

VALUE RELEVANCE OF ACCOUNTING INFORMATION IN THE DETERMINATION OF SHARES PRICES OF QUOTED NIGERIAN DEPOSIT MONEY BANKS

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Abstract

The study assessed the value-relevance of accounting information on share prices of listed banks in Nigeria with a view to determining whether accounting information has the ability to influence the prices and demand for shares of banks listed on the Nigeria Stock Exchange. A sample of 12 listed banks on the Nigeria Stock Exchange was used for the study. This study used data mainly from secondary sources; this is because the estimation of the models adopted in the study require the use of financial statements, The analysis of data was done using descriptive and inferential statistics. The descriptive statistics include mean, standard deviation, kurtosis, Skewness while inferential statistics that was used in testing the hypotheses include panel regression and correlation. The result of the Hausman specification test showed $Prob > \chi^2 = 0.5304$ indicating random effects as p value > 0.05 . Therefore, random effect model is the most fitted models for predicting Market Value per Share (MPS) using Book Value per share (BVS), Dividend per Share (DPS) and Earning per Share (EPS). The result also indicates that BVS and DPS can significantly predict MPS at 5% significance. The study found that the market value of shares of Nigeria banks respond positively to Dividend per Share. The study also revealed that accounting earnings represent by earning per share contributes significantly to the market prices of banks shares. The study concluded that banks should provide adequate and

reliable accounting information in their financial statements to assist potential and prospective investors in taking informed decisions. This can be achieved only if regulators put in place adequate monitoring mechanism to ensure that the information presented by the banks is reliable.

Keywords: Value Relevance, Dividends, Accounting Information, Profitability, Share Prices, Earnings, Book Value, Banks, Investors

INTRODUCTION

Accounting information as published in annual, half yearly and quarterly reports are of significant influence in decision making by those who use them. Management use them to improve efficiency, investors use them for investment decisions, creditors use them for credit rating and determining who to advance credit to, regulators use them to determine the extent of compliance to regulatory issues while government use them for tax and fiscal policies. The medium through which companies communicate to these users about their operations is through the financial reports. The financial report of a corporate entity constitutes a combination of both qualitative and quantitative financial reports, which are referred to as a firm's bill of health.

Various stakeholders take their decisions relative to a firm's performance and position based on the accounting information supplied by it in its annual financial reports and accounts. As stated by Meyer (2007) accounting plays a significant role in the generation and communication of the wealth of companies. As financial reports still remains the most important source of externally feasible information on companies. According to American Institute of Certified Public Accountants (AICPA 2005), financial statements must properly reflect the organization's financial and economic reality, so that the users are not induced to take decisions on misleading information.

History has shown that market data have always prevailed over accounting data when it comes to identifying the factors that affect stock prices. In the latest years, an increasing number of empirical studies indicate that the financial statements of enterprises contain certain parameters that play a critical role in the course of their respective equities in the stock market (Glezakos, Mylonakis and Kafouros 2012). The importance of financial statement has led the standard setters and the stock market regulators to continuously devise ways of improving their quality, consequently the relevance of financial statements (Vishnani and Shah, 2008).

Statement of the Problem

Generally, investors are not in a situation to directly assess the performance of companies in which they intend to invest. They usually depend on audited financial statements prepared by the management of such organization. The primary purpose of financial statements is to provide information concerning the financial situation of the company, its operational results, any changes of control in the company and cash flow (Nirmala and Florence, 2011). The impact of financial statement information on capital markets indicators referred to as the value relevance studies and it is part of the market-based accounting stream. Information is considered 'value relevant' if stock price movements are associated with the release of such information (Utami and Noraya, 2010).

Stock markets worldwide had turbulent time in 2008 which brought value relevance of accounting information under severe criticisms. There are some concerns that accounting theory and practice have not kept pace with rapid economic and high-technology changes which invariably affect the value relevance of accounting information. The claim is that financial statements are less relevant in assessing the fundamental market value of service-oriented companies, which are by nature high-technology driven (Oyerinde 2011).

