Abstract ID: ICBMIS-2019-033

Investor Risk and Returns in the Nigerian Capital Market

Maryam Abdu*

Department of Business Administration, Faculty of Management Sciences,
Kaduna State University, Kaduna – Nigeria*

maryam.abdu@kasu.edu.ng*

Abstract

The issue of investment is important in the field of finance. Investors take active part in the stock market activities with the intention of obtaining higher returns. With the challenges faced in the Nigerian economic environment, the level of investments has been fluctuating. High levels of risk are associated with high returns, and low risks with low returns for investments. Studies conducted on capital market risk and return looked at variables such as standard deviation, beta, and investor behaviour. This study looks at market share price and dividends on the consumer sector of the Nigerian Stock Exchange which have not been done by previous researches. The study is quantitative and panel data, secondary data was used extracted from the annual report and financial statements of the companies. A multiple regression was formulated and Stata was used to analyse the data. The results showed that market share price and dividends are not having an effect on the performance of the capital market. It was concluded that companies should patronize the Nigerian capital market so that activities in the market can improve and be more attractive for the investing public.

Keywords: Dividend, investor, market capitalisation, market share price

1. Introduction

In the field of finance, risk and returns are intertwined and inter connected. To the investor, risk is an issue which they try to minimize as much as possible so as to gain maximum returns. Similarly, the investor seeks to invest in a stock which generates high returns. Risk and returns therefore is central and play an important role in investment decisions. Cohn, Lewellen, Lease and Schlarbaum (1975) add that investors are rational in behaviour, so that they seek to achieve the maximum utility when investing in securities. The typical investor in the Nigerian capital market is concerned with returns in the form of market share price appreciation, declaration of dividends, script or bonus issues. A share price appreciation or drop is an indicator of how well or poorly an investment is performing in the market and a general explanation of capital market performance. Investors take great advantage in capital appreciation which in the words of Obamuyi (2013) stated that the factors likely to affect investment decisions are dividends, trends and performance of stocks, incomes of companies, and so on.

The Nigerian capital market is one which like many markets globally experiences a boom and a lull period. The 2008 global economic meltdown affected the market because many foreign investors divested their investments which had an impact on general earnings, recording losses and bringing a loss of confidence in the market to the Nigerian investor. The investing public also imposed the short-term orientations of banks on a long-term capital market with inadequacies of some regulations further exposing the market and affecting its performance. Since the 2008 economic meltdown, the Nigerian capital market has not fully regained its position. Many investors lost their investments as a result of the crash in share prices, of which many stocks have no regained their share price value. This is a great concern on the performance of the capital market. Awosika (2018) explains that at year end of 2013, the Nigerian Stock Exchange equity market capitalisation grew by 47.33% and the All share index gained by 49.19%. Currently, the market capitalisation of shares in the Nigerian Stock Exchange is about 27% of Nigeria's Gross Domestic Product (GDP), compared with other markets like the Malaysian stock market which has 270% of GDP, while that of Brazil and India is 130%. It therefore becomes a concern and of importance to investigate the investor risk and returns in the Nigerian capital market.

Studies conducted on the risk and returns in the capital market included Ng, (2011) who looked at how information quality affects the cost of equity through liquidity risk, Schneider, (2015) who looked at optimal trading strategy that was explicitly linked to an agent's preferences in the United States market, Brown (2006) who looked at standard deviation of the predictive distribution, mean portfolio return, and estimated risk, and Shafi (2014) who looked at behaviour of the investor in the Nigerian capital market. This study intends to update the literature by investigating specific factors which are, dividends and market share price. Also, the study is conducted on the consumer sector of the Nigerian Stock Exchange up to 2018 financial year which previous studies have not done.

The purpose of this paper was to examine the effects of market share price on the performance of the Nigerian Stock market, as well as the effects of dividends on the Nigerian stock market. The paper rest of the paper is structured as follows. Section two is the literature review and looks at various literatures on risk and returns of capital markets and the theories of capital market behaviour. Section three is the methodology adopted for the study. The data analysis and discussions are in section four, and the conclusion and recommendations are in section five.

