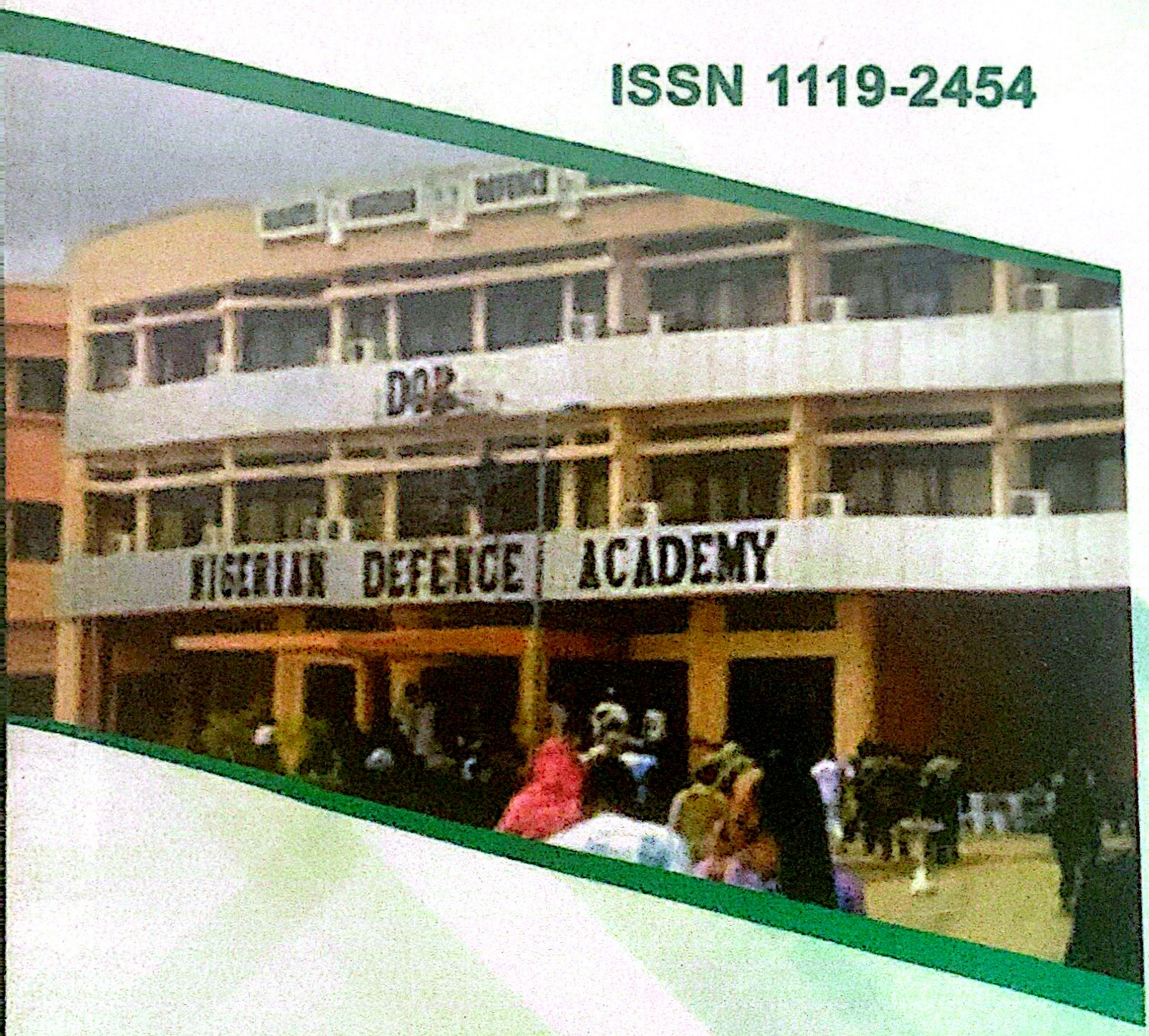
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DIVIDEND POLICY AND SHARE PRICE VOLATILITY OF LISTED CONGLOMERATES IN NIGERIA

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Abstract

In spite of long periods of empirical research, the connection between corporate dividend policy and share price volatility remains disputable among scholars and researchers. Circumstantial to this, the study investigates the relationship between corporate dividend policy and share price volatility of listed conglomerates in Nigeria. The study adopted descriptive statistics, pairwise correlation and panel data regression technique to analyze the data collected from audited financial reports of listed conglomerates for a period of 10 years (2009 – 2018). The study revealed that dividend yield has a negative impact on share price volatility and dividend payout ratio has a negative influence on share price volatility. Consequently, the study concluded that corporate dividend policy plays a significant role in the Nigerian listed conglomerates' share price volatility. The investigation recommends that listed conglomerates firms should devise a dividend policy that takes cognizance of the existing and prospecting investors.

Keywords: *conglomerates, dividend policy, dividend yield, financial leverage, share price volatility*

1. Introduction

Investment and financing decisions are the two basic decisions which managers take in every organization. Dividend policy decision emanates from financing decision. It is important because of its contributions to the primary objective of shareholders which is wealth maximization through the dividend taken and share appreciation. Therefore, every corporate organization are required to strike balance between payout ratio and retention ratio particularly in small and new organizations (Fawaz, 2014). Dividend policy first received consideration from the study by Lintner (1956). He indicated that U.S. companies would in general increase their dividend when they noticed a constant growth in their net earnings. Subsequently, Modigliani and Miller (1961) put the theoretical establishment of dividend policy. They contended that, when the dividend is constant, it does not affect the stock prices. Moreover, the impact of dividend policy on the share price volatility is of interest not only to the company, but to investors and business analysts. Be that as it may, it is essential to demonstrate that there are different strategies used by companies to convey their dividends to the shareholders and the most well-known techniques are cash dividend, reward share (stock dividend) (Ross, et al. 1999) cited in (Fawaz, 2014).

