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Effect of Agency Costs on the Relationship between Dividend Policy and Value of Firms Listed at the Nairobi Securities Exchange

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Abstract

Firm value is an indispensable focus for every establishment since it depicts stockholders' fortunes. Dividend policy is thought to be a key predictor of firm value. Payout-policy nonetheless, still remains a contested topic. The objective of this paper was therefore, to examine how the relationship between dividend policy and value of firms listed at the Nairobi Securities Exchange is mediated by agency costs. Balanced panel data was obtained from 52 firms listed at the NSE between 2011 and 2020. Firm value was measured using Tobin's Q (ratio of market value to book value). The proxy for dividend policy was a composite of interim dividend ratio (frequency of dividend payment) and dividend payout ratio (quantum of dividend). Agency costs was measured using asset utilization ratio. Correlation and general least squares (GLS) fixed-effect model were used to analyze the data. The study established that agency costs mediated the relationship between pay-out policy and corporate value. The findings contribute to knowledge by proving that the relationship between payout-policy and firm value is mediated by agency costs. Thus, managers should pay dividends from the free cash flow to mitigate agency costs since minimal agency costs enhance firm value. The findings are also valuable to the Nairobi Securities Exchange and the Capital Markets Authority on investor training and policy formulation.
Keywords: *Dividend Policy, Dividend Relevance, Dividend Irrelevance*

1.0 Introduction

Firm value is a critical concept since it represents stockholders' wealth. Financial theorem states that the sole objective of an entity is to grow wealth for stockholders (Jensen, 2001; Baker & Weigand, 2015). Firm value can be represented by Tobin's Q, expressed as the summation of market capitalization and debt over total assets (Fajaria & Isnalita, 2018). Dividend pay-out policy plays a critical role in maximizing wealth for stockholders. Information asymmetry between investors and insiders causes determination of the true intrinsic value of stocks to be problematic, consequently elevating agency costs. Dividends communicate good and permanent profitability, thus, enabling value determination and reduction of agency costs. Liquidity is desirable since it enables cheap financing of viable undertakings. However, agency problems may cause insiders to invest the excess finances sub-optimally. Therefore, pay-outs curtail agency costs and cuts down liquidity making corporate worth to grow (Ahmad, Alrjoub, & Alrabba, 2018). Researchers however, are still reporting conflicting results on the effect of pay-out policy on corporate value and a consensus on this debate is yet to be established. Following Miller and Modigliani (1961), some scholars hold the opinion that payout-policy is inconsequential while on the contrary, information asymmetry and agency problems suppositions have led to conclusions that payout-policy is relevant. Driver, Grosman and Scaramozzino (2020) suggested that dividend is a tool employed to keep insiders disciplined in order to avoid overinvestment and will be paid at the expense of good investment opportunities. Insiders are under constant pressure from investors to pay dividends and perhaps, this explains payout-outs even when firms perform poorly.

Agency theory by Jensen and Meckling (1976) which was the anchor theory of this study presents that agency costs stem from imperfect contracting between stockholders and entity managers. Information asymmetry renders finding the true intrinsic value of securities problematic. Dividend implies that the firm is profitable and will continue to do well, hence agency theory explains how dividend grows wealth and further how agency costs intervene the link between payout policy and corporate worth. The foregoing notwithstanding, investors can also demand dividends to instill discipline and control insider behaviour and not to grow corporate value, which contravenes agency theory and discredits payout argument. Signaling theory by Lintner (1956) also states that a payout will convey information about the past performance and future profit levels. Information conveyed by dividend impacts stock prices accordingly (Davis, Piger & Sedor, 2012). Bird in hand theory by Lintner (1962) asserts that an investor is not a risk lover. They would rather collect their returns today than wait for capital appreciation. The uncertainty attached to future capital appreciation enlarges the discounting rate while income today is discounted at a lesser rate. Both signaling and bird in hand theories advocate for high and consistent payouts and as such, explain the relationship between payout policy and entity value. Signaling theory however, is affected by market imperfections and insider dishonesty raising questions around the relevance of dividends. Furthermore, payout policy as argued by proponents of bird in hand theory is also controversial since in most tax jurisdictions, the taxation on dividend is greater than capital growth, thus, contravening the investor rationality proposition where more income is preferred.

