

MARKET VALUATION MEASURES AND THE SHARE PRICE OF LISTED INSURANCE FIRMS IN NIGERIA

¹Onipe Adabenege Yahaya PhD and ²Aminu Alkasim

¹Department of Accounting, Nigerian Defence Academy, P.M.B., 2109, Kaduna, Kaduna State

²Umar Musa Yar'Adua University, Katsina

^{1&2}Emails: yoadabenege@nda.edu.ng ; alkasim.aminu@umyu.edu.ng

ABSTRACT

Firm's share price is well known to be highly volatile due to its asymmetric nature. Yet, very few studies have examined the factors that cause this volatility. This study, therefore, examines the effects of market valuation measures on share price of 28 listed insurance firms in Nigeria using a 10-year data set (2010-2019). Data set was extracted from the Nigerian Stock Exchange website and analyzed with the aid of mean, standard deviation, minimum, maximum mean, correlation and regression. Analytical checks (normality, multicollinearity, heteroskedasticity, panel effect) were conducted in order to ensure best linear unbiased estimation. The results indicate that book value of equity per share, earnings per share and dividend per share show significant positive effects on share price. However, cash per share and debt per share show insignificant negative effects on share price. The paper, therefore, concludes that market valuation is very important in share price management in the insurance industry in Nigeria. The paper is important for insurance industry policy improvement, bottom-line increase, further research and contributions to body of knowledge. Managers should take steps to improve profitability while at the same time reduce debt use and keep less cash by re-investing cash into new businesses.

Keywords: book value per share, cash per share, debt per share, dividend per share, earnings per share.

1. INTRODUCTION

This paper examines whether market valuation measures are effective in determining the equity price of Nigeria's quoted insurance firms. We suggest measures of market valuation to include book value of equity per share, earnings per share, dividend per share, cash per share and debt per share. The share price (SP) of a firm is the pride of its stakeholders particularly that the shareholders gain from capital appreciation, otherwise also known as capital gains. It is of interest to note that government also gains from capital increase through capital gains tax (CGT). In Nigeria, CGT is a highly veritable source of revenue to the government and therefore cannot be over-emphasized. However, it is the responsibility of the board of directors to take strategic steps to ensure that the share price of the firm is maintained at a reasonable and acceptable level in the stock marketplace. Nevertheless, as desirable as this goal, several factors, including internal and external, influence firm share price. For the purpose of this paper, only firm-specific factors are considered. These factors include book value of equity per share, earnings per share, dividend per share, debt per share and cash per share.

Book value per share (BVPS) is a measure of how the market sees equity contributions by the actions of management under the direction of the board. It measures financial performance improvement or otherwise over time, usually a year. Similarly, earnings per share (EPS) is an accounting-based financial performance measure. It looks at the return on each share invested in a firm by its shareholders. Dividend per share (DPS) is an expression which explains the amount of dividend paid out to shareholders in appreciation of their investment. It should be noted that dividend paid out reduces the amount of profit available for reinvestment in the business. In fact, in some climes, it is seen as evidence of lack of creativity and innovation on the part of management to pay out dividend to shareholders, particularly in highly competitive business environment such as digital technology (see Amazon, Apple, Facebook, Google).

Debt per share (DTPS) is a measure of firm's financial leverage or gearing. The lower the gearing ratio, the better for the firm, otherwise the shareholders may get apprehensive and begin to demand for higher dividend payout, which in turn reduces the amount of cash available for reinvestment in the firm. While debt is

good in the short run, it has negative implications in the long run and managers under the direction of the board must take measures to ensure judicious use of debts as part of the firm's capital structure. Debt per share is seen as the total amount of debt as a function of equity shares of the firm.

Cash per share (CPS) is another very important valuation tool in the capital marketplace. This is because of the role cash plays in the life of a firm. Cash is probably the single most important item of value for several industries, including banking, insurance, manufacturing, services, industrial, consumer, healthcare and conglomerates. Companies that have significant amount of cash attract better and healthy valuation in the market (see Apple, Facebook, and ARAMCO). Even in ordinary sphere, cash is an important consideration for individuals and families. Cash per share is seen as the total cash available to a firm as a function of its equity shares.

