

## Fundamental Factors and Stock Price Behaviour of Insurance Companies Listed in Nigeria

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### ABSTRACT

*This study established the effects of fundamental factors on stock price behaviour of insurance companies listed in Nigeria. The study utilized panel regression using pooled Ordinary Least Squares (OLS) for the period of 2010-2019. Findings showed that earnings per share have statistical effect on stock price behavior in Nigeria. The result further showed that price earnings ratio has statistical effect on stock price behavior. Also, findings showed that dividend payout earnings ratio has statistical effect on stock price behavior in Nigeria. The last model showed that fundamental factor has statistical effect on stock price behaviour in Nigeria. Based on the empirical discoveries for the hypotheses, this study concluded that fundamental factors provide a precise result on insurance companies' stock price trend which makes it easy to predict stock returns. The study recommended that companies should deploy strategies that will increase their firm size, balance sheet size and manpower in order to broaden activities on their stocks as this was equally established as one of the significant factors affecting stock price behaviour of listed insurance in Nigeria.*

**Keywords:** Dividend payout, Earning per share, Fundamental factors, Insurance companies, Price earnings ratio, Stock price behaviour

### 1. Introduction

Generally, the prices of securities in the stock exchanges keep on fluctuating while investors and other operators are always interested in buying the shares at lower prices and selling them at higher prices to make profit. However, to achieve this objective, investors analyze the share price before committing their funds into it. Globally, the stock market plays a significant role in the economy of a country an important role in the allocation of resources, both directly as a source of funds and as a determinant of firms' value and its borrowing capacity (Reaz, Zahidur&Rajib, 2013).

Investors and financial analyst globally are interested in identifying under-priced shares which will compensate them for risk inherent in their investment decision (Ogboi, 2017). Chris mfon has been attributed to seeming inability by financial analysts to identify actual factors affecting share prices. Meanwhile, Beck and Levine (2003) had earlier affirmed that stock prices strongly correlated with macroeconomic variables. That is interest rate and

economic performance. However, it has being claimed recently that industry factors, firm specific factors and economic related factors interact to influence price of shares (Shiro, 2016).

Several empirical studies have shown that firm specific factors such as earnings, liquidity and dividend payout affect stock prices, the empirical evidences established that firm-specific determinants have great impact on share prices. There seems to be consensus among researchers that share prices are determined by both internal and external factors. Moreover, the macroeconomic determinants of share prices are theoretically ambiguous. On the other hand, share prices could influence the macroeconomic and firm-specific variables as postulated by Smith (1990), or vice versa. Since macroeconomic variables are subject to volatility, it is likely to also transmit to industry and firm-specific factors and if this is the case, empirical studies on actual determinants of equity share prices should therefore adopt an integrated approach rather than disaggregated form adopted by earlier researchers.

Emerging market like Nigeria is characterized by high volatility and inherent dynamics which are a reflection of the stock price movement on the Nigerian Exchange (NSE) floor. Globally, the stock market has faced a substantial fluctuation and shock that emanates from the subprime mortgage crisis in U.S. This is a proof that the Nigerian stock market had significantly responded to movements in exchange rate, global oil price changes and other macroeconomic uncertainties between 2010 and 2015 (Chris, Mfon & James, 2018). Udoka, Mboto and Anyingang (2013) collaborated this fact when they noted that, changes in oil price affects markets for foreign exchange, brings about stock exchange panics, high inflationary rate, financial and monetary policy instability, and eventually, high interest rate. This has also had adverse effect on stock price movement in Nigeria. The Nigerian stock market has maintained inconsistent changes that have resulted in capital depreciations and low returns on investment across all sectors of the economy. As activities in the capital market declines continuously and the pressure of sales being high, the participants in the market have linked this trend to panic and dearth of adequate information (Chris, Mfon & James, 2018)

Fundamental Analysis is the process of finding the intrinsic value or worth of a share. It is the study of a company's fundamentals with the aim of determining its exact worth. The process is based on analysing the information that is 'fundamental' to the company. Fundamental analysis which entails economic analysis, industry analysis and firm analysis focuses on economic related factors which influences market price of shares, identifying the intrinsic or fundamental value of its shares and buying or selling the stock based on that information. The fact that all participatory investors in the equity market are interested in maximizing their profit, they just cannot afford to ignore either fundamental or technical analysis. Understanding of the effect of various fundamental variables on share price is very much helpful to various parties such as investors, management, and government, when vital investment decisions are to be made. Many studies have been undertaken in the developed economies to studying the determinants of the share price movements. However, in Nigeria, studies on fundamental factors and stock price behaviour of insurance companies are scanty in the literature.

