IS MARKET PRICE SENSITIVITY TO ACCOUNTING MEASURES TIME DEPENDENT? EVIDENCE FROM NIGERIA STOCK EXCHANGE (NSE)

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Abstract

This study empirically examines the relationships between share prices and accounting measures such as book value per share, earnings per share, dividend per share and cash flows per share. The study attempts to establish to what extent (period) can these accounting measures affect share price three to five months after the balance sheet date. Secondary data were obtained from official daily list of Nigeria Stock Exchange, Nigerian Stock Exchange facts books and yearly published annual report of 57 companies out of 201 listed on the Nigerian Stock Exchange as at 31st December 2010, which were selected randomly from all sectors of the economy from 2006-2010. Data were analyzed through descriptive statistics, correlation and least square regression analyses. The findings showed that there is significant relationship between share price and accounting measures considered at 5% level. Dividend per share (of ₦0.97) has the highest information content during the periods; followed by earnings (of ₦1.71) and book value (of ₦7.014). Cash flow information appears insignificant throughout the periods. Four months after balance sheet date was observed as highest information content period with adjusted R-squared of 70% in the three periods considered (three – five months). Hence, the value relevance of accounting measures is time dependent. Effort should be made to reduce the time allowed by the public companies to publish their audited annual reports and accounts to just three months after the balance sheet date of any public company regardless of whether financial or non-financial firm. Further investigation should be carried out to establish the reasons for low information content of cash flows.

Keywords: *Market price sensitivity, accounting measures and earnings management*

Introduction

Market price sensitivity to accounting measures is about the usefulness of accounting measures to stock market investors. In recent times, the usefulness of accounting measures has been of increasing concern to the researchers. Reliability is one main attribute of quality financial statement (Francis, Schipper & Vincent, 2002). High quality accounting information is a

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pre-requisite for well-functioning capital markets and economy as a whole and as such is important to investors, companies and accounting standard setters (Hellstron, 2005). Recent empirical works had suggested that accounting information is no longer performing its role as a veritable tool for investor's decision making especially in the developed economies where investors have access to other sources of information for their daily investment decision (Oyerinde, 2009; Rajapakse & Karunavathne, 2010). Against this backdrop, this study attempts to investigate the degree of sensitivity of market value of equity to the variations of some selected accounting measures. The claim that investors base their daily decision making solely on financial statement information is inconclusive as they have other sources of information, which if combined with information presented in the financial statement will permit informed judgment for better decisions.

The research questions in this study are:

(i) How does market price react to the variations in the book value of equity, earnings and cash flows?
(ii) Which of the market prices of three months, four months and five months after balance sheet date is more sensitive to accounting measures?

Based on these research questions the objectives of the study are:

(i) To determine the degree of sensitivity of market price to the variations in book value of equity, dividend and cash flow.
(ii) To establish which of the market prices of three months, four months and five months after balance sheet date is more sensitive to accounting measures.

The following relationships between market value of equity and book value, earnings, dividend and cash flows have been hypothesized.

(i) Variations in book value of equity, earnings, dividends, and cash flows do not significantly affect the market price of shares.
(ii) The effects of variations in book value of equity, earnings, dividends, and cash flows on the market price of shares do not vary with time from three to five months after balance sheet date.

Review of Literature

Capital market based accounting research has established one stream of literature focusing on whether each accounting measure can appropriately explain the behavior of market price of equity at individual level and in combination of the measures (Khanagha, 2011). The notions of accounting measures having lost its relevance have met with stiff opposition with studies such as Schadevitz (2005), which studied each aspect of accounting measure in relation to stock market price. Chandias and Monhaninan (2006) studied the association between conservatism and usefulness of accounting measures by the investors to evaluate their stock price. They reported that there was no evidence that industries with increasing conservatism experience decline in the usefulness of accounting information by investors than industries with decreasing conservatism.

Aiman and Mohammed (2006) examined empirically how the national and international investors in Egyptian market perceive Egyptian accounting Standard (EAS). Their results showed that there was evidence of high relationship between accounting measure and stock market price in Egypt based on both return and price model. More importantly, their results suggested that stock prices in Egypt are less informative about the future value of firms than accounting information. Lin (2007) considered how accounting numbers can accurately predict stock market prices in different stock market segments. The data from 1999-2003 were analyzed using the modified Ohlson model. It was concluded that predictive power of accounting measures in relation to stock market prices is different within stock market segments existing in China.