2. Literature Review

In reviewing the literature, Bello and Adedokun (2011) conducted a research which covered 4 years from 2000 to 2004 to investigate the risk-return dynamics of Nigerian quoted firms and the depth of such risk with returns in the Nigerian capital market. Ordinary least squares method and regressions were used to analyse the results, and they found that the sizes of risks and returns vary positively, and that with many firms, 65% of the firm's risks are less than unity which imply lower risk as compared to market portfolio. Most of the firm's betas are positive which suggested a limited scope for diversification in the Nigerian stock market. Eyisi and Oleka (2014) examined the management of portfolio analysis in the Nigerian capital market as it relates to the financing of investment decisions. Their research found out that diversifying portfolios do not eliminate risks entirely, but macro-economic factors contributed most in risk. Government policies therefore do not help in addressing or minimising the issue of diversifying risk. Eyisi and Oleka (2014) recommended that a conducive platform should be created for capital markets investments, speculative decisions are to be taken into consideration in returns, and that there was the need to invest in securities and combinations

that are perfectly negatively correlated and portfolio combinations correctly balanced for two or more assets that have the same return.

Zariphopoulou (1999) conducted a study on the generalization of Merton's original problem of optimal consumption and portfolio choice for a single investor. Their research looked more on the issue of the goal of the investor which was to maximize expected utility wealth and/or the expected utility of intermediate consumption and laid emphasis on the issue that agents trade between a bond and a stock. The price of the bond is deterministic as opposed to the price of the stock which is modelled as a diffusion process. They further argue that individual preferences are of constant relative risk aversion type for both consumption stream and terminal wealth. This is a typical behaviour of many investors as risk aversion on investment is practiced to avoid making losses.

Dunusinghe, and Ranasinghe (2015) conducted a study to examine the behavioural factors influencing individual investors' decision making on the Colombo Stock Exchange, Sri Lanka. They were able to show that investors' decisions were influenced by four behavioural biases of – herding, heuristics, prospects and market contextual factors, so the individual investor does not act rationally all the time when making investment decisions. Also the presence of psychological biases among Sri Lankan investors contribute in influencing their decisions. Gneezy, Kapteyn, and Potters (2003) looked at the frequency of feedback information on the performance of an investment portfolio and the flexibility with which the investor can change to influence risk attitude in markets. They were able to find that more information and more flexibility result in less risk taking. That market prices of risky assets were significantly higher if feedback frequency and decision flexibility were reduced. Their results supported the findings of individual decision making, and show that market interactions do not eliminate such behaviour or its consequences for price.

Obamuyi (2013), conducted a research on the most influencing factors that affect investment decisions in the Nigerian capital market and used convenient sampling method on 297 respondents with questionnaires issued. Independent t-test, Analysis of Variance (ANOVA) and post hoc tests were employed, and the results indicated that the most influencing factors affecting investment decisions for Nigerian investors are company's past stock performance, expected stock split/capital, increases in bonus shares, dividend policy, and expected corporate earnings as well as the get-rich-quick syndrome. The least influencing factors were religion, rumours, loyalty to the company's product/services, opinion of members of the family and expected losses in other investments. Obamuyi (2013) recommended that the investment climate and market environment should be made conducive to investors by creatively developing programmes and policies that impact on investors' decisions in order to maximize the value of and wealth of the investor.

Miller, (1977) investigated on the theory of investment behaviour in a world of uncertainty which has been set out by several writers including Sharpe (1964) and Lintner (1965). Using the key assumption of the capital asset model that all investors are assumed to have identical estimates of the expected return and probability distribution of return from all securities, the paper explored some of the implications of a market with restricted short selling where investors have differing estimates of the returns from investing in a risky security. The paper was able to offer the explanations for the very low returns on the stocks in the highest risk classes, the poor long run results on new issues of stocks, the presence of discounts from net value for closed end investment companies, and the lower than predicted rates of return for stocks with high systematic risk. Lettau and Wachter (2011) conducted their research on a dynamic risk-based model capable of jointly explaining the term structure of interest rates, returns on the

aggregate market, and the risk and return characteristics of value and growth stocks. They were of the view that both the structure of interest rates and returns on value and growth stocks convey information about how the representative investor values cash flows of different maturities. They modelled on how the representative investor perceives risks of cash flows by specifying a parsimonious stochastic discount factor for the economy. Shocks to dividend growth, the real interest rate, and expected inflation are priced, but shocks to the price of risk are not. Given reasonable assumptions for dividends and inflation, their study show that the model can simultaneously account for the behaviour of aggregate stock returns, an upward-sloping yield curve, the failure of the expectation's hypothesis, and the poor performance of the capital asset pricing model.