Dividend irrelevance theory by Miller and Modigliani (1961, hereafter MM, 1961) found dividend to be inconsequential and in fact, could even be value destroying. They stated that the worth of an entity is a function of assets and the streams of returns earned from those assets and not how profits are distributed. Nevertheless, when the axioms of ideal world, investor rationality and perfect certainty are relaxed, some scholars have reported findings that contradict dividend irrelevance

theory which further renders payout policy controversial. The Nairobi Securities Exchange (NSE) plays a key role in development of the Kenyan economy and has recorded a significant growth from 2011 due to many restructuring activities and introduction of various corporate governance guidelines. However, the persistent sharp fluctuations in the NSE market capitalization and a pattern where some firms steadily grow in value while others drop to a point of liquidation is intriguing. The perennial cash payment of dividends at the NSE is also open to questions. At the NSE, various studies like Aduda and Kimathi (2011) and Kimunduu (2018) have examined the payout controversy but conceptualization and indicators of the constructs varied immensely. Scholars majorly evaluated the relationship between two variables or determinants of payout-policy and not how dividends affects stockholders wealth. Omission of the mediating and moderating variables is also notable. The above mentioned gaps necessitate the current study.

Research Problem

Firm value is a core focus since it is a representation of the fortunes created by stockholders (Kurshev & Strebulaev 2005). It can be measured using Tobin's Q deduced from the summation of market capitalization and debt to total assets. Payout policy curtails agency costs and wipes out excess liquidity hence, is considered a key influencer of wealth. However, finality on payout controversy is yet to be reached (Baker et al., 2020). The relationship between payout policy and corporate value is believed to be intervened by agency costs. Dividends communicates that the firm is valuable and also cuts FCF, consequently, introducing debtholders who monitor insiders' actions causing wealth to appreciate (Michaely et al., 2017). Dividend irrelevance supporters like Donaldson (1961) and Jakata and Nyamugure (2014) challenge the aforesaid premise by claiming that re-investment creates wealth and beneficial opportunities should be exploited. Furthermore, payouts could be a consequence of compulsion by investors to recoup their investment and keep insiders honest and as such, the coercion is not intended to grow fortunes. Proponents of dividends further, state that the assumptions under MM (1961) are not tenable and when relaxed, payout policy becomes relevant, thus, further complicating the debate.

The Nairobi Securities Exchange is an emerging market in a third world country (Kenya). It facilitates an effective and efficient platform for mobilizing funds and significantly contributes to economic growth of Kenya. The NSE has implemented corporate governance policies touching on, code of corporate governance principles, board charter, diversity and remuneration, code of ethics and conduct, whistleblowing, insider dealing and conflict of interest. The NSE, CMA and KASIB additionally conduct stockholders education initiatives. The aforesaid endevours notwithstanding, the fluctuations in market capitalization at the NSE has remained perturbing. For instance from Kshs 24 billion in 2015 to Kshs 17.5 billion in 2017 to Kshs28 billion in 2018 and finally to Kshs 26 billion in 2020. There are mixed strategies for payout policy that do not seem to align with entity value. Some institutions attempted to smoothen payouts while others pay arbitrarily, inconsistent with earnings including payout during losses. Moreover, payouts were made strictly in cash which points towards use of dividends to address agency problems. The foregoing culminated into financial distress causing companies to be placed under statutory management, receivership or liquidation.

Mahdzan et al. (2016) noticed a link between dividends, agency costs and firm value while Al-Malkawi (2007) did not find this link. Research on the moderation effect of agency costs in the link between pay-out policy and corporate value is meagre. Past studies employed diverse indicators for agency costs. Anazonwu et al. (2018) used asset AUR, financial leverage and cash flow. The study variables were conceptualized as dependent variables and did not test for the mediation effect of agency costs in the relationship between payout policy and entity worth. Rozeff (1982) used the cost minimization model where the assumption of difficulty in making decision due to a wider dispersion of investors is a limiting measure of agency costs. This study examined whether the relationship between pay-out policy and firm value is intervened by agency costs (AUR) in Kenya. In summary, there are still conflicting findings on the relationship between payout-policy and corporate worth. The economies where the researches were conducted created contextual differences that yielded varying findings. There was less focus on the mediation effect of agency costs in the association between pay-out policy and institutional value. Measurements of the constructs were also found to be narrow and limiting and sampling and study timeframes also caused variations.