In Australia, Bramble and Hodgson (2007) concluded that sensitivity of market price of equity to accounting members as not significantly declined over time. Comparable result was also reported in Denmark by Thinggard (2008). The empirical study controls for transitory items using non-linear regression and adjust for possible stock market efficiency. Oyerinde (2009) investigated the relationship between accounting numbers and share prices in the Nigerian Stock Market. Using 30 companies with highest earnings yield listed on Nigeria stock market over the years 2001-2004, earnings per share, earnings yield and return on equity were regressed on share prices. These accounting variables have a great explanatory power in explaining the behavior of stock price at point in time. It was concluded that the claims that accounting measures are no longer useful to investors in evaluating stock

prices are premature, vague, hasty and non- conclusive. She further said that accounting numbers in Nigeria has gained continued usefulness by investors in their everyday valuation of stock prices.

Kamivathne, Hubei and Rajapkse (2010) investigated the value relevance of financial information by considering the predictive power of earnings and cash flow on stock prices. They considered the effect of firm size on the usefulness of accounting measures. Regressing earnings, book values and cash flows on stock prices, they observed that earning per share (EPS) was the most useful variable but that cash flow from investing activities was another useful variable which can explain stock market behavior. Papadotos and Bellas (2011) compared the sensitivity of accounting information in relation to stock prices under international financial reporting standards (IFRS) and Greek accounting standard (GAS). They opined that introduction of IFRS does not seem to improve the explanatory power of book values and net income in relation to stock market price either separately or in combination.

Abubakar (2011) empirically studied the association between stock market price and accounting measures and how such measures influence share prices of the new economy firms in Nigeria. This new economy firms are regarded as firms from telecommunication, media and technology. Data from 2005-2008 were used as sample and analysed using Ohlson model. The results showed that accounting measures of these listed companies have low predictive power of the stock market prices behavior. The low explanation power is due to intangible assets, which are not reported by these firms. The study used book value, earnings and dividend as the independent variables without considering cash flows, which might have provided further explanation.

Babalola (2012) studied the association of accounting measures to stock market price in corporate Nigeria. Both the simple descriptive statistics and the logarithmic regression models were used to analyze data for a sample of 40 companies from different sectors of the economy for a period of 1999 - 2009. It was observed that earnings have more explanatory power than book value. It was further observed that information contained in the income statement as proxied with earnings reflect more information about stock price behavior than the information contained in the balance sheet, which was represented by book value.

From the foregoing there is no consensus as to the nature and effect of accounting measures on stock price behaviour. Capital market based accounting research has consistently shown attention in the ability of accounting measures to predict future performance of stock prices. From the inception of capital market based accounting research in 1968 till now proven research has been carried out in order to find the relationship between accounting measures and stock price. Some evidence has shown that accounting measures have continued to show increasing usefulness over time while few others are of divergent view.

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Materials and Methods

The data used in this study were obtained from Nigerian Stock Exchange official daily list, facts book and published annual reports and accounts of Fifty Seven (57) companies randomly selected out of 201 listed companies for a period of 2006-2010. We limited our analysis to this period because of the availability of continuous data To examine the sensitivity of market price to accounting measures, we regress firm market value on book value, earnings, dividends and cash flows using econometric software called e-view 7.0 series.

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The model used in this study is $MVP_{si} = ß_o + ß_1BVP_S + ß_2EP_S + ß_3DP_S + ß_4OCFP_S + ß_5ICFP_S + ß_6FCFP_S + ϱ$ (1)

where,

MVP_{s1} = Market value per share of three months after balance sheet date
MVP_{s2} = Market value per share of four months after balance sheet date
MVP_{s3} = Market value per share of five months after balance sheet date
BVP_S = Book value per share
EP_S = Earnings per share
DP_S = Dividend per share
$OCFP_S$ =Operating cash flow per share
$ICFP_S$= Investing cash flow per share
$FCFP_S$ = Financing cash flow per share
$ß_o, ß_1$ --- $ß_6$ = Regression coefficients
i = 1, 2 and 3

Results and Discussions

Descriptive statistics

Table 1 presents the descriptive statistics of six accounting measures and market prices of 57 companies over 5 year from 2006-2010 considered in this study.