Until approximately 45 years ago no argument was encountered on the value relevance of accounting information (Dung, 2010). However, recent accounting scandals and economic meltdown have jeopardized the integrity and survivability of value relevance of accounting information. The banking sector crises of 2009 referred to as the 'Tsunami' which saw the taking over of ownership or management of some banks by CBN also brought to the fore the issue of relevant of accounting information especially as it affects the banking industry, thus the motivation for this study.

Objectives of the Study

The objectives of the study is to assess the effect of accounting information on share prices of listed banks in Nigeria The study also examined the demand for banking shares in Nigerian capital market based on financial information; and determined the relationship between earnings per share and demand for banks shares; and assessed the effect of dividend on Nigerian banks' share prices. The research hypotheses formulated for the study are as follows:

Ho: There is significant positive relationship between earnings per share and market price of banks' share.

Ho: There is significant positive relationship between book value per share and market price of banks' share.

Ho: There is significant positive relationship between dividend per share and market price of banks' share.

Ho: There is positive significant relationship between bank's earnings per share and market price of banks' share.

CONCEPTUAL FRAMEWORK

In considering the impact of accounting information on share prices, the issue of the relevance of the accounting information is a key factor. Relevance as a characteristic of accounting information helps users to evaluate the potential effects of past, present and future transactions or other events on future cash flows, and confirmatory value (Ibadin and Izedonmi 2013). In the view of Chouinard and Youngman (2008), accounting information serves as key determinant in the efficient market economy. According to Beisland (2009) value relevance is the ability of financial statement information to capture and summarise firm value. Nilson (2003) states that value relevance of accounting information deals with the usefulness of financial statement in equity valuation. It investigates the association between a security price and a set of accounting variables (Beaver, 2002). Accounting information is value relevant if it leads investors to change their beliefs and actions and in order to be relevant, accounting data must among others, be quick to respond to users (particularly the investors) needs. Accounting exists because it satisfies the users' need- primarily a need for information- and if this need is not met, those who have money to invest and lend would take it to where this need is met (Germon and Meek, 2001).

Oyerinde (2011) argues that value relevance measures the relationship between accounting information and market value or returns on shares, thus, an accounting information is valueless if it has no significant relationship with the market value of security or operational efficiency of an organisation. Francis and Schipper (1999) interpret value relevance in four ways; (i) the fundamental analysis view of value relevance, (ii) the prediction view of value relevance, (iii) the information view of value relevance, and (iv) the measurement view of value relevance (Nilsson, 2003). Following Francis and Schipper (1999) fourth interpretation, Oyerinde (2011) defines value relevance of accounting information as the ability of accounting numbers to summarize information that affects the firm's value which can be measured by the aggregate market reaction to accounting information.

Three schools of accounting thoughts have emerged over time from the process to make accounting information more meaningful and relevant to decision needs of users including capital market participants. The first school which can better be described as pragmatists were concerned with identifying gaps in the annual reports (Adeyemi and Ogundele, 2003;

Holder,1978; Stanga,1976; Belkaoui, Kahl, and Peyrard,1974; Fertakis,1969; Bailey,1982; Lebar,1982; Kinney,2001; and, Boot,2001. The second school who can be described as the normatists look at what the annual reports ought to be and opined that gaps identified by the pragmatics can be permanently addressed if accountants could study and apply the principles of communication theory in generating accounting information. In other words, accounting information should be prepared within the context of language theory of communication to always surprise users with new unexpected information about the financial conditions of the reporting entities. According to normative school, accounting information as a message has a value (Sunday, 2008; Salvary 2007; Fertakis (1969). The third approach view users' expectations as queries and that preparer of financial information should always examine the nature of the query and provide tailor-made responses to any reasonable query. This approach is highly favoured by management information people. It would open up the whole data to timely and complete use where and if needed. Again, to be effective, in-built security should be incorporated to prevent any abuse.

THEORETICAL FRAMEWORK

Several theories concerning the relationship of share prices and financial statement information variables have been documented in the financial literature. In 1961, Miller and Modigliani advanced the dividend irrelevance theory which theorizes that in a perfect world where there is no corporate and personal taxes, no transaction and floatation costs, no single individual can affect a security's price through his/ her trade. Therefore, all individuals have similar expectations with respect to a company's future investment and profit, and the value of a company and thus its share prices are unaffected by the distribution of dividends. The Dividend Irrelevance Theory is crucial for the formulation of further theories that account for various imperfections in the real world (Nyabundi 2013).

