

FINANCIAL VARIABLES AND SHARE PRICES OF QUOTED FIRMS IN NIGERIA: AN EMPIRICAL EVIDENCE

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ABSTRACT

This paper examines the impact of selected financial variables on the behaviour of share prices in Nigeria. Ex-post facto method was adopted to facilitate dependence on the strength of historical data available in the annual financial statements of the sampled quoted firms over the reference period. To achieve the major objective, we specified and estimated an empirical model in which we related share prices to such determining financial variables as cash flow from operating activities, earnings per share, returns on equity and dividend per share. The result obtained showed that earnings per share and returns on equity impacted negatively but not significantly on share prices. While only cash flow from operating activities was found to impact positively and significantly on share prices behaviour. Dividend per share though was found to exert positively on share prices, but it failed the statistical significance test. In light of the findings of the study, we suggest that firms' policy options that are capable of curtailing their earnings per share as well as return on equity have the tendency to be beneficial to stock prices and therefore should be explored by policy makers in the Nigerian quoted companies. However, in doing so, caution should be taken in exercising the control of earnings per share as a strategy to help checkmate stock prices so as to avoid policy options that have the tendency to make the equity investors react irrationally. We therefore recommend that quoted companies' policy makers to constantly keep a watch on the news impact of the key financial variables especially earnings per share on stock prices / returns shortly after their annual financial reports are made public.

Keyword: Share prices, return on equity, dividend per share, earnings per share, cashflow

1. Introduction

In every economy, there are a lot of investment channels and investment in shares is one of them. When taking decisions as regard investment in stocks of quoted firms, most investors often consider the financial statements to ascertain relevant information necessary to enhance the investment decisions. Managers of the companies are also mindful of the shareholders' wealth

maximization by constantly evaluating the content of the financial reports. Thus, such financial information as shown in the annual reports has the tendency to influence the behaviour of the prices of the shares of the respective companies in the stock market in a systematic manner. Investors tend to take more precaution in recent times than in the past. They seem to advance ways of critically

evaluating the fundamental factors that interplay to influence stock prices of listed companies given the stiff global economic challenges. One obvious way is by looking at the values of the financial variables as shown in published annual reports of the firms. Morick and Gregory (2003) note that it becomes imperative for companies to measure the value they create for their shareholders by way of keeping track of the value created year-to-year. This helps to make better decisions that will improve shareholders' value. In doing so, there is need to do a detail and critical analysis of the financial statement by the corporate managers. The International Accounting Standard number one (IASI) clearly states the contents of the financial statements to encompass statements of accounting policies, statement of comprehensive income, statement of financial position (balance sheet), statement of cash flows, statement of changes in equity and notes to the accounts. Financial variables can majorly be extracted from the comprehensive statement of income, statement of financial positions as well as cash flow statements. Such financial variables encompass earnings per share (EPS), Dividend per share (DPS), Return on assets (ROA), return on equity, cash flow from operating activities, prices earnings ratio, dividend yield (DY), among others. Most of these financial variables are majorly computed ratios. In developed and developing countries, several studies have linked the relationship between macro-economic variables, corporate governance and behaviour of share prices (see for example, Samonta, 2010; Christopher, Rufus, & Ezekiel, 2009; Adam & Tweneboah 2008). Similarly, studies such as Irungu (2013) and O'Hara, Lazdowski, Moldovean and Samuelson(2000) both have examined the impact of selected financial variables on share prices of publicly listed firms in developed countries; albeit, in developing countries such

as Nigeria where empirical evidence in this area is relatively scanty to the best of our knowledge. One of the objectives of financial statements is to enable the myriad of external users evaluate the financial variables capable of influencing the share prices of quoted companies prior to investing their hard earned money; besides, the analysis of the operational characteristics and corporate governance disclosure. We observe that the fallouts of the recent financial market crisis which occurred in 2008 have remained a source of worry and concern to policy makers, investors and the general public. These worries appear to centre on the adverse effects of the volatility in share prices on both the real and financial sectors of the economy. These fallouts include massive pull – out of investment funds unexpectedly, thus, causing a devastating impact on the value of the affected firms. The question therefore is: can the news about changes in the firm value due to sharp fall in certain financial variables such as earnings per share, cashflows from operations and related variables explain the steep rise or fall in share prices? The common belief here is that the investors tend to evaluate the value of some of the financial variables in attempt to determine whether to pull in more funds into shares investment or otherwise.