However, the companies may disperse their goods, securities or certain investments. Rather than paying a dividend, the companies can utilize their money to repurchase shares which have much advantages for companies, for example, the expense points of interest (Emery & Finnerty, 1997). Besides, non-cash and cash dividend have both a negative and positive effect on the organizations as well as other stakeholders. They pass on both bad and good news to the financial specialists, for instance: when the organizations distribute a stock dividend, it may show that these organizations have financial issues (Schwartzman & Ball, 1984). Accordingly, the point of association between dividend policy and share price volatility needs concentration. Theoretically, even though the subject has been steered in a different contexts, both developed and evolving markets, empirical findings seem conflicting. While Hakansson (1982) and Uddin and Chowdhury (2005) confirmed the non-importance of dividend policy and share price volatility in developing markets, Ball, et al. (1979) and Baker, et al. (1985) are of the position that correlation existed in developed markets. All the more strangely, the significance between dividend approaches and share price volatilities differently changes after some time in such a specific market like United State, so this relationship has been a source of worry over time as well as institutional context. Besides, this paper also reacts to the call for empirically testing some dividend-related theories into different institutional context concerning Gordon (1959) and Miller and Modigliani (1961). In such a specific circumstance of Nigeria, some significant past papers still concede the constraint of statistical models that utilize Ordinary Least Square to dissect the panel data. These linear regression models envision a huge effect of outliers and they likewise assume data must be free from one another. Conclusively, not accounted for, the variance among a group of industry and timespans in estimators is as yet a shortcoming of the used models. To deal with those downsides, random effect was utilized in this paper to process the panel data from 2009-2018 after thoroughly conducting different data analytical tests based on the following formulated null hypotheses with a view to improving the cogency and dependability of the results.

Ho1: dividend yield does not significantly influence stock price volatility of listed conglomerates in Nigeria.

Ho2: dividend pay-out ratio has no significant influence stock price volatility of listed conglomerates in Nigeria.

Ho3: firms' specific factors have no significant impact on stock price volatility of listed conglomerates in Nigeria.

2. Literature Review

Many considerations have been centered on dividend policy from copious researchers and experts since the middle of the previous century. This seems reasonable because directly, the policy is related to capital structures that can be utilized to reduce the cost of capital and maximize the companies value (Ross, 2013). Additionally, having information associated with dividend policy assist the investors to make the right investment decision based on their judgment. Also, dividend policy identifies with a few imperative issues of enterprises running from share valuation to organization share (Gordon & Shapiro, 1956; Lintner, 1956). Share price volatility meanwhile, is viewed as systematic risk dealt with by the investors who possess ordinary equities (Hussainey, et al., 2011). Specifically, it is estimated by the degree of changes in the price of a specific share over a given timeframe. Gordon (1963) expressed that the investment is better if there is a lower amount of risk.

Through the idea of most risk-averse investors, they will in general lean toward less risk. As it were, if the degree of share price volatility of a given stock is low, it can prompt high desirability. Therefore, there are a great number of studies investigating the relationship between dividend policy and share price volatility. However, they are still arguing. Its value examining two fundamental noticeable points of view, insignificance and pertinence hypotheses of dividend policy — share price volatility connection. As per Miller and Modigliani (1961), no relationship exist between share price and dividend policy. It contended that the worth of a corporate entity rests on its profit that emanates from ploughing into fresh opportunities. Since investors can dispose portion of their share portfolio, some are less concerned about the dividend policy of a firm. As such, it is accepted that the firm can be esteemed basing on its earnings spawned from investment decisions. That hypothesis is likewise upheld by some exact looks into (Adefila, et al., 2004; Black & Scholes, 1974; Uddin & Chowdhury, 2005). Generally, those papers have suppositions of lucid investors and perfect capital markets (for example nonexistent transaction costs or tax performed, unreservedly accessible and absence of information cost, divisible securities, and so on.). In such a developing Market like Nigeria, it devours the quality of a weak capital market (Olagunju, 2018). The market is less straightforward and flotation costs significantly affect most transactions (Hakeem & Bambale, 2016; Vo, 2012). The finding of extraneous connections between dividend policies and share price, therefore, seems inapt in the institutional setting of Nigeria.

In contrast, Clientele Effect demonstrates that the dividend policy in one way or another induces volatility in shares price. It accepted that the investors are pulled in by some specific group of companies in regards to their very own references (for example high or low tax sections; the lifecycle of a business, and so forth). At the point when those companies decline their dividend payout, the group of dividend-chasing investors will, in general, leave their position that thusly makes those stock prices go down partially or otherwise.

Pettit (1977) empirically evidenced that the investors with an orientation for paying low-income tax show up subtleness to high dividend-paying stocks in the market. With fewer straightforward information in the Nigerian market (for example weak structure), the sensitivity of the market is extremely high. Chinwedo (2019) contended that the progressions of investment condition (policy, strategies, activity, and so forth.) effect on the psychological mentalities (overconfidence, extreme optimism, the psychology of herb conduct and risk) in Nigerian stock exchange market. Those factors were delineated to significantly drive the investment decision of the investors. As it were, Clientele Effect sounds pertinent with regards to Nigerian to advocate the effect of dividend policy on share price Volatility.

Supporting the relevance theory between share price volatility and dividend policy, Lintner (1956), Gordon (1959) and Gordon (1963) demonstrated that the investors will, in general, prefer dividends payment instead of capital gain because of their uncertainty. It is otherwise known as Bird-in-hand theory. The hypothesis is likewise bolstered by some empirical inquires about Gordon and Shapiro (1956) and Walter (2013). Furthermore, Kao and Wu (1994) also analyzed dividend as a signaling mechanism which can be used by firms to send information to stockholders and different partners in the market. For sure, having more information identified with the firms procedures and potential future earnings, the supervisors of the company have a preferred position of information asymmetry which most likely manipulates investors' expectation through dividend related information. It enables the firm to shape the investors' practices regarding their forecasting techniques (Miller & Rock, 1985). Taking a gander at the opposite side of the Bird-in-hand theory, it has been empirically seen that the growth rate of dividend payment seems lower than the inflation rate over the long run, so dividend policy appears not to hinder the long term objective investors settling on investment decision. Also, tax payment for capital gains is relatively lower than for dividend collections, so with the contention of Tax Preference Theory, the investors like capital gain because of its tax advantage (Allen, et al., 2000). In any case, in such an imperfect market (for example there exist, an information asymmetry issue), it is decently difficult to foresee the future of the companies and the entire market. In other words, the potential worth or capital gains for those stocks sounds less certainty than a dividend payment. Subsequently, dividend policy sounds relevant to share price volatility in the context of Nigeria.

