Model 1

\[ Y = \beta_0 + \beta_1 EPS + \beta_2 PER + \beta_3 BVPS + \beta_4 DPS + \mu \]

**Model 2**

Model 2

\[ Y = \beta_0 + \beta_1 EPS + \mu \]

**Model 3**

Model 3

\[ Y = \beta_0 + \beta_1 PER + \mu \]

**Model 4**

Model 4

\[ Y = \beta_0 + \mu \]

**Model 5**

Model 5

\[ Y = \beta_0 + \beta_1 EPS + \beta_2 PER + \beta_3 BVPS + \beta_4 DPS + \mu \]

Where \( \alpha \), \( \beta_0 \), \( \beta_1 \), \( \beta_2 \), \( \beta_3 \), \( \beta_4 \) represents Intercept
Where \( \beta_0 \), \( \beta_1 \), \( \beta_2 \), \( \beta_3 \), \( \beta_4 \) represents Coefficient
Where \( \mu \) represents the error term.

**Presentation and Analysis of Result**

**Table 1:** Descriptive Statistics

<table>
<thead>
<tr>
<th>STOCK PRICE VOLATILITY</th>
<th>EPS</th>
<th>PER</th>
<th>BVPS</th>
<th>DPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>99.08600</td>
<td>5.09100</td>
<td>20.24260</td>
<td>10.78460</td>
</tr>
<tr>
<td>Median</td>
<td>26.25500</td>
<td>1.85500</td>
<td>15.72000</td>
<td>7.54000</td>
</tr>
<tr>
<td>Maximum</td>
<td>1046.570</td>
<td>28.08000</td>
<td>78.04000</td>
<td>51.21000</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.880000</td>
<td>0.140000</td>
<td>4.100000</td>
<td>1.040000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>211.8607</td>
<td>7.478814</td>
<td>13.96030</td>
<td>11.53531</td>
</tr>
<tr>
<td>Skewness</td>
<td>3.452808</td>
<td>2.000104</td>
<td>1.951182</td>
<td>1.896636</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>14.68546</td>
<td>5.970564</td>
<td>7.705845</td>
<td>6.499551</td>
</tr>
<tr>
<td>Observations</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: Author’s computation using E-views 8.0 (2016).

Where: EPS= Earnings per Share, PER= Price–earnings ratio, BVPS= Book Value per Share, DPS= Dividend per Share.
Table 1 above presents the result for the descriptive statistics for the variables. As observed, stock price volatility stood on average of 99.08600 which fluctuates from a minimum of 2.880000 and a maximum of 1046.570. The dispersion around the mean indicated by the value of standard deviation can be seen to be given by 211.8607. The skewness(3.452808) is positive, this indicates that the right tails are extreme, the data series for this variable indicates a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. Also, in relation to kurtosis (14.68546), stock price volatility is leptokurtic, indicating fat tails than normal distribution; this variable is heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.

Earnings per share stood on average of 5.091000 which fluctuates from a minimum of 0.140000 and a maximum of 28.08000. The dispersion around the mean indicated by the value of standard deviation can be seen to be given by 7.478814. The skewness(2.000104) is positive, this indicates that the right tails are extreme; the data series for this variable indicates a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. In relation to kurtosis (5.970564), Earnings per share is leptokurtic, indicating fat tails than normal distribution; this variable is heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.

Price-earnings ratio stood on average of 20.24260 which fluctuates from a minimum of 4.100000 and a maximum of 78.04000. The dispersion around the mean indicated by the value of standard deviation can be seen to be given by 13.96030. The skewness(1.951182) is positive, this indicates that the right tails are extreme; the data series for this variable indicates a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. Similarly, in relation to kurtosis (7.705845), Price-earnings ratio is leptokurtic, indicating fat tails than normal distribution; this variable is heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.

Book value per share stood on average of 10.78460 which fluctuates from a minimum of 1.040000 and a maximum of 51.21000. The dispersion around the mean indicated by the value of standard deviation can be seen to be given by 11.53531. The skewness(1.896636) is positive, this indicates that the right tails are extreme; the data series for this variable indicates a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. In the same way, in relation to kurtosis (6.499551), Book value per share is leptokurtic, indicating fat tails than normal distribution; this variable is heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.

Dividend per share stood on average of 3.385800 which fluctuates from a minimum of 0.000000 and a maximum of 24.00000. The dispersion around the mean indicated by the value of standard deviation can be seen to be given by 5.524147. The skewness(2.102809) is positive, this indicates that the right tails are extreme; the data series for this variable indicates a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. In the same way, in relation to kurtosis (6.665172), Dividend per share is leptokurtic, indicating fat tails than normal distribution; this variable is heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.