Table 1. Descriptive statistics: Market price sensitivity to accounting measure

	MVPS1	MVPS2	MVPS3	BVPS	DPS	EPS	FCFPS	ICFPS	OCFPS
Mean	32.08291	32.15084	34.44382	7.013495	0.970814	1.705275	10.80591	-16.0566	22.08408
Median	13.04	13.51	13.3	3.93	0.15	0.7305	-0.08106	-0.34089	0.915856
Maximum	425.5	400	556.5	74.92	12.93	19.08	4255.247	9.819742	1546.649
Minimum	0.37	0.44	0.46	-11.6	0	-9.31	-528.841	-1643.39	-727.57
Std. Dev.	53.31858	52.39659	61.87486	9.812297	2.183188	3.329458	257.7372	127.9932	159.3782
Skewness	3.706489	3.541584	4.381863	2.920848	3.768162	1.840906	15.69342	-10.4317	6.769378
Kurtosis	20.07152	18.32641	28.15282	16.07565	17.99703	8.867673	260.0338	116.9521	61.72457
Jarque-Bera	4113.371	3385.209	8424.926	2435.541	3345.272	569.8257	796236.4	159366.7	43128.5
Probability	0	0	0	0	0	0	0	0	0
Sum	9143.63	9162.99	9816.489	1998.846	276.682	486.0035	3079.686	-4576.12	6293.963
Sum Sq. Dev.	807375.4	779694.3	1087293	27343.85	1353.632	3148.222	18865679	4652559	7213997
Observations	285	285	285	285	285	285	285	285	285

Source: Authors' computation (2013).

Operating cash flow per share (OCFPS) shows the highest mean value of ₦22 amongst the six accounting measures with standard deviation of ₦159 while dividend per share (DPS) has the least average value of ₦0.97 and standard deviation of ₦2. The medians of all accounting measures are consistently different from the means with book value per share (BVPS) having the highest median value of ₦4 and investing cash flow per share (ICFPS) with least value of ₦0.34, which depict dissimilarity of accounting measures across the firms. This is also supported by the degree of skewness, which varies away from mean among the firms except earnings per share (EPS) with average of ₦1.7 and skewness of ₦1.0 which are quite similar. This shows that operating cash flow per share is more variable than other accounting measures like dividend per share among others.

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4.2. Results of Correlation Analysis: Relationships between accounting measures and price of shares.

Table 2 presents the results of the correlation analysis.

Table 2. Correlation Matrix: Market Price Sensitivity to Accounting Measures

	MVPS1	MVPS2	MVPS3	BVPS	DPS	EPS	FCFPS	ICFPS	OCFPS
MVPS1	1	0.9785183	0.84786369	0.4559174	0.79221282	0.695322	0.021209	-0.01344	0.034445
MVPS2	0.978518252	1	0.87012059	0.4829406	0.80379471	0.704793	0.012594	-0.01513	0.029942
MVPS3	0.847863692	0.8701206	1	0.3974178	0.71998995	0.614839	0.010706	-0.02046	0.029087
BVPS	0.455917418	0.4829406	0.39741777	1	0.46095972	0.571685	-0.02762	0.052564	-0.0418
DPS	0.792212818	0.8037947	0.71998995	0.4609597	1	0.774374	-0.01682	0.011263	-0.00541
EPS	0.695321681	0.704793	0.61483892	0.5716855	0.77437413	1	-0.00542	-0.00019	0.010156
FCFPS	0.021209357	0.0125938	0.01070588	-0.02762	-0.0168187	-0.00542	1	-0.02283	0.260734
ICFPS	0.013442947	0.0151289	-0.0204598	0.0525635	0.01126322	-0.00019	-0.02283	1	-0.78852
OCFPS	0.034445049	0.0299416	0.02908707	-0.041801	-0.0054081	0.010156	0.260734	-0.78852	1

Source: Authors' computation (2013).