Market Efficiency Theory

In efficient markets, it is expected that when information arises it is reflected quickly into the prices of stocks. When the price of a financial asset reflects all the relevant information that is available about the intrinsic value of an asset, the market is termed an efficient market. The informational efficiency of stock prices helps investors to determine their trading strategies in order to earn excess returns or beat the market. Malkiel (2003) notes that neither technical analysis, which is the study of past stock prices in an attempt to predict future prices, nor even fundamental analysis, which is the analysis of financial information such as company earnings, asset values, etc., help investors to select stocks. However, most investors focus on companies

rather than on stocks. Froidevaux (2004) asserts that investors need to understand that a good company is not necessarily a good investment.

The basis of efficient market hypothesis is that any variable change announcements should only have an impact on stock prices if they are unanticipated by capital market participants. Thus the individual investor lacking prior knowledge of any expected earnings or dividends announcements will react to this new information and affect share prices at the stock market.

Signaling Theory

According to signaling theory, also referred to as the information content hypothesis, corporate announcements are hypothesized to have information content, for example, managers use cash dividend announcement to signal changes in their expectation about the future prospect of the company when the markets are imperfect. The investments and financing decisions of a firm are made at the management's discretion. It is argued that company managers use earnings as a signaling tool to convey information about the prospects of a company, and that like dividends, if earnings convey useful information, this will be reflected in stock price changes immediately following a public announcement. An increase in equity (shares) issued by the company reduce the price of its shares, stock splits cause an increase in the price, while issuing more debt instruments leads to price increase actions. Berhardt, Douglas, and Robertson (2007) in their study noted that the markets are rarely in equilibrium, that information has a cost and that it does not reach all at the same time. When a firm announces its earnings or dividends it sends a signal to the investor and if they react to this signal as expected this will affect the share prices of the company listed at the stock market (Nyabundi 2013).

EMPIRICAL STUDIES ON VALUE RELEVANCE

The starting point for research in this field is the ground breaking research of Beaver (1968). He stated the great importance of income statements. Using an event study methodology they examine the average firm's market response in terms of returns in the months before and after earnings announcement dates. Their findings indicate that income is an informative number, capturing half or more of all the information about an individual company that becomes available during a year.

Pope and Inyangete (1992) observed a strong increase in the volatility of security returns around the annual earnings announcement date in a sample of UK firms. Moreover, Kallunki (1997) studied returns around earnings announcement dates in Finland. Several other researchers from time to time have made supportive conclusions about the information content

of earnings (e.g., Dechow, 1994; Collins, Maydew and Weiss (1997); Lev and Zarowin, 1999). Their empirical findings indicate that fifty percent of all available information about a firm is captured in the income statement whose bottom line is earnings. Ohlson (1995) assesses the value relevance of accounting information (earnings, and book value) where he come up with a valuation model relating price with book value and abnormal earnings. Empirical evidence on value relevance of accounting information provides mixed results.

Keener (2003) carried out a study on the impact of accounting information on price by examining changes in value relevance over a more recent time period. He finds that the joint value relevance of earnings and book value has not decreased over the sample period. The study also demonstrates that the incremental value relevance of earnings has increased and of book value has stayed constant for the sample period. He concludes that there is no incremental value relevance of earnings and book value across industries. The omission of intangible assets from the valuation model and the nature of the firms in his sample accounted for this findings.

A vast amount of research papers document that book values of equity are highly associated with stock prices (Ohlson and Penman, 1992; Ayers, 1998; Barth, Beaver and Landsman, 1998; Dechow, Hutton, and Sloan, 1999; Dontoh, Radhakrishnan and Ronen, 2004; and Barth, Landsman and Lang, 2008). The statistical association between stock prices and book equity is typically stronger than the association between stock returns and earnings. Collins, Maydew *et al* (1997) suggested the reasons for explaining book value strengths relative to earnings; they summarize that the value relevance of earnings and book values move inversely with one another implying that if value relevance of earnings has decreased overtime, value relevance of book values increases.