In this paper, an attempt is made to examine the impact of the large and persistent changes in financial variables on share prices. Some researchers, especially from advanced countries, are of the view that large and persistent changes in financial variables can significantly engender share prices (see Chowdlurry, 2010; O'Hara, Lazdowski, Moldovean, & Samuelson, 2000). In contrast, there is a strong view that argues that changes in financial variables have little or no effect on share prices (see Kennedy, 2005; Damati & Suhairi, 2006; Menaje, 2012). Most of the empirical studies that have

attempted to resolve this issue are focused on advanced economies and their findings are largely contradictory. Although the contradictions in the results have been blamed on the choice of methodology, data and time period, they may also be due to differences in the structure of the economy. The motivation of this study therefore is to empirically examine the implications for changes in financial variables on share prices in a developing Nigerian economy, using a simple share price model and taking advantage of recent econometric procedures. Specifically, the thrust of the paper is to examine the effect of earnings per share, return on equity and dividend per share on share price behaviour of quoted firms, in view of the fact that there has been an inconclusive state of studies devoted specifically at exploring the relationship between various financial variables and behaviour of share prices in Nigeria. To this end, we specify and estimate an econometric model in which we attempt to explain the behaviour of share prices of quoted firms in the Nigerian stock market using earnings per share, return on equity and some control variables. In doing this, we structured the paper along the following lines: section two is devoted to a brief review of the existing related literature, The next section presents the theoretical considerations as well as the specification of the model for empirical testing. Next is section four, which is devoted to the analysis of the empirical results obtained from estimating the model. The last section presents the discussion of results obtained as well as the summary of the paper and the concluding remarks.

2. Review of Related Literature

2.1 Conceptual Issues: Share price

Investment in equity shares is one of the most liquid forms of investment. Market price of the share is one of the most important factor

which affects investment decisions of investors. Theories have shown that the market price of a share depends upon many factors, such as earning per share, dividend per share, size of the firm, among others such as expected profits and expected dividend. For instance, the simple fundamental model proposes that stock prices depend on expected dividend and the rate at which these dividends are discounted to the present. Similarly, the efficient market or *martingale* model is based on additional assumptions that investors are well informed and rational in their expectation concerning profit performance of firms and that any set of information is freely and immediately reflected in stock prices. Thus, the efficient market model, in conjunction with the market fundamentals, provides a simple explanation of the fluctuations in stock prices. The martingale model predicts that stock prices fluctuate only as investors respond to new information on changes in market and firm fundamentals. This implies that, the extent of stock price changes is a reflection of the efficiency of the stock market as well as how the new information alters both market and firm fundamentals. However, a number of empirical studies have found evidence that appears to suggest that stock markets are generally inefficient (see Daniati, & Suhairi, 2006; Udegbumam & Eriki, 2001). These studies find that factors other than market fundamentals significantly exert on stock prices and thus cause stock price to shift from fundamental values. This is the most frequent question that most stock/options traders may have in their minds. Share prices changes due to market forces, i.e. buying and selling of the available stocks in the market. Moreover, investment in equity shares is one of the major avenues of investment that yields considerable returns to investors. It is also a source of financing for the capital requirements of firms. Returns from such

equity investments are compelled to vary owing to the movement of share prices, which depends on various factors. Such factors that influence share prices could be either firm specific internal factors such as earnings, dividend, book value, etc., or external factors such as: interest rate, government regulations and foreign exchange rate. Having knowledge of such factors and their possible impact on share prices is highly appreciable on the part of both firms and investors. Since share prices convey information to the outside world about the current and future performance of firms, it is imperative for the managers of the firms to pay due attention to the factors that influence share prices. This has the tendency to enhance the firm value in the market. Only publicly quoted companies' shares are usually sold and bought in the stock market. The shares could be ordinary or preference shares. One of the value measurements of a company is the market value of all its' existing and outstanding shares as reflected in the stock price (Udegbumam & Oaikhenan, 2002; Machfiro & Sukoharsono, 2012). A share price therefore is the price of a single share of a company's stock. The share price of a publicly traded company is determined by the supply and demand forces in the market (Menaje, 2012). Usually, individual or corporate entities may invest in the shares of quoted companies for numerous purposes, either for dividend or capital appreciation purpose. Before an investor, whether corporate or individual, invests in the shares of quoted companies, assessment of the financial statement is paramount.