The results show that all accounting measures have positive correlation coefficients except investing cash flow per share ($CFPS_I$) with negative correlation coefficient of -0.013, -.0.015 and -0.020 for $MVPs_1$, $MVPs_2$ and $MVPs_3$ respectively. The highest positive relationship was observed in model 2 between dividend per share (DPS) and market price of four months after balance sheet date (MVPs2) with correlation coefficient of 0.81. This indicates that ₦1 variation in dividend per share (DPS) will lead to approximately 80 kobo change in share price in the share direction. Financing cash flow per share ($CFPS_F$) showed the least positive relationship with correlation coefficient of ₦0.11, which shows that ₦1 change in financing cash flow per share ($CFPS_F$) will lead to approximately 11 kobo change in share price of five months after balance sheet date in the same direction. Among the accounting measures, high positive association was observed between earnings per share and dividend per share (DPS) and between book value per share (BVPS) and earnings per share (EPS) with correlation coefficients of 0.77 and 0.57 respectively.

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Results of Regression Analysis: Market price sensitivity to accounting measures

We present the results of the ordinary least square regression analysis for the three models in Table 3.

Table 3. Results of Least Square Regression Analysis for Models 1-3

	Expected sign	Model 2 $MVPS_I$ (3 month after BSD)	Model 3 $MVPS_2$ (4 months after BSD)	Model 3 $MVPS_3$ (5 months after BSD)
C		8.2450 (2.68)*	7.7775 (2.57)*	10.6712 (2.80)
BVPS	+	0.6210 (2.21)	0.8067 (2.98)	0.5244 (1.45)
DPS	+	15.3534 (10.35)	15.0341 (10.67)	17.1214 (8.67)
EPS	+	2.4123 (2.36)	2.1272 (0.96)	1.7793 (1.29)
FCFPS	+	0.0052 (0.70)	0.0038 (0.55)	0.0039 (0.38)
OCFP	+	0.0122 (0.03)	0.0098 (0.54)	0.0076 (0.28)
ICFPS	-	0.09 (0.04)	-0.0016 (-0.07)	-0.00701 (-0.21)
Adjusted R^2		67%	1.94	82.8
D-W Stat.		70%	1.99	94.12
F- statis.		54%	2.03	47.67

*Statistically significance at 5%. Values in parenthesis are the t-statistics.

Model 1: Market price of three months after balance sheet date ($MVPS_1$)
Equation 2 is the regression equation showing the effects of the accounting measures on market price three months after balance sheet date.

$MVPS_1 = 8.2450 + 0.621BVPS + 2.412EPS + 15.353DPS + 0.0052CFPS_F + 0.0009CFPS_I + 0.0012CFPS_O$
(2) (2.67) (2.28) (2.36) (10.35) (0.70) (0.04) (0.63)

Adjusted R^2= 67% D-W statistic = 1.94 F-statistics = 82.8

It can be observed in model 1 that the adjusted R-squared in the final results was 67%. This shows that three months after balance sheet date, accounting measures can accurately explain 67% of systematic variations in market price

of firms listed in Nigeria stock exchange and remaining 33% could be explained by other factors not captured in this research, probably the non-accounting measures and speculation. It depicts a good degree of sensitivity. Durbin-Watson statistic of 1.94 shows absence of serial correlation. For t-test, only dividend and earnings are significant as their individual t-statistic values are greater than 2 with dividend having more information content as it displayed highest t-statistic value of 10.35 in the final result. The F-statistics value of 83 is greater than 5% critical value of 2.73 and as a result it is significant.

Model 2: Market price of four months after balance sheet date (MVPS2)
The regression equation showing the effects of the accounting measures on market price of four months after balance sheet date is presented in equation 3.

$MVPS_2 = 7.778 + 0.807BVPS + 2.129EPS + 15.034DPS + 0.004CFPS_F + 0.002CFPS_I + 0.010CFPS_O$ (3)

(2.57) (2.98) (2.57) (10.67) (0.55) (-0.07) (0.54)

Adjusted R^2= 70% D-W statistic = 1.99 F-statistics = 94.12

The adjusted R-squared of 70% in this model is impressively high. This shows that four months after balance sheet date accounting measures can accurately predict 70% systematic variations in share prices of firms in Nigerian capital market while the remaining 30% may be accounted for by stochastic parameters. Book value per share (BVPS), dividend per share (DPS) and earnings per share (EPS) passed test of significance at 5 percent level since their respective t-values are greater than 2 and dividend is still having the highest significance value. The cash flow information still remains insignificant going by their low t-values.

