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Dividend Policy and Share Price Volatility Among Insurance Companies Listed at Nairobi Securities Exchange

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Abstract

The major objective of any firm is to maximize the shareholders wealth. This is evidence through dividend yield and payout ratio and this encapsulate into the dividend policy of a company. The research purpose aimed at examining the influence that dividend policy has on the volatility of share prices among the listed insurance corporations in Kenya. Research design, approach and method: Data was collected from listed insurance corporations over a 10-year period with a total of 49 data points. The Pearson correlation and ordinary regression analysis were employed. The results reveal the existence of a positive link among the study variables. The correlations were found to be substantial at ninety-five percent confidence level. It is worth noting that the model summary shows forty-three-point one percent of changes in the volatility of stock price are explicated by dividend yield and payout ratio. ANOVA statistics which examines whether the analytical model as set out in the study explains variations in the dependent variable concluded that the model is analytically substantial. The outcome revealed a statistically significant positive link between stock price variations and the ratio of dividend payout. Research also established a statistically substantial negative interrelation between volatility of stock prices and dividend return. Results therefore recommend that companies should have dividend policies which are mapped to shareholders wealth maximization objective. The study suggests further studies be undertaken to determine whether there exists an analytically substantial difference between the dividend policies of various sectors in the economy.

Keywords: Dividend yield; Dividend payout ratio; Price volatility.

1. Introduction

The dividend decision is one of the most important financial management decisions that the managers may take to demonstrate the performance of their firms. This decision is influencing the primary aim of shareholders which is maximizing their wealth through taking the dividend. So the companies are required to balance between pay ratio and retention ratio Khan and Khan (2011) especially in the growing companies. We try to demonstrate how organizations apply various strategies when making dividend payments, and it's important for management to agree on amounts and suitable time intervals for disbursing dividends (Ross *et al.*, 2013). A prospective investor would consider dividend policy as an essential factor when making an investment decision. Information available on financial ratios, dividend payout and dividend yield, guide an investor to perform financial analysis on the firm when considering an investment decision. Hence, it could affect stock price changes (Sew *et al.*, 2015). According to Lashgari and Ahmadi (2014), stock price changes form part of systematic risk and investors being risk averse would use volatility in measuring amount of risk they are exposed to. Share prices as explained by Gabow (2017) will fluctuate with time dependent upon the available market information. Furthermore, the changes in share prices reflect the prevailing forces of demand and supply which influence share value.

According to Brigham and Ehrhardt (2005), firm value in the irrelevance theory is determined by the company's earning capacity from the income generated through utilization of assets and resources and does not rely on dividend payments. Bird in hand theory agreed with investor's preference for dividend payments, since, future realization of capital gains is uncertain and riskier (Gordon, 1963). Fama (1970), proposed efficient market hypothesis (EMH), whereby security price incorporate available information in the market.

The importance of listed insurance corporations to an individual and Kenyan economy cannot be overlooked since it contributes a major role in a country's economic progress. According to Insurance Industry Report (2018), to achieve the role of economic growth in the country, these companies applies the strategy of pooling premiums towards protecting the insured individuals or firm against financial losses arising from unanticipated circumstances. Mogambi (2018), states that applicable policy used in paying dividends should be given serious management attention, because it defines whether earnings should be distributed as dividends or reserved for future investment opportunities.

1.1. Dividend Policy

This concerns the comprehensive structure as well as a strategic alternative that firms put into consideration when selecting the source of finance for its investment decisions (Almanaseer, 2019). Dividend decisions executed

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by the managers, is basically a guide on the proportion of earnings to be reserved for financing future investment opportunities and the amounts to be distributed to the shareholders as dividends (Zainudin *et al.*, 2018). Dividend policy denotes a company's decision concerning if it will make dividend payments to its investors or if it will hold back and reinvest the profit (Hussainey *et al.*, 2011). Ramadan (2013), considered dividend policies based on managed dividends or residual dividends method. Residual method refers to the distribution of net income remaining after considering all new opportunities with probable positive net present value .Alternatively, managed method is recognized as a technique popularly employed when organizational executives perceive dividends as a key determinant of share prices which shareholders highly value as their source of income.

Dividend policy measures as discussed by Baskin (1989) consider proportion of payable dividends relative to the company's net income and market value of shares. These measures include: dividend yield which is the return a shareholder can generate out of dividends to form part of the expected return on investments and dividend payout being a portion of earnings used for dividend payments. However, it's not possible to compute payout ratio with a negative net income. Additionally, Hussainey *et al.* (2011) proposed two variables: dividend yield which is obtained by expressing dividends paid in cash as a percent of common stock price and dividend payout being a ration of dividend to the earned money paid for every share.

1.2. Share Price Volatility

The volatility of share prices is the evaluation of speed as well as the extent of share prices changes. Stock prices fluctuate upwards or downwards depending on the current available information in the market (Allen and Rachim, 1996). Baskin (1989), further explains volatility of share prices as the relative rate at which prices of shares rise or fall. Additionally, instability of share prices measure quantity of risk the investors are exposed to and such risks are quantified by determining the proportion of variance in shares prices over a specified time period.

Volatility of the share prices is deduced from yearly standard deviation of daily stock prices changes, though it's not possible to predict with certainty the future prices of stocks in a market. Stakeholders being risk averse prefer less risk (Hussainey *et al.*, 2011). Stock prices reactions are measured using the quotient of a yearly share prices range over the mean of the most valued and least valued share prices in that fiscal year. The value gotten would then be raised to power two (Ahmad *et al.*, 2018). A highly volatile stock is the one whose price moves erratically within a short time, while a stock which maintains averagely stable prices has low volatility. Therefore, stocks with low variations mean lesser risk and this makes it easier for the investor to quantify potential level of risk and improves on their confidence to invest (Onchiri, 2013).