## **2. Literature Review**

The study employed signalling theory as the underpinning theory based on the relevance and suitability of the theory philosophical alignment with the study. This theory as forwarded by Ross (1976) is based on asymmetric information problems between well-informed managers

and poorly informed outsiders. Corporate executives with favourable inside information about their firms have an incentive to convey this positive information to outside investors in order to cause an increase in the firm's stock price. Hence managers of high value firms signal information to investors by adopting some financial policy. This theory is relevant to this study because different actions taken by management of a firm affect the share prices. This is because such actions as expansion and heavy capital investments sends positive signals in the mind of shareholders that the firm is doing fine

Supporters of this theory such as Spence (1973) stated that a good firm distinguish itself from a bad firm by sending credible signal of its quality to the capital markets. The signal will be credible only if the bad firm is unable to mimic the good firm by sending the same signal. where the cost of the signal is higher for the bad firm, the bad firm may not find it worthwhile to mimic the good firm, and so the signal will become credible. This is the costless signaling equilibrium being proposed by Bhattacharya and Heinkel (1982), Rennan and Kraus (1984) also in supported this theory. According to them, a costly signal is such that the production consumes resource or the signal is associated with a loss generated by deviations from allocation or distribution of claims in perfect markets. However, the signaling paradigm is multivariate for financial instruments.

Poitevin (1989) criticized the theory and demonstrated that to differentiate the potential competition of new entrant firms' debt could be used as a signal. The incumbent or high-cost entrants issue only equity. While Low-cost entrants signal this fact by issuing debt; Harris and Raviv (1985) argue that calling firm's reconstruction can be a kind of signal and Bhattacharya and Dittmar (1991) revealed that stock repurchase is also another kind of signal to represent firm value.

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## **2.1 Empirical Review**

Ogbebor (2019) examined how stock prices in Nigeria react to some fundamental factors, the study tests the effects of earnings yield (EY), dividend yield (DY), debt/asset ratio (D/A) and pay-out ratio (PR) on adjusted stock returns (ASR) in Nigeria by employing a robust set of econometric estimation techniques which include panel regression analysis in the examination of the relationship between stock returns and fundamental factors using a sample of ten (10) most capitalized companies listed on the Nigerian Stock Exchange (NSE) from 2008-2017. The study found that some fundamental factors such as Earnings Yield, Dividend Yield and Debt/Asset Ratio have more significant influences on stock prices, hence, more potent in explaining stock returns in Nigeria but Pay-out Ratio was weak. Furthermore, Debt/Asset ratio was disclosed to be fundamental to stock price performance.

Mohammed and Ali (2019). This paper analysed five fundamental determinants from multiple areas which includes; leverage ratios, market-based ratios, profitability ratios (earnings per share, price earnings ratio), market-based ratios and liquidity ratios. For analysis, the study used panel data analysis (common effect model, fixed effect model, and random effect model). The results showed that the fundamental analysis predicts future stock returns of listed companies in Pakistan.

Deden, Rachmat and Akbar (2020) examined the fundamental analysis of financial ratio on stock prices. The study uses an indicative financial ratio such as Return on Assets (ROA), Net Profit Margin (NPM), Price earnings ratio, Debt to Equity Ratio (DER) on prices of stock. With the use of STATA, the study revealed a stronger effect of ROA and NPM on stock prices after publication than before publication, while DER effect was found to be the opposite. The results conclusion is that financial ratios are one of the key determinants used by investors for their transactions in the stock market

Asma and Mollah (2014) investigated the underlying factors that determines stock returns in the Dhaka Stock Exchange. The empirical analysis does not support the critical condition of the Capital Asset Pricing Model of a positive relationship between stock return and beta. However, the findings of the study shows that variables such as firm size, price to earnings ratio price to book, volume of shares traded, earnings yield and cash flow yield have a significant effect on stock returns. Financial signals EPS, PER, debt to equity ratio, current ratio, net profit margin, dividend per share, and return on assets were selected for the study. The study found that earnings per share and price earnings ratio had positive effect on stock return, while debt to equity and net profit margin had negative relation with stock returns.

Mahmoud and Sakr (2012) investigated the power of fundamental analysis as regards firm performance and stock returns in Egypt. By using ten financial indicators which includes changes in asset turnover, changes in leverage, gross profit margin, changes in return on assets, changes in cash flow from operation, changes in current ratio, accrual, and cash flow from stock holder), the authors found that aggregate signals had positive correlation with stock return and firm performance.

Dimitrov and Jain (2008) examined the effect of the change in leverage on future accounting performance and future equity returns. They found a significant negative association between the change in leverage and the current stock returns. Besides, the study also found out that growth in assets is a value relevant indicator. Cai and Zhang (2011) studied the impacts of changing leverage on market stock prices in the US. They observed that the change in leverage ratio had a negative effect on stock prices. They suggested that the change in leverage gives a signal to the market participants concerning the value of the stock. The evidence is that stock price in the current period and the next quarter is affected by the change in leverage in the current period.

Cooper, Gulen and Schill (2014) asserted that cross-section of future stock returns can be predicted by annual asset growth rate. The authors found the growth in assets affect returns of firms which implies that firm asset growth can be used as a reliable predictor than other standard variables, such as book-to-market equity and market capitalization of firms. The reason behind this is that firm asset growth can capture common returns effect by examining elements in the overall financing and investment activities. This reason is the fact that the capital market utilises efficient pricing in real investment. The study of the relationship between size, book to market and stock return was carried out by Oliech in 2014 at the Nairobi Securities Exchange. To confirm these assumptions, the study found that size and book to market ratio have no relationship with returns. The resultant minimum levels of significance achieved in his study revealed that companies return quoted on the exchange are determined by factors other than size and ratio of book to market value.