Moving from emerged to emerging countries, we discovered supporting confirmations to this study. One of the investigations on Malaysian development and material companies by Zakaria et al. (2012) for the period of 2005-2010 found that dividend payout has a noteworthy positive relationship with share price volatility while dividend yield has insignificance positive relationship. These findings are differentiating to the consequences of developed markets, for example, Hussainey et al. (2011). Concerning the examination's control factors, size had noteworthy positive, development had insignificance positive while influence was seen as altogether adversely connected to share price volatility. Similar aftereffects of Zakaria et al. (2012) are exhibited by Haboya and Aggreh (2013) in his examination on the Nigerian Stock Market by applying pooled OLSs and fixed impact models. His investigation turned out with blended outcomes i.e., dividend yield was found decidedly related while dividend payout was altogether adversely connected with share price volatility. Concerning control variables of his examination, FS and Earning's Volatility were seen as contrarily related while obligation and resources development (AG) turned out with emphatically related to stock prices and accordingly to their volatilities.

A similar issue was demonstrated in developing and developed countries of the world by Chen et al. (2009) who studied the cash dividend impact on stock prices in China from 2000 through 2004. They discovered there is a critical relationship between the cash dividend and share prices i.e., increases in stock prices are positively related to increases in cash dividend. Next to typically utilized control variables (size, debt), Chen et al. (2009) incorporated earning per share (EPS) in their research. They turn out with findings of a significant correlation among EPS and fluctuation of share prices. They detailed that, fluctuation in share prices is decidedly influenced by EPS. It implies higher the EPS in Chinese companies, the greater volatility in their stock prices. From a more extensive point of view, it was exhibited that the profit of companies has a positive correlation with share prices and eventually with their volatilities.

Adesola and Okwong (2019) in their examination on Nigerian Stock Market utilized cross-sectional investigation strategy by using a test of 27 recorded companies and found that last year's dividend, Earning Per Share and profit are fundamentally decidedly identified with dividend policy as well as share price volatility. They likewise found that size and development have no impact on the dividend policy of the company.

On the side of dividend policy writing. the investigation directed by Ramadan (2018) on Jordon's economy found that dividends do influence share prices significantly and volatilities. He discovered a negative connection between DP/DY and share price volatilities. These outcomes are in line with Hussainey et al. (2011) on the UK market and Okafor. et al.. (2011) in the Nigerian market. He contended that when a company builds its dividend it upgrades financial specialist's certainty and an endless supply of the company which prompts soundness of share prices. Similarly. if a company cuts dividends. it gives a negative sign to showcase about the company's presentation which causes investors to doubt the firm. This outcome is in variance of share prices. He expanded his fundamental model of dividend policy by fusing two control variables "size and growth." The size indicated a critical negative relationship with the volatility of share prices which is in accord with existing studies: anyway. growth turned out with immaterial negative affiliation. The negative relationship of growth with the volatility of share prices in Jordon is against the current assortment of writing. It implies the more a firm develops and holds profit in Nigeria. the less unpredictable its stock prices would be. This is against the huge positive consequences of Hussainey et al. (2011) on the UK showcase.

Taking the scenario from another View. Pani (2018) in his study on companies Quoted on the stock exchange of Bombay. India focuses on retention ratio rather than Dividend Policy and reported that there is a direct relationship between stock prices and retention ratio. From the study. control variables. size showed positive while debt to equity ratio was reported as bi-directionally related to the stock price.

These empirical results suggested that relationships can be in any form and it depends upon the financial system. political environment. state of the economy and other global events. Having in mind these prior studies in developed and developing countries of the world. the present study has been carried on Nigerian Stock Exchange (NSE) to determine the existence. or absence. of empirical evidence in the area of the relationship between corporate dividend policy and share price volatility in Nigeria.

3. Methodology

For this study. 6 (six) listed conglomerates in Nigeria Stock Exchange (NSE) over 10 years period from 2009-2018 were used. NSE is the official stock market in Nigeria with the highest listing standards and market capitalization. Data used were sourced from both the audited financial report of these six listed conglomerates and the NSE data bank. The study used Baskin (1989) USA and Hussainey et al. (2011) UK methodology to find out regression coefficients and other statistical results by using the panel data regression technique. Variance Inflation Factor (VIF) and correlation were also adopted to detect multicollinearity problem in the variables used in the study. To further validate our results. LM and Hausman's test were used to choose the most effective model to be interpreted between pooled. random effect and fixed-effect models.

For regression technique. the null hypotheses are rejected if the statistics fall within the acceptance level. otherwise accepted. A rule of thumb for interpreting the variance inflation factor is that statistics result below ten (10) tends to be moderately correlated while result above ten (10) pontificates multicollinearity. Hausman specification test is to test the endogenous regressors to ascertain the values of the endogenous regressors determined by other variables in the system to ensure that there is no correlation between a predictor variable and error term. The rule of thumb is that if the statistics fall below 0.05. fixed effect is chosen otherwise random effect will be adopted. In order to effectively examine the relationship between. dividend yield. dividend payout and share price volatility with the four control variables. the following model was developed:

$$SPV_{it} = \alpha + \beta 1 Dpr_{it} + \beta 2 Dyield_{it} + \beta 3 Size_{it} + \beta 1 Evol_{it} + \beta 5 Lev_{it} + \beta 6 Growth_{it} + \varepsilon_{it}$$

Whereas: $Pvol_{it}$ = share price volatility of firm i at time t: Dpr_{it} = the dividend payout ratio of firm i at time t: $Dyield_{it}$ = dividend yield of firm i at time t: $Size_{it}$ = size of firm i at time t: $Evol_{it}$ = earning volatility of firm i at time t: Lev_{it} = leverage ratio of firm i at time t: $Growth_{it}$ = growth in assets of firm i at time t: α = intercept: β = regression coefficient: ε = error term.