Objective of the study
The purpose of this study was to determine the effect of agency costs on the relationship between payout-policy and value of firms listed at the Nairobi Securities Exchange.

2.0 Literature Review
This segment contains a review of the dividend policies in practice and empirical literature.

Dividend policies in practice
Dividend is that proportion of corporation's earnings which is paid to stockholders of a firm proportionate to their shareholding (Rustagi, 2001; Husain & Sunardi, 2020). It is therefore, the financial policies formulated by the management to be followed in rewarding stockholders for their financial investment in a firm. The policies of dividend can be categorized into the following forms; frequency of dividend payment, mode of payment and quantum of payment.

Frequency of dividend payment: The frequency of dividends as discussed by Ferris, Noronha and Unlu (2010) can either be interim dividend where dividend is payable quarterly or biannually or proposed dividend which is payable year-end.

Mode of Payment: Mode of dividend payment can be cash, bonus share, stock splits, property dividend, script dividend and share repurchase (Stephens & Weisbach, 1998).

Amount of dividend: the policies according to quantum are residual dividend policy, stable or predictable policy, constant pay-out policy, and low regular dividend plus extra distribution (Aduda & Kimathi, 2011). Residual dividend payout-policy is a scheme where the distribution is made out of the surplus incomes after all the rewarding projects have been funded. This approach has partiality for internally generated finances for re-investment. Constant pay-out policy is where an invariable proportion of PAT in each period is distributed. Mathur (1979) noticed that this policy is appealing to groups like widows, retirees and institutional shareholders who require higher returns today to meet their daily needs. Annual dividend will vary proportional to the PAT. Stable or predictable policy, involves fixing a static rate at which dividend is distributed per share

periodically. The fixed quantum, reduces uncertainty since it is known to the stockholder. Low regular plus extra policy involves fixing and paying of a small dividend and supplementary dividends when earnings are larger. Uncertainty is minimal when the investor is assured of some returns in a period.
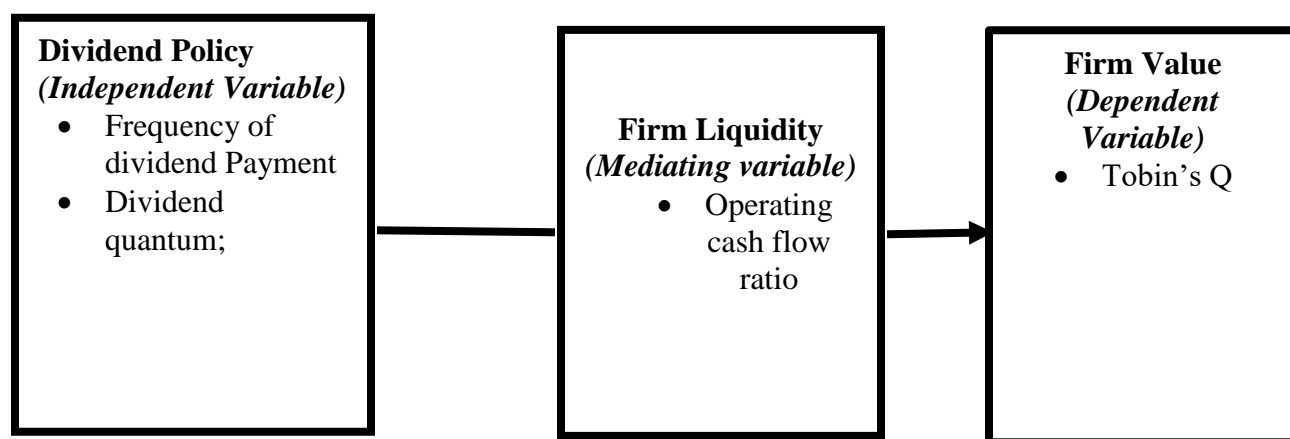
Empirical Studies

In Malaysia Mahdzan et al. (2016) examined how agency costs reacts with payout-policy from 2005 to 2009. The study excluded data from utility firms because they have fully established payout-policy which are closely monitored by regulators. Financial institutions were also excluded because they are governed by certain rules which are dissimilar to other industries. Payout-policy was the dependent variable, its proxy being DPR. Independent variable was agency costs, measured by FCF. The study discovered that agency costs generally did not affect payout policy for most firms in Malaysia except for basic material industry. As such, agency costs do not intervene the link between payout policy and corporate worth. Agency costs were measured using firm's FCF which is not a comprehensive indicator for agency costs. A study using AUR or expense ratio would provide a more comprehensive indicator. DPR is also a narrow measure of payout-policy. The intervening effect of agency costs in the relationship between payout-policy and entity worth was also not evaluated. The effect is worth examining.