As a matter of rule of thumb, investors have always been encouraged to diversify their investment portfolios. It is true that after the oil and gas and banking sectors, insurance sector provides the next most profitable opportunities for investment. This probably is explained by the asymmetric nature of the global economy due to COVID-19, which has made business environment highly unstable and non-predictable. This is the condition best managed by insurance companies. The Nigerian insurance sector is formally managed by 28 firms. The sector assists in assuming risks faced by firms operating in Nigeria. Their operations face greater challenges due to the terrible state of the economy before the advent of COVID-19, which has made it even worse. It is important therefore to use data from the insurance industry to test the volatility of share price and its determinants in Nigeria.

This paper covers a period of ten years (2010-2019) and is restricted to the insurance industry. The variables of interest in the study are share price, book value of equity per share, earnings per share, dividend per share, cash per share and debt per share. The paper is significant both in terms of policy improvement, performance improvement, future studies and contributions to the body of

empirical literature. The next section of this paper addresses relevant literature review and development of statements of hypotheses.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Research on the relationship between market valuation and share price has frequently relied on the efficient market hypothesis or theory, which proposes that share prices are reflection of all information available in the market. The theory proposes that equity is traded at fair market value. However, it is important to note that the Nigerian capital market has been classified as efficient in the weak form (Inegbedion, 2012; Kelikume, 2016; Osondu, 2014). This paper relies on this position.

In some finance literature, book value of equity per share has been found to have significant effect on share price. For example, Alfaraih and Alanez (2011) examine the value relevance of accounting earnings and book value information provided by the Kuwait Stock Exchange listed firms during the 1995-2006 periods. The results show that BVPS is positively and significantly related to stock price and stock returns. Also, AbdulMajid and Benazir (2015) found BVPS to have significant effect on stock returns among property firms in Indonesia. Djalili et al. (2016) found that BVPS showed significant negative effect on equity valuation among listed manufacturing companies in Indonesia. Olowolaju and Ogunsan (2016) assessed the value-relevance of accounting information on share prices of listed banks in Nigeria and found BVPS to have significant effect on share price. Similarly, Warred (2017) found that BVPS has significant effect on stock price among Jordanian banks. However, in some other finance literature, BVPS was found not to show significant effect on share price. For example, Malrani and Abdi (2014) examine the effects of book value, net earnings and cash flow on stock prices of 129 selected firms listed on Tehran Stock Exchange over the period (2007-2012) but failed to find any significant effect. Furthermore, some studies failed to find any significant effect. For example, Penman et al. (2007) found that BVPS is positively related to stock returns. In view of the findings of these studies, this paper suggests that:

HO₁: Book value of equity per share has no significant effect on share price.

EPS is another important financial indicator. Earnings per share is considered as a measure of a firm's financial performance, which is earned on each equity share of a firm. Earnings per share showed significant effect on share price. For example, Alfaraih and Alanez (2011) show that earnings per share is positively and significantly related to stock price and stock returns. Malrani and Abdi (2014) found earnings per share to have significant effect on share returns among listed firms on the Tehran Stock Exchange over the period (2007-2012). Also, Jatoi et al. (2014) found that Earning per share has significantly impacted on the market value of share among cement industries in Pakistan. Djalil et al. (2016) found EPS to show significant positive effect on equity valuation. Olowolaju and Ogunsan (2016) found EPS to have significant effect on share price. However, in some other empirical studies, EPS was found not to have significant effect on share price. For example, Warred (2017) failed to find EPS to have significant influence on stock price of listed Jordanian banks. In this regard, the paper suggests that:

HO₂: Earnings per share has no significant effect on share price.

Some empirical literature has shown that dividend per share shows significant effect on share price. For example, Olowolaju and Ogunsan (2016) found DPS to have significant effect on share prices of deposit money banks in Nigeria. Warred (2017) found DPS to have significant impact on stock price of listed Jordanian banks. However, in some other empirical studies, DPS was found not to have significant effect on share price. For example, AbdulMajid and Benazir (2015) failed to find DPS to have significant effect on stock returns among property firms in Indonesia. Similarly, Manjunatha (2013) examined the impact of dividend per share on the value of 29 companies listed on Bombay Stock Exchange and National Stock Exchange and failed to find any effect. In view of these contradicting results, this paper predicts that:

HO₃: Dividend per share has no significant effect on share price.