Table 1

Summary of Variables Measurement and a priori expectations

Variable	*Determinants*	*Proxies*	*Measures*	*Notations*	*Expected Relationship*
Dependent	Price volatility	Price Volatility	$\sqrt{\frac{\sum_{t=1}^{n}\left\{\frac{Ht-Lt}{Ht+Lt/2}\right\}^2}{n}}$	Pvol	
Independent variables	Dividend policy	Dividend Yield	$\sum_{i=1}^{n}\left\{\frac{Dt/MVt}{n}\right\}$	Dyield	Negative(-)
		Dividend Payout Ratio	$\sum_{t=1}^{n}\frac{Dt/Et}{n}$	Dpr	Negative(-)
Control variables	Firm size	Nat. Log of Total Assets	lnTA	size	Negative(-)
	Growth	Change in total Asset	$\frac{\sum_{t=1}^{n}\left(\frac{\Delta TA}{TA}\right)}{n}$	growth	Negative (-)
	Leverage	Debt Ratio	$\sum_{t=1}^{n}\frac{TD/TA}{n}$	Lev	Positive(+)
	Earning volatility	Earning volatility	$\sqrt{\frac{\sum_{t=1}^{n}(Rt-\bar{R})^2}{n}}$	Evol	Positive(+)

Source: Author's computation (2019).

4. Results and Discussion

Table 2 presents the descriptive statistics for the dependent variable (share price volatility) and explanatory variables (dividend yield, dividend payout ratio, size, growth, leverage and earning volatility of selected listed conglomerates firms' in Nigeria.

Table 2

Descriptive Statistics of the dividend policy and share price volatility Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
pvol	60	.6492912	.340797	-.016476	.15546
dyield	60	.1928561	.1159786	.1033318	.8241141
dpr	60	.5964420	.3159720	-.0242415	.0879047
size	60	11.85418	3.086418	.121342	.967756
growth	60	.1859378	.0136392	0	1.406169
lev	60	.2330137	.2104195	-.020533	.1034181
evol	60	.1024853	.6009783	.0304372	.3286561

Source: Author's Computation (2019)

From Table 2, the mean of the dependent variable, price volatility (PVol), is 0.649212. If it is assumed that it is expected that stock price pursues a normal distribution, the mean of the stock price volatility can be found. The mean price volatility of 0.6492912 is multiplied by the constant number, 0.6008, determined by Parkinson (1980). The outcome is 39%. This figure is near to Baskin's (1989) result which is 36% for the US Market. For Australia, the mean price volatility is 29.91% (Allen and Rachim, 1996), while Nishat and Irfan (2001) acquire 29.12% and 32.56% for the Pakistani pre and post-reform periods respectively. The results for the UK is acquired by Hussainey et al. (2013) as 17.66%. The Nigerian results, 39%, propose within range figure, demonstrating that stock price in Nigeria roughly pursues a normal distribution.

The standard deviation of price volatility is 0.340797. This is the degree to which stock price volatility fluctuates varies over firms in Nigeria. On average, the volatility fluctuation in the Nigerian capital market is moderate. One would expect a significant level of volatility fluctuation in Nigeria, yet it doesn't give off an impression of being so. The mean and standard deviation of dividend yield are 0.1928561 and 0.1159786 respectively. The average (mean) of dividend yield, is about

19% isn't excessively low. This outcome shows that Nigeria recorded aggregate. investors received a dividend of 19% on their investment. It might be that investors lean toward dividends to capital gains in Nigeria conglomerates. and henceforth are eager to take low dividend since it is sure bet.

The mean payout ratio of the sample companies is 0.596442. The ratio suggests that. on average. Nigerian listed conglomerates payout over 50% of the profit made. The payout seems to fit in with the arrangement of the different dividend policy models. The standard deviation of 0.315972 for the dividend payout proportion of the examples firms shows that the change in the payout ratio is little contrasted with mean payout. This standard deviation mirrors the relentless payout of the Nigerian listed conglomerates.

The mean leverage of 0.2330137 and the standard deviation of 0.2104195 suggest that Nigerian listed conglomerates firms on average utilize less than 50% of the capital used by them as loans. This may not be unconnected with the fact that the Nigerian capital market is a thin market that cannot provide large sources of long term funds. Of course. being risky. providers of funds would prefer short term financing because it is less risky. The average size of 11.85418 and standard deviation of size of 3.086418 indicate that Nigerian listed conglomerates firms are of average size and that they do not differ much in size. The average growth rate of 19.63% of Nigerian companies indicates that there is a reasonable growth rate of companies in Nigeria. Also. the standard deviation of the growth rate of 0.13% indicates that Nigerian companies maintain steady growth.

Conclusively. the table portrays that the selected conglomerate firms' earning volatility (Evol) has a mean value of 0.1024853 with a standard deviation of 0.6009783L. The minimum and maximum values are 0.0304372 and 0.3286561 respectively. The standard deviation indicates that the value of earning volatility of the listed conglomerate firms deviates from the mean value from both sides by 2.6097831 implying that there is a significant dispersion of the data from the mean because the standard deviation is larger than the mean.

In summary. among all the variables. firm size has the highest mean and standard deviation (mean = 11.85418 and SD = 3.086418) while earning volatility and firm growth recorded the lowest mean and standard deviation respectively. (Mean = 0.1024853 and SD = 0.136).

This section summarizes the results of correlation analyses among the variables. This exercise serves two important purposes: the first is to determine whether there is a bivariate relationship between each pair of dependent and independent variables while the second is to ensure that the correlations among the explanatory variables are not so high to the extent of posing multicollinearity problems.

Table 3

Pairwise correlation

variables	Pvol	Dyield	dpr	size	growth	lev	evol
pvol	1.0000						
dyield	-0.1597	1.0000					
dpr	-0.2085	-0.0798	1.0000				
size	-0.0360	-0.0122*	0.2151	1.0000			
growth	0.7793**	-0.0192	-0.1682	0.0188	1.0000		
lev	0.1214	0.0432	-0.0217	-0.1376	-0.0304	1.0000	
evol	0.4198	-0.2189	0.0621	0.1972	0.2671	-0.0455	1.0000

Source: author's computation (2019).