RESEARCH METHOD

The study comprises of the Deposit Money Banks (DMBs) in Nigeria that are listed on the Nigeria Stock Exchange Market for a period of ten years (10) ranging from 2005-2014. The choice of the period is to cover before and after the capital market crisis. The total numbers of twenty-two (22) DMBs were listed on the Nigerian Stock Exchange as at 2014

Data and Sampling

A sample size of twelve (12) DMBs were purposively selected out of the total population of 22 deposit money banks listed on the Nigerian Stock Exchange for the study. Twelve (12) listed banks were sampled so as to ensure a robust model in testing the hypotheses and ensuring

reliability of the results obtained. The selected banks include both old and new generation banks.

The study used data from secondary sources; this is because the estimation of the models adopted in the study requires the use of financial statements information and share prices. Thus, the main source of data for the study are the financial statements, NSE fact book and market prices from NSE daily listing, for each year covered by the study.

Model Specification

This study used the price model which investigates the impact of accounting information on the market price of equity based on the ideas of Burgstahler and Dichev (1997); Filip and Raffournier, (2010); Barth, et al (1998); Hashemijoo and Ardekani 2012).

$$P_{it} = \beta_0 + \beta_1 BVS_{it} + \beta_2 EPS_{it} + \beta_3 DPS_{it} + e_{it} \quad - \quad - \quad - \quad (Basic \ Model)$$

P_{it} = Price per share at time t

BVS_{it} = Book value per share at time t

EPS_{it} = Earnings per share at time t

DPS_{it} = Dividend per share at time t

e_{it} = Error term

In this study, five research models are constructed based on the above Basic Model to test hypotheses 1, 2, 3, 4 and 5 that have been developed.

First, the stock prices are regressed separately on book values (equation 1), secondly, on earnings to provide an estimate of explanatory power of each variable (Equation 2), thirdly, stock prices are regressed on dividend (equation 3) and lastly the prices of stock are regressed on Leverage of the bank (equation 4):

$$P_{it} = \beta_0 + \beta_1 BVS_{it} + e_{it} \quad - \quad - \quad - \quad - \quad - \quad - \quad - \quad (1)$$

$$P_{it} = \beta_0 + \beta_1 EPS_{it} + e_{it} \quad - \quad - \quad - \quad - \quad - \quad - \quad (2)$$

$$P_{it} = \beta_0 + \beta_1 DPS_{it} + e_{it} \quad - \quad - \quad - \quad - \quad - \quad - \quad (3)$$

The joint explanatory power of earnings, book values, dividend and leverage may be assessed by means of the following model

$$P_{it} = \beta_0 + \beta_1 BVS_{it} + \beta_2 EPS_{it} + \beta_3 DPS_{it} + e_{it} \quad - \quad - \quad - \quad - \quad (4)$$

Hypothesis five will be tested by a regression model thus;

$$DFS_{it} = \beta_0 + \beta_1 ROE_{it} + \beta_2 NOS_{it} + e_{it} \quad - \quad - \quad - \quad - \quad - \quad (5)$$

Where;

DFS_{it} = Demand for bank shares at time t

ROE_{it} = Bank return on equity at time t – proxy by earnings per share

NOS_{it} = Number of shares in shares at time t – as control variable

Variables Description

Dependent Variable

For models 1 – 5 the dependent variable is Market price per share of the banks under study, this is proxy by the market price of share of a particular bank after the announcement of results. For model 7 the dependent variable is demand for banks' shares proxy by the volume of shares of a particular bank traded after the announcement of results.

Independent Variables

The independent variables for models 1 – 5 includes earnings per share, book values per share, dividend per share and leverage which are obtainable from the banks financial statements.