Ondimu (2015) studied the impact of asset growth of returns for NSE listed firms. The study found that the market is inefficient in the allocating capitals and valuing investment opportunities. The author found that assets growth had a negative growth effect on stock

returns.

Ogbebor, *et al.*, (2020) explored some factors which prospective and individual investors considered for stock selection and this in turn impacts stock prices of companies listed on the Nigerian Stock Exchange. A validated Questionnaire was used in investigating factors which investors consider. Regression analysis (correlation analysis and ANOVA) was the inferential statistics used and the study revealed that the explanatory variables were jointly significant in explaining stock price behaviour in Nigeria. The recommendations include that firms listed in Nigeria should pay attention to elements such as foreign investment flows, inflation, range of products and board composition which are factors which investors lay emphasis on while investing.

Arni and Wahyu (2019) analysed the impact of banks' financial performances based on the Risk Profile, Good Corporate Governance, Earning, and Capital factors on their performance in the Indonesian capital market. The study revealed that stock returns was impacted with a negative and significant risk profile. The analysis on the effect of GCG on stock returns showed that GCG positively but not significantly affects stock returns. Also, the study showed that earnings significantly and positively affect stock returns. It could be concluded that company's earnings or a company's ability to generate profits has a significant and positive effect on banks listed in Indonesian Stock Exchange.

Khushboo (2018) assessed whether financial performance indicators of Nifty 50 stocks India stock exchange have a significant impact on the stock market price per equity shares. The financial performance indicators used were; Return on Investment, Return on Assets, Return on Equity and Earnings per Share. The study used the Bloomberg terminal to get secondary data of both dependent and regressors of Nifty 50 stocks. Result of the Pearson's Correlation revealed a very strong and positive correlation of EPS and market share price. ROA, ROI and ROE unveiled a weak correlation with market share price. Multiple regression analysis explained 76.5% of the change in market share price was due to the chosen variables.

Pudji (2017) confirmed that price of stock is one indicator of the successful management of the firm, if the stock price of the firm always increases, the investor or prospective investor considers that the firm succeeded in managing the business. The investor or prospective investor confidence is very beneficial for emitter, as more and more people who believe in the issuer's willingness to invest in listed companies stronger in this study, the data analysis model used is the test panel data regression (pool) which is a combination of cross section with the time series data. The results of this study indicated that simultaneously there were significant influence between the Price Earnings Ratio (PER), Earning per Share (EPS), Net Profit Margin (NPM), Price to Book Value (PBV), and Risk Systematic on stock prices on companies listed in LQ45 Index 2011-2015. Partially, Price Earnings Ratio (PER), Earning per Share (EPS), Net Profit Margin (NPM), Price to Book Value (PBV), and Systematic Risks have significant effect on stock prices.

Geetha and Kumar (2017) investigated that the change in the market price of a share is due to factors such as EPS and Profit on the India national stock exchange. Correlation analysis carried out revealed the extent to which the earnings per share and the profits of the firm impacts the average prices of the same firm. To overriding the significance correlation between the factors, a regression analysis also carried out to identify the association between the equity prices and EPS/Profit. Further, a regression analysis was conducted to analyse if average Price of a share and the following factors: Dividend Paid per share, Dividend Yield per Share, Book value, EPS, Profit and ROE are correlated. It was found that, EPS shows a

significant correlation, unlike profit. The data available did not provide enough evidence to affirmatively infer about the correlation between the regressor variables and the EPS for the banking and the Pharma sectors.

Aveh and Awunyo (2017) examined the influence of firm-specific determinants of stock prices in an emerging market with particular reference to firms listed on the Ghana Stock Exchange. The study employed a data-set from all listed firms on the Ghana Stock Exchange from 2008 to 2014. The study utilised panel regression analysis to analyse the data. In general, this study found out that accounting information, such as return on equity, book value, earnings per share, and market capitalization of the firms, was relevant to explaining stock prices behaviour after the adoption of International Financial Reporting Standards (IFRS). This study however enhanced knowledge on the firm-specific factors that influence share prices in an emerging market. A recommendation by the directors of the firms listed on the Ghana Stock Exchange introduced policies with a direct and positive impact on their return on equity and earnings per share.

Natasha, Rikus and Lana (2017) determined which category of EPS is best associated with share prices of the top 40 JSE listed companies in South Africa. No South African studies have previously attempted to answer this question. The top 40 JSE listed companies were selected as the research sample and the relationship between different categories of EPS and share prices was analysed empirically for the period 2005 to 2013. This study demonstrated that basic EPS correlated best with the changing behaviour of share prices. Furthermore, the study established that headline EPS proved to deliver lower correlation coefficients than other EPS categories. Based on the findings of this study some useful recommendations and areas for further research were also identified.

Ogboi (2017) investigated the fundamental determinants of equity share prices of listed deposit money banks in Nigeria. The study specifically examined the nature and direction of causality among macroeconomic factors, industry-specific factors, firm-specific factors and share prices. Macroeconomic variables data were sourced from Central Bank of Nigeria statistical bulletin, while data on industry-specific factors and firm-specific factors were sourced from the bank's annual reports and accounts between the year 2011 to 2015. The study utilises Panel data regression analysis to determine and confirm the nature of relationship that exist among the four classes of variables, meanwhile pair wise granger causality test was used to ascertain the causality direction among the variables. Result showed that the macroeconomic factors (GDP and INTR), industry-specific factor (SBC) and firm-specific factor (DPS) are equity shares price determinants. This finding was also ascertained by the causality result which showed that macroeconomic factors, industry-specific factors and firm specific factors are the causal of market price of shares.