Table 4.2 reports the correlations among price volatility. dividend yield. dividend payout ratio. leverage. firm size. and firm growth. The data in the table show that the pairwise correlation between price volatility and the dividend yield is -0.1597 which confirms the expectation that stock price volatility and dividend yield are negatively related. This correlation between price volatility is quite lower than that obtained for the US market by Baskin (1989). which is -0.643. but close to the figure for the Pakistani market derived by Nishat and Irfan (2011). which is -0.218. This result suggests that emerging markets manifest similar characteristics. Although Allen and Rachim (1996) do not establish a significant relationship between dividend yield and stock return volatility. they find evidence of a positive correlation of 0.006 between dividend yield and price volatility. The correlation between price volatility and dividend payout ratio is -0.2085. Again this result differs from the value of 0.512 for Baskin's (1989) US result of -0.177. Allen and Rachim (1996) obtain -0.210 for the Australian market.

The correlation between price volatility and leverage is 0.1214. This result also agrees with expectations. Thus. the correlation coefficient seems to support the a priori expectation that price volatility is positively related to leverage. Firms' size and volatility have a correlation coefficient of -0.0360. This also supports the hypothesis that large firms are diversified across both industry and geographical wise. Hence such firms have a lower risk. Firm growth is also positively correlated with price volatility with a co-efficient of 0.7793. This result is contrary to expectation. Firm growth is expected to be negatively correlated with price volatility. This expectation is in congruence with that of size. Firms with growth opportunities are expected to have a lower risk. Earning volatility is positively correlated with price volatility with a coefficient of 0.1198 this is in tandem with the finding of (Elrasaq. 2015).

Generally. the pairwise correlations among the independent variables are low. suggesting that there is no multicollinearity among the variables. To summarize these results. the correlation between dividends yield and the payout ratio is 0.2798. The correlation coefficient between dividend yield and leverage is 0.0132. Between dividend yield and firm size. the coefficient is -0.0718. and between dividend yield and growth the coefficient is -0.0192. Between the payout ratio and

leverage. the correlation coefficient is -0.0217. Between POR and Size. the correlation coefficient is -0.1682 and between payout ratio and growth. the coefficient is -0.1682. The coefficient between leverage and size is -0.1376. while the coefficient between leverage and growth is -0.0304. The coefficient between size and growth is 0.0188. The highest correlation among the independent variables is that between dividend yield and size. which is. -0.4122. This coefficient is not large enough to cause any multicollinearity problem. This may be a good reason to believe that the situation aids the results of the regression results being in agreement with most expectations. The low correlation of -0.0798 between dividend yield and the payout ratio is only suggestive of the absence of multicollinearity between the two variables and generally others.

The broad objective of this study is to examine the impact of corporate dividend policy on the share price volatility of selected listed conglomerates firms in Nigeria. To achieve this. a panel data regression analysis was conducted and the result is presented in the table below. Perhaps. both random and fixed effect models were analyzed and Hausman's test was conducted to decide on the best estimates from both model results.

Table 4

Hausman specification test

Variables	Fixed	Random	Difference	S.E.
dyield	-0.1063164	-0.108825	0.0025086	0.0107829
dpr	-0.1289815	-0.2252998	0.0963183	0.0978832
size	-0.0615238	-0.056307	-0.0052168	0.0035837
growth	0.0868735	0.0793506	0.0075249	0.0046311
lev	-0.1975121	-0.1898179	-0.0076945	0.0170899
evol	0.072217	0.0926684	-0.0204514	0.0088741

Test: Ho: difference in coefficients not systematic

chi2(6) = 11.27 Prob>chi2 = 0.0803

Source: Author's Computation (2018)

Table 4 presents the result for Hausman specification statistics for the model. the result reveals a chi^2 value of 11.27 with 0.0803 probability which is above the 0.0500 significant margin. Accepts the null hypothesis that difference in coefficients is not systematic. From the above result. the random effect was accepted and interpreted as the appropriate model.

Table 5

Panel data regression results (Random Effects GLS regression)

pvol	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
Dyield	-.108825	.0261507	-4.16	0.000	-.1600791	-.0575705
Dpr	-.2252998	.0759571	-2.97	0.003	-.374173	-.0764266
Size	-.056307	.0149511	-3.77	0.000	-.0856166	-.0269974
Growth	.0793506	.0093721	8.47	0.000	.0609817	.0977195
lev	-.1898179	.1065754	-1.78	0.075	-.3987319	.019036
Evol	.0926681	.0328132	2.82	0.005	.0283558	.1569811
_cons	.0587527	.0145227	4.05	0.000	.0302888	.0872166
R-sq:	0.8135					
F-Stat	141.77 (0.0000)					
obs	60					

Source: Author's computation (2019)

It can be deduced from the panel data (random effect) output above that the coefficient of determination (R-squared) has a value of 0.8135 implies that explanatory variables (dividend yield. dividend payout ratio. firm size. firm growth. leverage ratio and earning volatility) were able to explain about 0.81% of the total variation in share price volatility which is a portrayal that the explanatory variables constitute about 81% of the elements that predict the dependent variable (share price volatility). implying that the stochastic (unobserved) features in the model constitute about 19% which also showcase a strong goodness of fit of the model. The F-statistics was significant at 1% evidenced by its probability of 0.0000 which implies that all independent variables were jointly significant in explaining share price volatility.

Concerning the coefficients. the constant (C) has a value of 0.0587527. whose implication is that if all the explanatory variables are held constant or pegged at zero (0). the explained variable – return on assets will surge by 0.0587527 units. This shows that regardless of change on the explanatory variables. selected firms' share price volatility will be elevated.

A consideration of the strength of relationships. using the z-statistic shows that only leverage ratio whose z-statistics is -1.78 relates insignificantly with return on assets given its 0.075 probability which is above the 0.0500 significant margin. while other explanatory variables show statistically significant at 1% level with the explained variable (share price volatility).