The main aim of financial reporting is to provide information that is useful to myriad of users to enhance investment decision making. According to Menaje (2012), share investors desire to earn money that is normally higher than the returns from a regular bank deposit interest and the share investor could be any individuals or firm who has some excess cash

and expects the highest possible rate of return from the investment. Also, Menaje (2012), notes that the returns could be in the form of dividends income particularly for long-term investors or income from trading securities, for short-term investors. This makes the determination of the behaviour of share prices a crucial issue to the investors in the stock market. Where investors are dissatisfied with the financial indicators as disclosed in the final accounts of the firm, resentment with respect to investing in the shares of the company may set in, leading to withdrawal of their investment resources and channelling it to other investment channels with more attractive rate of returns rather than in shares (Oaikhenan, 2003). The aftermath of this is a reflection on the share price, possibly a decline in the market price of the shares. This is in line with Menaje (2012) who assert that regardless of the variables used to predict share prices or its returns, if the information is relevant, which means that it contains something new, one need to observe the investors' reaction which has the tendency to cause a shift / change in price of the stock which also affects the volume of trade as the market adjusts for the new information (Bouwman & Frishkoff, 1995). There is no doubt that what happens in the companies has signaling effects on the share prices of firms in the stock market. Changes in share prices emanates from the amount of information sent into the stock market, given that the market is efficient (Fama, 1965).

Return on equity (ROE) is a measure of how well management has used capital invested by the shareholders. It shows the percent return for the amount invested by the shareholders. It is calculated by dividing net income by average shareholders' equity (including retained earnings).

The view that corporate policies affect aggregate business activities as well as the value of the firm in the market place appears

to have been widely accepted in the literature as can be seen from the studies by Udegbumam and Oaikhenan, (2002), Mlonzi, Kruger and Nthoesane, 2011, as well as Musyoki, (2011). More recent empirical studies have however come up with the interesting submission that corporate changes bring about changes in business conditions, which equally impact the firm value and thus its market share price [see for example, Inyama & Ozouli (2014); Hemadivya & Devi, (2013); and Ebrahimi & Chadegani, (2011)]. Thus, return on equity bears on share prices via their effects on the overall business and economic conditions. Specifically, return on equity impacts on the market share price through its effect on such fundamental micro-variables such as expected future dividend, dividend payout, as well as investors' rational decision to invest or not. This reaction, no doubt, has the tendency to cause the value of the firm in the market to appreciate and thus, its share price. Implying that increase in return on equity is expected to impact share price positively.

Earnings per share (EPS) is another measure of financial performance. It is still earnings based. It is obtained by dividing the operating income by the number of shares issued by the firm. The popularity of this measure is based on the following attributes: Investors need a simple metric that summarizes corporate performance, which is easy to understand and is relatively comparable across companies. EPS satisfies these criteria; Analysts assimilate all the available information and summarize it in one number, that is, EPS; and analysts also evaluate a firm's progress based on whether a company hits consensus EPS and investment banks assess analysts' performance by evaluating how closely they predict the firm's predicted EPS (Graham, Harvey & Rajgopal, 2005; Venanzi, 2006).

EPS is a major component used to calculate the price-to-earnings valuation ratio. It is one of the most carefully followed metrics in investing (Investopedia.com/terms/e/eps.asp). EPS is similarly seen as the amount of income that belongs to each share of common stock. As an important tool for investors, it is used for valuing stock (www.ycharts.glossary/term/eps). This is further clarified to mean the portion of a company's earnings, net of taxes and preferred stock dividends, which is allocated to each share of common stock. The EPS is chosen because, as a ratio quantity, it offers a relative measure of performance which helps to eliminate externalities. This has become the most important computation for many investors. No financial statistic is cited more widely than the EPS. Specifically, the desirability of the EPS hinges on its feature: The market prices of common stocks are closely related to EPS; it is used in the evaluation of the profitability of corporations; it helps to determine whether the market price of ordinary stock is reasonable (by computing price-earning ratio, which is obtained by dividing market price of shares by the earnings per share) (Mosich, 1989); it tells how much profit was generated on per share basis and EPS growth shows how the company's earnings are growing on per share basis (Evans, 2000). It establishes a reference that provides a relationship between different financial balances. The simple or fundamental model (as earlier stated) of share price determination describes price behaviour in every stock market. For instance, Udegbumam and Oaikhenan (2002) note that it is intuitively plausible to argue that stock prices will vary in response to changes in such factors as expected returns / variance of return on stock, expected stream of dividends, as well as expected future prices of stock. Apparently, this means that stock prices move in response to the behaviour of its fundamentals.