Model 3: Market prices of five months after balance sheet date (MVPS)
Equation 4 is the regression equation showing the effects of the accounting measures on market price five months after balance sheet date.

$MVPS_3 = 10.671 + 0.524BVPS + 1.780EPS + 17.121DPS + 0.039CFPS_F + 0.070CFPS_I + 0.008CFPS_O$ (4)

(2.80) (1.45) (1.29) (8.66) (0.38) (-0.21) (0.28)

R^2= 54% D-W statistic = 2.03 F-statistics = 47.66

In this model adjusted coefficient of determination (R-squared) in the final results is 54%, which connotes that five months after balance sheet date, accounting measures can only explain about 54% of the systematic variations in the share price while the remaining 46% can be accounted for by the factors external to this study. Dividend stands out to be significant in this model among the accounting measures and cash flow information still appears insignificant.

Comparing the three models, it shows that information content of accounting measures is not constant. It fluctuates from period to period; four months after balance sheet date having more predictive power of 70% and five months after balance sheet has the least predictive power as it could only explain 54% of variability in the share price during the period.

Testing of Hypotheses

We hereby consider the hypotheses testing under the three models in this study.

Hypothesis one

Hypothesis one states that variations in book value of equity, earnings, dividends, and cash flows do not significantly affect the market price of shares. To test this hypothesis, we check the values of t-statistic of the beta coefficients of the independent variable, which are accounting measures. Any coefficient with t-statistic of 2 and above is considered as significant and we conclude that the market price of share at that period after the balance share date is sensitive to the accounting measure. From Table 3, we can observe as follows.

(a) On whether the market prices are sensitive to book value of equity or not, we observe that he t-statistic values in model 1 and model 2 are significant with values of 2.28 and 2.98 and adjusted R-squared of 67% and 70% respectively. Thus, three and four months after balance sheet dates the share prices of firms in Nigerian Stock Exchange are highly sensitive to variations in book value of equity. Thus, market prices of shares three and four months after the balance sheet dates respond significantly to the changes in book value of equity but not periods thereafter.
(b) Similarly, that the market prices of firms listed in Nigeria Stock Exchange after three to five months after balance sheet dates are

sensitive to dividend variations. This is confirmed by the values of their t-statistic, which are greater than 2 (see Table 3).

(c) Models 1 and 2 show that earnings variations are significant as the t-values are greater than 2 respectively while model 3 indicates that earnings variations are not significant as the value of t-statistic is less than 2. We can conclude that the share prices in the months three and four months after balance sheet dates are sensitive to earnings variations (see Table 3).

(d) By observing the values of t-statistic, all the cash flow information in the models are not significant as their t-statistic values were consistently less than 2. Thus, we conclude that market price of firms listed in Nigeria Stock Exchange are not sensitive to cash flow information (see Table 3).

Hypothesis Two

The hypothesis two states that the effects of variations in the book value of equity, earnings, dividends, and cash flows on the market price of shares do not vary with time from three to five months after balance sheet dates (see Table 3). This hypothesis is tested by comparing the values of the adjusted R-squared and F-statistic under the three models. The adjusted are 67%, 70% and 54% with respective F-values of 82.78, 94.13, and 47.67 in the three periods under consideration. It can be deduced that accounting measures have higher predictive power in month four after balance sheet date than other periods under consideration with the F-statistic value of 94.13 and adjusted R-squared of 70%. Hence, we reject the null hypothesis and conclude that the degree of sensitivity of accounting measures to share prices fluctuates from period to period with accounting measures having highest predictive power in month four after balance sheet date.

From the foregoing we observe that accounting measures have shown to be veritable tools in explaining the behavior of market prices of shares of firms listed in Nigeria Stock Exchange. It is observed that explanatory powers of accounting measures vary from period to period but are very significant in explaining the systematic variations in the share prices. Dividend is observed as the highest information carrier among the accounting measures considered, as its t-statistic values are highly significant under the three periods. Cash flow information is noted as the lowest informative accounting measure in relation to explaining the behavior of market prices of firms listed

in Nigerian Stock Exchange as their values of t-statistic are consistently insignificant.