The variable "dividend yield" shows a negative coefficient of 0.108825 in share price volatility (Pvol). and significant at 1% level implying that where other predictor variables are held constant. a unit change in the total leverage will precipitate 0.10units decline of share price volatility. This is in tandem with a priori expectation as it also supports the findings of Baskin (1989). Nishat and Irfan (2001. Jafri (2008). Asamoah (2010). Okafor. Mgbame and Chijioke –Mgbame (2010. Jecheche (2012).The finding of this study as regards the relationship between dividend yield and share price volatility does not support the findings of Hussainey. Mgbame. and Chijioke – Mgbame (2013) who find that dividend yield has a significance positive impact on stock return volatility. Also contrarily. Rasheed and Rahman (2008). Allen and Rachim (1996) and Zakaria. Muhammed and Zudkefli (2010) find no impact of dividend yield on share price volatility. The dividend payout ratio shows a negative coefficient of 0.2252998 in share price volatility and significant at 1%. implying that where other predictor variables are held constant. a unit change in the dividend payout ratio will precipitate a 0.23units decline of share price volatility. This is consistent with the findings of Baskin (1989). Nishat and Irfan (2011). Asamoah (2010 and Hashemijoo. Ardekani and Younesi (2010). However. this finding is contrary to those of Rasheed and Rahman (2008) and Zakaria. Muhammed and Zulkifli (2010) who find that dividend yield does not have any evidence of impact on stock price volatility.

Firm size shows a negative coefficient of 0.056307in share price volatility and significant at 1%. implying that where other predictor variables are held constant. a unit change in selected conglomerates firms' size will result in a 0.06units decline of share price volatility. This is supported by the studies of Allen and Rachim (1996) and Hashemijoo, Ardekani and Younesi (2010). Asamosh (2010) however. finds a surprising result that size has a positive impact on stock price volatility. Firm size reduces risk because firms have the opportunity to diversity both across industry and geographically.

Selected Firms' leverage ratio reports a negative coefficient of 0.1898479 implies a unit increase in selected firm leverage ratio will bring about 0.19units decline in selected firm share price volatility. This is far contrary to theoretical expectations. Because it's theoretically believed that overloading firms with debt increase the uncertainty of the share price. The finding does not also corroborate with Hassainey. et al (2010). Baskin (1989) and Allen and Rachim (1996) findings.

On the other hand. selected firm growth reveals a positive coefficient of 0.0865906. and significant at 1% implying a unit increase in the short term in total assets ratio will result to about 0.087unit rise in return on assets. This finding is contrary to those of Allen and Rachim (1996) and Nishat and Irfan (2001) who found an insignificant relationship between firm growth and share price volatility. Baskin (1989 reports that the effect of adding growth to the model is negligible. Base on this firm's growth seems to have an impact on stock return volatility. It can be explained that selected conglomerates firms investors do put into consideration the firms' growth. Finally. another firm-specific variable Earning Volatility found to have a positive significant effect on share price volatility as it reported a positive coefficient of 0.0822173in price volatility. Implying that an increase in earnings volatility will result in about 0.082 units increase in share price volatility in the selected listed conglomerates firm in Nigeria. This is tandem with a priori expectation as it was argued by Rasheed (2014) that "the higher the volatility in the firm earning the riskier the stock returns.

Evident from the descriptive statistics reported in the previous chapter. the mean price volatility is compared with the results of Baskin (1989). Allen and Rachim (1996) and Nishat et al.. (2011) Okafor. et al.. (2010) after multiplying by Parkinson's constants number. The comparison suggests that stock price in Nigeria follows a normal distribution on average. Nigerian investors accept a moderate dividend on their investments. This is reflected by the value of the dividend yield. Nigerian conglomerates firms are found to payout a large portion of their earnings to stockholders. The correlation coefficients of the variable generally conform to an expectation with virtually no multicollinearity.

Based upon extensive research on the issue under study in developed countries settings: such as Baskin (1989) on USA. Allen and Rachim (1996) on Australia. Jecheche (2012) on China Hussainey *et al.* (2013) on UK. Song (2012) on Canada: and also in developing countries setting such as Asamoah (2010). Baskin (1989). Jafri (2008). Nishat and Irfan (2001). Okafor. et al.. (2010) in Nigeria. Zakaria (2017) on Malaysia and the latest Ramadan (2018) on Jordan: it has been empirically proved that dividend policy i.e. dividend payout ratio and dividend yield have significant relationship with stock price volatilities and this relationship can either be positive or negative depending upon the financial and political system a country has.

The panel data regression results from this study on the conglomerates firm listed in Nigeria are found to be in accord with the previous studies in developed and developing countries setting such as mentioned in the above paragraph. We also found that presented coefficient signs of independent variables in regression results. matched to study are theoretical expected coefficient signs. Only the leverage ratio comes out with an insignificant negative coefficient. These negative signs are in congruence with the study of Song (2012) on the Canadian stock market. Overall findings of the current study in the regression model support the existing dividend policy literature by showing negative significant relationship on Dividend Yield. Dividend Payout. size and leverage (insignificant). It means the more Dividend Payout by the conglomerate firms listed on NSE the fewer stock price volatilities would be. Besides. if firms have the large size it will have less volatility in their stock prices compares to the volatility of small firms listed on NSE. It because large and diversified firms are on the maturity stage and such firms have stable earnings. consistent Dividend Payout and stable stock prices. hence. fewer Share Price Volatility (Baskin. 1989). These findings of dividend policy on Conglomerates Firms listed in the Nigerian Stock Exchange Market align with the prior studies of Allen and Rachim (1996). Baskin (1989) and more recent Hussainey *et al.* (2013).

The inverse relationship between dividend yield and stock price volatility is determined. Dividend policy affected share price volatility in the context of the U.S. (Baskin. 1989). Subsequent study by Profilet and Bacon (2013) in the United States gave similar finding that dividend connected negatively to the stock price

volatility. However, contradictory studies are also presented in some other countries where evidence of positive, but not significant, the relationship between stock price volatility and the dividend is found after controlling for earning volatility, payout ratio, debt, firm size and growth in assets (Rashid & Rahman, 2008). (Their research was targeting the Bangladesh market and share price reaction to the earnings announcement is not similar to that of other developed countries.) Azeem et al. (2011) mentioned in their study performed in Pakistan that firms in Pakistan are reluctant to pay dividends as disbursement of their profit. Under such a situation, using dividend policy to gauge share price volatility may not provide a concrete outcome.

More so, the empirical results found that two firm-specific variables growth opportunity and earning volatility have a significant positive relationship with Share price volatility in listed conglomerates firm in Nigeria. The significant result of growth opportunity elaborates that firms at the growth stage have more volatile stocks in Nigeria. It has been proved empirically by Higgins (2017) that firms on the growth stage retain most of their earnings and pay out less in dividends. Hence, this decision asserts the firms in uncertainty as regards future cash inflows from their new investment projects. This uncertainty results in more volatility in their share prices which is also proved in the case of Nigeria in this study.