Method of Data Analysis

The analysis of data was done using descriptive and inferential statistics. The descriptive statistics include mean, standard deviation, kurtosis, Skewness while inferential statistics that was used in testing the hypotheses include panel regression and correlation

EMPIRICAL RESULTS AND DISCUSSION

The variables in identifying the accounting information used in predicting stock prices of quoted Nigerian Banks on the Nigeria Stock Exchange Market includes: BVS, DPS, EPS, DFS, and NOS. Table 1, it shows that Market Price per Share (MPS) shows the highest variability from the mean of 12.4609, this can be explained from the fact of the volatility in market price of shares which is represented by MPS. The variable Earnings per Share (EPS) also showed variability from the mean of 1.9348 indicating the fluctuation in earnings per share usually determined by the increase in issued shares and decrease in earnings, increase in issued shares and increase in earnings, decrease in issued shares and increase in earnings or decrease in issued shares and decrease in earnings.

Table 1: Descriptive Statistics of Stock Prices Predictor.

Variables	Mean	Standard Deviation	Minimum	Maximum
MPS	12.653	12.4609	0.3	66.14
BVS	7.1472	4.7945	-10.05	20.27
DPS	0.4734	0.5719	0	3.2
EPS	0.8910	1.9348	-13.57	8.74
DFS	10.8053	11.6702	0	65.61
NOS	17.5988	9.1442	1.5	38.57

The variable of Demand for Shares (DFS) has standard deviation of 11.6702 above the mean of 10.8053, which indicates the spread of the variable. On the other hand MPS, BVS and NOS

have standard deviation below the mean indicates a contracted spread as compared to the other variables. Similarly from Table 2, the normality test was used in testing the skewness and kurtosis of the identified determinant of share prices on Nigeria Stock Exchange Market. It shows that all variables from the models except of BVS, are normally skewed and are significant at 1% level. Variables like MPS, DPS, EPS and DFS showed a perfect zero skewness indicating that they are more normalized than NOS.

The result indicates that the distribution is neither skewed to the right nor to the left and therefore the entire distributions are symmetrical with exception of BVS. The kurtosis indicates that the variables are Platykurtic, less peaked; an indication that there are no extreme values or outliers in the distributions that might cause estimation bias. The result also shows that the values are far less than the acceptable boundary of 3; this means that the distributions have thicker tails and lower peak compared to standard normal distribution, using kurtosis as a yardstick.

Table 2: Skewness/Kurtosis Test of Share Prices Determinant.

Variable	Pr (Skewness)	Pr(Kurtosis)	Joint	
			Adj Chi2(2)	Prob>chi2
MPS	0.0000	0.0001	37.25	0.0000
DPS	0.0000	0.0001	35.05	0.0000
BVS	0.8268	0.0528	3.89	0.1433
EPS	0.0000	0.0000	-	0.0000
DFS	0.0000	0.0000	41.89	0.0000
NOS	0.0434	0.0025	11.24	0.0036

Table.3, shows the Shapiro Wilk test for variables used in determining changes in share prices and it indicate that MPS, DPS, DFS and NOS have W values close to one and are significant at 1% level, thus indicating how normally distributed the variables are more than EPS which has a mild W ratio value, though also significant at 1% level. BVS has a W ratio close to one but insignificant at 1% level but significant at 5%.

Shapiro Wilk W test is regarded as the best estimator of the variance to the usual corrected sum of squares estimator of the variance. The test is used when the sample size is between 7 and 2000 which satisfies the sample size of this study. The distribution indicates normality when the test is positive and less than or equal to one.

A significant P-value of the W ratio indicates the probability that the null hypothesis of normality is true. Therefore, if the P-value is not significant, it means that the distribution is statistically not normally distributed.

Table 3: Shapiro-Wilk W Test of Share Prices Determinant

Variable	W	V	Z	Prob>z
MPS	0.81459	17.715	6.437	0.0000
DPS	0.84405	14.901	6.050	0.0000
BVS	0.97549	2.342	1.906	0.0284
EPS	0.65143	33.305	7.851	0.0000
DFS	0.80647	18.098	6.476	0.0000
NOS	0.94673	5.090	3.644	0.0001

Profitability and Bank Shares Demand Relationship

Table 4 and 5 explains the correlation matrices between the dependent and the independent variables. The correlation matrix helps to ascertain the extent of relationship existing between the dependent and independent variables on one hand as well as relationship existing amongst the independent variables on the other hand. The relationship between the dependent and the independent variables is a predetermination of how the regression result will look like; and consequently could justify the adoption of a particular estimation model in a study as well as serve as a first diagnosis of Multicollinearity that could exist among the variables. Table 4 shows that DPS and BVS have significant positive correlation with the MPS indicating that MPS is influenced by DPS, BVS and EPS to the tune of 55%, 48% and 26% respectively. The correlation between DPS, BVS and EPS with the MPS indicates that investors in banks shares in Nigeria are very much interested in the dividend per share paid by the banks while the book value per share as well as earnings per share are also indicative of the movement in the market price of shares.