Ghosh and Sirmans (2003) focused on listed REITs in the USA from 1999 to 2009. The attribute for corporate worth was Tobin's Q (response variable) while payout-policy and agency costs were the explanatory variables. It was discovered that payout-policy is linked to growth of REITs. A rule is placed on the REITs to pay a compulsory high dividends. The study also reveals that external funding is linked to dividends, confirming agency hypothesis. The study confirms that leverage minimizes information asymmetry, controls agency problems thus, cuts agency costs and the cost of capital. The results imply that agency costs intervene the connection between payout policy and entity worth. The compulsory dividends makes payout automatic. This study was confined to REITs listed in USA. Generalization of these findings would be problematic. The intervening effect of agency costs in the link between payout-policy and entity worth was not directly examined as was undertaken in this study.

Al-Malkawi (2007) applied Tobit model to experiment the relationship among dividends, agency costs and entity worth for 160 entities at the ASE, Jordan over 11 years starting from 1989. The criterion variable was payout-policy, measured by DY. The explanatory variables were; agency costs measured by Rozeff (1982), ownership structure, investment opportunities, signaling effect. The proxies for agency costs assumed the natural logarithm of stockholders and the fraction of stocks held by management. The study reported that dispersion of ownership is not linked to payout-policy while ownership by management has a negative relationship with dividends. No connection was reported between agency costs and pay-out policy suggesting that agency costs is not an intervener in link between payout policy and corporate worth. Al-Malkawi (2007) used unbalanced panel data, random effects model and OLS fixed-effects model for regression analysis. This research used balanced panel dataset, panel GLS fixed-effects regression model and a composite of DPR and IR.

Marfo-Yiadom and Agyei (2011) examined the payout policy, agency costs theory and value of sixteen banks listed in Ghana between 1993 and 2003. The criterion variable was payout-policy (DPR). The predictor variables included profitability, collateral, leverage and firm ownership. The findings upheld agency theory where agency costs can be mitigated by dividend payout. Payment of dividend reduces discretional funds and introduces debt providers who evaluate and monitor managers' actions. The results specify that agency costs mediate the link between pay-out policy and corporate worth. This study was based on only sixteen banks listed in Ghana between 1993 and 2003. DPR only represents quantum of payout. The study used collateral, leverage and ownership structure to measure agency costs. Current study used AUR and tested whether agency costs significantly mediated the interrelationship between pay-out policy and value of institutions listed in Kenya between 2011 and 2020.

Conceptual Model

Dividend Policy *(Independent Variable)* • Frequency of dividend Payment • Dividend quantum;	→	**Firm Liquidity** *(Mediating variable)* • Operating cash flow ratio	→	**Firm Value** *(Dependent Variable)* • Tobin's Q

Research Hypothesis
H_0: There is no significant intervening effect of agency costs in the relationship between dividend policy and value of firms listed at the Nairobi Securities Exchange.

3.0 Research Methodology
A positivistic research philosophy with a deductive approach was followed. This research embraced descriptive research design and utilized panel or longitudinal data. The study target companies with complete records between 2011 and 2020. Balanced panel data was collected from 52 companies at the NSE generating 520 data points. Panel data elevates properties of model parameters because it permits higher degrees of freedom and variability of data. It also enables testing of a complex behavioral hypothesis (Hsiao & Hsiao, 2006). The data was subjected to descriptive statistics and diagnostic and specification tests. General Least Squares (GLS) Method was used due to serial correlation and heteroscedasticity problems. Table 1 presents operationalization of the study variables.