Similarly, cash per share was found to have significant effect on share price. For example, Lyndon and Paymaster (2016) examined the impact of cash flow on stock price of 10 commercial banks listed on the Nigerian Stock Exchange for the period

(2005-2014). The findings of the study revealed that CPS has positive significant impact on market share price. Similarly, Oroud et al. (2017) investigated value relevance of cash flows and its impact on share prices of firms listed on Amman Stock Exchange, Jordan. This study found that the cash per share has a statistically significant effect on the share prices of the Jordanian companies listed on ASE. However, in some other empirical studies, cash per share was found not to show significant effect on share price or firm value. For example, Malrani and Abdi (2014) failed to find any significant effect between cash per share and share price among Iranian listed firms. Similarly, Khanji and Siam (2015) examined the effect of cash flow on share price of the Jordanian commercial banks listed in Amman stock exchange and failed to find significant effect. In view of this, the paper predicts that:

HO₄: Cash per share has no significant effect on share price.

Debt is a measure of leverage, which can be a source of concern for shareholders if it is high. Debt per share is an important financial indicator or ratio and investors are interested in the ratio relative to firm share price or value. Some studies have found debt per share to show significant effect on share price. For example, Bahreini et al. (2013) examined the relationships between debt per share and the share prices of the 145 companies of Tehran Stock Market from 2005 to 2006. The results indicated that there was a significant relationship between debt and the stock price. Also, Penman et al. (2007) found DTSP to be negatively associated with stock returns. On the other hand, some studies have found no such significant impact. For example, AbdulMajid and Benazir (2015) failed to find DTSP to have significant effect on stock returns among property firms in Indonesia. Similarly, Manjunatha (2013) failed to find any effect between debt per share and share price among listed firms on the Bombay Stock Exchange and National Stock Exchange. In view of these conflicting findings, this paper predicts that:

HO₅: Debt per share has no significant effect on share price

3. METHODOLOGY

This study is an empirical research and it uses correlational research design, because it is a cause-and-effect study. The population/sample are the 28 listed insurance firms on the Nigerian Stock Exchange. The data set covers a period of 10 years (2010-2019). The data was analyzed with the aid of STATA 16. Diagnostic checks and post-estimation tests were carried out to facilitate best linear unbiased estimation. The model of the study is estimated as follows:

$$SP_{i,t} = \alpha + \beta_1 BVPS_{i,t} + \beta_2 EPS_{i,t} + \beta_3 DPS_{i,t} + \beta_4 CPS_{i,t} + \beta_5 DTSP_{i,t} + \varepsilon_{i,t}$$

Whereas:

SP = Share price, otherwise known as market price per share, measured by the average of opening and closing share price of firm *i* at time *t* (Olowolaju & Ogunsan, 2016; Warred, 2017).

i = Company script (in this case, *i* = 28 firms)

t = Year script (in this case, *t* = 10 years)

α = Constant

β_{1-5} = Coefficients measuring slope

BVPS = Book value per share, measured by total equity divided by number of shares outstanding. It indicates a firm's net asset value on per share basis (AbdulMajid & Benazir, 2015; Alfaraih & Alanez, 2011).

EPS = Earnings per share, measured by profit after interest and taxes divided by number of equities shares outstanding. It indicates how much money a firm makes for each share and it is widely used to estimate firm value (Djalil et al., 2016; Malrani & Abdi, 2014).

DPS = Dividend per share, measured by dividend paid out divided by the number of equities share outstanding. DPS is a key ratio widely used by shareholders as it indicates the quality of return on investment (Manjunatha (2013; Warred, 2017).

CPS = Cash per share, measured by total cash divided by the number of equity outstanding. It is a measure of firm's financial strength (Khanji & Siam, 2015; Lyndon & Paymaster, 2016; Oroud et al., 2017; Yahaya, 2016).