Summary, Conclusion and Recommendations

The main aim of this research work is to empirically establish whether stock prices of companies listed in Nigeria Stock exchange react to variations in selected accounting measures such as book value of equity, earnings, dividend and cash flow information. Secondary data ware obtained from Nigeria Stock Exchange and published annual financial statements of 57 companies out of 201 listed companies for 5 years from 2006-2010. The findings of the study show that there is high sensitivity between market price of companies listed in Nigerian Stock Exchange and accounting measure considered. With adjusted R-squared of 67%, 70% and 54% of the models considered, we can confidently conclude that accounting measures are informative about the behavior of market price of companies listed in Nigeria Stock exchange. However, information content of accounting measures fluctuates within the periods with four months after balance sheet date recorded the highest information content period with 70% adjusted R-squared. Dividend is the most informative about share price behavior among accounting measures. The cash flow has very low information content in valuing firms for investment purposes. It is therefore evident from this study that accounting measures are value relevant up till four months after the balance sheet date and thereafter beginning to decline. A situation where the existing law and regulations provide six months after balance sheet date as the maximum period within which non-financial firms must present their annual reports and accounts shows that by the time the firms would release their audited annual reports and accounts then the information contents would have lost their value relevance. Hence, the value relevance of accounting measures is time dependent. Effort should be made to reduce the time allowed by the public companies to publish their audited annual reports and accounts to just three months after the balance sheet date of any public company regardless of whether financial or non-financial firm. This is to ensure that the information contents of published annual reports and accounts are still value relevant to investors. However some weaknesses of this study, which include the small sample size and use of pooled ordinary least square regression analysis. Subsequent research on extent of value relevance of accounting measures should increase the sample size and also make use of the robust methodology of panel data analysis. Further research should be carried out to investigate the reasons for market insensitivity of cash flow items in this study.

References

Abubakar, S. (2011). Value relevance of accounting information of listed new economy firms in Nigeria: An empirical investigation using Ohlson model. Available online. abu.edu.ng/publications/2012-04-05-164132_1156.docx. Retrieved from http://www.google.com

Aiman, A.R, & Mohammed, M.O. (2006). Accounting information value relevance and investors behaviours in Egyptian equity market. Retrieved from http://www.google.com

Alali, F.A., & Forte, P.S. (2008). Earnings return association in emerging market: An empirical analysis of Abu Dhabi Security market, Califonia State University Fullstrom.

Babalola, Y. A. (2012). Significance of accounting information on corporate values of firms in Nigeria. *Research Journal in Organizational Psychology & Educational Studies, 1*(2), 105-113. www.emergingresource.org

Balachandran, S.V., &Monharan, P.S. (2006). Conservatism and value relevance of accounting information. Working paper, University of Colombia.

Beisland, A.E. (2009). Essay on the value relevance of accounting information. Working paper of Norwegian School of Economics and Business Administration.

Bersland, A.L. (2009). A review of the value relevance literature. *The open access Business Journal,* 2, 7-27.

Brimble, M., & Hodgson, A. (2007). Inter-temporal value relevance of conventional financial accounting in Australia. *Account Finance, 47*, 599-622.

Bushman, M.R., & Smith, J.A.(2003). Transparency, financial accounting information and corporate governance. *FRBNY Economics Policy Review*. retrieved from http://www.google.com

Dung, N.V. (2010). Value relevance of financial statement information. A flexible application of modern theories to the Vietnams' Stock Market. Retrieved from: http://google.com

Fillip, A. (2010). The value relevance of earnings in a transition economy. The case of Romania. *International Journal of Accounting*, *45,* 77-103

Francis, J., Schipper, K., and Vincent, L. (July 2002). Expanded disclosures and the increased usefulness of earnings announcements. *The Accounting Review*, 515- 46.

Gu, Z. (2007). Across sample incomparability of R^2 and additional evidence of value relevance changes overtime. *Journal of Business Finance and Account, 34,* 65-86

Hamberg, M & J Novak (2007). Contrarian investment accounting. Working paper.

Hellstron, K. (2005). The value relevance of financial accounting in a transitional economy: The case of Czech Republic. Working paper series in Business Administration, University of Pragua.

Ibrahim, S. (2010). *The Essential of Business Research Methods*. Austa Computer World, Benin, Benin City.

Izedonmi, F.O (2008). *A quick to project writing*. Joint Heirs Publication Nig. Ltd., Benin, Benin City.