Amongst the independent variables, a significant positive correlation exists between BVS and DPS as well as EPS and DPS at 1% level of significance, while BVS and EPS are correlated at a significant level of 5%. The correlation between these independent variable is not to the extent that could cause an estimation bias in terms of collinearity as all the variables are not related in the true sense of it (O'Brien 2007).

Similarly, table 5 shows that NOS have significant positive correlation with DFS, indicating that DFS is influenced by NOS by 36%. However, DFS and EPS are not significantly correlated as indicated by the p-value greater than the significant level of 1%, 5% and 10%. The independent variables of EPS and NOS also showed a non-significant correlation as indicated by its p-value.

Table 4: Correlation Matrix for MPS, DPS, BVS and EPS

	MPS	DPS	BVS	EPS
MPS	1.0000			
DPS	0.5512* (0.0000)	1.0000		
BVS	0.4796* (0.0000)	0.5459* (0.0000)	1.0000	
EPS	0.2580* (0.0048)	0.4128** (0.0000)	0.2019** (0.0276)	1.0000

Table 5: Correlation Matrix for DFS, EPS and NOS

	DFS	EPS	NOS
DFS	1.0000		
EPS	0.0777 (0.4070)	1.0000	
NOS	0.3559* (0.0001)	0.0724 (0.4336)	1.0000

Hypotheses Testing for Models

Owing from the normality of the data, an OLS regression of models was run to understand the extent to which the independent variables explains the dependents variables.

Table 6 shows the result of the regression test run to determine the predictability of MPS (Market Price Per share) by BVS (Book Value per Share). The result showed that, BVS can significantly predict MPS. It also indicates that BVS contributes 23% to the variation in MPS. Thus, the model can be rewritten as;

$$MPS_{it} = 3.6596 + 1.2515BVS_{it} + 0.2126_{it} \quad - \quad - \quad - \quad - \quad - \quad (1)$$

Table 6: Regression Result for Model 1

Variable	Coefficients
BVS	1.2515 (0.0000)
Constant	3.6596 (0.048)
Std Error	0.2126
R-squared	0.2300
Adj. R-squared	0.2234
Model P-value	0.0000
F-statistics	34.65
Root MSE	11.028

Table 7 as well shows the result of the regression test run to determine the predictability of MPS (Market Price Per Share) by EPS (Earnings per Share). The result showed that, EPS can

significantly predict MPS. It also indicates that EPS contributes about 7% to the variation in MPS.

$$MPS_{it} = 11.1608 + 1.6630EPS_{it} + 1.2324_{it} - \quad - \quad - \quad - \quad - \quad (2)$$

Table 7: Regression Result for Model 2

Variable	Coefficients
EPS	1.6630 (0.005)
Constant	11.1608(0.000)
Std. Error	1.2324
R-squared	0.0666
Adj. R-squared	0.0585
Model P-value	0.0048
F-statistics	8.27
Root MSE	12.142

Table 8 shows the result of regression test relating to model 3. The result indicates that the variation in MPS is caused by DPS (Dividend per Share) to the extent of 30%. It also indicates that DPS can significantly predict MPS at 5% significance level. The model can be rewritten as;

$$MPS_{it} = 6.9962 + 12.0164DPS_{it} + 1.688_{it} - \quad - \quad - \quad - \quad - \quad (3)$$

Table 8: Regression Result for Model 3

Variable	Coefficients
DPS	12.0164 (0.000)
Constant	6.9962 (0.000)
Std Error	1.6888
R-squared	0.3038
Adj. R-squared	0.2978
Model P-value	0.0000
F-statistics	50.63
Root MSE	10.461