### **3. Data and Method**

The analysis utilized the descriptive and inferential analysis, panel regression using Ordinary Least Squares (OLS) between the period of 2010-2019. The study population comprised twenty-seven (27) insurance companies listed on the Nigerian Stock Exchange (NSE) as at 31st December 2019. The filtering sampling technique was adopted to select ten (10) insurance companies from the population which includes Aiico Insurance Plc, Axamansard Insurance Plc, Consolidated Hallmark Insurance Plc, Cornerstone Insurance Plc, Coronation Insurance Plc, Lasaco Assurance Plc, Mutual Benefits Assurance Plc, Nem Insurance Plc, Prestige Assurance Plc and Regency Assurance Plc. The ten listed insurance companies were selected based on their market capitalization as at December 2019. The hypothesis

formulated follows the study of Srinivasan (2012), Bhattarai (2016), Hoffmann, Paolo Saona (2018) and Ogbebor (2019) and whose study emphasized on fundamental factors and Stock price performance. They proxy the fundamental factors by using Earnings yield, P/E ratio, Payout ratio, among other variables.

### 3.1 Model Specification

The model was adopted and modified to suit the objectives of the research work since stock prices was determined primarily by fundamentals in an efficient market. The fundamentals at the basic level considered in this study refer to a combination of two things; an earnings base (Earnings per share & Payout ratio) and a valuation multiple (P/E ratio). In addition, control variables such as leverage and firm size were considered and used by Sebnem & Vuran (2012) & Bhattarai (2016). Find below the regression model;

$$SPB_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 FSZ_{it} + \beta_3 LEV_{it} + \epsilon_{it} \text{-----(1)}$$

$$SPB_{it} = \beta_0 + \beta_1 PER_{it} + \beta_2 FSZ_{it} + \beta_3 LEV_{it} + \epsilon_{it} \text{-----(2)}$$

$$SPB_{it} = \beta_0 + \beta_1 DPR_{it} + \beta_2 FSZ_{it} + \beta_3 LEV_{it} + \epsilon_{it} \text{-----(3)}$$

$$SPB_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 PER_{it} + \beta_3 DPR_{it} + \beta_4 FSZ_{it} + \beta_5 LEV_{it} + \epsilon_{it} \text{-----(4)}$$

Where:

SPB = Stock Price Behaviour

EPS = Earnings Per Share

PER = Price Earnings Ratio

DPR = dividend payout ratio

FSZ = Firm Size

LEV = Leverage

$\beta_{0,1,2,3,4,5}$  = Parameter estimates

$\epsilon$  = Error term.

## 4. Data Analysis and Discussion of Findings

### 4.1 Descriptive Statistics

From the descriptive statistics shown in Table 1, the Stock Price Behaviour (SPB) hovers around -220.720 and 109.444 and showed a standard deviation of 38.749. The result showed that at least one of the many insurance institutions recorded a negative stock price during the period of findings while at least one made positive stock price during the research period. Also, the average value of 3.3695% is an indication that on average, the insurance firms make a value of 3.369 share price over the period. Earnings per share average of 5.9408 hovers around the minimum and maximum of -34.120 and 20.2500 respectively while the median value was 4.8350 indicating that the selected insurance companies was 5.9408 on average during the period and as a matter of fact, the insurance companies' earnings per share are relatively varied indicated by the gap between the mean and median values.

The dividend payout ratio average value depicts 0.76649 hovers around low and high of -1.88679 and 7.3913 respectively while the median value was 0.2858 indicating that the selected insurance companies was 0.7664 on average during the reviewed period and as a matter of fact, these EPS among the insurance companies are relatively varied as revealed by the SD of 1.5277. The price earnings ratio average value of 0.044223 hovers around the minimum and maximum of 0.00000 and 0.7936 respectively while the median value was 0.02279 indicating that the selected insurance companies was 0.04422 on average. Also, the price earnings share among the insurance companies does not vary across the companies Is

revealed as 0.0875 by standard deviation

The average value of 6.9108 of firm size hovers around the low and high of 3.61000 and 7.76000 respectively while the median value was 6.9150 indicating 6.9108 was the average of the selected insurance companies for the period. Also, the standard deviation of 0.4356 does not indicate that the firm size of each insurance companies varies across the companies. The leverages average of 20.912 was between the low and high of -6.737 and 1968.21 respectively while the median value was 0.59088 indicating that the selected insurance companies was 20.9129 on average. Also, the leverages of each insurance companies vary across companies as revealed as 196.727 standard deviation.