Schneider (2015) developed an optimal trading strategy explicitly linked to an agent's preferences and assessment of the distribution of assets return. Schneider (2015) stated that an empirical study was also conducted in the United States index market which compares the investment behaviour of an agent with recursive long-run risk preferences to one who merely uses an identically independently distributed time series model and takes market prices given. The study concluded that the two agents exhibit very similar behaviour during crises and can be distinguished mostly during calm periods. Based on the aforementioned studies, the following null hypotheses are advanced:

Hypothesis 1: Investors decision on market share price has no effect on the performance of the Nigerian stock market

Hypothesis 2: Investors decision on dividends have no effect on the performance of the Nigerian stock market

2.1 Overview of the Nigerian Stock Exchange

The Nigerian Stock Exchange was established in 1960 and serves as the second largest financial centre in Sub-Saharan Africa. The Exchange has contributed to the development of the Nigerian economy and has a market capitalisation of equity of N13.183 trillion and market capitalisation of bonds of N12.623 trillion as at August, 2019. The Exchange previously had 33 sectors under which companies were classified, but was reorganised to 11 sectors because the previous classification was not representing the Nigerian economy, and that the classification complicated the listing process and hindered visibility into the Nigerian capital market by global investors, analysts, data vendors and index managers (NSE, 2019).

The new sectors removed the barriers and conformed to the more widely-accepted global standards. The sectors are shown in table 1

Table 1
Industry sectoral Allocation and list of equities

S/No	Sector	No of Equites Listed
1	Agriculture	5
2	Conglomerates	6
3	Construction/ Real Estate	9
4	Consumer Goods	27
5	Financial Services	56
6	Healthcare	10
7	ICT (Information Communication Technology)	11
8	Industrial Goods	24
9	Natural Resources	5
10	Oil and Gas	10
11	Services	20

Source: Nigerian Stock Exchange 2012/2013 Fact Book

There are 10 indices which track market performance and shown in table 2.

Table 2
The NSE 10 Indices

S/No.	Indices
1	the NSE All Share Index (ASI)
2	the NSE 50 Index
3	the NSE Consumer Goods Index
4	the NSE Insurance Index
5	the NSE Lotus Islamic Index
6	the NSE 30 Index
7	the NSE Banking Index
8	the NSE Industrial Index
9	the NSE Oil and Gas Index
10	the NSE ASeM Index

Source: Nigerian Stock Exchange 2012/2013 Fact Book

The consumer goods sector is an important, active and vibrant sector, as the performance of the sector depends very much on how consumers behave. Aluko (2018) further explains that the consumer goods sector and industrial sectors are interrelated by demand. Retail and wholesale accounts for 16 per cent of Nigeria's Gross Domestic Product (GDP) and the third largest contributors to GDP. Local manufacturing accounts for 8.7 per cent of Nigeria's GDP and is mostly driven by the food and beverages which constitutes about 65 per cent of manufacturing in Nigeria.

2.2 Capital Market Theories

Some of the theories that explain market behaviour of securities and investors behaviour are the capital asset pricing model, arbitrage pricing theory and random walk theory. The theories are discussed. *The capital asset pricing model* developed by Sharp (1964) and Lintner (1965) gives a prediction on how systematic risk is measured in relation to expected return of the stock. The model describes the way prices of individual assets are determined in markets where information is freely available and reflected instantaneously in asset prices, that is in

efficient markets (Ibenta, 2005). Ibenta, (2005) further explains that prices are determined in such a way that risk premiums are proportional to the systematic risk. That the expected risk premium from any investment should lie on the Security Market Line and the relationship between the expected rate of return on a share is expressed as a linear function of a measure of risk. It provides a framework for the evaluation of securities and it can be used to determine the company's cost of equity.