Consequently, it can be argued that corporate earnings and hence share prices depends fundamentally on such determinants of financial performance as earnings per share, profitability and magnitude of cash flows from operations.

Empirical Studies

Several studies that have sought to verify the impact of financial variables on share prices behaviour are in the extant literature. Some of these studies have produced empirical evidence that have either validated the *apriori* expectations based on the relationship between the variables or indicate mixed results. Martini, Mulyono and Khairunzka (2009), for example, empirically investigated the impact of financial variables such as profitability, return on equity, liquidity, leverage, market ratio, size and cash flow at explaining the stock returns Indonesia data. Their empirical results showed the existence of a positive relationship between net profit margin, return on equity and debt ratio and stock prices respectively. Similarly, Chowdlurry (2010) conducted an empirical study in which he tested the impact of financial variables such as dividend payout, earnings per share and current ratio. The results indicate that the variables have positive correlation with firms' stock price. Kabajeh, Nuaiamat and Dahmash (2012) in their empirical study of the relationship between variables such as: return on equity (ROE) and Return on Investment (ROI) and share prices using Jordanian data, their results indicate a positive relationship between the ROA, ROE and ROI and share prices. Menaje (2012) note that previous studies used various financial and economic variables to determine changes in share prices yet showed mixed results. However, most recent empirical results appear to contradict the outcome of previous studies.

Earnings per share is one of the financial variables usually disclosed by firms on the

income statement for a particular period. Fluctuations in the EPS may result to the volatility of the share prices of the quoted companies. It implies that EPS could be a significant predictor of changes in share prices if there is an element of instability in its value. However, previous studies on EPS as a predictor of share price changes generated mixed results (Menaje, 2012). For example, O'Hara *et al.* (2000), conducted empirical study involving EPS, on the basis of their findings, they conclude that companies which increase their earnings per share on a consistent basis, show a strongly positive correlation between earnings per share and share prices. In the same vein, Irungu (2013) note that previous studies on EPS as a predictor of share price generated mixed results.

Return on investment (ROI) is concerned with the rate of returns expected by investor on the investment in a company. Abadi, Fathi and Alikhani (2012) empirically examined the relationship between return on equity (ROE) and share prices using Tehran data. The empirical evidence they obtained strongly support evidence of a positive relationship between ROE and stock prices. Sparta and Februwatys (2005) in their empirical examination on the effect of ROE on stock returns using BEJ data showed that ROE significantly influence stock returns.

Contrarily, Mais (2005) empirical investigation on the effect of financial ratios such as ROE and other similar variables on stock prices using Jakantas data, produced evidence that ROE had no significant impact on stock prices. Kennedy (2005) using BEJ data produced empirical evidence supporting that ROE has negative effect on stock returns. In light of the inconclusive state of previous empirical evidences thus far obtained upon the behaviour of share prices in relation to return on equity (ROE), we deem it fit to employ measure that rely on financial ratios, taking

advantage of the recent advances in the econometric modelling of cross sectional data.