**Table 1: Descriptive Statistics**

	STOCKPRICE	EPS	PER	DPR	FSZ	LEV
Observations	100	100	100	100	100	100
Mean	3.369519	5.940800	0.044223	0.766494	6.910800	20.91292
Median	10.66023	4.835000	0.022798	0.285829	6.915000	0.590888
Maximum	109.4442	20.25000	0.793651	7.391304	7.760000	1968.213
Minimum	-220.7207	-34.12000	0.000000	-1.886792	3.610000	-6.737540
Std. Dev.	38.74922	5.541684	0.087587	1.527785	0.435653	196.7276
Skewness	-2.952630	-3.410962	6.477570	2.761547	-4.253519	9.844708
Kurtosis	15.78406	29.01448	54.98571	11.19875	34.51032	97.94918
Jarque-Bera	826.2676	3013.715	11959.79	407.1840	4438.624	39179.25
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Source: Authors' Computation (2022)

## 4.2 Test of Variables

To validate the fitted model, the study utilized Breusch and Pagan Lagrange multiplier and Hausman (1978) tests to choose between Pooled and Random Effect Models, the study used Breusch and Pagan Lagrange multiplier test for random effects. Using this test, if the null hypothesis is rejected, Random Effect model was preferred. while non-rejection of the null hypothesis indicates that Pooled (OLS) model was accepted. However, this study used Hausman test to choose between Pooled and RE Models. From the result in Table 2, the RE model is preferred where the null hypothesis is rejected while the acceptance of fixed effect model indicates non-rejection of the null hypothesis.

**Table 2: Lagrange Multiplier and Hausman Test**

Tests	Chi2	P-Value
Breusch-Pagan Lagrange Multiplier (LM)	5.97225	0.7090
Hausman test	5.418102	0.0013

Source: Authors' Computation (2022)

## 4.3 Fundamental factors and stock price behaviour of insurance companies listed in Nigeria

### 4.3.1 Test of Hypothesis One

Ho1: Earnings Per Share has no significant effect on the stock price behaviour of insurance companies listed in Nigeria.

In Table 3, the F-statistics value [3.8216; p - value = 0.000) showed that the regressors are jointly statistically significant in explaining the variations in the Stock Price. The Adjusted R<sup>2</sup> value of 0.2548 indicated that the regressors were able to explain about 25.48% changes that occurred in the regression. The result shows that the Earning per share coefficient was



positive but not statistically significant within the 1% and 10% conventional significant level (coefficient = 0.1860; p-value = 0.113). Alternatively, the insignificant result suggested that the influence of earning per share of the selected insurance companies on stock price behaviour is not significant.

The results also revealed that there is a negative and significant effect of Firm size on insurance stock price behaviour (coefficient. = -3.082; P – value = 0.000). Alternatively, the significant result suggested that the influence of firm size on stock price behaviour of the selected insurance firm is negative. Conversely, the results showed that positive and significant effect exists between leverages and stock price behaviour at 5% and 10% significance level (coefficient. = 0.00318; p-value = 0.020). Again, the significant result suggested a positive impact of leverages on stock price behaviour of the firms.

The F-statistics depicts the overall statistically significant of the effect of earnings per share on the stock price behaviour of insurance companies listed in Nigeria. Giving the F-statistics value of 3.822 with the probability value of 0.000 showed that earning per share has statistical effect on price of equity behaviour movement in Nigeria hence, the earnings per share null hypothesis of no significant effect on stock price behaviour of insurance firm listed in Nigeria was rejected. Therefore, there is significant effect of earnings per share on stock price behaviour of insurance firm listed in Nigeria.

**Table 3: Earnings Per Share and the stock price behaviour**

Variable	Pooled Coeff.	Random Coeff.	Fixed Coeff.
	Std. Error ( ) Prob.[ ]	Std. Error ( ) Prob.[ ]	Std. Error ( ) Prob.[ ]
<b>Constant</b>	40.52170 (33.21915) [0.2255]	35.42034 (23.76408) [0.1394]	23.27630 (6.822885) [0.0010]
<b>EPS</b>	-0.283339 (0.719865) [0.6947]	-0.185909 (0.416058) [0.6560]	0.186034 (0.116197) [0.1130]
<b>FSZ</b>	-5.189414 (4.823224) [0.2847]	-4.529463 (3.436996) [0.1907]	-3.082374 (0.987288) [0.0024]
<b>LEV</b>	0.000878 (0.020245) [0.9655]	0.001335 (0.008923) [0.8814]	0.003182 (0.020201) [0.8752]
<b>Observations</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>R2</b>	0.014084	0.009804	0.345173
<b>Adj. R2</b>	-0.016726	-0.021140	0.254852
<b>F-Statistic</b>	0.457127	0.316824	3.821621
<b>Prob. (F-Stat.)</b>	0.712880	0.813179	0.000111

Source: Author's Computation (2022)

#### 4.3.2 Test of Hypothesis Two

Ho2: There is no significant effect of Price Earnings ratio on the stock price behaviour of insurance companies listed in Nigeria.

In Table 4, the F-statistics value [5.195; p - value = 0.000) showed that the regressors are jointly statistically significant in explaining the variations in the regressed variable, Stock price Behaviour. The Adjusted R<sup>2</sup> (coefficient of determination) value of 0.337 indicated that

the regressors were able to explain about 33.7% changes that occurred in the equity price behaviour. Also, the conclusion is that the price earnings ratio coefficient was negative and statistically significant within the 1% and 10% conventional level of significance (coefficient = -46.205; p-value = 0.0000). Alternatively, the significant result suggested that the influence of price earnings ratio of the selected insurance companies in terms of stock price behaviour is significant. The results shows that Firm size has a negative and significant impact on insurance stock price behaviour (coefficient. = -2.002; P – value = 0.005). Alternatively, the significant result suggested that the impact of company size on stock price reaction of the selected insurance firm is negative and significant.