1.3. Motivation of the Research

Dividend policy is an important consideration in the wealth creation process, particularly whether or not to distribute dividends to shareholders. Dividend policy is often structured to cater for shareholders' expectations. Dividend payment is distribution of dividends to the investors either in cash or by distributing stock dividends to shareholders (Baskin, 1989). Most of the listed insurance companies pay dividends in form of bonus shares and cash dividends. Interim cash dividend paid after second quarter, while final cash dividend is settled at the close of financial year. In some special cases, firms pay special dividends which is usually larger compared to regular dividends (Sew *et al.*, 2015). However, there are cases when companies do not pay dividends due to money related issues (Mogambi, 2018). For instance, the Board of directors of Britam Holdings Limited did not recommend payment of dividends for the year ended 2018. The company issued a profit warning where earnings will reduce by at least 25 per cent to Shs. 395.5 million from Shs. 527.4 million recorded in the year ended 2017 (Business daily, 2019).

According to Allen and Rachim (1996), payment of dividends is a basis of argument notwithstanding several years of theoretic and empirical investigation. Miller and Modigliani (1961), disputed dividend payments and supported strategy used to generate income as the key determining factor of firm value. However, Gordon (1963) ascertained that shareholders value payment of dividends more than capital gains owing to higher certainty and lesser risk of dividends. Hence, payment of dividends consequently command increase in share prices. There is still contradicting results from recent research done on dividend payments and stock price changes. Research done by Almanaseer (2019) discovered substantial inverse linkage among dividend variables and the volatility of the share prices, whilst conversely (Kwoba, 2017) discovered insignificant positive interaction between cash dividend payouts and share prices fluctuations.

Stock prices of enlisted insurance corporations were undervalued during the year 2018.Among the six Kenyan listed insurance firms, only Liberty had a share price gain of 3.9% while the rest of the five insurance companies experienced shares drop. CIC has been the worst performing stock in the market segment with a share price drop of 29.5% (Business daily, 2018). Britam Holdings Limited raised dividend payouts by 67 %, after the first full year of operations as a listed Insurance company. By increasing dividend payouts from Ksh. 0.10 to Ksh. 0.25 between the years 2011/ 2012, the news caused Britam share prices to rise by 49.17 % to close at Ksh. 8.95 compared to Ksh. 6 which was its final price in December 2011. This outcome indicates probable impact that dividend payments have on the prices of stock (The East African, 2013).

Several researchers have conducted various studies on payment of the two variables. Onchiri (2013), together with Sew *et al.* (2015) found negative link between unstable pricing and these variables from their research concerning share prices volatility and dividend policies. However, Hussainey *et al.* (2011) studies on how policies applied on dividends affects share prices changes revealed positive link present between stock prices variations and the dividend yield, whereas, cash dividend payout and the price of shares are inversely correlated. Kwoba (2017)

research on how dividend policy influences share prices of NSE listed manufacturing organizations, showed positive insignificant association between stock values and dividends paid out. Gabow (2017), examined the extent to which the dividend policies affects volatility of share prices among NSE listed commercial banks and negative connection existed amongst DPS and stock values, while EPS had moderate positive relation with price volatility.

The findings from empirical studies have presented mixed results and the researchers have not reached a consensus. These studies have focused mainly on different contexts and general market. Gabow (2017), suggested further research to be done on insurance sector, agricultural firms, non-financial firms and energy firms. This study therefore focuses on filling researchable gap by addressing subsequent objectives:

    i.   To determine the effect that dividend payout ratio has on the volatility of share prices among NSE listed insurance corporations.

    ii.   To establish the effect that dividend yield has on the volatility of share prices among NSE listed insurance corporations.

2. Theoretical Review

Varied theories support this study, and these include: Theory of Dividend Irrelevance, Bird in Hand and Efficient Market Hypothesis (EMH). Investors in irrelevance theory do not care about cash payout, while investors in bird in hand theory prefer high payout of dividends. Efficient market hypothesis refers to the market whereby available information is incorporated into stock prices.

The dividend irrelevant theory originated from Miller and Modigliani (1961) where firm value is influenced by company's capacity to generate income from assets by use of the most suitable investment strategy. Payment of dividends does not influence share value in the market. Assumptions made under this theory include: presence of rational savers and availability of symmetric information free of cost. Hence, flotation and transaction costs will not be incurred during the process of making financial choices. Additionally, the theory assumes nonexistence of taxes and the company's investment policy is constant. Therefore, investors are certain about future profits and there are no risks involved.

According to Lashgari and Ahmadi (2014), distribution of dividends from net profits, results in reduction of share value by the amount of dividends declared during the period, this decline usually occurs on ex-dividend date. Therefore, investors focus more on investment policy because dividend payments do not influence stockholder's wealth and cost of capital. Investors in theory can generate their own dividend policy without incurring costs by selling stock if the company does not pay dividends or even when higher dividends are paid, they can utilize the unwanted dividends in buying additional shares.

Payment of dividends to shareholders is better than the company retaining profits for future investment opportunities. Investors do value dividends much more than capital gains, since the latter is characterized by high risk and high discounting rates to cover future uncertainty (Gordon, 1963). According to Issa (2015), high dividend payouts are attractive to the investors, since high dividend paying stocks command higher stock prices in the market. This occurs due to certainty and low risk of the dividends, and investors would therefore use low discounting rates on dividends of the firm, consequently increasing firm value. Investors, who prefer earnings from dividends to capital gains, would consider dividends as a key determinant when deliberating on investment choices. Hence, as dividend payments become more attractive, demand for stock in the market increases, causing an increase in stock prices (Kwoba, 2017). However, if the rate of dividend payment announced is less than investor's expectations, share prices would decline, and if they are as expected or more than expectations, share prices would increase.