Table 9 shows the result of the regression for model 4 used in testing the joint power of BVS, DPS and EPS in predicting MPS. The result of the regression showed that the joint power of BVS, DPS and EPS can significantly predict MPS as shown by the model p value of 0.000. This means that the model is fitted at 1%. The joint power of BVS, DPS and EPS contributes about 35% to the variation of MPS. DPS contributes more to the model than BVS and EPS as indicated by the coefficients. Similarly, the Variance Inflation Factor (VIF) and Tolerance (1/VIF) scores presented indicate the absence of multicollinearity among the independent variables. This is as indicated by the VIF of less 10 and 1/VIF less than 1 which are the limits. This is

expected as the correlation matrix earlier presented showed no significant correlation among the independent variables.

The Breusch-Pagan/Cook-Weisberg Test was used to determine the existence of heteroskedasticity, the result showed the non-existence of constant variance as indicated by its p value < 0.05 . This result shows the existent of heteroskedaticity, and to correct for this; a robust regression model was run.

The result of the regression model with robust option showed a slight change in the p value of the coefficients but no change in the overall p value. However, the F statistics reduced from 20.40 to 17.08 as shown in table 9 below.

Table 9: Regression Result for Model 4

Variable	Coefficients	p-value	VIF	1/VIF
BVS	0.6584	0.006	1.42	0.7046
DPS	8.7095	0.000	1.64	0.6091
EPS	0.2747	0.609	1.21	0.8299
Constant	3.5388	0.042		
R-squared	0.3513			
Adj. R-squared	0.3341			
Model P-value	0.0000			
F-statistics	20.40			
Root MSE	10.237			

In view of the fact that the data are panel, the possibility of fixed or random effect is inevitable. Thus, we run a regression model with fixed effect and another model with random effect. In order to determine the model to adopt, we run a Hausman specification test, the result of the Hausman specification test indicate a random effect. The results are presented as below in table 10 and 11

The result of the Hausman specification test showed $\text{Prob} > \chi^2 = 0.5304$ indicating random effects as p value > 0.05 . Therefore, random effect model is the most fitted models for predicting MPS using BVS, DPS and EPS. The Random Effects (RE) Model assumes that, all correlation of the error terms over time is attributed to the individual effects. and that at the intercepts are random factors, independently and identically distributed over individuals, and thus variations of the coefficients have nothing to do with the individual panel's fixed characteristic.

The variable DPS showed the strongest influence on MPS as shown by the coefficients while EPS showed the weakest influence on MPS. The result also indicates that BVS and DPS

can significantly predict MPS at 5% significance while EPS an insignificant predictor of MPS. The model can be rewritten thus;

$$MPS_{it} = 3.5388 + 0.6584BVS_{it} + 0.2747EPS_{it} + 8.7094DPS + 1.7213_{it} - \quad -(4)$$

Table 10: Regression Result for Model 4 (Robust)

Variable	Coefficients	p-value
BVS	0.6584	0.006
DPS	8.7095	0.000
EPS	0.2747	0.488
Constant	3.5388	0.017
R-squared	0.3513	
Model P-value	0.0000	
F-statistics	17.08	
Root MSE	10.231	

Table 11: Regression Result for Model 4 (Fixed vs Random)

Variable	Fixed Effects		Random Effects	
	Coefficients	p-value	Coefficients	p-value
BVS	0.4081	0.183	0.6584	0.005
DPS	7.4313	0.007	8.7094	0.000
EPS	0.1442	0.799	0.2747	0.608
Constant	6.079	0.010	3.5388	0.040
Std. Error	2.445		1.7213	
R-squared	0.3474		0.3513	
Model P-value	0.0043		0.0000	

Table.12 and 13 shows the result of the regression for model 5, the result indicates that NOS (Number of Shares in Issue) and EPS can significantly predict DFS (Demand for Shares). However, NOS (Number of Shares in Issue) is significant in predicting DFS while EPS is not significant in predicting DFS.

The VIF and 1/VIF scores presented previously in model 4 indicate the absence of multicollinearity among the independent variables. This is as indicated by the VIF of less 10 and 1/VIF less than 1 which are the limits. This is expected as the correlation matrix earlier presented showed no significant correlation among the independent variables.