In accounting and finance, cash flow is the difference between cash flow and cash out flow from the activities undertaken by corporate entities. Such cash flow encompasses cash flow from operating activities, investing activities and financing activities. Evaluation of the cash flow from each of the activities by investors is essential when taking investment decision on the equity of quoted firms. A constant decrease from each of the activities may send negative signal to investors that the cash is not judiciously managed and accounted for by the corporate managers. Daniati and Suhairi (2006). in their empirical study on the effect of cash flow from operating activities on expected returns found that the variable (CFO) does not significantly impact on stock returns viz-a-viz share prices. In the same vein, Cheng *et al.* (2012) investigate the relationship between cash flow and stock price. The empirical results indicate an inverse relationship between operating cash flow and stock prices. This implies that increase in operating cash flow has the tendency to engender a fall in stock prices. Khodadi and Janjani (2010) conducted a research entitled investigating reaction of investors to earning prediction, cash flows and accruals in Tehran Stock Exchange, results indicate that investors had a relatively correct reaction to earning predictions (but not as much as cash flows). In other words, in the post-prediction year, there was increased demand for stocks of the companies which gained earning in excess of the predicted earning and caused increased stock price of these companies. As a result, return of these companies increased and they could obtain return in excess of average market return.

O'Hara, Lazdowski, Moldovean and Samuelson (2000) empirically investigated implications of earnings per share (EPS) for changes in share prices. The study reveals a

strong positive correlation between earnings per share (EPS) and share prices. So also, Abadi, Fathi and Alikanis (2012) who shows a negative effect of adopted financial variables on stock prices. In another study, their result also shows that cash flow from operating activities does not significantly affect expected returns. In addition, Irungu (2013) shows that EPS may not be a good predictor of share prices on a short-term basis. Hobarth (2006) shows empirical evidence that cash flow from operating activities affect stock returns. Kennedy (2005) empirically examines the effect of ROE on market price of shares. The result indicates that ROE has a negative effect on stock returns. Given the inconclusive state of the empirical evidence on the impact of financial variables on share prices of companies thus far obtained, we deem it fit to employ econometric tools to bear on the examination of the effect of company financial specifics on share prices behaviour, taking advantage of recent advances in econometric modeling in recent times.

3. Some Theoretical Considerations

3.1 Return on Equity and Share Prices:

Finance and economic theories offers substantial guidance in the analysis of the effect of most financial variables on stock prices. As a result, the theoretical position on the relationship between both variables is clear and straightforward. Indeed, theory posits the existence of a positive relationship between return on equity and share prices. The reasoning here emanates from the view that the returns on equity is a yardstick to measure how successful or the per share yield on equity investment. Thus, it can be argued that as returns to equity increases compared to other investments, equity investment becomes more attractive. In the same vein, a fall in the returns on equity, discourages equity holders from putting their wealth in equity investment, rather prefer other

investments whose returns are relatively higher. It is therefore reasonable to expect high and perhaps rising stock prices in the face of a rising returns on equity (Udegbumam & Oaikhenan 2002).

3.2 Earnings per Share and Share Prices:

Since earnings per share indicate a percentage of the net profit that accrues to per share of the wealth holders, it is one indicator that investors use to determine their income at a glance. In this regard, theory posits that deterioration in earnings per share engenders a decrease in share prices, given that it discourages equity holders, which results in reallocation of wealth to other investment opportunities rather than on invest on stock (Huang, & Kracaw, 1984; Mlonzi, Kruger & Nthoesane, 2011; Inyama & Ozouli, 2014). Consequently, an increase in earnings per share attracts more investment on such stocks, thus causing an increase in the share prices, otherwise, it is reasonable to expect low and perhaps a serious fall in share prices in the face of a falling investment in stocks (Edo, 1997; Udegbumam & Oaikhenan, 2002).

3.3 Cash flow and Share Prices: A number of studies have sought to empirically examine the effect of cash flow from operating activities on share prices. Most of these studies came up with mixed results as well as surprising conclusion that there exists negative relationship between the variables [see for example, Daniati and Suhairi (2006); Cheng *et al.* (2012)]. The reasoning in this regard is that increase in cash flow from operating activities which is not accompanied by a recreation of wealth or does not translate to increase in the value of the firm serves to unleash excess liquidity within the firm. Prices of shares are then bound to fall as the value of the firm declines. This causes the investors to diversify their investments to other investment outlets that have more attractive

returns. On the other hand, for cash flows that generate additional value to the firm by way of profit maximization, then the proportion of the profit that accrue to the share holders appreciate, thus causing more people to rush after the shares, this can cause the share price to rise. Therefore, *a priori*, the effect of cash flow from operating activities on share price is expected to be positive.