Table 1: Study Variables, Measurements and Comparison with Previous Studies

Variable	Indicator	Operational Definition	Scale	Source
Firm Value (FV)	Tobin's Q; ratio of market value to book value of assets	Book values of total assets and total equity; $Q= \{$Market capitalization + (Total assets-equity)$\}$/Total Assets	Ratio	Hardin & Hill (2008)
Dividend Policy $=\sum(IR+DPR)/2$	Frequency of Dividend payment; Interim Dividend Ratio (IR)	Total actual cash dividend paid as interim expressed in terms of total dividend. IR= Interim div/total div Where; Interim dividend is cash dividend paid before financial year end Total dividend is the annual dividend	Ratio	IASB (1998)
	Dividend Per Earning Ratio; Dividend Payout Ratio (DPR)	Total dividends divided by total earnings attributable to shareholders DPR= Total Dividends/Total Earnings * 100 Where; Total dividend represents the annual dividend Total earnings is the annual earnings	Ratio	Anton (2016)
Agency Costs	Asset Utilization Ratio	Annual Sales/Total Assets	Ratio	Singh & Davidson (2003)

Source: Author, 2023

The study followed Baron and Kenny (1986) model in four steps; in step one, the predictor variable must directly affect the criterion variable when the mediating variable is excluded. It is permissible to progress to the second stage only if the condition in the first stage is fulfilled. In step two, the influence of the explanatory variable on the mediating variable must be statistically significant when the response variable is excluded from the model. In step three, a positive link between the response variable and the intervening variable while controlling the explanatory should exists. In step four, the correlation between the criterion variable and the predictor variable is experimented. At the fourth stage, the rule is that a direct link between the criterion and explanatory variables should not exist for full mediation to occur. In other words, the p-value must be insignificant ($p>0.05$). When the effect of the predictor variable reduces significantly with the exclusion of the mediator variable in the model, then partial mediation is said to have occurred.

The assessment was done as depicted in the following equations;

Step one: Intermediation between payout-policy and entity value.

$$FV_{it} = \beta_0 + \beta_1 DP_{it} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{ (i)}$$

Step two: Intermediation between payout-policy and agency costs

$$AC_{it=} \beta_0 + \beta_1 DP_{it} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{ (ii)}$$

Step three: Intermediation among payout-policy, agency costs and firm value

$$FV_{it} = \beta_0 + \beta_1 DP_{it} + \beta_2 AC_{it} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{ (iii)}$$

Where; FV_{it} is value of firm j in time t, DP_{it} is dividend policy composite of firm j in time t, AC_{it} is agency costs of firm j in time t , β_0 is the regression constant or the y intercept, β_1 and β_2 is the regression coefficient, ε_{it} =random error term, t=2011 to 2020 and i=1 to 62

4.0 Results
Table 2 presents that the scores are, firm value 1.27±1.04, dividend policy 0.20±1.29 and agency costs 0.58±.67. There were high variability in firm value and payout-policy and agency costs. Kurtosis were both positive indicating a heavy-tailed distribution.

Table 2: Descriptive statistics

	FV	DP	AC
N	520	520	520
Mean	1.26956	0.20237	0.58208
Median	0.99870	0.11030	0.39030
Maximum	6.96370	12.50000	4.98830
Minimum	0.00000	-24.28780	0.00000
Std. Dev.	1.03928	1.28728	0.66188
Skewness	2.86380	-11.32626	2.66693
Kurtosis	11.91965	269.90620	13.49595

Source: Research Findings, 2023

Diagnostic and Specification Tests
This study carried out diagnostic and specification tests to ensure that the dataset met the assumptions of regression modelling. The tests conducted included; normality, panel unit root, heteroscedasticity, autocorrelation and multicollinearity.

Table 3: Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
REG_RES	.003	519	.200[*]	1.000	519	1.000

Source: Research Findings, 2023

The null hypothesis stated that the residuals are normally distributed. The alternative hypothesis stated that the residuals do not obey normality. If p<0.05, reject the null hypothesis while if p>0.05, fail to reject the null hypothesis. Table 4.3 shows p=.20 (p>0.05) under Kolmogorov-Smirnov and p=1.00(p>.05) under Shapiro-Wilk. The study failed to reject the null hypothesis and established that the dataset is normally distributed.