Model 1

Table 2.1a: Hausman test Result

<table>
<thead>
<tr>
<th>Equation: Untitled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test cross-section random effects</td>
</tr>
<tr>
<td>Test Summary</td>
</tr>
<tr>
<td>Cross-section random</td>
</tr>
</tbody>
</table>

Source: Author’s computation using E-views 8.0 (2016).

Table 2.1b: Regression Result of model 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>MODEL 1</th>
<th>Std Error</th>
<th>t-Stat.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-127.7059</td>
<td>49.88503</td>
<td>-2.56005</td>
<td>0.0140</td>
</tr>
<tr>
<td>EPS</td>
<td>70.53405</td>
<td>8.216916</td>
<td>8.58400</td>
<td>0.0000</td>
</tr>
<tr>
<td>R²</td>
<td>0.82950</td>
<td>0.806172</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.806172</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E of Reg</td>
<td>198.1857</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Statistic</td>
<td>41.76021</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob.(F-Stat)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obs</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-Sections</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>2.425495</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: SPV

Source: Author’s computation using E-views 8.0 (2016).

SPV = α₀ + α₁ EPS + μ

*significance at 5%
SPV = -127.7059 + 70.53405EPS + 0.175

Interpretation of Result

The above model tested the effect of Earnings per Share (EPS) on Stock Price Volatility (SPV). The result shows that Earnings per Share has a positive significant impact on stock price volatility. This can be seen from the coefficients and probability of t-stat in table 2.1b above; \( \alpha = 70.53405, \text{Prob} = 0.0000 \). The probability of t-statistics for Earnings per Share is lower than the acceptable 5%.

Furthermore, the R-squared which is the coefficient of determination shows the magnitude of variations caused on stock price volatility by the explanatory variable Earnings per Share to be about 82.5%. This indicates that about 82.5% variation in Stock Price Volatility is attributed to the influence of Earnings per Share while the remaining 17.5% is caused by other explanatory factors outside this model and this is captured by the error term.

Thus, the result indicates that Earnings per Share has a strong positive relationship with Stock Price Volatility. Since \( R^2 \) is above 50% at about 82.5%, the stated independent variable in the model is good enough to explain Stock Price Volatility. The significance level is 0.000; this in essence shows that there is a significant relationship between the variables. Hence, we reject our null hypothesis and accept our alternative hypothesis which says that Earnings per Share have a significant impact on Stock Price Volatility.

**Decision:** From Table 2.1b, at the adopted level of significance 0.05, the F-statistics is 41.76021 with the P-value 0.000000, which is less than 0.05. Therefore, reject the null hypothesis and accept the alternative, which says that earnings per share has a positive impact on the stock price volatility of quoted manufacturing companies in Nigeria. This implies that there is a significant relationship between earnings per share and stock price volatility.

**Model 2**

The above model tested the effect of Price-earnings ratio (PER) on Stock price volatility (SPV). The result shows that Price-Earnings ratio has no significant impact on stock price volatility. This can be seen from the coefficients and probability of t-stat in table 2.2b above; \( \beta = 5.563081, \text{Prob} = 0.1947 \). The probability of t-statistics for Price-earnings ratio is greater than the acceptable 5%.

Furthermore, the R-squared which is the coefficient of determination shows the magnitude of variations caused on Stock Price Volatility by the explanatory variable price-earnings ratio to be about 3.54%. This indicates that about 3.54% variation in Stock Price Volatility is attributed to the influence of Price-earnings ratio while the remaining 96.46% is caused by other explanatory factors outside this model and this is captured by the error term.
Thus, the result indicates that Price-earnings ratio has a weak negative relationship with stock price volatility, since $R^2$ is less than 50% at about 3.54%, the stated independent variable in the model is not good enough to explain the changes in stock price volatility. The significance level is 0.1947; this in essence shows that there is an insignificant relationship between the variables. Hence, we accept our null hypothesis and reject our alternative hypothesis which says that Price-Earnings ratio has no significant impact on stock price volatility.

**Decision:** From Table 2.2b, at the adopted level of significance 0.05, the F-statistics is 1.765183 with the P-value of 0.190261, which is more than 0.05. Therefore, accept the null hypothesis and reject the alternative, which says that price-earnings ratio has no impact on the stock price volatility of quoted manufacturing companies in Nigeria. This implies that there is a no significant relationship between price-earnings ratio and stock price volatility.

**Model 3**

**Table 2.3a: Hausman test Result of model 3**

<table>
<thead>
<tr>
<th>Equation: Untitled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test cross-section random effects</td>
</tr>
<tr>
<td>Test Summary</td>
</tr>
<tr>
<td>Cross-section random</td>
</tr>
</tbody>
</table>

Source: Author’s computation using E-views 8.0 (2016).