DTPS = Debt per share, measured by total liabilities divided by number of equity. It is a measure of firm financial leverage (AbdulMajid & Benazir, 2015; Bahreini et al., 2013).

ε = Idiosyncratic error term

4. RESULTS AND DISCUSSION

This section is devoted to the results of the series of analyses that were carried out and the contrast and comparison with empirical results from previous related studies. The results of the descriptive analysis are reported in Table 1.

Table 1
Results of Descriptive Analysis

Variables	No. of Observations	Mean	Standard Deviation	Minimum Mean	Maximum Mean
SP	280	.944	1.079	.240	8.820
BVPS	280	1.615	1.477	-.660	8.480
EPS	280	.044	.191	-.990	.680
DPS	280	.030	.079	0.000	1.100
CPS	280	.640	1.594	-18.890	15.510
DTPS	280	1.074	1.099	0.000	7.380

Source: STATA 13 Outputs

Table 1 presents a summary of the descriptive indicators of the variables of interest in the paper. The number of observations is 280 derived from the 28 listed insurance firms and the 10-year period covered by the study. In terms of the share price of the firms, the average share price over the 10-year period is ₦0.94. However, the minimum share price is ₦0.24 and the maximum share price is ₦8.82. Concerning book value of equity per share, the average BVPS is ₦1.61. These results clearly show that the book value per share is greater than the share price, which implies that the equity shares of insurance firms in Nigeria are undervalued. In terms of earnings per share, the average value is ₦0.04, while the minimum is ₦-.99 and the maximum is ₦0.68. Also, the average dividend per share is ₦0.03 with a minimum and maximum values of ₦0 and ₦1.1, respectively. These results suggest that some of the firms did not pay dividend during the period

covered by the study. Cash per share averages ₦0.63, with minimum and maximum values of ₦-18.89 and ₦15.51, respectively. These results suggest that some of the firms had liquidity problems during the period of investigation and were at risk of bankruptcy. Concerning debt per share, the average is ₦1.07 with minimum and maximum values of ₦0 and ₦7.38, respectively. These results imply that some of the firms did not carry debt in their capital structure during the period under coverage.

Table 2
Chen-Shapiro QH* test for normal data

Variable	Obs	QH	QH*	P-value
SP	280	0.779	3.703	< .0001
BVPS	280	0.905	1.597	< .0001
EPS	280	0.941	0.991	< .0001
DPS	280	0.585	6.942	< .0001
CPS	280	1.032	-0.534	> .200
DTPS	280	0.900	1.529	< .0001

Source: STATA 13 Outputs

Table 2 presents the results of normality test using the Chen-Shapiro test for normality (Chen & Shapiro, 1995). Testing the hypothesis that data are normally distributed plays an important role in many areas of empirical study. As clearly indicated in Table 2, CPS has a p-value greater than .05. The remaining variables have p-values that are significant at 0.01, 0.05 and 0.1 levels of significance. These results imply that the data set is not normally distributed. Figure 1 confirms these results.

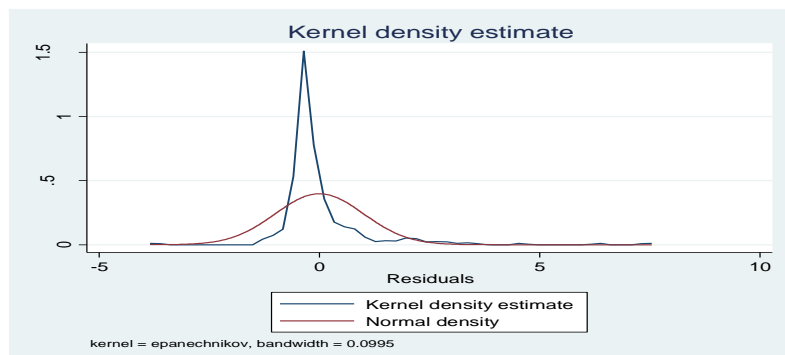


Figure 1: Result of normality test
Source: STATA 13 Outputs

As shown in Figure 1, the Kernel density estimate deviates far away from the normal distribution curve, which confirms that the data set lacks normal distribution. These results call for use of robust standard errors in the regression analysis instead of the normal standard errors to avoid spurious results.