Managers are anticipated to prioritize shareholders' interests of wealth maximization. Ramadan (2013), refers to distribution of dividends as a method used in settling and reducing agency problems that usually arise out of conflict of interest amongst investors and the managers. To reduce the possibility of managers acting on their personal interests, stakeholders prefer payment of dividends to capital gains to minimize on the chances of managers utilizing available cash for personal interests. Increasing dividends reduces the amount of cash available, hence, minimizing possibility of agency problems. This will eventually influence stock prices.

Share values represent accessible information and any new information is immediately included in stock prices (Fama, 1970). EMH assumes, market players have no advantage in projecting future stock price movements. Investment strategies applied cannot give yield to abnormal returns, since no one has access to information which is unavailable to the entire market. However, some investors believe that there is possibility of making extra profits by selecting those stocks that will outperform the market. The investors use prices from past information to forecast future stock prices in a process called technical analysis. Additionally, the investors can perform fundamental analysis using accounting and economic information to forecast future stock prices.

There are various applicable versions of efficient market hypothesis used in share pricing. The first version being weak form, whereby past information on historic pattern of prices, market capitalizations and return is included in stock prices (Mori, 2016). Secondly, semi-strong form integrates historic and publicly accessible information in stock prices. Finally, strong form includes both private and public information in share pricing and investors cannot gain advantage in the market to make abnormal returns.

3. Dividend Policy and Share Price Volatility

Sew *et al.* (2015), researched on dividend payments and price variations. Several companies were selected from different sectors in Malaysian market during the period 2003 – 2013. Descriptive correlation research design together with regression model was applied. Results revealed negative interaction among stock price instability,

dividend return and payout. Additionally, share price variations presented significantly positive interaction with earnings instability and leverage, while firm size and share values were inversely related. Ahmad *et al.* (2018), studied Jordanian 228 listed firms during the period 2010 to 2016 to establish effect of paying dividends on stock price instability. Pearson correlation, descriptive analysis and panel GMM analysis were applied. Findings revealed significantly inverse linkage amongst stock value variations and measurements applied on dividend policies.

Hussainey *et al.* (2011), researched on publicly quoted corporations in London securities for 10-year duration (1998 – 2007). Multiple least square regression was applied, and the outcome presented an inverse interaction between share values and cash payout, while positive linkage existed between changes in stock prices and dividend return. Additionally, significant inverse connection existed among stock price variations and size of the company, while leverage revealed positive significant interaction with stock price instability. However, Hamid *et al.* (2017) researched on financial sector, specifically 21 listed commercial banks in the year 2006 to 2014. Results revealed positive link among dividend payments and stock price changes. Analytical tools applied include: common effect regression, generalized methods of moment model (GMM), random and fixed effect model.

Nkobe *et al.* (2013), used actively trading companies at the NSE to examine the extent in which payment of dividends affect share prices. Data collection done was for a 10-year period and analyzed using multiple regression analysis. Results revealed positive interaction between dividends return and stock price instability, while, dividend cash payout and share price fluctuations are inversely correlated. Mogambi (2018), researched on dividend payments and share values using listed manufacturing and allied firms for a 5-year period (2013 - 2017). Analytical models used comprise: analysis of variance (ANOVA), correlation and regression. Findings presented positive linkage between cash payout and stock price variations. Kwoba (2017), as well studied the effects that dividend policies have on share values of all enlisted manufacturing corporations at NSE. Results presented positive insignificant association between the ratio of dividend payout and stock prices. Descriptive research design was used, while simple linear regression and correlation was applied on data obtained from 2008 to 2016.

Musembi (2018), researched on eight listed banks at the NSE to determine how payment of dividends affects share values. Study was limited to time period of 5 years (2013-2017) and variables used include: dividend payout, return on assets being proxy for profitability and leverage measured by debt equity ratio. Multiple regression technique applied resulted in positive linkage between dividend payout and stock prices, while return on assets leverage were inversely correlated with share prices. Gabow (2017) conducted a study specifically on enlisted commercial banks at NSE and the outcome displayed moderate negative link between dividend per share and price instability, while the amount earned from every share presented moderate positive interaction with volatility of share prices. This study covered a ten-year duration beginning from 2007 to 2016. Descriptive research design, multivariate and correlation were applied in examining the existing association between policies used in making dividends payments and share price variations. However, Onchiri (2013) sampled 30 listed companies at the NSE to examine how policies used in paying dividends affect price instability. Data was evaluated with multiple linear regression model and the outcomes presented insignificant inverse interaction among share price variations and dividend payments.

There are number of studies done locally in Kenya and globally on the research topic, however, researchers have not arrived at definite conclusion on interaction existing among the variables under study. Research completed locally by Kwoba (2017), Musembi (2018) and Momanyi (2018) presented positive interrelation between dividend cash payout and the stock values, while Nkobe *et al.* (2013) presented inverse connection between cash payout and share value variability and positive interaction between dividend returns and price instability. Gabow (2017) established inverse link between DPS and fluctuations in stock values, while EPS had moderate positive relation with variability of share prices. However, Onchiri (2013) established insignificant negative interaction among stock price changes and the measures applied on dividend policies.