**Table 2.3b Regression Result of model 3**

<table>
<thead>
<tr>
<th>Variable</th>
<th>MODEL 3</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>t-Stat.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-128.4948</td>
<td>101.0746</td>
<td>-1.271287</td>
<td>0.2098</td>
<td></td>
</tr>
<tr>
<td>BVPS</td>
<td>32.91962</td>
<td>3.733151</td>
<td>8.818186</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.623224</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>0.615374</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E of Reg</td>
<td>200.6713</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Statistic</td>
<td>79.39649</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob.(F-Statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obs</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-Sections</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>1.256203</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s computation using E-views 8.0 (2016).

SPV = φ0 + φ1 BVPS + μ

SPV = -128.4948 + 32.91962 BVPS + 0.377

**Interpretation of Result**

The above model tested the effect of Book value per share (BVPS) on stock price volatility (SPV). The result shows that Book value per Share has positive significant impact on stock price volatility. This can be seen from the coefficients and probability of t-stat in table 2.3b above; $\phi_1 = 32.91962$, Prob = 0.0000. The probability of t-statistics for Book value per Share is less than the acceptable 5%. Furthermore, the $R^2$-squared which is the coefficient of determination shows the magnitude of variations caused on Stock Price Volatility by the explanatory variable Book value per Share to be about 62.3%. This indicates that about 62.3% variation in Stock Price Volatility is attributed to the influence of Book value per Share, while the remaining 37.7% is caused by other explanatory factors outside this model and this is captured by the error term.

Thus, the result indicates that Book value per Share has a moderate positive relationship with stock price volatility, since $R^2$ is above 50% at about 62.3%, the stated independent variable in the model is good enough to explain the changes in Stock Price Volatility. The significance level is 0.000; this in essence shows that there is a significant relationship between the variables. Hence, we reject our null hypothesis and accept our alternative hypothesis which says that Book value per Share has a significant impact on stock price volatility.

**Decision:** From Table 2.3b, at the adopted level of significance 0.05, the F-statistics is 79.39649 with the P-value 0.000000, which is less than 0.05. Therefore, reject the null hypothesis and accept the alternative, which says that book value per share has a positive impact on the stock price volatility of quoted manufacturing companies in Nigeria. This implies that there is a significant relationship between book value per share and stock price volatility.
Model 4

**Table 2.4a: Hausman test Result of model 4**

<table>
<thead>
<tr>
<th>Correlated Random Effects - Hausman Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation: Untitled</td>
</tr>
<tr>
<td>Test cross-section random effects</td>
</tr>
<tr>
<td>Test Summary</td>
</tr>
<tr>
<td>Chi-Sq. Statistic</td>
</tr>
<tr>
<td>Cross-section random</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s computation using E-views 8.0 (2016).

**Table 2.4b Regression Result of model 4**

<table>
<thead>
<tr>
<th>Variable</th>
<th>MODEL 4</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>t-Stat.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-182.8720</td>
<td>43.56752</td>
<td>-4.197440</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>120.9174</td>
<td>10.84681</td>
<td>11.14774</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.878274</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.864442</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E of Reg</td>
<td>165.7398</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Statistic</td>
<td>63.49353</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob.(F-Stat)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obs</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-Sections</td>
<td>5</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>1.820337</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: SPV

*significance at 5%

Source: Author’s computation using E-views 8.0 (2016).

SPV = $\beta_0 + \beta_1$DPS + $\mu$

SPV = -182.8720+120.9174 DPS + 0.122

**Interpretation of Result**

The above model tested the impact of Dividend per share (DPS) on Stock Price Volatility (SPV). The result shows that Dividend per share has positive significant effect on stock price volatility. This can be seen from the coefficients and probability of t-stat in table 2.4b above; $\beta_1 = 32.91962$, Prob $= 0.0000$. The probability of t-statistics for Book value per Share is lower than the acceptable 5%. Furthermore, the R-squared which is the coefficient of determination shows the magnitude of variations caused on Stock Price Volatility by the explanatory variable Dividend per share to be about 87.8%. This indicates that about 87.8% variation in Stock Price Volatility is attributed to the influence of Book value per Share, while the remaining 12.2% is caused by other explanatory factors outside this model and this is captured by the error term.

Thus, the result indicates that Dividend per share has a strong positive relationship with stock price volatility, since $R^2$ is above 50% at about 87.8%, the stated independent variable in the model is good enough to explain the changes in Stock Price Volatility. The significance level is 0.000; this in essence shows that there is a significant relationship between the variables. Hence, we reject our null hypothesis and accept our alternative hypothesis which says that Dividend per share has a significant impact on Stock Price Volatility.