The capital asset pricing model equation is given as:

$$ER_i = R_f + \beta_i(ER_m - R_f) \quad (1)$$

Where

ER_i = expected return of investment
R_f = risk free rate of return
β_i = beta of the investment
ER_m = expected return of the market
$ER_m - R_f$ = market risk premium

The graphical presentation of the capital asset pricing model is illustrated in figure 1:

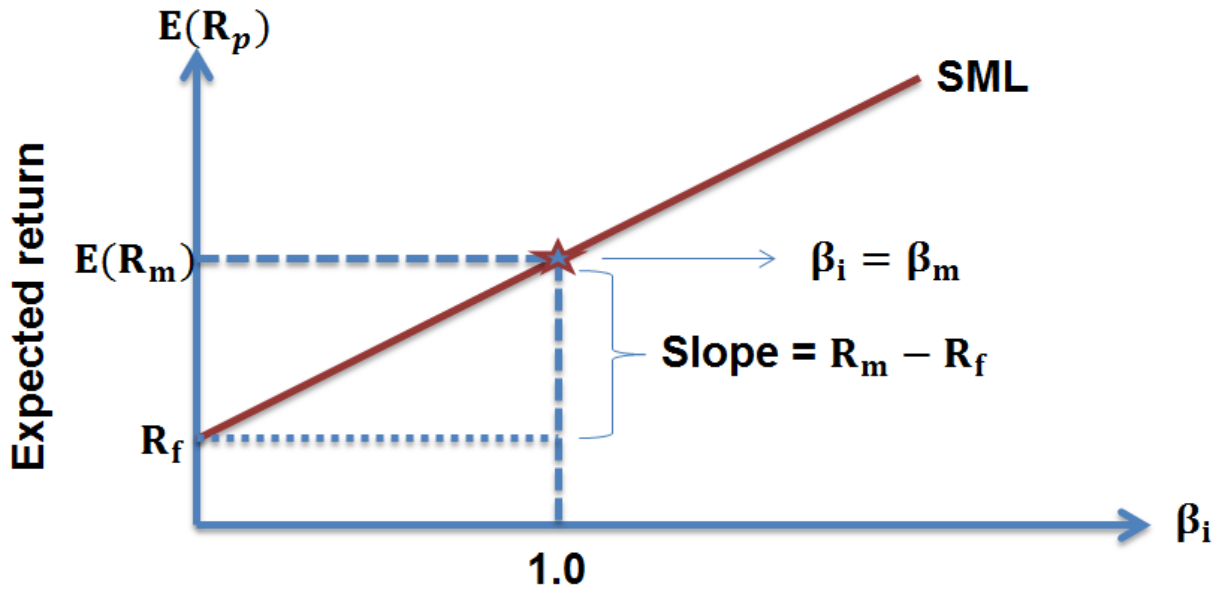

Figure 1
Presentation of capital asset pricing model
Source: https://analystprep.com/study-notes/frm/part-1/the-capital-asset-pricing-model/

The assumptions underlying the capital asset pricing model are as follows:

i. Investors are rational and risk averse.
ii. The stock market is efficient (security values reflect all known information, which is available to all investors at no cost). No individual investor dominates the market.
iii. All investors view securities in the same way with respect to return risk and correlation with other securities. In other words, their expectations are homogeneous
iv. All investors can borrow and lend infinitely large sums of money at the same risk-free rate.
v. There are no frictions, no taxation and no transaction costs (Ibenta, 2005).

The Arbitrage pricing theory as stated by Ibenta (2005), argues that return on assets are subject to a series of actors unlike the capital assets pricing model which views the rate of return on asset as a function of a single factor, the market portfolio. Ross (1976) was the proponent of the arbitrage pricing theory who explains that the theory is a method of estimating the price of an asset. The theory assumes that an asset's return is dependent on various macroeconomic, market and security-specific factors (https://investinganswers.com/dictionary/a/arbitrage-pricing-theory-apt). In equilibrium, the expected returns of the assets is expressed as follows:

$$E(r_j) = R_f + \beta_{j1}RP_1 + \beta_{j2}RP_2 + \beta_{j3}RP_3 + \beta_{j4}RP_4 + \ldots + \beta_{jn}RP_n \quad (2)$$

Where,

$E(r_j)$ = the assets expected return

R_f = the risk-free rate

β_j = the sensitivity of the asset's return to the particular factor

PP = the risk premium associated with the particular factor

R = the number of securities

The two aspects that explain the expected return are the macroeconomic security-specific influences and; the asset's sensitivity to those influences (https://investinganswers.com/dictionary/a/arbitrage-pricing-theory-apt).