Internationally, research concluded by Ahmad *et al.* (2018) and Sew *et al.* (2015) presented significantly inverse interaction among price instability and dividend policy variables, while Hussainey *et al.* (2011) revealed positive interaction amongst returns derived from dividends and the stock price variations. Cash dividend payout and share price variations were inversely correlated. However, Hamid *et al.* (2017) presented positive linkage between price changes and dividend payments. From the above summary, researchers have not had conclusive findings regarding existing connection between policies used for payment of dividends and stock price variations. We therefore, found it important to conceptualize the study as follows:

Figure-3.1. Conceptual Model
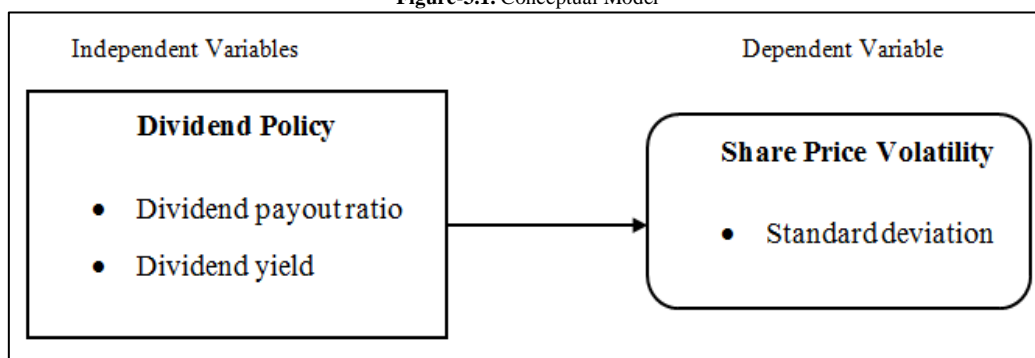
Source: Research Findings (2019)

3.1. Research Methodology

Descriptive cross-sectional and longitudinal research design was applied during data collection, measurement and analysis. Correlating data was done without manipulating variables to establish effects of dividends payment on stock price variability. This design was successfully used in research done by Onchiri (2013), Kwoba (2017) and Gabow (2017). This design was also used because the researcher was concerned with obtaining relevant and precise information to help in describing the present status of the phenomenon under study as they already existed (Kothari and Garg, 2014).

Target population entailed six listed insurance firms in Kenya as of December 2018 (Nairobi Securities Exchange, 2018). Researcher was able to conduct census survey of all the six listed insurance companies. Research utilized secondary data where information concerning dividends was obtained mainly from financial reports of listed insurance corporations and stock price data was gathered from the NSE hand books. This data was collected over a duration often-years beginning from 2009 to 2018. Data capture forms was used in collecting required secondary statistics regarding dividend payout ratios, stock volatility, and dividend yield.

Evaluation of collected data was done through both regression and correlation techniques. It was equally important to use SPSS (statistical package for social sciences) in checking data completeness and consistencies. Analyzed statistics was then presented via figures and tables, and this guided in presenting clearer outcome on the research findings. Regression analysis was applied in examining link between payment of dividends and stock price variability. The following regression model was used:

$$\gamma = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \varepsilon$$

Where:

γ = Share price volatility (Standard deviation of quotient of a yearly share prices range over the mean of most valued and least valued share prices in that fiscal year, raised to power two)

χ_1 = Dividend payout ratio (Dividend per share, divided by earnings from every share)

χ_2 = Dividend yield (This is calculated by expressing dividends per share as a proportion of share price of the common stock)

β_0 = Constant term of the regression

β = Regression coefficient (This is the change induced in dependent variable by each independent variable)

ε = error

Additionally, application of Analysis of Variance (ANOVA) was essential in determining the significance of analytical model, while T test was conducted to assist in identifying whether the linkage between stock price variability and policies applied on dividend payments among listed insurance corporations is statistically significant.

4. Data Analysis, Results and Interpretation

Descriptive statistics show both minimum and maximum level of the variable, it also shows the average and standard deviation from the mean. Also presented is the Pearson correlation analysis. This statistic shows the direction of association between two variables.

The data was derived from audited financial reports of listed insurance corporations. These audited statements provide valid data to the extent that auditors are mandated to provide assurance services to the users of financial statements. The elements of share price volatility were collected from Nairobi securities hand book. The NSE is authority with regards to share prices and as such data sought from their hand book is valid information.

The test for the questionnaires' internal consistency was done using Cronbach's alpha in SPSS. The statistic runs from 0.00 to 1.00, zero means that the data set lack internal consistency while 1 means that there is perfect consistency in the instrument. However, the rule of thumb states that a Cronbach's Alpha of 0.7 is adequate for research.

Table-4.1. Overall Cronbach's Alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
	0.836	3

Source: Research Findings (2019)

Table 4.1 confirms overall consistency for the entire model is 83.6%. This is above the threshold of 70%. Therefore, research concludes that the data set is internally consistent.

Table-4.2. Cronbach's Alpha for Individual variables

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Dividend payout ratio	29.55287	2168.757	0.871	0.884	0.555
Dividend Yield	18.81715	1067.223	0.45	0.849	0.186
Stock Volatility	14.43857	734.569	0.417	0.455	0.33

Source: Research Findings (2019)

Table 4.2 shows individual Cronbach's Alpha on all study variables. Cash payout ratio, dividend return, and stock variability have alpha values of 88.4%, 84.9% and 45.5% respectively. This indicates that the data set is averagely consistent.

4.1. Descriptive Statistics

This section provides analysis for coefficients of variables' descriptive statistics. The results showed the minimum, maximum and the mean score of the responses issued during the data collection. Additionally, it also reported the standard deviation from the average score on dependent and independent variables.