Conversely, the results showed that positive and insignificant effect exists between leverages and stock price behaviour at 1% and 10%% significance level (coefficient. = 0.003; p-value = 0.793). Also, the insignificant result suggested that leverages impact on stock price behaviour of the companies are positive but insignificant. The F-statistics depicts that price earnings ratio has statistically significant effect on the stock price behaviour of insurance companies listed in Nigeria. Giving the F-statistics value of 5.194 with the probability value of 0.000 showed that price earnings ratio has significant impact on stock price in Nigeria, hence the null hypothesis of nil significant effect of price earnings ratio on stock price behaviour of insurance firm listed in Nigeria was rejected.

**Table 4: Price Earnings Ratio on the Stock Price Behaviour**

Variable	Pooled Coeff. Std. Error ( ) Prob.[ ]	Random Coeff. Std. Error ( ) Prob.[ ]	Fixed Coeff. Std. Error ( ) Prob.[ ]
<b>PER</b>	6.125189 (27.50549) [0.8243]	0.477314 (27.20901) [0.9860]	-46.20495 (7.692419) [0.0000]
<b>FSZ</b>	-5.320325 (2.927499) [0.0723]	-5.247878 (3.033595) [0.0869]	-2.002796 (0.702083) [0.0054]
<b>LEV</b>	-0.000353 (0.016222) [0.9827]	-0.000768 (0.016255) [0.9624]	0.002958 (0.011267) [0.7935]
<b>Constant</b>	39.48853 (18.02962) [0.0309]	39.25155 (18.77063) [0.0392]	19.04689 (4.828312) [0.0002]
<b>Observations</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>R<sup>2</sup></b>	0.012684	0.011966	0.417436
<b>Adj. R<sup>2</sup></b>	-0.018169	-0.018910	0.337083
<b>F-Statistic</b>	0.411116	0.387552	5.194995
<b>Prob. (F-Stat.)</b>	0.745378	0.762214	0.000002

**Source: Authors' Computation (2022)**

### 4.3.3 Test of Hypothesis Three

Ho4: There is no significant effect of Dividend Payout ratio on the stock price behaviour of listed insurance companies in Nigeria.

Table 5 show the F-statistics value [3.905; p - value = 0.000] it shows that the regressors are jointly statistically significant in describing the variations in the regressand, Stock price Behaviour. The Adjusted R<sup>2</sup> (coefficient of determination) value of 0.260 indicated that the

regressor were able to explain about 26.04% changes that occurred in the regressand. With the results, the dividend payout earnings ratio coefficient was positive and statistically significant within the 1% and 10% conventional significant level (coefficient = 1.825; p-value = 0.002). The significant result suggested that the influence of dividend payout earnings ratio of the selected insurance companies in terms of stock price behaviour is statistically significant. The findings showed that there is a negative and insignificant effect of Firm size on insurance stock price behaviour (coefficient. = -3.412; P – value = 0.205), the insignificant result suggested that firm size has negative and insignificant influence on stock price behaviour of the selected insurance firm

Also, the findings revealed that significant and positive effect exists between leverages and stock price behaviour at 5% significance level (coefficient. = 0.004; p-value = 0.000). Again, the significant result suggested that leverages have a positive and significant impact on stock price behaviour of the firms is positive and significant. The F-statistics depicts the overall statistically significant of the impact of dividend payout earnings ratio on the price behaviour of insurance companies listed in Nigeria. Giving the F-statistics value of 3.905 with the probability value of 0.000 showed that dividend payout earnings ratio has statistical effect on stock price behaviour in Nigeria, hence the null hypothesis of no significant effect of Dividend Payout ratio on stock price behaviour of insurance firms listed in Nigeria was rejected. The study therefore concluded that stock price behaviour is significant impacted by Dividend Payout ratio.

**Table 5: Dividend Payout ratio on stock price behaviour of insurance**

Variable	Pooled Coeff.	Random Coeff.	Fixed Coeff.
	Std. Error ( ) Prob.[ ]	Std. Error ( ) Prob.[ ]	Std. Error ( ) Prob.[ ]
<b>DPR</b>	2.369373 (1.024976) [0.0229]	2.672217 (0.960568) [0.0065]	1.825193 (0.571912) [0.0020]
<b>FSZ</b>	-5.506461 (3.837400) [0.1546]	-4.676553 (3.287695) [0.1581]	-3.412728 (1.445990) [0.0205]
<b>LEV</b>	0.000582 (0.002708) [0.8302]	0.001644 (0.001932) [0.3971]	0.004156 (0.000318) [0.0000]
<b>Constant</b>	38.75429 (24.17397) [0.1122]	32.76818 (20.59483) [0.1149]	24.88046 (9.629318) [0.0114]
<b>Observations</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>R<sup>2</sup></b>	0.020242	0.018474	0.350057
<b>Adj. R<sup>2</sup></b>	-0.010375	-0.012198	0.260409
<b>F-Statistic</b>	0.661129	0.602305	3.904817
<b>Prob. (F-Stat.)</b>	0.577959	0.615068	0.000086

Source: Authors' Computation (2022)

#### 4.3.4 Test of Hypothesis Four

Ho4: Firm size and Leverage have no significant effect on the stock price behaviour of insurance companies listed in Nigeria.