Jianwei, L., & Chinjia, L. (2007). Value relevance of accounting information. *International Accounting R*esearch, 6(2), 55.81

Karunarathne, W.V.A.D., Hubei, P.R., & Rajapakse, R.M.D.A.P, (2010). The value relevance of financial statement information with special reference to the listed companies in Colombo Stock Exchange. *Journal of Accounting Review, 23*,142-163.

Khanagha, J.B. (2011). International financial reporting standards (IFRS) and value relevance of accounting information. *African Journal of Proceedings* of the 10th Annual International Conference Social Sciences, 1, 101-114.

Okpala, G.C. (2010). Stock market price and random work hypothesis: further evidence from Nigeria. *Journal of Economics and International Finance, 2* (3), 49-57.

Oyerinde, D.T. (2009). Value relevance of accounting information in emerging market in Nigeria. *Proceedings of the 10th annual international conference, International Academy of African Business and Development (IAABD)*, Uganda. Retrieved from http://www.google.com

Papadatos, P., & Bellas, P. (2011). The value relevance of accounting information reporting standard (IFRS). *International Research Journal of Finance and Economics, 76,* 1450-2887

Perera, R.A.A., & Thinkawala, S.S. (2010). An empirical study of the relevance of accounting information on investors decision. Retrieved from: http://google.com

Rajapakse, W.A. & Karunavathne, A.D. (2010). The value relevance of financial statements' information with special reference to

the listed company in Colombo Stock Exchange. *Journal of Accounting Review, 23,* 142-163.

Thinggard, F., & Damkier, J. (2008). Has financial statement information become less relevant? Longitudinal evidence from Denmark. *Scandinavian Journal of management,23*:375-385.

Yaowen, S., Stephen, T., & Terry, W. (2008). The uncertainty of non-accounting information in analyst forecast and stock return volatility. Retrieved form: http://www.ssrn.com

Yartey, C.A (2008). The determinants of stock market development in emerging economics. *IMF working paper, African Department*, No.32.

APPENDICES

Appendix 1. Regression Analysis Initial Output: Model 1

Dependent Variable: MVPS1

Method: Least Squares

Sample: 1 285

Included observations: 285

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.550946	2.361709	4.044083	0.0001
BVPS	0.395193	0.23578	1.67611	0.0948
DPS	15.44562	1.371249	11.2639	0
EPS	2.622572	0.973235	2.694696	0.0075
FCFPS	0.00523	0.007998	0.653856	0.5137
ICFPS	0.002165	0.025289	0.085594	0.9319
OCFPS	0.012294	0.021018	0.584917	0.5591
R-squared	0.649785	Mean dependent var		32.08291
Adjusted R-squared	0.642226	S.D. dependent var		53.31858
S.E. of regression	31.89207	Akaike info criterion		9.786847
Sum squared resid	282754.9	Schwarz criterion		9.876557
Log likelihood	-1387.626	Hannan-Quinn criter.		9.822809
F-statistic	85.96637	Durbin-Watson stat		1.453435
Prob(F-statistic)	0			

Appendix 2. Regression Analysis Final Output: Model 1

Dependent Variable: MVPS1

Method: Least Squares

Sample (adjusted): 2 285

Included observations: 284 after adjustments

Convergence achieved after 8 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.245027	3.082179	2.675064	0.0079
BVPS	0.621023	0.280999	2.210052	0.0279
DPS	15.35338	1.483234	10.35129	0
EPS	2.412333	1.020486	2.363906	0.0188
FCFPS	0.005183	0.007359	0.704395	0.4818
ICFPS	0.000939	0.023379	0.04017	0.968
OCFPS	0.012229	0.019365	0.631469	0.5283
AR(1)	0.281697	0.058154	4.843952	0

R-squared	0.677372	Mean dependent var	32.03246
Adjusted R-squared	0.66919	S.D. dependent var	53.40589
S.E. of regression	30.717	Akaike info criterion	9.715274
Sum squared resid	260415.4	Schwarz criterion	9.818062
Log likelihood	-1371.57	Hannan-Quinn criter.	9.756484
F-statistic	82.78211	Durbin-Watson stat	1.943923
Prob(F-statistic)	0		
Inverted AR Roots	0.28		