Table-4.3. Descriptive Statistics

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
Stock Volatility	49	5.8E-07	1.6E+02	1.7E+01	30.99358
Dividend payout ratio	49	0.0E+00	9.0E-1	1.9E+00	2.7164
Dividend Yield	49	-1.4E+01	8.6E+01	1.3E+01	24.61887
Valid N (listwise)	49				

Source: Research Findings (2019)

Stock volatility's minimum value is 0.00000058, while its' maximum value is 160. Minimum value for the ratio of dividend payout is 0.0 which translates that there are companies that didn't make any cash payout during the study period. The maximum ratio of dividend payout is 0.9 which therefore means there is a company who paid 90% of its earnings during the period under investigation. The minimum dividend yield is -0.14, maximum value is 0.086, mean is 0.013.Thissignifies, on average the shareholders of the insurance industry get back 13% of the price of the shares they bought in terms of dividends. The maximum earning for the industry is 14% with some investors losing 8.6% of the value of the share price.

Table-4.4. General Averages of the variables

#	Year	Dividend Payout ratio	Dividend Yield	Pay-out Ratio %	Dividend Yield %
1	2009	2.33	8.47	37.98	4.66
2	2010	3.00	6.14	48.86	6.20
3	2011	2.00	8.14	17.13	5.22
4	2012	1.86	10.67	19.64	4.69
5	2013	2.24	12.31	21.71	3.58
6	2014	2.17	15.30	15.04	2.19
7	2015	1.44	16.18	-2.06	2.14
8	2016	1.62	15.09	34.00	2.35
9	2017	1.80	15.23	43.21	3.01
10	2018	1.32	7.82	16.22	2.73

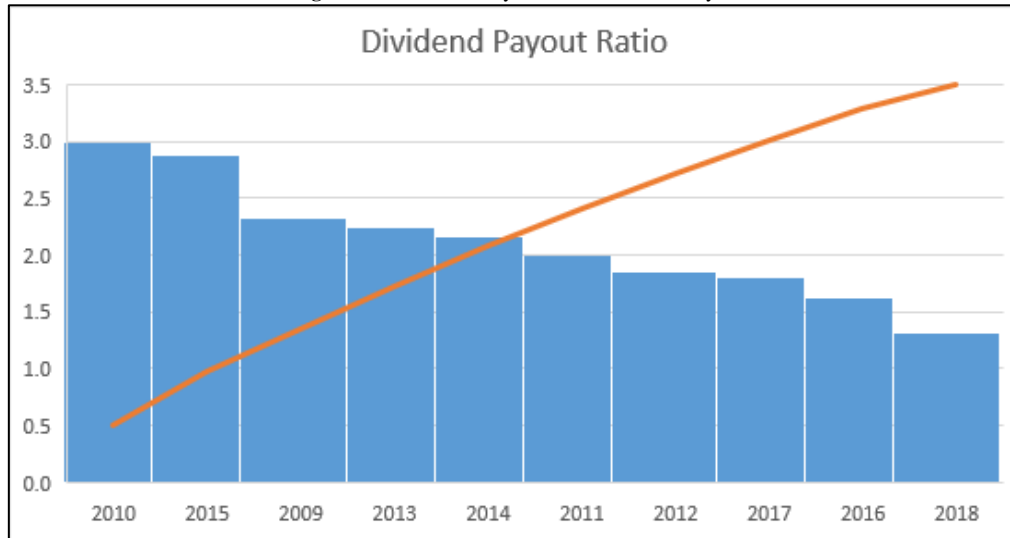**Source:** Research Findings (2019)

The above illustrates annual averages of the variables under consideration, more detailed analysis is done in the subsequent tables below.

Table-4.5. Dividend Pay Out Ratio Trend Analysis

#	Year	Dividend Payout Ratio	Trend Analysis
1	2009	2.3	100%
2	2010	3.0	29%
3	2011	2.0	-14%
4	2012	1.9	-20%
5	2013	2.2	-4%
6	2014	2.2	-7%
7	2015	1.4	-38%
8	2016	1.6	-31%
9	2017	1.8	-23%
10	2018	1.3	-43%

Source: Research Findings (2019)

Figure-4.1. Dividend Pay Out Ratio Trend Analysis

Source: Research Findings (2019)

The above presented trend analysis for dividend payout ratio using 2009 as the base year. In 2010 there was an increase of 29% in the total amount of dividend paid as compared to 2009.The table above also shows a constant decline in the dividend payout ratio14%,20%,4%,7%,38%,31%,23% and 43% for the years between 2011 to 2018 respectively. This means that the dividends paid out during these periods have reduced as compared to what was paid in 2009.

Table-4.6. Dividend Yield Trend Analysis

#	Year	Dividend Yield %	Trend Analysis
1	2009	4.66	100%
2	2010	6.20	33%
3	2011	5.22	12%
4	2012	4.69	1%
5	2013	3.58	-23%
6	2014	2.19	-53%
7	2015	2.14	-54%
8	2016	2.35	-50%
9	2017	3.01	-35%
10	2018	2.73	-42%

Source: Research Findings (2019)

Table 4.6 displays trend analysis in reference to dividend yield changes using 2009 as the base year. The trend analysis indicates that there was an increase in the yield by 33%, 12% and 1 % for the periods 2010, 2011 and 2012 respectively. There has been a decline in the dividend yields for the periods 2013, 2014, 2015, 2016, 2017and 2018 by 23%, 53%, 54%, 50%, 35% and 42% respectively.