The Random Walk Theory asserts that the share price movements occur in a random order or without any sequence. The share movement of today is not is independent of the share price movement of yesterday. In the random walk hypothesis, the share price of tomorrow (P_{t+1}) can be expressed as today's price P_t plus a random expected error E_{t+1} and has an expected value of zero (Ibenta, 2005).

$$P_{t+1} = P_t + E_{t+1} = 0 \quad (3)$$

The market is efficient and that all information from the past and present as well as knowable in future is reflected in the market price of the security. The Random Walk Hypothesis states that:

i. The market prices of securities fully reflect all available and relevant information about securities.
ii. The changes in security prices are not systematic but rather random variables.
iii. There is no specific and recurring pattern in the behaviour of stock market prices which would form a basis for formulating reliable trading rules.

This study adopts the capital asset pricing model theory because the behaviour of investors are determined by the markets where information is freely available and reflected in market share prices.

3. Methodology

The study is a quantitative research and panel data. The population of the study consisted 27 equities listed on the consumer goods sector of the Nigerian Stock Exchange. The sample of the study is the top 17 most capitalised stocks in the sector. The sample represents 62.96% of the population of study. Secondary data was used to conduct the research extracted from the annual report and accounts of the respective companies and the internet. The period of study was five years was from 2014 to 2018. The sample of the study is shown in table 3:

Table 3
Sample of the Study

S/No.	Name of Company
1	7 Up Bottling Company Plc.
2	Cadbury Nigeria Plc.
3	Champion Breweries Plc.
4	Dangote Flour Mills Plc.
5	Dangote Sugar Refinery Plc.
6	Flour Mills Nigeria Plc
7	Guinness Nigeria Plc.
8	Honeywell Flour Mills Plc.
9	International Breweries Plc
10	National Salt Company of Nigeria Plc.
11	Nestle Nigeria Plc.
12	Nigerian Breweries Plc.
13	Northern Nigeria Flour Mills Plc.
14	P. Z. Cussons Nigeria Plc.
15	Unilever Nigeria Plc.
16	Vitafoam Nigeria Plc.
17	Vono Products Plc.

The data used for the study are market capitalisation of shares as the dependent variable, and market share price and dividend per share as the independent variables. A multiple regression equation was formulated and Stata version 13.0 was used to analyse the results. The techniques of data analysis were correlations, descriptive statistics and regressions.

3.1 The model

The dependent and independent variables expressed in function form is as follows:

$$mcap = f(msp, dps) \quad (4)$$

In equation form is expressed as:

$$Lnmcap_{it} = \alpha + \beta_1 msp_{it} + \beta_2 dps_{it} + \varepsilon \quad (5)$$

Where,

*Ln*mcap = log of market capitalisation of shares
msp = market share price
dps = dividend per share
α = constant
$\beta_1 .. \beta_2$ = coefficient of the regressors
$_i$ = number of securities
$_t$ = time
ε = error term

Table 4
Variable, variable acronym, measurement of variable

Variable	Variable Acronym	Measurement of Variable
Market capitalisation of shares	mcap	Market share price times number of shares traded
Market share price	msp	Market share price quotation
Dividend per share	dsp	Amount of dividend per share declared

4. Results/Findings

4.1 Descriptive statistics

Table 4
Descriptive Statistics

	N	Mean	Min	Max	Standard Deviation
mcap	85	14.259	5.817	20.718	3.325
msp	85	99.426	0.81	1555.99	277.74
dsp	85	2.820	0.10	58.50	8.454

Source: Stata Output

From the descriptive statistics, there are 85 observations of the dependent and independent variables. The highest mean and standard deviation values are from market share prices with 99.426 and 277.74 respectively. Dividend share prices recorded the least mean and standard deviation values of 2.820 and 8.454. The maximum value recorded for market share prices was 1555.99 and the minimum value was 0.81. The maximum value for dividend share prices was 58.50 while the minimum value was 0.10.

4.2 Normality Test

Table 5
Normality Test

	W	V	*z*	Prob> *z*
mcap	0.949	3.615	2.825	0.002
msp	0.366	45.688	8.402	0.000
dsp	0.339	47.640	8.494	0.000

Source: Stata Output

The Shaprio-Wilk test for normal distributions showed that all the variables were normally distributed with Prob> *z* values 0.00. The *z* values for market share prices was 8.402 and dividend share prices was 2.494.

4.3 Correlations

Table 6
Correlations

	mcap	msp	dsp
mcap	1.00		
msp	-0.0208	1.00	
dsp	-0.0231	0.9557*	1.00

Source: Stata Output
* significant at 0.05

From the table of correlations, there is an inverse correlation between market capitalisation and market share prices with -0.0208, and between market capitalisation and dividend share prices with -0.0231. A positive and significant correlation exists between market capitalisa-

tion and dividend share prices with 0.9557 indicating that dividends play a significant role in depicting the market share prices of the securities in the stock market.

