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Value Relevance of Accounting Information and Share Price in the Nigerian Stock Exchange

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ABSTRACT

This research aim to provide empirical evidence on the value relevance of accounting information such as earnings per share, dividend per share and cash flow on share price of publicly traded companies on the Nigerian Stock Exchange. For the purpose of this research, data were collected from secondary sources mainly from financial statements of selected companies on the Nigeria Stock Exchange. The ordinary least square regression was used to explore the relationship between the variables. Findings revealed that the value relevance of financial information has significant impact on share price and the value relevance of accounting information is significantly correlated with share price. Based on the findings, the study recommends that investors should not depend on the information from speculators or other co-investors who have the similar interest on the identical phenomenon, rather they should go through the audited annual reports which provide the mirror of the company's performance, financial position and changes in control of the owners.

Keywords: *Nigerian Stock Exchange, earnings per share, dividend per share, cash flow*

INTRODUCTION

The users of financial statement include the following; customers, suppliers, creditors, employees, management, financial analyst, government, shareholders, investors, etc. Every other user can be termed a present user except for the 'investor' who is a potential user of the financial statement. Being the potential user, the link between the investor and the investment decision on one hand, and the financial statement on the other, are the relevant components of the financial statement which are meant to serve as a guide to the investor. These components as already specified include dividend, cashflow, earnings, etc. Accounting theory does not directly affect the role of accounting information in emerging markets (Lopes, 2002). However, it could be argued that accounting information is less relevant in these markets because stock markets may fail to reflect completely all available company information due to a range of market imperfections. For example, information asymmetry could be severer in emerging markets than developed markets because information sources are fewer. However, this makes accounting information potentially

more important and powerful for participants in emerging markets than other sources of information in more developed markets (Lopes, 2002). Empirical research on the role of accounting information in emerging markets can investigate these issues and enhance our understanding of its role. To date, however, very few researchers in Nigeria (Adaramola, 2012; Abiodun, 2012; Oyerinde, 2009; Mgbame & Ikhatua, 2013) have investigated the particular importance of accounting information to emerging markets. This study was motivated by two factors, first is to seek to redress the existing gap by examining the Nigerian emerging market, its compliance with accounting standards and its value relevance issues. Secondly is the zeal to inform the regulatory debate in Nigeria about the value relevance of accounting information in the Nigerian Stock Exchange. This study will contribute to previous studies by investigating a relatively new set of data in a more complex way than previous research which investigated the relationship between market value and just one selected variable; say earnings in the financial statement. Also, the study aims at identifying and ascertaining which among the variables of interest that is earnings, cashflow and a dividend has more value relevance in relation to the share prices of companies quoted on the Nigerian Stock Exchange. The identified problem stems from the fact that investor often times are not well informed and as such depend on the information from speculators or other co-investors who have similar interest on the identical phenomenon. The study would portray to investors how to make optimal use of the audited financial statement which provides the mirror of the company's financial performance, financial position and changes in control of the owners and it would also serve as a reference source for future researchers.
In the light of the above, specifically the paper attempts to:

1. Identify if there is a relationship between share price and accounting information.
2. Find out if there is an increase in value relevance of accounting information during the period under study.
3. Analyze the ability of accounting information to significantly affect share prices of firms listed on the Nigerian Stock Exchange.

LITERATURE REVIEW

Conceptual Framework

Since the pioneering work of Ball& Brown (1968), numerous studies have sought to determine the capacity of accounting information to predict changes in share prices, and in particular to explore the extent to which positive accounting information generate expectations for an increase in share price (Beaver, 2000). According to Riahi-Belkaoui (1994), equity value of firms is linearly related to those accounting measures without any differentiation among firms. Studies by Ball & Brown (1968), and Beaver et al (1979), consider variation in earnings as a derived variable, while Barnard & Stober (1989), Bowen et al (1987), and Livnet & Zarowin (1990), use measures calculated on accrual basis. Some scholars argued that net equity of a firm captures increase in value that are not always expressed in earnings, such as operations generating gains, but not reflected in profit and loss account (Collins et al, 1997; Burgstahler & Dicher, 1997). Other studies explain the movement and evolution of share prices using basically financial measures. Bao & Bao (2001), and Riahi-Belkaoui (1999), use net value added while Stewart (1989) applies economic value added a measure that relates extraordinary earning to the value of a firm. In the same vein Biddle et al (1997), documents a positive relationship in which book Value and earnings are considered to be the natural indicator of price movement (Marth, 1991; Shevlin, 1991). Ohlson (1995) built his study based on clean surplus accounting relationship, propounded by Bells & Edwards (1961). He came up with the valuation model relating price with book value and abnormal returns. His findings led to the expansion of studies in value relevant of accounting information to cover not only profit and loss measures but balance sheet measures as well. Using Ohlson's Framework, Chen et al (2001), empirically examine whether domestic investors in the Chinese stock market perceive accounting information to be useful in stock valuations. Their result confirms that accounting information is value relevant in the Chinese stock market and the perception of inadequate accounting and financial reporting in China.