4.2. Pearson Correlation

The statistics of Pearson correlation was used in examining a directional connection between the variables under the study. The study used a two tailed non directional hypothesis to investigate if correlation between the variables is statistically significant. The null hypothesis for the Pearson correlation statistic assumes that there is no correlation between the variables under investigation; the predictors are not correlated with the dependent variable. This hypothesis is accepted if P value exceeds 5% otherwise the null is accepted. Table 4.7 shows the outputs of the correlation analysis, complete with the significance values to assist in rejecting or accepting the null hypothesis.

Table-4.7. Pearson Correlation

Correlations		Stock Volatility	Dividend payout ratio	Dividend Yield
Stock Volatility	Pearson Correlation	1	.589**	.395**
	Sig. (2-tailed)		0	0.005
Dividend payout ratio	Pearson Correlation	.589**	1	.905**
	Sig. (2-tailed)	0		0
Dividend Yield	Pearson Correlation	.395**	.905**	1
	Sig. (2-tailed)	0.005	0	
** Correlation is significant at the 0.01 level (2-tailed).				

Source: Research Findings (2019)

Correlation analysis as presented in the table 4.7 (r = 0.589**; P < 0.000) indicate presence of positive interaction between stock variability and ratio of dividend payout. Hence, increase in payout ratio of dividends results to growth in price volatility. This is so because most investors will increase their appetite to purchase stocks which pay more dividends. The surge in the demand will increase stock price volatility. Consequently, correlation analysis as presented in table 4.7 (r = 0.395**; P < 0.005) shows a rise in dividend yield in turn leads to rise in the volatility. Dividend yield represents return on the share price. Investors are more likely to increase their appetite for stocks which earn them more and consequently this will increase the stock demand and consequently lead to an increase in stock volatility.

These correlations have been tested for statistical significance and are significant at ninety five percent confidence level. Significance figure in the above table shows the probability that null hypothesis is true. This null which was tested in this case was; the coefficient of the correlations is not distinct from zero. The null is to be accepted if the significance figure is more than 5%. In this case the probability that the coefficients of the correlation are not distinct from zero is 0.000% and 0.5% for dividend payout and yield respectively. Therefore, research rejects the null and accept alternate hypothesis that postulates statistically significant correlation amongst the variables under study.

4.3. Regression Analysis and Hypothesis Testing

We applied ordinary least square regression to help in establishing the effect between the variables. Share price volatility being the dependent variable, while dividend payout ratio and yield are independent variables. Stock price volatility calculated at the lag of standard deviation from the mean score of the stock price. Dividend yield was calculated as the dividends paid as a proportion of the stock price.

The ANOVA statistics shows whether regression model as set up is statistically significant will also be analyzed. Additionally, preliminary assessments of data distribution will be conducted on the data set. The diagnostic test was performed to investigate whether data set is linear and normal. These test help in eliminating errors which are caused by outliers in the data set. The results of the test of normality and Auto correlation are shown in table 4.8, 4.9.

Table-4.8. Test of Normality

Descriptive Statistics	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Stock Volatility	49	2.213	0.34	8.882	0.668
Dividend payout ratio	49	1.452	0.34	0.647	0.668
Dividend Yield	49	2.153	0.34	3.663	0.668
Valid N (listwise)	49				

Source: Research Findings (2019)

This statistic postulate that data set is normally distributed if skewness and kurtosis values is within the range of +-1.96 and the statistic allows for a deviation of +- 0.5. Anything beyond the value is treated as a non-normal distribution. The above findings indicate distributions from price volatility, dividend returns, and cash payout ratio are from normal distributions, because these variables have skewness values which are within the threshold of +- 0.5 of 1.96

Table-4.9. Test of Auto correlation

Model Summary a	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674a	0.455	0.431	23.37703	1.994
a Predictors: (Constant), Dividend Yield, Dividend payout ratio					
b Dependent Variable: Stock Volatility					

Source: Research Findings (2019)

The Durbin Watson test of autocorrelation ranges from 0 to 4, the values closer to 2 +or – (0.5) indicate that there is no autocorrelation. Values advancing towards 0 point out a positive autocorrelation while the ones proceeding towards 4 display an inverse autocorrelation. In this instance, the value of 1.994 is closer to 2 and is within the range of + or – 0.5. This therefore means that there is no autocorrelation in the data.

4.4. Model Summary

Table-4.10. Model summary

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674a	0.455	0.431	23.37703	1.994
a Predictors: (Constant), Dividend Yield, Dividend payout ratio					
b Dependent Variable: Stock Volatility					

Source: Research Findings (2019)

The above model summary estimates portion of dependent variable that is explained by dividend return and ratio of dividend payout. This statistical measure takes cognizant of the fact that there exist some variables which affect stock price variability and are not considered in the current study. Therefore, the adjusted R square presents the percentage of share price variations which is explained using regression model. Hence, 0.431 shows 43.1% of changes in the volatility of stock values is illustrated by dividend return and ratio of dividend payout.

4.5. Analysis of Variance

Table-4.11. Analysis of Variance

ANOVA a		Sum of Squares	df	Mean Square	F	Sig.
Model	Regression	20970.58	2	10485.29	19.187	.000b
	Residual	25138.33	46	546.485		
	Total	46108.91	48			
a Dependent Variable: Stock Volatility						
b Predictors: (Constant), Dividend Yield, Dividend payout ratio						

Source: Research Findings (2019)

The ANOVA statistic examines whether the analytical model as set out in the study explains the changes in the dependent variable. The test provides the assurance that the independent variables under consideration collectively influence changes in the dependent variable.