4.4 Summary of Regression Results

Table 7

Summary of Regression Results

Variable	Coefficient	P value	t statistics
Constant	13.8108		
MSP	0.0094	0.123	1.56
DPS	-0.1734	0.122	-1.56
R^2	0.0373		
Prob > F	0.0000		

Source: Stata Output

The chi_3^2 Hausman test showed that the *p* - value of 0.00 ($p < 0.05$) which is significant at 5% level, hence there is fixed effect amongst the variables and the fixed effect regression result is interpreted. Substituting the coefficients into the regression model reveals the following:

$$Lnmcap = 13.8108 - 0.1734\ msp + 0.0094dps \quad (6)$$

From the fixed effect regression results, the R^2 value of 0.0373 shows that there is 3.73% of the independent variables explained in the dependent variables. Over 96% of the variables are not explained in the model. The (Prob > F) of 0.0000 shows that there is a model fit of the dependent and independent variables of study and that the variables of study are explained in the model. A 1% increase in the market value of shares will bring about a drop of in 1.7% in market share prices, and 0.9% increase in dividend share prices.

Decision rule

The decision rule is that if $p < 0.05$ and t statistics is > 2 we reject the null hypothesis, otherwise we fail to reject the null hypothesis.

4.5 Test of hypothesis 1

Investors decision on market share price has no effect on the performance of the Nigerian stock market

From the summary of regression results, the *p* value is 0.123 (0.123 > 0.05) and t statistics of 1.56 (1.56 < 2). We fail to reject the null hypothesis and conclude that in the consumer sector of the Exchange, investor decision on market share price has no effect on the performance of the Nigerian stock market. The outcome of this result did not provide evidence in support of market share prices as a determinant factor on the performance of the Nigerian stock market. The results did not agree with the findings of Hassan (2015) who found a positive and statistically significant impact of share price movements and the Nigerian capital market.

4.6 Test of hypothesis 2

Investors decision on dividends have no effect on the performance of the Nigerian stock market

From the summary of regression results, the *p* value is 0.122 (0.122 > 0.05) and t statistics of -1.56 (-1.56 < 2). We fail to reject the null hypothesis and conclude that in the consumer sector of the Exchange, investors decision on dividends have no effect on the performance of the Nigerian stock market. The outcome of this result did not provide evidence in support of dividend share prices as a determinant factor on the performance of the Nigerian stock market. The results agree with the research of Ebire, Mukhtar and Onmonya (2018) who found the relevance of dividends in the earnings of listed oil and gas firms in Nigeria.

5. Discussion and Conclusion

From the outcome of results on investors decision on market share price and its effect on the performance of the Nigerian stock market, it was established that there was no effect on the performance of the Nigerian stock market. The statistical implication was that an increase in stock market performance will bring about a drop by 1.7% in market share prices. The managerial implication is that the investing public are not making impact of investing in the consumer sector of the Nigerian Stock Exchange. This could most probably be associated with lack of confidence on the Nigerian capital market and lack of investor funds to take part in capital market activities.

The outcome of results on dividend share prices, showed that dividends are not having an effect on the performance of the Nigerian capital market. The statistical implication is that there is an inverse relationship with dividend share prices of the consumer sector of the Nigerian Stock Exchange, that a drop of 1.71% in dividend share prices will lead to an increase in market capitalization by 1%. The Managerial implication of this result is that companies in the consumer sector of the Exchange are not declaring higher dividends on their stocks to attract reasonable and substantial returns to the investing public. In conclusion, market share prices and dividend share prices have not been a predictive factor in generating the expected returns in the consumer sector of the Nigerian stock market. This could be associated with general company performance and availability of investible funds from the side of the investor.

Based on the findings of the research, the following recommendations are proposed:

1. Companies should patronize the Nigerian capital market so that activities in the market can improve and be more attractive for the investing public.
2. Companies should consider improving on their dividend policies so as to attract more investment in the sector.