Appendix 3. Regression Analysis Initial Output: Model 2

Dependent Variable: MVPS2

Method: Least Squares

Sample: 1 285

Included observations: 285

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.037005	2.247362	4.021161	0.0001
BVPS	0.558441	0.224364	2.488993	0.0134
DPS	15.39401	1.304858	11.79746	0
EPS	2.331759	0.926114	2.517788	0.0124
FCFPS	0.004153	0.007611	0.545673	0.5857
ICFPS	-0.003193	0.024064	-0.132695	0.8945
OCFPS	0.008153	0.02	0.407651	0.6838
R-squared	0.671618	Mean dependent var		32.15084
Adjusted R-squared	0.664531	S.D. dependent var		52.39659
S.E. of regression	30.34796	Akaike info criterion		9.68759
Sum squared resid	256037.7	Schwarz criterion		9.777301
Log likelihood	-1373.482	Hannan-Quinn criter.		9.723553
F-statistic	94.76246	Durbin-Watson stat		1.38423
Prob(F-statistic)	0			

Appendix 4. Regression Analysis Final Output: Model 2

Dependent Variable: MVPS2

Method: Least Squares

Sample (adjusted): 2 285

Included observations: 284 after adjustments
Convergence achieved after 8 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.77753	3.025329	2.570804	0.0107
BVPS	0.806737	0.271095	2.975847	0.0032
DPS	15.03408	1.409414	10.6669	0
EPS	2.127153	0.963599	2.207509	0.0281
FCFPS	0.003808	0.00687	0.554306	0.5798
ICFPS	-0.00156	0.021806	-0.07168	0.9429
OCFPS	0.009807	0.018037	0.543735	0.5871
AR(1)	0.31678	0.057269	5.531462	0
R-squared	0.704777	Mean dependent var		32.06405
Adjusted R-squared	0.69729	S.D. dependent var		52.46855
S.E. of regression	28.86773	Akaike info criterion		9.591091
Sum squared resid.	230003.5	Schwarz criterion		9.693879
Log likelihood	-1353.94	Hannan-Quinn criter.		9.632301
F-statistic	94.12675	Durbin-Watson stat		1.989418
Prob(F-statistic)	0			
Inverted AR Roots	0.32			

Appendix 5. Regression Analysis Initial Output: Model 3

Dependent Variable: MVPS3
Method: Least Squares
Sample: 1 285
Included observations: 285

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.40554	3.175509	3.59172	0.0004
BVPS	0.345959	0.317025	1.091268	0.2761
DPS	17.23881	1.843756	9.349834	0
EPS	2.089258	1.308593	1.596568	0.1115
FCFPS	0.004588	0.010754	0.426608	0.67
ICFPS	-0.00924	0.034003	-0.27169	0.7861
OCFPS	0.005232	0.02826	0.185141	0.8533
R-squared	0.529849	Mean dependent var		34.44382

Adjusted R-squared	0.519702	S.D. dependent var	61.87486
S.E. of regression	42.88148	Akaike info criterion	10.37901
Sum squared resid	511192.4	Schwarz criterion	10.46872
Log likelihood	-1472.01	Hannan-Quinn criter.	10.41497
F-statistic	52.2165	Durbin-Watson stat	1.624289
Prob(F-statistic)	0		

Appendix 6. Regression Analysis Final Output: Model 3

Dependent Variable: MVPS3
Method: Least Squares
Sample (adjusted): 2 285
Included observations: 284 after adjustments
Convergence achieved after 7 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.67115	3.812018	2.799344	0.0055
BVPS	0.524389	0.362034	1.448452	0.1486
DPS	17.12139	1.976793	8.661193	0
EPS	1.77931	1.377511	1.291684	0.1975
FCFPS	0.003926	0.010286	0.381677	0.703
ICFPS	-0.00701	0.032706	-0.21419	0.8306
OCFPS	0.00759	0.027158	0.279483	0.7801
AR(1)	0.192792	0.059306	3.250778	0.0013
R-squared	0.547293	Mean dependent var		34.41369
Adjusted R-squared	0.535812	S.D. dependent var		61.98199
S.E. of regression	42.22917	Akaike info criterion		10.35186
Sum squared resid	492191.7	Schwarz criterion		10.45465
Log likelihood	-1461.97	Hannan-Quinn criter.		10.39307
F-statistic	47.66663	Durbin-Watson stat		2.027981
Prob(F-statistic)	0			
Inverted AR Roots	0.19			