The test's null hypothesis is set out as follows; dividend yield and payout ratio collectively doesn't have statistical effect on changes in stock price instability. This null hypothesis is tested at five percent confidence level, the significance figure in the table provides the probability that null hypothesis is true. The null is accepted if probability is more than 5% otherwise it is rejected, and thus alternate hypothesis is accepted. The ANOVA table shows that the probability of the model's null hypothesis considered true is 0%. Therefore, null is rejected, and alternate hypothesis is accepted. Dividend yield and payout ratio has been established to be having significant effect on stock values.

4.6. Regression Model

Table-4.12. Regression Model

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	1.982	4.141		0.479	0.634
	Dividend payout ratio	14.702	2.926	1.289	5.024	0
	Dividend Yield	-0.972	0.323	-0.772	-3.011	0.004
a Dependent Variable: Stock Volatility						

Source: Research Findings (2019)

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e$$
$$Y = 1.982 + 14.7 X_1 - 0.972 X_2 + e$$

Table 4.12 uses T statistics to check whether the interrelationship among variables is statistically significant. The regression outcome displayed a coefficient of 1.982 which is the level of constant stock variability not influenced by study independent variables. The null hypothesis verified by OLS regression assumes the coefficient of constant is not distinct from zero. This null is accepted if the significance is more than 5%. In this case the probability that the coefficient is not distinct from zero is 5%. The null hypothesis is rejected, and alternate is accepted. The coefficient is statistically significant, and there exist a level of stock price variations not dependent on the study variables.

The coefficient of 14.7 indicate, the ratio of dividend payout possess statistically significant positive link with volatility of share prices. This positive coefficient was tested for significance at ninety five percent confidence level. The null hypotheses assumed the ratio of dividend payout has no effect on stock price instability. T statistic provides the probability that the null is true through the significance figure. In this study the null is rejected because significance figure is 0%. This means that there is a zero percent chance that null hypothesis is true and alternate hypothesis is therefore accepted, and research concludes existence of a positive relation.

The coefficient of -0.972 indicate an inverse link among stock price variations and dividend return. This relationship was tested for statistical significance at 95% confidence level. The null postulates that return on dividends has no statistical link with variability of stock prices. This therefore signifies that the coefficient isn't different from 0. Significance value of 0.0% represents the probability that null hypothesis is therefore true. Under this circumstance, research accepts alternate hypothesis and make conclusions that share price instability possess a statistical relation with dividend return.

5. Discussion of Research Findings

The adjusted R square of 0.431 shows that, 43.1% of changes price instability is explained by dividend yield and payout ratio. This outcome presents a certain level which is not influenced by any variable under consideration. This outcome is consistent with the general theory of economics and financial markets operation. Stock prices are affected by other factors other than dividend payout ratio and yield. There are macroeconomic factors such as inflation and economic growth which are also responsible for the changes in the demand and supply of stocks. Moreover, there are other fundamental business factors such as government regulations which affect stock price volatility. Finally, investors have their own qualitative factors such as sentimental attachment to corporate social responsibility activism of nationalistic loyalties which may influence share price variations.

The coefficient of -0.972 in regression indicate statistically significant inverse association among dividend return and price variations. The economic justification for negative relationship is premised on the fact that stock prices volatility decreases with more earnings. The first reasoning is linked to the risk factor. A higher Dividend yield could mean that there is also a higher risk involved hence leading to a reduction in the demand of shares. Additionally, a higher yield could also mean that the company is operating in mature markets with limited opportunities for growth. Therefore, these companies tend to issue more of its dividends to the shareholders. Investors tend to look for companies with prospect for growth and as such would be less interested in investing on these stocks this can explain the reduction in price instability.

Regression results agree with Sew *et al.* (2015) who researched on dividend payments and price variations in Malaysian market during the period 2003 – 2013.Their results revealed existence of inverse link between dividend return and stock price variations. The findings also confirm discovery of Ahmad *et al.* (2018) who studied 228 Jordanian listed firms during the period 2010 to 2016 to establish consequence of paying dividends on share price instability. GMM analysis revealed existence of an inverse interrelationship between dividend return and stock price variability. However, the outcome contradicts (Nkobe *et al.,* 2013) who concluded a positive interaction between dividend return and price volatility.

Regression outcome presented statistically significant positive connection between cash payout ratio and volatility of stock values. These results display an increment in payout ratio causes an increase in price variations. The results confirm findings of Momanyi (2018) who researched on dividend payments and share values using listed manufacturing and allied firms for a 5-year period (2013 - 2017). Their study concluded existence of a positive relation of payout ratio and price instability. Contrary, these findings oppose conclusions of Kwoba (2017) who concluded non-existence of statistical link of payout and share price variability of the NSE enlisted manufacturing corporations.

Regression results also disagree with Gabow (2017) who conducted an inquiry into listed commercial banks at NSE and concluded the existence of a moderate negative correlation between DPS and price instability, while EPS had moderate positive interrelation with variability of share prices. Additionally, the results also contradict findings of Onchiri (2013) who concluded a statistically insignificant relation among price variations and ration of dividend payouts.

The assertions of bird in hand notion are also confirmed in this research. The theory suggests that stockholders prefer payment of dividends as compared to capital gains. The results show a positive link between divided pay out and stock price instability. Regression results contradict dividend irrelevant theory. The notion avers that firm value is influenced by company's capacity to generate income from assets by use of the most suitable investment strategy. Payment of dividends doesn't affect share values. However, results indicate that cash payout ratio affect variability in share prices positively. The positive association means, dividends issued has effects on stock prices.