The Breusch-Pagan/Cook-Weisberg Test was used to determine the existence of heteroskedasticity, the result showed the existence of constant variance as indicated by its p value > 0.05. This result showed the non-existence of heteroskedasticity.

In view of the fact that the data are panel the possibility of fixed or random effect is inevitable. Thus, we run a regression model with fixed effect and another model with random

effect. In order to determine the model to adopt we run a Hausman specification test, the result of the Hausman specification test indicate a random effect. The results are presented as below;

The result of the Hausman specification test showed Prob > chi2 = 0.4835 indicating random effects as p value > 0.05. Therefore, random effect model is the most fitted models for predicting DFS using NOS and EPS. The Random Effects (RE) Model assumes that, all correlation of the error terms over time is attributed to the individual effects. And that at the intercepts are random factors, independently and identically distributed over individuals, and thus variations of the coefficients have nothing to do with the individual panel's fixed characteristic.

The equation of model 5 can be re-written as follows;

$$DFS_{it} = 3.7337 + 0.3768NOS_{it} + 0.4571EPS_{it} + 2.3959_{it} - \quad (5)$$

Table 12: Regression Result for Model 5

Variable	Coefficients	p-value
NOS	0.4476	0.000
EPS	0.7118	0.174
Constant	2.6888	0.232
Std Error	2.2490	
R-squared	0.1292	
Model P-value	0.0002	
F-statistics	9.26	
Root MSE	10.912	

Table 13: Regression Result for Model 5 (Fixed vs Random)

Variable	Fixed Effects		Random Effects	
	Coefficients	p-value	Coefficients	p-value
NOS	0.3768	0.002	0.4213	0.000
EPS	0.4571	0.403	0.6168	0.235
Constant	3.7337	0.122	2.8012	0.245
Std. Error	2.3959		2.4084	
R-squared	0.1401		0.1291	
Model P-value	0.0068		0.0008	

Summary of Findings

The findings from the studies as presented above confirms results from previous similar studies as well as also contradict some other studies. The results also indicate the invalidity of the entire hypotheses formulated, as the results all points to the fact of rejecting these hypotheses.

Firstly, the study found that the market value of shares of Nigerian banks respond to the Book Value per Share. This indicates that the market value of a bank's share is influenced to a

large extent to the historical value of its assets per share. Secondly, the study found that the market value of shares of Nigerian banks respond positively to Dividend per Share. This indicates that the investors are watching closely the banks that are consistent in declaring dividend and thus are more interested in investing in such banks. This means the dividend policy of banks in Nigeria have significantly influenced the market price of their shares. Thirdly, accounting earnings indicated by earnings per share contributes significantly to the market price of banks share. This means that investors are also looking out for banks who have maintained consistent earnings over the years to determine where to invest.

Fourthly, even as book value, dividend and earnings can individually influence the market price of banks' shares, the extent of such influence is below the joint influence of the three. This indicates that investors who are concerned about the three variables jointly are more likely to enjoy increase in the value of their shares than those who are concerned with only one of the variables. Finally, the study also found that the demand for banks shares is influenced by the profitability of the banks as proxied by accounting earnings. The results indicates that the increase in profitability of a bank have a significant positive influence on the demand for the banks shares on the floor of the Nigerian Stock Exchange.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that dividend is the most influential accounting information sought after by investors in bank shares quoted on the Nigerian Stock Exchange, Book Value and earnings per share rank in the second and third position. The volume of shares of quoted bank traded on the Nigerian Stock Exchange is to an extent determined by the earnings of the banks.

Accounting information are used by various stakeholders in taking decision this decisions taken should be on the basis of reliable information. From the findings of the study, we recommend the following;

1. The banks should provide adequate and reliable accounting information in their statements of account to assist potential and prospective investors in taking informed decisions. The provision of this information will assist the investors on one hand and the bank will also benefit from the increase in its market value.
2. Regulators should put in place adequate monitoring mechanism to ensure that the information presented by the banks is reliable. This will help prevent situation where banks present false performance figures.

As a scope for further research, it is suggested that similar study on value relevance of accounting information on the determination of shares prices is extended to quoted manufacturing companies on the Nigerian Stock Exchange.

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