3.4 Dividend per Share and Share Prices: It can also be argued that dividend per share should impact on share prices, given that dividend per share is a function of profit after all tax and other deductions to the total number of shareholdings. This is similar to earnings per share. Investors react by taking advantage of opportunities that offer them more attractive returns. A high and perhaps rising dividend per share should engender a rise in the number of people seeking to buy the shares of that particular company, thus, leads to a corresponding rise in price of the shares (Udegbumam & Oaikhenan, 2002; 2003).

4. Methodology

In an attempt to empirically determine the effect of some financial variables on the share prices of quoted companies over the reference period 2008 – 2012, we adopted ex-post facto, descriptive and correlation research design. The population of the study is the entire quoted companies in the Nigeria Stock Exchange which amounted to one hundred and ninety eight companies (198) (NSE fact book, 2012), but based on the availability of data, we utilized 10 selected quoted companies based on judgmental sampling technique to ensure a fair representation of the various sectors of the Nigerian economy. The sampled companies include: Aluminum Extrusion Plc, Fidelity Bank Plc, Sterling Bank Plc, FCMB Plc, Avon Nigeria Plc, Dangote Cement Plc, Conoil Plc, Japaul Oil & Maritin

service Plc. Equity Assurance Plc., and Greit Nigeria Plc., were selected from various sectors of the Nigerian economy to have a fair representative sample. The nature of the study necessitates secondary data which we sourced from the selected quoted companies' annual financial reports and various publications of the Nigerian Stock Exchange (NSE).

4.1 The Model

The variables utilized in the specification of the model to be tested empirically in this

study in the light of the discussions in the preceding section include earnings per share (EPS), return on equity (ROE), dividend per share (DPS), as well as cash flow from operating activities (CFO). We adopted and extended Menaje (2012) framework who used a multivariate equation to determine the relationship between financial variables and share prices. Accordingly, the model for empirical testing in this paper can be specified in its functional form as:

$$SP = f(EPS, ROE, DPS, CFO) \dots\dots\dots (1)$$

In a form suitable for empirical testing, equation 1 is further specified as:

$$SP = \beta_0 + \beta_1 eps + \beta_2 roe + \beta_3 dps + \beta_4 cfo + e_t \dots\dots\dots (2)$$

Where,

SP = share price

eps = earnings per share

roe = return on equity

dps = dividend per share

cfo = cash flow from operating activities

e_t = stochastic disturbance term assumed to satisfy the usual properties of zero mean, unit variance and zero covariance, included to capture the non-deterministic nature of the specification.

The presumptive signs of the parameters in the specification are: $\beta_1, \beta_2, \beta_3, \beta_4 > 0$.

The coefficients of $\beta_1 - \beta_4$ are the independent variables representing earnings per share, return on equity, dividend per share and cash flows from operating activities. e is the error term while β_0 is the intercept. In this study, the random effect method is used in analyzing the data and in testing of the hypotheses raised. The pooled estimation technique is employed in this study using econometric computer software E-views8.0.

4.2 Variables Description

In the specified model, the stock price used is the average of the December daily stock prices of selected firms over the reference period (Malik, 2012; Uwuigbe, 2013). The justification

for this measure lies in the ideology that in an efficient stock market, daily stock prices is believed to react to certain information that may arise from financial variables often disclosed in the financial statement of previous period (Fama, 1965). Return on equity is the ratio of net profit less: fixed interest charges, minority interest, preference dividend to the equity capital. In most accounting and finance literature, ROE is commonly taken as a measure of profit made from investment resources based on equity capital of the firm. This justifies why investors rely on this variable to evaluate investment alternatives (Ilaboya, 2008). The earnings per share (EPS) is the ratio of profit after tax less fixed interest and preference dividend before to the total number of ordinary share holding.

The dividend per share is the ratio of the total ordinary dividend paid to the number of ordinary shareholdings (Ilaboya, 2008). The cash flow from operating activities is the difference between the cash outflow and cash inflow as reported under the operating activities in the statement of cash flow of the companies on yearly basis. The positive difference implies surplus emanating from cash inflows from operating activities, while a negative difference is a deficit (that is, more cash outflows than inflows).