Panel Unit Root test

PP-Fischer Chi-square was used to test for stationarity and cointegration order *1(d).* The null hypothesis stated that unit root exists while the alternate hypothesis stated that unit root is non-existent. When p< 0.05, unit root does not exist while, when p>0.05, unit root is present.

Table 4: Summary of Panel Unit Test

 Series: Firm Value, Dividend Policy and Agency Costs
 Sample: 2011 2020
 Exogenous variables: Individual effects
 Automatic selection of maximum lags
 Automatic lag length selection based on SIC: 0 to 1
 Newey-West automatic bandwidth selection and Bartlett kernel

Variable	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root: PP- Fischer Chi-square				
Firm Value	130.554	0.0401	52	468
Dividend policy	235.769	0.0000	48	432
Agency Costs	-8.48069	0.0000	52	416

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Source: Research Findings, 2023

The p-values in table 4 are all below 0.05 (p<0.05). The conclusion is that the datasets were stationary.

Heteroscedasticity Test

Breusch-Pagan was used to test for homoscedasticity of the dataset. The null hypothesis states that there is no of heteroscedasticity. The null hypothesis is rejected if p> 0.05, otherwise, fail to reject the null hypothesis if p<0.05.

Table 5: Heteroscedasticity Test Results

 Breusch-Pagan/Cook-Weisberg test for heteroskedasticity

 H_0: Constant variance
 Chi2(3)= 83.3
 Prob> chi2=0.0000

The result of p=0.0000 (p<0.05) implies that homoscedasticity assumption was not fulfilled. The study therefore used general least squares (GLS) fixed-effect model to address the heteroscedasticity problem.

Autocorrelation Test

To assess existence of serial correlation, Breusch-Godfrey LM test was adopted. The null hypothesis presents that serial correlation does not exist. The rule is to reject the null hypothesis if p>0.05. Fail to reject the null hypothesis if p< 0.05.

Table 6: Serial Correlation Test results

Breusch-Godfrey LM test for autocorrelation			
lags(p)	chi2	df	Prob> chi2
1	306.64	1	0.0000
	H_0: no serial correlation		

The study failed to reject the null hypothesis and concluded that serial correlation existed since table 6 shows p-value of 0.0000 (p<0.05). As a consequence, weighted least square model (GLS) fixed-effect model which addresses serial correlation problem was espoused.

Multicollinearity

Variance inflation factor (VIF) was applied in testing for collinearity in the dataset. A VIF exceeding 10 (VIF > 10) indicates existence of multicollinearity.

Table 7: Multicollinearity Test Results

Variable	VIF	1/VIF
DP	1.000	0.998
AC	1.010	0.989
Mean VIF	1.010	

In table 7, the VIF scores are all below 10 (VIF<10) implying absence of multicollinearity.

Correlation Analysis

This study used correlation analysis to evaluate the interrelation between the study variables.

Table 8: Correlation Analysis results

Correlation t-Statistic Probability	FV	DP	AC
FV	1.0000		

DP	-0.0191	1.0000	
	-0.4346	-----	
	0.6640	-----	
AC	0.2173	0.0027	1.0000
	5.0659	0.0606	-----
	0.0000	0.9517	-----

From table 8 all the coefficient drawn from the correlation analysis did not surpass 0.8 limit which would have indicated existence of multicollinearity in the panel data. The variables therefore displayed weak associations with each other. Statistically significant but weak correlations imply that the variables are interrelated but do not violate multicollinearity assumption.

Hypothesis Testing and Discussions

Table 9: Regression output for Dividend policy, Liquidity, Interaction Term (LQDP) and Firm Value

Dependent Variable: FV
Method: Panel EGLS (Cross-section weights)
Sample: 2011 2020
Periods included: 10
Cross-sections included: 52
Total panel (balanced) observations: 520

Variable	Model 1 DP &FV	Model 2 DP&AC	Model 3 DP,AC &FV
Constant	1.265206(0.0000)	0.58072(0.0000)	1.073357(0.0000)
DP	0.021536(0.0029)	-	0.019945(0.0028)
AC	-	0.006743(0.007)	0.330143(0.0000)
Adj R	**0.815766**	**0.953092**	**0.830287**
F	**45.19355(0.0000)**	**203.7912(0.0000)**	**48.90752(0.0000)**

Source: Research Findings, 2023

5.0 Findings and Discussions

In step one, the output is displayed in table 9, model 1. Payout-policy ($\beta_1=0.021536$, p=.0029) was statistically significant with a positive coefficient (β_1). The estimation model (adj.R^2=.815766, F (1,519) =45.19355, p=.000) was a good fit. The link between the response and the predictor variable was confirmed in stage one, (p<0.05). Payout-policy explained 82% of the variations in entity value, progression to stage two was permissible.