Sequel to the result in Table 6, the F-statistics value [5.813; p - value = 0.000) showed that

the Earnings per share (EPS) P/E Ratio (PER), Dividend Payout ratio (DPR), Firm Size (FSZ) and Leverage (LEV) are jointly statistically significant in describing the variations in the Stock Price direction. The coefficient of determination (Adjusted  $R^2$ ) value of 0.405 indicated that the regressors were able to explain about 40.5% changes that occurred in the dependent variable.

with these results, Earnings per share coefficient was positive and statistically significant within the 5% and 10% conventional significant level (coefficient = 0.0245; p-value = 0.0375). The insignificant result suggested that earnings per share of the selected insurance companies has significant influence on stock price behaviour. Also, the results show that coefficient of price earnings ratio was negative and statistically significant within the 1% and 10% conventional level of significance (coefficient = -51.153; p-value = 0.0000). The significant result suggested that the influence of price earnings ratio of the selected insurance companies in terms of stock price behavior is significant.

More so, the dividend payout earnings ratio coefficient was positive and statistically significant within the 1% and 10% conventional significant level (coefficient = 2.379; p-value = 0.000). Alternatively, the significant result suggested that the influence of dividend payout earnings ratio of the selected insurance companies in terms of stock price behaviour is significant. The results revealed that negative and significant effect exist between Firm size and insurance stock price behaviour at only 10% conventional level (coefficient = -1.677; P – value = 0.0978). Alternatively, the significant result showed the impact of firm size on stock price behaviour of the selected insurance firm is negative and significant.

Conversely, the findings indicate that positive and significant effect exists between leverages and stock price behaviour at 5% significant level (coefficient. = 0.003; p-value = 0.000). Again, the significant result suggested that the impact of leverages on stock price movement of the firms is positive and significant. The F-statistics depicts the overall statistical significance of the effect of fundamental factors on the stock price behaviour of insurance companies listed in Nigeria. Giving the F-statistics value of 5.813 with the probability value of 0.000 showed that fundamental factor has statistical impact on stock price behaviour in Nigeria, hence the null hypothesis of no significant influence of fundamental factor on stock price behaviour of insurance firms listed in Nigeria was rejected.

**Table 6: Firm size and Leverage on stock price behaviour**

Variable	Pooled Coeff.	Random Coeff.	Fixed Coeff.
	Std. Error ( ) Prob.[ ]	Std. Error ( ) Prob.[ ]	Std. Error ( ) Prob.[ ]
<b>EPS</b>	0.377397 (0.178127) [0.0374]	-0.201138 (0.310464) [0.5187]	0.244921 (0.115878) [0.0375]
<b>PER</b>	-38.70492 (29.25773) [0.1898]	0.312584 (41.60466) [0.9940]	-51.15288 (6.577553) [0.0000]
<b>DPR</b>	4.645068 (1.092678) [0.0001]	2.425431 (0.936981) [0.0112]	2.379711 (0.490213) [0.0000]
<b>FSZ</b>	-2.294810 (3.701233) [0.5371]	-5.713245 (4.138717) [0.1707]	-1.677384 (1.002048) [0.0978]
<b>LEV</b>	0.000667 (0.002937)	0.000996 (0.003356)	0.002713 (0.000535)

	[0.8209]	[0.7674]	[0.0000 ]
<b>Constant</b>	14.09041	41.28738	13.32221
	(23.86246)	(25.15523)	(6.883032)
	[0.5566]	[0.1041]	[0.0563]
<b>Observations</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>R<sup>2</sup></b>	0.245979	0.023297	0.489130
<b>Adj. R<sup>2</sup></b>	0.017788	-0.028655	0.404987
<b>F-Statistic</b>	1.077954	0.448431	5.813061
<b>Prob. (F-Stat.)</b>	0.388409	0.813450	0.000000

**Source: Authors' Computation (2022)**

#### 4.4 Discussion of Findings

The results of the study indicated that Earnings per share has positive but not statistically significant on stock price behavior (coefficient = 0.1860; p-value = 0.113). Also, the results showed that there is a positive and insignificant effect of Firm size on insurance stock price behavior (coefficient. = -3.082; P – value = 0.000). Conversely, the results showed that positive and significant impact exists between leverages and stock price behavior at 5% and 10% significance level (coefficient. = 0.00318; p-value = 0.020). The outcome of the results on price earnings ratio and stock price behavior shows that the price earnings ratio of the study was in consonance with the study carried out by Ogbebor, Siyanbola, Alalade and Awonuga (2020). Ogbebor, et.al (2020) findings showed that the regressors were jointly significant in describing stock price behaviour in Nigeria. Similarly, the work by Khushboo (2018) finds strong empirical satisfaction with the findings of the study. Khushboo (2018) result of the Pearson's Correlation revealed a very strong and positive correlation of EPS and market share price. This study by Geetha and Kumar (2017) was also in tandem with the findings as their study found that, Earnings per share showed a correlation that is significant with the impacting factors.