Table 3
Results of Association Test

	SP	BVPS	EPS	DPS	CPS	DTPS
SP	1.000					
BVPS	.1496*	1.000				
	.0122					
EPS	.2939*	.1884*	1.000			
	.0000	.0015				
DPS	.2557*	.0547	.2472*	1.000		
	.0000	.3616	.0000			
CPS	.0010	.1153	-.0134	.0364	1.000	
	.9863	.0540	.8240	.5445		
DTPS	.0439	.5399*	.1466*	.0636	.0888	1.000
	.4647	.0000	.0141	.2891	.1384	

Source: STATA 13 Outputs

Table 3 reports bivariate association between variables. Results indicate that BVPS, EPS and DPS have significant positive associations with SP. However, CPS and DTSP failed to show any significant relationship with share price. The associations among the predictors show a maximum coefficient of 53.99 per cent (between BVPS & DTSP), which falls short of 80 per cent required to prove the presence of multicollinearity among the independent variables.

Table 4
Multicollinearity Test Results

Variable	VIF	1/VIF
BVPS	1.450	0.691
DTSP	1.420	0.705
EPS	1.110	0.904
DPS	1.070	0.937
CPS	1.020	0.983
Mean VIF	1.210	

Source: STATA 13 Outputs

It is necessary at this juncture to test for multicollinearity because it might yield results that are not best linear unbiased estimate (BLUE). To test for multicollinearity, we used VIF and 1/VIF (tolerance level). Table 4 presents variance inflation factors and tolerance levels, which further confirm the absence of multicollinearity among the predictors since their individual and mean variance inflation factors are less than 3.3 (Roberts & Thatcher, 2009).

Table 5
Information Matrix Test Results

Source	chi ²	df	p
Heteroskedast	56.460	20	0.000
Skew	17.300	5	0.004
Kurtosis	2.780	1	0.096
Total	76.540	26	0.000

Source: STATA 13 Outputs

Due to the lack of normality in the data set, we tested for heteroskedasticity using Cameron and Trivedi's decomposition of information matrix (IM) test. Table 5 presents the results of the test and clearly shows that the data set failed hettest because the p-value is significant (.000).

Table 6
Results of Breusch/Pagan Lagrangian Multiplier Test

	SP
Chibar ² (01)	0.000
Prob > Chibar ²	1.000

Source: STATA 13 Outputs

The Breusch/Pagan Lagrangian Multiplier Test assists in deciding between random effects model and a simple Ordinary Least Square (OLS). As clearly indicated in Table 6, the Prob > Chibar² is not significant (p-value = 1.000), which implies that there is no panel effects in the model and therefore OLS is the most appropriate for the study.

Table 7
OLS Regression Results

SP	Coef.	Robust Std. Err.	t	P>t
BVPS	.101	.049	2.040	0.043
EPS	1.303	.334	3.900	0.000
DPS	2.684	.793	3.380	0.001
CPS	-.008	.038	-0.220	0.830
DTPS	-.074	.066	-1.130	0.259
_cons	.729	.097	7.510	0.000

Number of obs = 280
F(5, 274) = 8.570
Prob > F = 0.000
R-squared = 0.135
Adj R-squared = 0.119

Source: STATA 13 Outputs

As indicated in Table 7, for every unit of increase in book value per share, there is 10 per cent increase in share price. Also, the t-value (2.04) and p-value (.0043) indicate that the effect BVPS has on SP is significant. These results are in line with the results of AbdulMajid and Benazir (2015), Alfaraih and Alanex (2011), Olowolaju and Ogunsan (2016), Umar et al. (2018), Warred (2017) and Yahaya et al. (2015), who found significant effect. Thus, hypothesis one, which states that book value per share has no significant effect on the share price of listed insurance firms in Nigeria is rejected.

Similarly, for every ₦1 increase in earnings per share, there is ₦1.30 increase in share price. The t-value (3.90) and p-value (.000) both indicate that the effect EPS has on SP is significant. These results are in line with the results of Alfaraih and Alanex (2011), Djalil et al. (2016), Jatou et al. (2014), Malrani and Abdi (2014), Olowolaju and Ogunsan (2016), Umar et al. (2018) and Yahaya et al. (2015), both indicate significant positive effect. Thus, hypothesis two, which states that EPS has no significant effect on share price of listed insurance firms is hereby rejected.