In step two, table 9, model 2, payout-policy policy ($\beta_1=.006743$, p=.007) was statistically significant with a coefficient (β_1) that is positive and a p-value below 0.05 (p<0.05). These results demonstrate that payout-policy correlates with agency costs significantly. The overall model was also found to be a good fit (adj.R^2=.953092, F (1,519) =203.7912, p=0.00). The adj.R^2 score shows that the dividend can explain 95% variations in agency costs values. The findings indicate that dividends statistically influenced agency costs since p-value was below 0.05 (p<0.05).

Step three involved the assessment of the link between the response variable (firm worth) and agency costs (mediator) while controlling dividend policy (explanatory variable). The results as contained in the table 9, model 3 reveal that there is a significant influence of agency costs on entity value when pay-out is controlled ($\beta_1=.330143$, p=.00000). The model (adj.R^2=.830287, F (1,519) =48.90752 and the p=.000) meant that the model was fit for estimation.

In step four, the link between the criterion variable (firm worth) and the predictor variable (dividend policy) while the intervening variable (agency costs) is controlled was tested and the output is exhibited in model 3, table 9. A statistically positive link was found between corporate worth and pay-out ($\beta_{1=}.019945$, p=.0028). The model (adj.R^2=.830287, F (1,519) =48.90752 and the p=.000) shows that it was a good fit for estimation. The results imply that the fourth condition as stipulated by Baron and Kenny (1986) was not fulfilled. However, the first three steps were satisfied which confirms that there was a partial mediation. This confirmed that agency costs mediated the relationship between pay-out policy and entity value. The null hypothesis, H_0, which stated that the interrelationship between pay-out policy and value of companies at the NSE is not intervened by agency costs was rejected. The prediction model is as stated as follows;

$$FV = 1.073357 + 0.019945DP + 0.330143AC \ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ (iv)}$$

6.0 Conclusions and Recommendations

The findings of this study indicate that firm value is affected by payout-policy and is further mediated by agency costs. At the NSE entities declare dividends to signal that their stocks are valuable consequently, resolving information asymmetry. It is problematic for stockholders to determine the true intrinsic value of securities under information asymmetry. The investors at the NSE view dividend-paying stocks as valuable so, dividends enables valuation of stocks. Stockholders also angle for dividends to cut FCF and introduce debtors who monitor insider behaviour. Agency costs and non-symmetrical information are the major consequences of principal/agent conflicts and they erode fortunes and distress the firm eventually.

As such, firm managers should seek resolution of agency problems through payment of high and regular dividends since dividend will cut free cash flow and introduce debtholders who will monitor insider behaviour. Payment of dividends will further provide the alternate valuation basis of the securities when there is no reliable way to do so. The Nairobi Securities exchange should also take notice of the findings of these studies and train investors accordingly.

References

Aduda, J. O., & Kimathi, H. (2011). The applicability of the Constant dividend model for companies listed at the Nairobi Stock Exchange. *Journal of Financial Studies & Research*, *11*(1), 1-16.

Ahmad, M. A., Alrjoub, A. M., & Alrabba, H. M. (2018). The effect of dividend policy on stock price volatility: empirical evidence from the Amman Stock Exchange. *Academy of Accounting and Financial Studies Journal*, 22(2), 1-8.

Al-Malkawi, H. (2007). Determinants of corporate dividend policy in Jordan: An application of the Tobit Model. *Journal of Economics and Administrative Sciences*, 23(2), 44-70.

Anazonwu, H. O., Egbunike, F. C., & Echekoba, F. N. (2018). Agency Cost and Dividend Payout: A Study of Selected Listed Manufacturing Firms in Nigeria. *Indonesian Journal of Management and Business Economics*, 1(1), 42–51.