Similarly, the more volatile earnings of a company are, the lower is the dividend paid by them. As a result, lower the dividend paid more volatile its stock prices will be (Foong, 2018). Earning Volatility has proved to have a positive significant relationship with Share price volatility. This in tandem with Foog (2018) who found that earning of a firm is significant and positively associated with stock prices. This movement in share prices and dividend policy is due to the fact of the signaling hypothesis and bird in hand theory suggestion. We conclude our analysis by expressing that dividend policy is value relevant to Share price volatility in the Nigerian Stock Exchange.

5. Conclusion and Recommendations

The present study investigates the impact of dividend policy on share price volatility of listed conglomerate firms' in Nigeria for the period of 2009 to 2018. Evident from the descriptive statistics reported in the previous chapter, the mean price volatility is compared with the results of Allen and Rachim (1996), Baskin (1989), Nishat et. al (2011) and Okafor, et al., (2010) after multiplying by Parkinson's constants number. The comparison suggests that stock price in Nigeria follows a normal distribution on average. Nigerian investors accept a moderate dividend on their investments. This is reflected by the value of the dividend yield. Nigerian conglomerates firms are found to payout a large portion of their earnings to stockholders. The correlation coefficients of the variable generally conform to an expectation with virtually no multicollinearity. Also, the regression coefficients of the variables conform to expectations and are generally significant. The only variables that fail to meet expectations are firm growth. Conclusively, the findings of this study indicate that dividend policy has a significant impact on stock price volatility. As this necessitates the rejection of null hypotheses formulated in this study and accept the alternative hypotheses. We conclude our analysis by expressing that dividend policy is much relevant to Share price volatility in the Nigerian Stock Exchange.

Given the above, managers of quoted companies should use the findings of this study to implement dividend policy that will benefit the shareholders. Being agents of the shareholders, their position should be maximizing shareholders' wealth. They should do that by increasing dividend amounts to reduce investment risk. Institutional investors should also exploit the findings of this study to take constructive investment resolutions. As bulk investors, institutional investors should pursue tested model results such as those offered by the findings of this study. This will help reduce losses on their investments. Informed members of the public should also use the findings of this study to benefit themselves. They should do this by investing in companies that pay high dividends. This action will reduce investment risk and will increase share price.

References

Alii, A. (2014). Stock prices under time-varying dividend risk: An exact solution in an infinite horizon general equilibrium model. *J. of Monetary Economics*, 22, 375-393.

Allen, D. E., & Rachim, V. S. (1996). Dividend policy and stock price volatility: Australian evidence. *Journal of Applied Economics*, 6, 176-188.

Al-Malkawi, H. N. (2007). Determinants of corporate dividend policy in Jordan: An application of the tobit model. *Journal of Economics and Administrative Sciences*, 23(22), 44-70.

Al-Malkawi, H. N. (2008). Factors influencing corporate dividend decision: Evidence from Jordanian panel data. *International Journal of Business*, 13(2), 177-195.

Amadeo, K. (2012). Definition and meaning of volatility. *Received from use economy about com >—> stock market definitions*, 52(5), 78-98

Asghar, M., Shah, S. Z. A., Kalid, K., & Suleiman, M. T. (2011). The impact of dividend policy on stock price risk: Empirical evidence from equity market of Pakistan. *Far East Journal of Psychology and Business*, 4(1), 45-52.

Asquith, P., & Mullins, D. W. (1983). The impact of initiating dividend payments on shareholders' wealth. *Journal of Business*, 56(1), 77-96.

Ball, R., Brown, P., Finn, F., & Officer, R. R. (1979). Dividends and the value of the firm: Evidence from the Australian equity market. *Australian J. of Management*, 1, 3-26.

Baskin, J. (1989). Dividend policy and the volatility of common stocks. *Journal of Portfolio Management*, 3, 19-25.

Battacharya, S. (1979). Impact information and dividend policy and the Bird in Hand Fallacy. *The Bell Journal of Economics*, 5(1), 259—270.

Beaver, W., kettler, P., & Scholes, M. (1970). The association between market and accounting determined risk measures. *The Accounting Review*, 15(3), 651-682.

Ben-zion, I., & Shalit, S. (2015). Size, leverage and dividend record as determinants of equity risk. *Journal of Finance*, 30, 1015-1026.

Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management*.

Black, F., & Scholes, M. (1973). The pricing of options and corporate liabilities. *Journal of Political Economics*, 18(3), 11-70.

Bollerslver, T., Angle, T. R., & Woolridge, J. M. (1988). A capital asset pricing model with time varying covariances. *Journal of Political Economy*, 96, 116-131.

Brennan, M. J. (1970). Taxes, market valuation and corporate financial policy. *National Tax Journal*, 23(4), 417-1427.

Chiwen, O. G. (2015). A diagnosis of the determinants of dividend payout policy in Nigeria: A factor analytical approach. *American J. of Scientific Research*, 21(5) 55-67.

Christie, A. A. (1982). The stochastic behaviour of common stock variances: Value, leverage and interest rate effects. *Journal of Financial Economics*, 10, 407-432.

Cuthbertson, K., & Nitzsche, D. (2015). *Investments, spot and derivatives markets*. John Wiley & Sons Limited.

De Angelo, H., De Angelo, L., & Skinner D. J. (1996). The reversal of fortune, dividend signaling and disappearance of sustained earnings growth. *Journal of Financial Economics*, 40, 341-371.

Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *American Economic Review*, 74(4), 650-659.

El-Ahmed, L. (2016). Payout policy irrelevance and the dividend puzzle. Retrieved from http://www.ssrn.com

Fischer, D. E., & Jordan, R. J. (1995). *Security analysis and portfolio management*. 6th ed. Prentice- Hall Inc.

Foong, S. P. (2017). An empirical study of the relation between stock return volatility and trading volume in the BBVM. *African J. of Bus. Management*, 1(7), 176 – 184.

French, K. R., Schwert, G. W., & Stambaugh, R. F. (1987). Expected stock returns and volatility. *Journal of Financial Economics*, 19(3), 29.