Furthermore, Table 7 shows that for every ₦1 dividend paid, there is ₦2.68 increase in share price. The t-value (3.38) and p-value (.001) both indicate that the effect DPS has on SP is significant. These results are in line with the results of AbdulMajid and Benazir (2015), Olowolaju and Ogunsan (2016) and Warred (2017), who found significant effect. Thus, hypothesis three that says that DPS has no significant effect on share price is not accepted.

However, Table 7 indicates that for every ₦1 cash held, share price reduces by ₦0.01. The t-value (-.22) and p-value (.830) both indicate that the effect CPS has on SP is insignificant. These results are in line with the findings of Khanji and Siam (2015) and Malrani and Abdi (2014), both found no significant effect. Thus, hypothesis four which says that CPS has no significant effect on share price is accepted.

Finally, from Table 7, it is clear that for every ₦1 debt or leverage maintained, share price reduces by ₦0.07. The t-value (-1.13) and p-value (.259) both indicate that the effect DTPS has on SP is not significant. These results are in line with the

findings of AbdulMajid and Benazir (2015), Manjunatha (2013), both found no significant effect. Thus, hypothesis five, which suggests that DTSP has no substantial effect on share price is accepted.

5. CONCLUSION AND RECOMMENDATIONS

The paper interrogates the effects of market valuation measures on share price of listed insurance firms in Nigeria. In order to achieve this goal, we developed a measure of market valuation based on the efficient market hypothesis, which argues that the market has full knowledge of corporate information. We analyzed whether these market valuation measures have influence on share price within the insurance sector of the Nigerian economy. We equally calculated the average of opening and year end share prices to proxy for the dependent variable. We used an OLS regression model that was similarly used by Umar *et al.* (2018). We used the 28 quoted insurance firms on the Nigerian Stock Exchange over a 10-year period (2010-2019). We found that book value per share, earnings per share and dividend per share have significant positive effects on share price. However, we failed to find any significant effect from cash per share and debt per share-on-share price.

Based on the results of this study, the contributions of this paper to empirical literature are many. First, we established that some market valuation measures (BVPS, EPS and DPS) have significant bearing on share price. We, however, also established that cash per share and debt per share lower share price. These results have policy and performance implications as well as future empirical studies and present body of knowledge (conceptual and theoretical).

Second, we have established the key elements of market valuation that require considerable attention of board of directors, management and stakeholders of insurance firms in Nigeria. In addition, we examined the association among the variables of the study and found that book value per share, earnings per share and dividend per share have positive and significant association with share price. However, we failed to find such similar relationship with cash per share and debt per share. These results have wide social implications since the powers of cash flows and gearing have been shown by the study not to be effective determinants of share price.

Third, the results of this study should be received with caution for some obvious reasons. One is that the study is restricted to the publicly quoted insurance firms in Nigeria. This is because only publicly held firms are compelled by law to have their accounts made public and it is difficult to obtain financial records from informal insurance firms. It is useful to state that this study represents an early effort to model all market valuation measures in a paper.

Finally, the paper offers directions for future empirical studies. The sample should be extended to cover the entire financial sector, which includes deposit money banks, micro finance banks, mortgage banks, savings and loans firms. This would have provided opportunity for comparison among different financial institutions. In addition, future research should examine the effect of new valuation measures on share price, for example price-earnings ratio. The application of OLS is another cause of concern as wider coverage could have provided data set that indicates present of panel effects.