THEORETICAL FRAMEWORK

Agency Theory

The agency theory is based on the principal-agent relationship. However this theory could be applied in several domains like for example in the politic with an elected president and the citizens, this research will only focuses on the agency theory concerning listed companies.

The agent/principal relationship exists when a party called the principal, hires another party named the agent to decide and act in his name, knowing that the actions and decisions of the agent will have consequences for him. By a listed company, the shareholder is "the principal" and the manager (or the board of management) is "the agent". The remuneration of the shareholders (dividends) depends on the managerial capacity, the strategic decisions, and the actions taken by the board of management. The problems occur when the principal and the agent have different goals because the principal cannot easily get access to the same information and at the same time as the agent (information asymmetry). Different techniques are available to mitigate these agency problems. The most usual of these techniques are the independence, the equity, and the market for corporate control

The Decision-Usefulness theory

According to this theory, the best accounting standards is the one providing the most helpful financial information to users in their decision process. The concept of decision usefulness has been introduced in accounting theory in 1966 by a committee created by the American Accounting Association (AAA). This committee was charged to design *A Statement of Basic Accounting Theory* (ASOBAT). According to this committee, the most important criterion in choosing an accounting measurement's method is the decision usefulness of accounting information for users. This decision usefulness should be evaluated by the predictive ability of the accounting information. The more accurate users can predict economic and financial events using accounting information, the more useful this information is for them. This criterion should give standard setters a handy tool in the choice of the best accounting measurements. They will just have to find which alternative is able to predict valuable events for users with the smallest error margin (Beaver, et. al.1968). The only problem is that the committee did not define the different users of the accounting information. This lack in the definition of the usefulness of financial statement information will be repaired in 1994 by the Jenkins Committee of the AICPA which has identified the different users of accounting information and their information needs like shown in the introduction of the present research. The conceptual framework for financial reporting jointly elaborated by the FASB and by the IASB will contribute in addition to complete the definition of the users of financial statement information.

Review of Prior Studies on Value Relevance of Accounting Information and Share Price

Abiodun (2012) conducted a research on value relevance in corporate sectors and used logarithmic regression models on forty (40) companies for the period between 1999-2009, the result concludes that earning is more value relevant than book value by extension that information contained in the income statement dictates more corporate values of firms in Nigeria than that contained in the balance sheet. Mgbame and Ikhatua (2013) conducted a study to ascertain if accounting information contributes to stock volatility in the Nigerian capital market. The study investigated the effect accounting information on the volatility of stock market returns in Nigeria using GARCH models. The result from models shows that accounting information explains and account for stock volatility in the Nigerian stock market. Specifically, information on book value, earnings per share (EPS), dividend per share (DPS) is found to be related to stock volatility. Griffin, Hirshey and Kelly (2010) find that accounting numbers are more relevant in countries with stronger accounting standards. Overall, the studies find the information content of earnings announcements is higher in settings in which investors find accounting information more reliable.