Glosten, L. R., & Milgrom, P. R. (1985). Bid, ask and transaction prices in a specialist market with heterogeneously informed traders. *J. of Financial Econ.*, 14(1), 71-100.

Gordon M. J. (1963). Optional investment and financing policy. *Journal of Finance*, 18, 264-272.

Grullon, G., Michaely, R., & Swaminathan, B. (2002). Are dividend changes a sign of firm maturity? *Journal of Business*, 75(3), 387-424.

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics*. Irwin & McGraw-Hill.

Guo, H. (2017). Stock market returns, volatility and future output. Retrieved from http://www.research.stlouisfed.org/publications/review/02/10/75-86Guo.pdf

Habib, Y., Kiani Z. L., & Khan, M. A. (2012). Dividend policy and share price volatility: Evidence from Pakistan. *Global J. of Management and Business Research*, 12(5).

Hashemijoo, M., Ardekani, A. M., & Younesi, N. (2012). The impact of dividend policy on share price volatility in the Malaysian stock market. *Journal of Business Studies Quarterly*, 4(1), 111-129.

Hussainey, K., Mgbame, C. O., & Chijoke-Mgbame, A. M. (2013). Dividend policy and share price volatility: UK evidence. Retrieved from http://www.ainshamsaccounting.com/download/8840.pdf

Jecheche, P. (2012). Dividend policy and stock price volatility: A case of the Zimbabwe Stock Exchange. *Journal of Finance and Accounting*.

Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance and takeovers. *American Economic Review*, 76(2), 323-329.

Jensen, M. C., & Meckling, W. H. (1996). Theory of the firm: Managerial behavior, agency cost and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Lee, F. N. (2018). Determinants of changing dividend behavior: Evidence from the Amman Stock Exchange. *Far East Journal of Psychology and Business*, 4(2), 1-15.

Lintner J. (1959). The distribution of incomes of corporations among dividends, retained earnings and taxes. *The American Economic Review*, 46, 97-11.

Litzenberger, R. H., & Ramaswamy, K. (1982). The effects of dividend on common stock prices: Tax effects or information effects? *Journal of Finance*, XXVII (2), 429-443.

Merton, R. C. (1980). On estimating the expected returns on the market: An exploratory investigation. *Journal of Financial Economics*, 8, 323-361.

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth and the valuation of shares. *Journal of Business*, 34(4), 411-433.

Miller, M. H., & Rock, K. (1985). Dividend policy under asymmetric information. *Journal of Finance*, 40(4), 1031-1051.

Nazir, M. S., Abdullah, L., & Nawaz M. M. (2012). How dividend policy affects volatility of stock prices of financial sector firms of Pakistan. *American Journal of Scientific Research*, 6.132-139.

Nazir, M. S., Nawaz, M. M., Anwar, W., & Ahmed, F. (2010). Determinants of stock price volatility in Karachi Stock Exchange: The mediating role of corporate dividend policy. *International Journal of Finance and Economics*, 55, 100-107.

Nigerian Stock Exchange Fact Books (2014/2015; 2015/2016).

Nishat, M., & Irfan, C. M. (2001). Dividend policy and stock price volatility in Pakistan. Retrieved from http://www.pide.org.pk

Nnamdi, M. L., & Akpomi, M. (2008). Effects of taxes on dividend policy of banks in Nigeria. *International Research Journal of Finance and Economics*, 55, 100-107.

Officer, R. R. (1973). The volatility of the market factors of NewYork Stock Exchange. *Journal of Business*, 46, 434-453.

Okafor, C. A., Mgbame, C. O., & Chijoke-Mgbame, A. M. (2011). Dividend policy and share price volatility in Nigeria. Retrieved from http://www.ajol.info/journals/jorind.

Oseni, I. O., & Nwosa, P. I. (2011). Dividend policy and stock price risk. *Journal of Economics and Sustainable Development*, 2(10).

Pandian, P. (2001). *Security analysis and portfolio management*. Viskas publishing house pvt ltd.

Parkinson, M. (1980). The extreme value method for estimating the variance of the rate of return. *Journal of Business*, 53(1), 61-65.

Perun, P. (2018). Noise trading and stock market. *Journal of Multinational Financial Management*, 17(3), 231-243.

Porterba, J. M., & Summers, H. (1984). New evidence that taxes affect the valuation of dividends. *Journal of Finance*, 39, 1397-1415.

Raju, M. T., & Ghosh, A. (2004). Stock market volatility: An international comparison. Securities and Exchange Board in India. Working Paper Series, No.8.

Rashid. A.. & Rahman. A. Z. M. A. (2008). Dividend policy and stock price volatility: Evidence from Bangladesh. *Journal of Applied Business and Economics.*

Razaq. O. J. (2015). Dividend policy and firm performance: A study of listed firms in Nigeria. *Accounting and Management Information System. 11*(3). 442 – 452.

Roll. R. (1988). The international crash of October 1987. *Financial Analysis Journal. 19.*

Rozeff. M. S. (1982). Growth. beta and agency costs as determinants of dividend payout ratio. *Journal of Financial Research.* V(3). 219-258.

Schwert. G. W. (1989). Why does stock market volatility change over time? *Journal of finance.* XLIV(5). 1115-1153.

Sharpe. W. (1964). Capital assets prices: A theory of market equilibrium under conditions of risk. *Journal of Finance. 19*(3). 425-442.

Shiller. R. J. (1981a). Do stock prices move too much to be justified by subsequent changes in dividends? *American Economic Review. 75.* 421-436.

Shiller. R. J. (1981b). The use of volatility measures in assessing market efficiency. *Journal of Finance. 36.* 291-304.

Van Horne. J. C.. & Wachowicz. J. M. (2010). *Fundamentals of financial management.* Asoke K. Ghosh. Phl learning private limited.

Waithara S. K.. Ngugi. J. K.. Aiyabei. J. K.. Itunga. J. K.. & Kirago. P. (2012). Effects of dividend policy on share prices: Case of companies in Nairobi Securities Exchange *Prime Journal of Business Administration and Management.* 2(8). 642–648.

Zakaria. Z.. Muhammad. J.. & Zulkifli. A. B. (2012). The impact of dividend policy on the share price volatility: Malaysian construction and material companies. *International Journal of Economics and Management.* 2(5). 1-8.