6. Summary Conclusion and Recommendation

Study sought to find out the effect of dividend policy on share price volatility among NSE listed insurance corporations. Data was gathered from Nairobi securities hand book and financial reports of enlisted insurance corporations. This chapter thus, will seek to summarize descriptive statistics, summary of the Pearson correlation, brief discussion of the ANOVA statistics which details whether the model as set out is statistically significant. Model summary detailing the summary of the proportion of dependent variable will also be discussed.

The study examined effect of dividend policy on share prices volatility among enlisted insurers in Kenya. Data set internal consistency was verified with the Cronbach's Alpha, and statistics shows the entire data set generally has an Alpha figure of 83.6% this is above the threshold of 70%.Therefore, research concludes an internally consistent data set. The individual payout ratio, dividend return, and stock variability have alpha values of 88.4%, 84.9% and 45.5%. The descriptive statistics indicate that the variables do not have outliers and preliminary analysis shows a normal distribution of the data set. The Durbin Watson test of auto correlation displays no serial correlation among the variables.

Trend analysis of dividend payout ratio is done using 2009 as the base year. In 2010 there was an increase of 29% in the total amount of dividend paid. Constant decline in payout ratio of 14%, 20%,4%,7%,38%,31%,23% and 43% for the years between 2011 to 2018 respectively. The trend analyses indicate that there was an increase in the yield by 33%, 12% and 1 % for the periods 2010, 2011 and 2012 respectively. There has been a decline in the dividend yields for the periods 2013, 2014, 2015, 2016, 2017 and 2018 by 23%, 53%, and 54%, 50%, 35% and 42% respectively.

The Pearson correlation shows a positive interrelationship among the variables. These correlations were significant at 95% confidence level. Model summary shows that 43.1% of variations in stock prices are demonstrated by dividend return and cash payout ratio. ANOVA statistic which examines whether the analytical model as set out in the study elaborates the adjustments in the dependent variable concluded a statistically significant outcome.

The research used ordinary regression to explore whether the interrelation between variables are statistically significant. This regression methodology uses T statistics to test if individual predictors affect the dependent variable. Null hypothesis for this methodology avers that the coefficients of independent variables are not different from zero. The null is accepted if the significance figure is more than 5 % (> 0.05) the regression outcome shows a level of constant stock variability that does not get affected by the ration of cash payout and dividend return. This coefficient was statistically substantial at 95% confidence level.

Regression results indicate payout ratio has statistically significant positive link with price variations. This positive coefficient was tested for significance at ninety five percent confidence level. Alternate hypothesis is therefore accepted, and research concludes that there is a positive connection. The research also found a statistically significant inverse relation on stock price instability and return. This relationship was tested for statistical significance at ninety five percent confidence level.

The regression outcomes inferred the existence of a level of price variability which is not influenced by variables under consideration. This finding is consistent with the expectations of general financial market operations. This is because there are other factors, macroeconomic factors and emotional factors which affect stock prices movements. The study also concluded a positive connection between the ratio of cash payout and share price variability. These results mean, NSE savers desire stock dividends much more than the capital gains.

Regression results confirm findings of Momanyi (2018) who researched on dividend payments and share values using listed manufacturing and allied firms and concluded existence of positive link among payout ratio and stock value variations. Contrary, these findings oppose (Kwoba, 2017) who concluded non-existence of statistical connection on dividend payment and price variability of the NSE enlisted manufacturing corporations. The results also contradict the findings of Gabow (2017) who conducted an inquiry on Kenyan commercial banks and discovered a moderate negative link on dividend per share and price volatility.

The study also presented statistically inverse connection among dividend returns and stock price variations. Investors are less disinterested in short term high yield. They would therefore prefer higher growth prospects companies as compared to mature companies with high dividend yields. These results affirm the findings of Sew *et al.* (2015) and Ahmad *et al.* (2018) who established inverse link between dividend yield and price variability.

Consequently, we conclude that the assertions of bird in hand theory hold. Because of stockholder's preference for dividends, companies experience a surge in the demand of their shares when they issue dividends. However, the regression results contradict the dividend irrelevant theory, where the firm value is influenced by company's capacity to generate income from assets by use of the most suitable investment strategy. Dividends pay out does not influence share value in the market. However, the results indicate the ratio of cash payout have effect on price instability positively. The positive association means stock values are affected by the dividends issued.

The results stipulate a negative link between dividend return and stock price variations. This suggests, stocks with high prices attract fewer investors, the study therefore recommends that companies with higher stock prices to do a share split. We also established a positive link among cash payout ratios and stock variability. The outcome therefore recommends that top team management should have a dividend policy which takes cognizant of the fact that savers favour dividend disbursement to capital gains.

One of the greatest challenges related to obtaining financial data from the newly listed companies. Some of the companies had not published their financial statements even though they are publicly listed.

The accuracy of data collected in the financial statements was premised on the facts that registered companies publish financial statements that are free from error and that are compliant with the international financial reporting standards, in some cases there were gross violations of the standards where different figures are reported for the same year. The researchers solved the problem by seeking for clarification from the auditors on which figures represent true and fair view of the company status.

7. Suggestion for Further Studies

Given the foregoing discussion we recommend a detailed study be done to ascertain if there is statistically significant dissimilarity between the dividend policies of various sectors in the economy. A similar study should be conducted to explore effect of dividend policies on stock price volatility of listed insurance corporations in Dares Salaam, Kampala and Nairobi securities exchange. Future studies should be employed to ascertain if the differences in methodology and difference among dividend policies in East African e countries may provide different results. Additionally, new studies should investigate whether the differences in investment policies in the three countries and external economic variables affect the policies applied in dividend disbursement and consequently variability in share values.

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