References

Aluko, N. (2018). Nigerian industrial and consumer goods: Overview and opportunities. Retrieved from https://kpakpakpa.com/spotlight/nigerian-industrial-and-consumer-goods/

Anum, B., Ameer, B., Dar, F. A., Kengatharan, L., Kengatharan. N., Dunusinghe, L. M. C. S. M., P. Shabgou, M. (2015). Behavioural factors influencing investors' decision-making and performance. A survey at the Ho Chi Minh Stock Exchange. *Umeâ School of Business*. https://doi.org/10.5296/ajfa.v4893

Awosika, E. B. (2018). Overview of the Nigerian capital market. Retrieved from http://www.ajumogobiaokeke.com/overview-of-the-nigerian-capital-market/

Bello, A. I., & Adedokun, L. W. (2011). Analysis of the risk-return characteristics of the quoted firms in the Nigerian stock market. *International Journal of Business and Social Science*, *2*(17), 158-165

Brassett, J. (2018). Finance. *Visual Global Politics*. https://doi.org/10.4324/9781315856506

Brown, S. (2006). The effect of estimation risk on capital market equilibrium. *The Journal of Financial and Quantitative Analysis*. https://doi.org/10.2307/2330499

Cohn, R. A., Lewellen, W. G., Lease, R. C., & Schlarbaum, G. G. (1975). Individual investor risk aversion and investment portfolio composition. *The Journal of Finance*, *30*(2), 605-620. https://doi.org/10.1111/j.1540-6261.1975.tb01834.x

Dunusinghe, L. M. C. S. M. P., & Ranasinghe, A. (2015). Behavioural factors influence on investment performance: A survey of individual investors at Colombo Stock Exchange. Proceedings of 10th Annual London Business Research Conference, *9445228002*(August), 1-17.

Ebire, K., Mukhtar, S. S., & Onmonya, L. (2018). Effect of dividend policy on the performance of listed oil and gas firms in Nigeria. *International Journal of Scientific Research Publications*, *8*(6), 289-302

Eyisi, A. S., & Oleka, C. D. (2014). Risk management and portfolio analysis in the capital market in Nigeria. *Information and Knowledge Management*, *4*(3), 72-76

Gneezy, U., Kapteyn, A., & Potters, J. (2003). Evaluation periods and asset prices in a market experiment. *Journal of Finance*, *58*(2), 821-837. https://doi.org.1111/1540-6261.00547

Hassan, O. M. (2015). Determinants of share price movements in Nigeria – the management perspective. *International Journal of Business, Economics and Management*. *2*(10), 209-221.https://doi10.18488/journal.62/2015.2.10/62.10.209.221

Ibenta, S. K. (2005). *Investment Analysis and Financial Management Strategy*. Institute for Development Studies: Enugu

Lettau, M., & Wachter, J. A. (2011). The term structures of equity and interst rates. *Journal of Financial Economics*, http://doi.org/10.1016/j.jfineco.2011.02.014

Miller, E. M. (1977). Risk, uncertainty, and divergence of opinion. *The Journal of Finance*. http://doi.org/10.1111/j.1540-6261.1977.tb03317.x

Ng, J. (2011). The effect of information quality on liquidity risk. *Journal of Accounting and Economics*. https://doi.org/10.1016/j.jacceco.2011.03.004

Obamuyi, T. M. (2013). Factors influencing investment decisions in capital market: A study of individual investors in Nigeria. *Organizations and Markets in Emerging Economies*, (1), 141-161

Ross, S. (1976). Arbitrage Pricing Theory. Retrieved from https://investinganswers.com/dictionary/a/arbitrage-pricing-theory-apt

Schneider, P. (2105). Generalized risk premia. *Journal of Financial Economics*, https://doi.org/10.1016/j.jfineco.2015.03.003

Shafi, M. (2014). Determinants influencing individual investor behavior in stock market: A cross country research survey. *Nigerian Chapter of Arabian Journal of Business and Management Review*. Thhps://doi.org/10.12816/0003720

Zariphopoulou, T. (1999). Optimal investment and consumption models with non-linear stock dynamics. *Mathematical Methods of Operations Research*. https://doi.org/10.1007/s001860050098

The Nigerian Stock Exchange. Retrieved from http://www.nse.com.ng

Market Segmentation FAQ. Retrieved from http://www.nse.com.ng/investors-site/becoming-an-investor/FAQs/The%20NSE%20Market%20Segmentation%20-%20Frequently%20Asked%20Questions.pdf

https://analystprep.com/study-notes/frm/part-1/the-capital-asset-pricing-model/

https://www.cashcraft.com/dividends.php