REFERENCES

- AbdulMajid, M. S., & Benazir, L. (2015). An indirect impact of the price to book value to the stock returns: An empirical evidence from the property companies in Indonesia. *Jurnal Akuntansi dan Keuangan*, 17(2), 91-96. DOI: 10.9744/jak.17.2.91-96.
- Alfaraih, M., & Alanez, F. (2011). The usefulness of earnings and book value for equity valuation to Kuwait Stock Exchange Participants. *International Business & Economics Research Journal*, 10(1), 73-90.
- Bahreini, V., Baghbani, M., & Bahreini, R. (2013). Analysis between financial leverage with the stock price and the operational performance of the accepted companies in Tehran's stock market. *European Online Journal of Natural and Social Sciences*, 2(3), 25-34.
- Chen, L., & Shapiro, S. S. (1995). An alternative test for normality based on normalized spacings. *Journal of Statistical Computation and Simulation*, 53, 269-288.

- Djalil, M. A., Tabrani, M., & Jalauddin, L. (2016). The effect of earnings per share, book value and systematic risk on equity valuation in manufacturing companies listed on Indonesian Stock Exchange for the years (2011-2014). Proceedings of the 25th International Academic Conference held at the OECD Headquarters, Paris, 112-128. doi: 10.20472/iac.2016.025.016.
- Inegbedion, H. E. (2012). *Efficient market hypothesis and the Nigerian capital market*. Lap Lambert Academic Publishing.
- Jatoi, M. Z., Shabir, G., Hamad, N., Iqbal, N., & Muhammad, K. (2014). A regression impact of earning per share on market value of share: A case study cement industry of Pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(4), 221–227. DOI: 10.6007/IJARAFMS/v4-i4/1323.
- Kelikume, I. (2016). New evidence from the efficient market hypothesis for the Nigerian Stock Index using the Wavelet Unit root test approach. *Journal of Developing Areas*, 50(5), 185-197.
- Khanji, I., & Siam, A. (2015). The Effect of Cash Flow on Share Price of the Jordanian Commercial Banks Listed in Amman Stock Exchange. *International Journal of Economics and Finance*, 7(5), 109-115. doi: 10.5539/ijef.v7n5p109.
- Lyndon, M. E., & Paymaster, F. B. (2016). The impact of cash flow on stock price in the banking sector of Nigeria. *Business, Management and Economics Research*, 2(7), 136-140.
- Malrani, K. F., & Abdi, M. R. (2014). The effects of book value, net earnings and cash flow on stock price. *Management Science Letters*, 4, 2129–2132. doi: 10.5267/j.msl.2014.8.005.
- Manjunatha, K. (2013). Impact of debt-equity and dividend payout ratio on the value of the firm. *Global Journal of Commerce and Management Perspective*, 2(2), 18-27.

- Olowolaju, P. S., & Ogunsan, J. O. (2016). Value relevance of accounting information in the determination of shares prices of quoted Nigerian deposit money banks. *International Journal of Economics, Commerce and Management*, 4(10), 128-147.
- Oroud, Y. S., Aminul-Islam, M., & Tunku-Salha, T. A. (2017). The effect of cash flows on the share price on Amman Stock Exchange. *American Educational Research Journal*, 6(07), 22-28. Doi: <http://www.abrj.org>.
- Osondu, M. C. (2014). Efficient market hypothesis and Nigerian capital market: An analysis of bonus issues and dividend announcement. PhD Thesis, University of Nigeria, Nsukka.
- Penman, S. H., Richardson, S. A., & Tuna, I. (2007). The book-to-price effect in stock returns: Accounting for leverage. *Journal of Accounting Research*, 45(2), 427-467. doi: <https://www.jstor.org/stable/4622038>.
- Roberts, N., & Thatcher, J. B. (2009). Conceptualizing and testing formative constructs: Tutorial and a noted example. *Data Base Adv. Inf. Syst.* 40(3), 9-39.
- Umar, A. A., Dikki, A. C., & Yahaya, O. A. (2018). International financial reporting standards and financial reporting quality of listed insurance firms in Nigeria, *Journal of Accounting & Management*, 1(1), 272-280.
- Warred, L. H. (2017). The effect of market valuation measures on stock price: An empirical investigation on Jordanian banks. *International Journal of Business and Social Science*, 8(3), 67-74.
- Yahaya, O. A., Onyabe, J. M., & Usman, S. O. (2015). International financial reporting standards' adoption and value relevance of accounting information of listed deposit money banks in Nigeria. *J. of Economics and Sustainable Development*, 6(12), 85-93.