The data available did not provide enough evidence to affirmatively infer about the correlation between the regressor variables and the EPS for the banking and the Pharma sectors, but a similar event was observed for the profit variable in the Cement industry's data. Findings of Febria (2016) also argue well as the study states that on the one hand earnings per share does not statistically influence the market ratio and on the other hand there exists a positive relationship between earnings per share and market price of shares. It was suggested that investors must consider other factors as well as EPS in order to invest in the security market.

Also, price earnings ratio results and stock price behavior revealed that the price earnings ratio was negative and statistically significant within the 1% and 10% conventional level of significance (coefficient = -46.205; p-value = 0.0000). Also, the results showed that Firm size has negative and significant impact on insurance stock price behavior (coefficient. = -2.002; P – value = 0.005). The results showed that positive and insignificant effect exists between leverages and stock price behavior at 1% and 10%% significance level (coefficient. = 0.003; p-value = 0.793). Ogbebor (2019) findings were in tandem as the study established that Dividend Yield (cof. = -9.9163) and Debt/Asset Ratio (cof. = -5.0588) has a mixed negative and significant relationships with Adjusted Stock Returns meanwhile there exist positive and significant relationship between Earnings Yield (cof. =1.8084) and Adjusted Stock Returns. On its part, a negative and insignificant relationship was found to exist between Pay-out Ratios (cof. = -0.0664) with Stock Returns respectively. Ramesh and

Deepashree (2018) study also affirmed that DPS have significant positive influence on stock price whereas EPS has minimum influence on the stock price. Like the rest, Onyango Benedict Enrile (2018) findings shows support for the findings of the study. Onyango Benedict Enrile (2018) affirms that dividend pay-out ratio had an insignificant and negative relationship with equity prices and this align with MM's theory that dividends are not relevant factors to determining the prices of shares; though dividend per share is positively correlated to the MPS, other factors influence these prices.

Furthermore, the result on dividend payout and market price also ascertains that dividend payout earnings ratio was positive and statistically significant within the 1% and 10% conventional level of significance (coefficient = 1.825; p-value = 0.002). Also, the results revealed that Firm size has negative and insignificant impact on insurance stock price behavior (coefficient. = -3.412; P – value = 0.205), The findings also revealed that positive and significant effect exists between leverages and stock price behavior at 5% significance level (coefficient. = 0.004; p-value = 0.000). Obala and Olweny (2018), Idowu, Olokoyo, Idowu, Akinrin and Osifo (2018), Afriyani (2018).

Obala and Olweny (2018) their findings revealed that Profitability (ROA), Liquidity (Current ratio) and Firm's Growth (Asset growth ratio) hold a fairly but positive influence on equity returns. However, the relationship between Leverage (Debt to equity ratio) and stock returns was found to be negative and insignificant. Similarly, Idowu olweny, Olokoyo, Idowu, Akinrin and Osifo (2018) also found that return on assets and profit margin was significant and positive in explaining bank performance and stock returns while earning per share have a significant but negative relationship in explaining banks' performance on stock returns. The study concluded that an increase in net profit margin would create more cash for the banks for business diversification which in return would increase the stock returns. On the other hand, where there is an increase in earnings per share the investors would become attracted to short-term investment goals to sell their stock in other to gain from market. The study recommended that the banks should improve more on profitability which would increase the net profit margin and alongside the return on asset for a better stock return.

## **5. Conclusion and Recommendations**

The conclusion of the study affirmed that Earnings per share was positive but not statistically significant to stock price movement, hence the study concluded that earnings per share has significant effect on stock price behavior of insurance firms listed in Nigeria. More so the findings showed that earnings ratio had statistically significant effect on stock price behaviour of insurance companies listed in Nigeria. Findings further showed that dividend payout ratio has statistical impact on stock price behavior in Nigeria. Results also revealed that fundamental factors have statistical impact on stock price behavior in Nigeria. Based on the empirical findings of the hypotheses, this study concluded that fundamental factors have statistical effect on stock price behaviour of insurance companies listed in Nigeria. Listed companies on the Nigerian Stock Exchange should focus attention more on the factors used as regressors in this study as these factors were jointly significant in explaining stock price behaviour of insurance companies listed in Nigeria. This will enhance the price per unit of their companies. hence, boost investors wealth maximization.

These are the recommendation by the study:

- i. Since EPS is positive and has significant impact on equity prices of insurance firms listed in Nigeria, investors are therefore required to consider and determine EPS before taking investment decision of buy, hold or sell
- ii. Financial analysts, investors and corporate managers consider firm-specific factors for investment decisions, listed companies also use the price earnings ratio as yard stick for their operational performance, it is therefore recommended that all stakeholders should consider PER when investment decisions are to be made in capital market.
- iii. Companies should improve on their financials which will translate to dividend payment or increased dividend payout ratio. This will increase their float, increase activity on their stockholdings. Also, the exchange should put dividend payment regulatory measures on dividend in place as this will attract local and foreign investment inflows
- iv. Furthermore, companies should deploy strategies that will increase their firm size, balance sheet size and manpower in order to broaden activities on their stocks as this was equally established as one of the significant factors affecting stock price behaviour of listed insurance in Nigeria.

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