4.3 Estimation Techniques

We proceeded in two stages in estimating the model represented by equation 2 above. In the first stage, we conducted statistical examination on the variables in the specification to ascertain the normality and association among the variables using Pearson correlation technique. In the second stage of the estimation, we estimated the variables in the model using the pooled data regression

technique. The results obtained from the various stages of the estimation process are as reported and discussed below.

4.4 Empirical Results

Under this section, we robustly present the results of our econometric analysis we conducted to demonstrate the impacts of selected financial variables such as: cash flow from operating activities (CFO), Earnings per share (EPS), Return on equity (ROE), and Dividend per share (DPS) on company's performance in the Nigerian stock market within the pooled data analysis framework. Majorly, our interest is to determine the extent of responses of the share price to each of the selected financial variables in order to ascertain the effect they actually have in enhancing firms' share prices in Nigeria.

The results obtained from the normality test of the data in the variables in the specification for descriptive statistics are reported in table 1 below.

Table 1 Descriptive Statistics

Variables	No. of Observations	Minimum	Maximum	Mean	Std. Deviation	Jarque-Bera
SP	49	1.18	121.92	18.57265	23.27	185.20
CFO	49	-5.65E+08	1.31E+09	1.12E+08	3.26	55.95
EPS	49	-72.0	40.00	2.877959	15.86	222.07
DPS	49	0.00	50.00	3.8800	10.26	542.56
ROE	49	8.18	234.30	30.9110	36.62	756.97

The results show that the mean value (average value) of share price is 18.57. This value is higher than the median value of 9.9, this is an indication that there appears to be wide dissimilarities in share prices for the respective elected quoted companies. The maximum and minimum values show 121.92 and 1.18 respectively. This wide obvious variation between the two values indicates a tendency for the share prices of the sampled companies to nose-dive to extremely low values if there

are poor financial variables in the respective companies. The standard deviation value of 23.27 is also high and shows variability or rapid changes in the figures either over time for the respective firms or across the sectional differences in the quoted companies. The skewness value of 2.70 is quite low. The Jarque-Bera value of 185.20 for the share price is very high. It passes the significant test and indicates that the share prices across the sampled firms are normally distributed at 1%

level. The implication of this is that there is heterogeneity among the selected firms in terms of share prices. Endogeneity is therefore expected in the models if the OLS technique is employed. This is a clear justification for the adoption of the pooled data estimation technique for the estimation of the relationship we seek to investigate. In a nutshell, the descriptive statistics show that the explanatory variables exhibit high

variability, positive skewness and highly significant Jarque-Bera values.

Furthermore, in econometric analysis, it is essential to ensure that the independent variables in the model do not have excessive correlation patterns. Consequently, it became necessary to examine in a preliminary manner, the association among the variables in the specified model. This made correlation test imperative. The result of the correlation test is as shown below:

Table 2 Correlation Matrix

	SP	CFO	EPS	DPS	ROE
SP	1.0000				
CFO	0.22846	1.0000			
EPS	0.09404	0.11781	1.0000		
DPS	0.03506	-0.03692	0.05817	1.0000	
ROE	0.02657	0.02395	-0.04608	-0.07124	1.0000

As observed in Table 2 above, there exists a positive association between share price and all the independent variables. The overall implication for this, is that, all the variables tend to re-enforce each other in a positive mutual perspective towards enhancing the

companies' share price / returns. On this basis, we begin by presenting the estimation results based on pooled least squares method. This helps to provide a more robust perspective for the study.

Table 3 Balanced Pooled OLS Regression Results

Variables →	SP
Constant	11.285 (2.8957) [0.0134]
CFO	2.78 (2.9666) [0.0118]***
EPS	-0.1206 (-0.5565) [0.5880]
DPS	1.7933 (1.2684) [0.2287]
ROE	-0.0289 (-0.6705) [0.5152]
AR(3)	0.2258 (2.6669) [0.020]
R ²	0.60
$\bar{R}^2$	0.43
F-stat	3.6110
Prob(f-stat)	0.031
DW	1.866

Note: 1. t-values are in parentheses below the coefficient estimates

2. Cochrane Orcutt method AR(3) converged after 8 iterations, *** implies significance

An examination of the results above indicates that the goodness of fit for the model is quite impressive given their low coefficient of determination. The R-square value of 0.60 is high. It shows that 60%, of the systematic variations in share prices at any given time for the sampled companies were explained by the independent variables in the model. After adjusting for the degree of freedom, the adjusted R-squared value of 0.43 shows that all the independent variables were able to explain about 43% systematic variation in the dependent variable, share price. It leaves about 57% unaccounted due to the presence of the Stochastic Error term given that

convergence was achieved after 8 iterations in the Autoregressive process (AR).