Oyerinde (2009) investigated the value relevance of accounting data to determine if there is a relationship between accounting numbers and share prices among top thirty(30) companies in the Nigerian Stock Market(NSM) over the years 2001-2004. He explained the correlation between accounting information such as earnings per share, returns on equity, earnings yield and market price per share. Germon et al. (2000) conducted another analysis of Nigerian Stock Market (NSM) consisting top thirty (30) companies from 2001-2004. They found that the relationship between share price and earnings per share is high but the return on equity is very low. Ortega (2006) re-investigated the changes in value relevance of earnings, book value, and cash flow in security prices overtime, employing data from 1961-2005 extracted from compustat primary, secondary and tertiary full coverage and research annual industrial files. Firstly, he found that cash flow provide incremental information content beyond earnings and book values in security prices. Secondly, that combined value relevance of earnings, book value and cash flow has not declined overtime. Thirdly, when firms have negative earnings and onetime items, the value relevance of earnings shift to book value and cash flow. Gjerde, Knivsfla and Saettem (2003) examine the incremental value relevance of book value, earnings and cash flow in share prices in the Korean market from 1994-2005. They find that book Value was the most relevant of the three followed by cash flow. They also show that value relevance of book Value and cash flow is stronger than that of book value and earnings. Mingyi (2000) compared the value relevance of book value and dividends versus book value and earnings. They justified the modeling price in terms of book value and dividend, using Modigliani & Miller (1959) argument; they derived a model of price in terms of book value and dividends from basic analytical relationships. They reported three sets of findings. First is that book Values and dividend have about the same explanatory power as book value and reported earnings. Dividends have greater explanatory power than earnings for firms with transitory earnings. When earnings are transitory, book value is a prior indicator of value.

METHODOLOGY

The population of interest would include all publicly traded in Nigeria which amounts to a total of one hundred and ninety six (196) while the sample would be randomly selected companies in the production sector with particular emphasis on the manufacturing industry and also the finance sector with emphasis laid on the banking industry, and the sample size would be limited to thirty (30). The period of interest to be covered by this research would span through 2010-2014. The method of data analysis to be adopted in this study is the regression analysis. Specifically, the Ordinary Least Square Regression due to its effectiveness. The model is hereby presented below:

$Pt = B_0 + B_1Et + B_2Ct + B_3Dt + Et$

Pt = Average price per share,
Et = Earnings per Share,
Ct =Cash flow,
Dt = Dividend per share,
Et= error term
Whereas Pt that is average price per share represents the dependent variable.
Apriori Sign
$a > 0B_1 > 0B_2 > 0B_3 > 0$

ANALYSIS AND INTERPRETATION OF RESULTS

Summary of Descriptive Statistics

The result from the descriptive analysis is presented below:

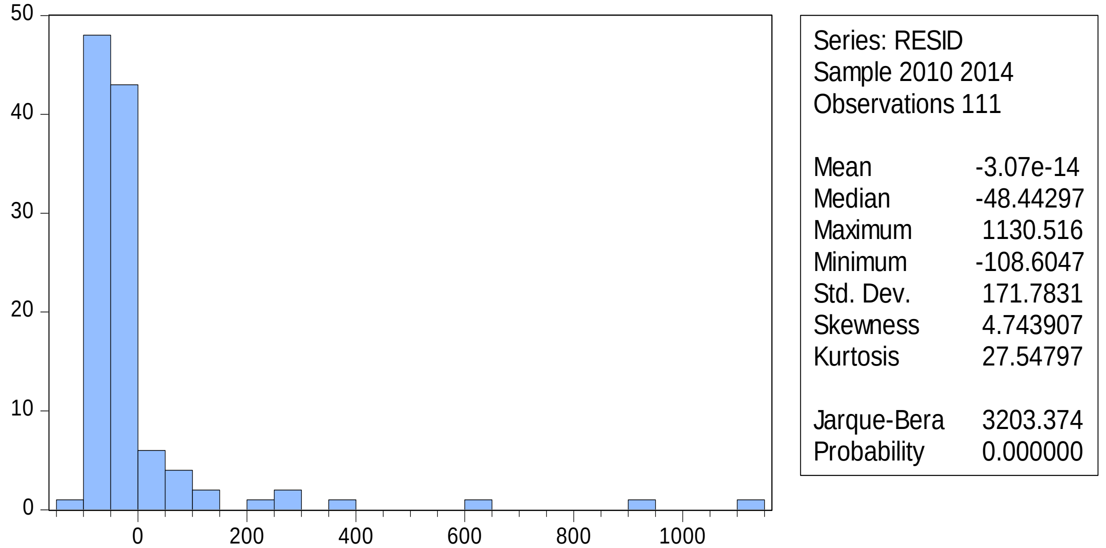
Table 1: Descriptive Statistics

	CASHFLOW	DPS	EPS	MPS
Mean	8.96E+10	129.1457	178.9891	65.64901
Median	8.39E+09	65.00000	115.0000	12.80000
Maximum	8.72E+11	1000.000	1216.000	1200.010
Minimum	-2.20E+11	2.000000	-1349.000	1.120000
Std. Dev.	1.77E+11	190.3468	299.2611	174.3789
Skewness	2.567179	2.756848	0.286889	4.635457
Kurtosis	9.979599	10.35973	10.45941	26.43356
Jarque-Bera	347.2285	391.1197	258.8705	2937.252
Probability	0.000000	0.000000	0.000000	0.000000
Sum	9.94E+12	14335.17	19867.79	7287.040
Sum Sq. Dev.	3.45E+24	3985511.	9851290.	3344880.
Observations	111	111	111	111

Source: Computation using e-views 8.0

From the table above, the mean of the dependent variable (MPS) is 65.64901, with a maximum and minimum values of 1200.010 and 1.120000 respectively. The means of the independent variables, CASHFLOW, DPS and EPS are 8.96, 129.1457 and 178.9891 respectively. All the variables are positively skewed (skewed to the right). Also, all the data show positive kurtosis (leptoturtic). The Jarque-Bera statistic is interpreted as when the Jarque-Bera statistic is greater than their respective probabilities, then we conclude that the variables are normally distributed. The result showed that CASHFLOW, DPS, EPS and MPS approximates a normal distribution with their probabilities value respectively.

Table 2: Normality Test of the Residuals



Source: Computation using e-views 8.0

The table above shows the normality test of the residuals. It could be seen that the residuals approximates a normal distribution. The Jarque-Bera statistics of 3203.374 with probability of 0.00000 leads credence to this fact hence we conclude that the error term is normally distributed.

INTERPRETATION OF RE-ESTIMATED PANEL REGRESSION RESULT

From preliminary regression calculations conducted in the study to allow for valid empirical judgment, the study had to estimate the model for the study at two stages, first estimating the panel data without considering the possible effects of the presence of the effects of the stochastic error term. But having estimated the initial model it was found out that the model is plague with the problem of autocorrelation (that is, spurious regression), so we proceeded to correct for the error in the initial model by including the first order autoregressive, AR (1) scheme into the model to correct for nonsense regression. A high value of the R^2 given to us as 0.909494 implying that a 90.9% systematic variation in MPS is explained by EPS, DPS and CASHFLOW. Only 9.1% is left unexplained and this is assumed to be captured by the error term, U.

The adjusted R^2 is given as 0.902911. This means that after adjusting for the degree of freedom, the adjusted R^2 explains approximately 90.3% systematic variation in the dependent variable. The higher the adjusted R^2, the lower the residual variance error due to a one-on-one relationship between the both of them and this means our model have a better predictive ability. The F-ratio with the value of 138.1729 shows that the model easily passes the F-test at 1% and 5% level of significance and the overall significant of the model is met. This means that the hypotheses of a significant linear relationship between the dependent and independent variables taken together is validated. The T-statistics using the rule of thumb (which states that when the t-value of the parameter estimate is greater than or equal to 2 then it is statistically significant in explaining the dependent variable but when it is less than 2, then it is not). The t-values shows that dividend per share, earnings per share and cash flow which have values of 1.939825, 0.833390, -0.142151 taken in their absolute form, are not statistically significant in explaining the market price per share. This means that dividend per share, earnings per share and cashflow are not major determinant of market price per share in the companies under review. It can also be conducted that DPS is statistically significant at 10 percent level of significance since its t-value is 1.939825.

CONCLUSION AND RECOMMENDATION

The study has been conducted to assess the extent of association between three accounting variables (i.e., EPS, DPS & CASHFLOW) and market price of share for the period 2010-2014. The overall result reveals that accounting information contributes to the movement of share price in Nigerian capital market. It is found that EPS & DPS has positive relationship with the market price at 1.93% and 83% respectively. There is also a negative correlation at 14% between CASHFLOW and Share Price. Based on the findings, the study recommends that investors should not depend on the information from speculators or other co-investors who have the similar interest on the identical phenomenon, rather they should go through the audited annual reports which provide the mirror of the company's performance, financial position and changes in control of the owners.

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APPENDICES

APPENDIX I: PLOT OF ACTUAL, FITTED AND RESIDUAL PLOT