**Decision:** From Table 2.4b, at the adopted level of significance 0.05, the F-statistics is 63.49353 with the P-value 0.000000, which is less than 0.05. Therefore, reject the null hypothesis and accept the alternative, which says that dividend per share has a positive impact on the stock price volatility of quoted manufacturing companies in Nigeria. This implies that there is a significant relationship between dividend per share and stock price volatility.

Model Five

**Table 2.5a: Hausman test Result of model 5**

<table>
<thead>
<tr>
<th>Correlated Random Effects - Hausman Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation: Untitled</td>
</tr>
<tr>
<td>Test cross-section random effects</td>
</tr>
<tr>
<td>Test Summary</td>
</tr>
<tr>
<td>Chi-Sq. Statistic</td>
</tr>
<tr>
<td>Cross-section random</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s computation using E-views 8.0 (2016).
A survey of the relationship between stock price volatility and a variety of period 2005 during stock price prediction in the Nigerian stock market. In AICPA views 8.0 (2016). SPV= α + βEPS + βPER + β2BVPS + β3DPS + µ

SPV = -204.8153 + 54.71082EPS + 0.846298PER - 21.85169BVPS + 110.7884DPS + 0.109

Table 2.5b: Regression Result of model 5

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>t-Stat.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-204.8153</td>
<td>58.14820</td>
<td>-3.522297</td>
<td>0.0011</td>
</tr>
<tr>
<td>EPS</td>
<td>54.71082</td>
<td>26.08200</td>
<td>2.097647</td>
<td>0.0421</td>
</tr>
<tr>
<td>PER</td>
<td>0.846298</td>
<td>2.336600</td>
<td>0.361219</td>
<td>0.7191</td>
</tr>
<tr>
<td>BVPS</td>
<td>-21.85169</td>
<td>14.06181</td>
<td>-1.553974</td>
<td>0.1279</td>
</tr>
<tr>
<td>DPS</td>
<td>110.7884</td>
<td>22.92856</td>
<td>4.831893</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R² = 0.890824
Adj. R² = 0.869522
S.E of Reg = 162.6047
F-Statistic = 41.81762
Prob(F-Stat) = 0.000000
Obs = 50
Cross-Sections = 5
Durbin-Watson = 2.038287

Dependent Variable: SPV
Source: Author’s computation using E-views 8.0 (2016).

Interpretation of Result
The above model tested the joint impact of Earnings per Share, Price-earnings ratio, Book value per Share, Dividend per Share on Stock Price Volatility (SPV). The result shows that Accounting Information has a significant impact on stock price volatility, which can be seen from the coefficients and probability of f-stat in table 4.2.5b above; F-stat =41.81762, Prob = 0.0000.

Furthermore, the R² squared which is the coefficient of determination shows the magnitude of variations caused on Stock Price Volatility by the explanatory variables (Earnings per Share, Price-earnings ratio, Book value per Share and Dividend per Share) to be about 89.1%. This indicates that about 89.1% variation in Stock Price Volatility is attributed to the joint influence of the explanatory variables, while the remaining 10.9% is caused by other explanatory factors outside this model and this is captured by the error term.

Thus, the result indicates that Accounting Information has positive relationship with Stock Price Volatility. Hence, we reject our null hypothesis and accept our alternative hypothesis which says that Accounting Information has a significant impact on Stock Price Volatility.

III. CONCLUSION AND RECOMMENDATION
This study investigated the impact of accounting information on stock price volatility by using the Ordinary Least Squares regression. The R² coefficient of Determination was adopted to show the degree of variation of Stock Price Volatility that is explained by the explanatory variable. Also, the T-test and F-test was adopted to show the degree at which both independent variable affects the dependent variable. This study selected 5 companies for the period 2005–2014. The regression analysis reveals a significant and positive impact of accounting information on stock price volatility. Individual regression of the proxies for Accounting Information shows that Price-earnings ratio has no significant impact on stock price volatility, whereas earnings per share, book value per share, dividend per share show significant impact on stock price volatility. However dividend per share shows the most sensitive variables with stock price volatility of quoted manufacturing companies in Nigeria.

Thus, the researcher suggest the following recommendation that there should be adequate and proper regulation of accounting reported by relevant capital market authorities, increased investors awareness through increased knowledge of financial analysis, reassurance of safeguard of investment by the Nigerian Government, better accounting information disclosure and improved and quality financial reporting and ethical standards in the preparation and presentation of accounting information.

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The impact of dividend policy on stock prices of quoted firms in Nigeria.

Investments - of accounting information on investor's decision,
Value relevance of financial accounting inf
Accounting information and stock price reaction of listed companies