A quick examination of the individual coefficients of the explanatory variables indicates that Earnings per share (EPS) and Return on equity (ROE) have negative effects (signs) on the share price of the sampled companies in the period under study and are statistically insignificant at 5% level. This implies that low/ adverse reported EPS and ROE tend to decrease the shares price of the firms. As observed, the other coefficients such as cash flow from operating activities (CFO) are positive and tend to increase the shares prices of firms; though cash flow from operating activities is statistical significant at

95% level, while dividend per share is not. On the overall, the f-stat. value of 3.61 compared against the prob(f-stat.) value of 0.03 indicates that all the explanatory variables put together in this study are statistically significant enough at 5% level to explain the effects of financial variables on the sampled firms' share price. Moreover, the Durbin-Watson statistic is also quite impressive as its value of 1.86 (approx. 2) shows that there is no serial correlation in the empirical estimates; thus making the results reliable for predictive and policy formulations.

Discussion of Results

The results obtained in empirical analysis are far reaching and give impressive directions. First, the result gives indications that the share prices in the study may exhibit different relational patterns with the financial variables of the sampled companies. The sampled firms could actually possess individual characteristics that will ensure that the effects of the financial variables may exact less than similar impacts on the share price of the respective quoted companies. In particular, the empirical results show the existence of positive relationships among the independent variables and firms' share price return. This is somewhat in contrast to the results of Menaje (2012). Another point of note in the correlation test is the relatively weak correlation among the variables. The study finding indicates that some financial variables react on firms' share price. The empirical finding is in tandem with that of Kabajeh, *etal.* (2012) who find that there exists positive relationship between financial variables and firms' share prices. The results show too that cash flow from operating activities has a positive and statistically significant impact on the behaviour of stock prices. This empirical finding is similar to the finding of Hobarth (2006) who also observed a positive relationship between cash flow and share prices. The positive sign accords with the vast

body of theoretical and empirical evidence as earlier noted. With respect to dividend per share variable, the finding is consistent with the finding of Chan and Li (2008) who show that the dividend per share of firms positively impacts on share prices. The earnings per share variable indicate a negative and insignificant impact on the firms' share prices. This suggests that the lower the EPS reported in firms' annual report, the more the share price loses its market value. This finding corroborates the finding of Irungu (2013) who showed that the two variables exhibit negative relationship. The results show too that return on equity (ROE) negatively impact on the share prices of the sampled firms. The explanation for this relationship is not farfetched. It rather suggests that any negatively ROE value reported has the tendency to adversely affect the behaviour of share prices of quoted firms in Nigeria. This finding accords the finding of Kennedy (2005) who find that return on equity impact share prices negatively.

Conclusion and Recommendations

An important body of research in empirical finance and finance related discipline has always been the impact of financial variables on the share price of firms both in developed and developing countries of the world. The aim of this study is to specifically consider how certain financial variables impact on firms' share price. Financial variables used encompass cash flow from operating activities (CFO), Earnings per share (EPS), return on equity (ROE) and dividend per share (DPS). Conclusively, CFO and DPS improve firms' share price; while EPS and ROE do not. Based on the empirical evidence obtained, we suggest that, firstly, companies should constantly examine effect of financial variables on stock prices / returns, secondly, there is need for firms to reduce excess administration cost in order to enhance the

return on equity; and thirdly, adequate management of cash should be considered by companies' managers so as to enhance the cash needed to improve the day-to-day affairs of the business. The implications of our findings for policy are fairly obvious and straightforward. The results suggest for example, that firm policy options that are capable of curtailing their earnings per share

as well as return on equity would be beneficial to stock prices and therefore should be explored by policy makers in the Nigerian quoted companies. In any case, the policy makers should weigh the costs and benefits of the control of earnings per share as a strategy to help checkmate stock prices so as not to avoid policy option that has the tendency to make the equity investor react irrationally.

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