Anton, S. G. (2016). The impact of dividend policy on firm value. A panel data analysis of Romanian listed firms. *Journal of Public Administration, Finance and Law*, (10), 107-112.

Baker, H. K., Dewasiri, N. J., Premaratne, S. P., & Koralalage, W. Y. (2020). Corporate governance and dividend policy in Sri Lankan firms: a data triangulation approach. *Qualitative Research in Financial Markets*.

Baker, H. K., & Weigand, R. (2015). Corporate dividend policy revisited. *Managerial Finance*.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.

Davis, A. K., Piger, J. M., & Sedor, L. M. (2012). Beyond the numbers: Measuring the information content of earnings press release language. *Contemporary Accounting Research*, *29*(3), 845-868.

Donaldson, G. (2000). *Corporate debt capacity: A study of corporate debt policy and the determination of corporate debt capacity*. Beard Books.

Driver, C., Grosman, A., & Scaramozzino, P. (2020). Dividend policy and investor pressure. *Economic Modelling*, *89*, 559-576.

Fajaria, A. Z., & Isnalita, N. I. D. N. (2018). The effect of profitability, liquidity, leverage and firm growth of firm value with its dividend policy as a moderating variable. *International Journal of Managerial Studies and Research (IJMSR)*, *6*(10), 55-69.

Ghosh, C., & Sirmans, C. F. (2003). Board independence, ownership structure and performance: evidence from real estate investment trusts. *The Journal of Real Estate Finance and Economics*, *26*(2), 287-318.

Hardin III, W., & Hill, M. D. (2008). REIT dividend determinants: excess dividends and capital markets. *Real Estate Economics*, *36*(2), 349-369.

Hsiao, F. S., & Hsiao, M. C. W. (2006). FDI, exports, and GDP in East and Southeast Asia—Panel data versus time-series causality analyses. *Journal of Asian Economics*, *17*(6), 1082-1106.

Husain, T., & Sunardi, N. (2020). Firm's Value Prediction Based on Profitability Ratios and Dividend Policy. *Finance & Economics Review*, 2(2), 13-26.

IASB. (1998). International Accounting Standard 34, International Accounting Standards Board, IFRS Foundation.

Jakata, O., Nyamugure, P. (2015). The effects of dividend policy on share prices: Empirical evidence from the Zimbabwe stock exchange. *International Journal of Science and Research,* 4(10), 674-683.

Jensen, M. (2001). Value maximization, stakeholder theory, and the corporate objective function. *European financial management*, 7(3), 297-317.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.

Kimunduu, G. M. (2018). *Financial performance, cash holdings, firm characteristics and dividend policy of firms listed at the Nairobi Securities Exchange*. (Doctoral dissertation, Business Administration, University of Nairobi).

Kurshev, A., & Strebulaev, I. A. (2015). Firm size and capital structure. *Quarterly Journal of Finance*, 5(03), 1550008.

Lintner, J. (1962). Dividends, earnings, leverage, stock prices and the supply of capital to corporations. *The review of Economics and Statistics*, 243-269.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings and taxes. *American Economic Review*, 46(2), 97– 113.

Mahdzan, N. S., Zainudin R. & Shahri N. K., (2016). Interindustry dividend policy determinants in the context of an emerging market. *Economic Research-Ekonomska,* 29(1), 250-262.

Marfo-Yiadom, E., & Agyei, S. K. (2011). Determinants of dividend policy of banks in Ghana. *International Research Journal of Finance and Economics*, 61(61), 99-108.

Mathur, I. (1979). Introduction to Financial Management, McMillan publishing company Inc. New York.

Michaely, R., Rossi, S. and Weber, M. (2017). The Information Content of Dividends: Safer Profits, Not Higher Profits. *Chicago Booth Research Paper*, 17-30

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

Rozeff, M. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of Financial Research*, 5(3), 249-259.

Rustagi, R. P. (2001). Financial Management-Theory. *Concepts and Problems*.

Singh, M., & Davidson III, W. N. (2003). Agency Costs, Ownership Structure and Corporate Governance Mechanisms. *Journal of Banking & Finance*, 27(5), 793–816.

Stephens, C. P., & Weisbach, M. S. (1998). Actual share reacquisitions in open-market repurchase programs. *The Journal of finance*, 53(1), 313-333.