

Dividend Signaling and Shareholder Monitoring Hypothesis: Empirical evidence from Nairobi Securities Exchange

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Abstract

Most corporate governance studies have focused on the composition and effectiveness of board members, little attention has barely focused on the interaction between the identity of significant shareholders and the decisions they influence in the firm. Corporate governance literature is currently based on empirical studies in developed countries, but the efficiency of developed and developing markets corporate governance mechanisms is disparagingly different. This paper presents an ideal moment for examining the complementary effect of dividend policy and ownership concentration by shareholders at Nairobi Securities Exchange in a developing securities exchange. Previous studies examining the interaction between corporate governance and firm value have emphasized the significance of institutional shareholder concentration and dividend policy decisions as corporate control mechanisms that influence value creation in a firm. This study is supported by dividend signaling and institutional shareholder monitoring hypothesis. The study used longitudinal data for the period (2008-2017) and the target population is sixty-six companies trading securities at NSE 2008-2017. Empirical results reveal, firms listed at Nairobi Securities Exchange have a high level of ownership concentration and dividend payment has a significant positive effect on the firm value which is in line with the signaling hypothesis, the mediating effect of ownership concentration was negated therefore did not support shareholder monitoring hypothesis. The findings of this study have significant policy implication to policymakers, regulators should not rely on market mechanism as protection to minority owners. Firms should be encouraged to regularly pay dividends if profitable and investors should understand the ownership structure of listed firms they invest in.

KEY TERMS: Shareholder monitoring, Ownership concentration, Dividend signaling, Firm value

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Introduction

Theoretical literature asserts that dividend payment can signal better prospects for investors and firms with concentrated ownership can effectively monitor managerial activity. Linter (1956) hypothesized the idea that dividend payment had a signaling role to uninformed shareholders, he saw dividend as a communication tool for informing investors about the worthiness of the firm. Modigliani and Miller (1961) contested the opinion and econometrically demonstrated that firms' internal characteristics like profitability and business risk were more critical in determining the value of the firm. Jensen and Meckling (1976) have argued that in the absence of congruence of interest between firm owners and stewards, the later would extract the benefit of control through improper contracting and this would disadvantage firm owners, they emphasised the importance of managerial ownership in quality firm decisions, especially when the manager and the owner are the same, the cost of monitoring managerial activity is reduced and this adds value to the firm. Shleifer and Vishny (1986) study on the impact of increased institutional shareholding on the firm, found institutional shareholders provided an alternative governance mechanism that helped to check on managerial excesses and misappropriation of wealth at the expense of minority shareholders. The role of dividend signalling and shareholder monitoring is a continuous empirical process, more recently Lopez and Rodriguez (2012) observed that corporate governance decisions had a different effect in different business environments.

There are sixty-six companies listed and trading shares at NSE in ten sectors; Agriculture, Automobiles and accessories, Banking, Commercial & services, Construction & allied, Energy & Petroleum, Investment, Manufacturing & allied, and Telecommunication & technology. On average Kenya listed firms pay a significant amount of their earnings as dividends, a study by Ochieng and Kinyua (2013) on dividend pay-out for listed firms in Kenya saw a pay-out of seventy-two per cent in 2002 and a low of forty-four per cent in 2008. Previous studies have determined that listed firms in Kenya have high ownership concentration, Kisavi et al. (2013) observed an average shareholder concentration of sixty-four per cent, Aduda, Chogi and Magutu (2013) observed an average Tobin Q of 1.4796 for listed firms in the period 2004- 2007 and noted that corporate governance measured by the fraction of non-executive directors in the board

was inversely related to firm performance which confirms the significance of ownership concentration in value creation.

Research Objectives

This study paper seeks to examine the complementary role of shareholder monitoring as a corporate governance mechanism that influence firm value. Khan (2006), has examined a sample of 330 UK firms and found that dividend payment had a negative relationship with ownership concentration but observed further that the presence of large institutional shareholders had a positive relationship with dividend payment, but individual block holders negatively affected dividend payment. Gurgler and Yurtoglo (2003) have empirical evidence from Germany which indicate that ownership concentration by single largest shareholder has negative wealth effect on other shareholders and the presence of another second larger shareholder helps to improve shareholder value through increased dividend payment. Demsetz & Lehn (1985) found no relationship between ownership concentration and performance of large US firms. In Kenya, Kiruri (2013) found that higher ownership by state undermined bank performance but higher ownership concentration by foreign and domestic firms helped improve firm performance. Ongore, K'Obonyo and Ogutu (2011) found shareholder identity influenced managerial discretion and firm performance. Other studies examining the role of shareholder monitoring as a corporate governance mechanism have provided inconsistent results (Kiruri, 2013; Ongore et al., 2011). The objective of this study is to empirically test the applicability of dividend signaling and shareholder monitoring hypothesis as complementary corporate governance mechanisms at Nairobi Securities Exchanges.

Specific objectives of the study were:

- (i) Establish the effect of dividend payment policy on firm value for listed companies at Nairobi Securities Exchange.
- (ii) Establish the effect of ownership concentration on dividend payment policy and firm value relationship for listed firms at Nairobi Securities Exchange.

Theoretical Literature

Modigliani Miller (1961) postulated that a firm's choice of dividend policy has no impact on shareholders wealth because the net payout comprises dividends and share repurchases, according to them any desired stream of payments can be replicated by appropriate purchases and sales of equity and a firm can adjust its dividends to any level without offsetting a change in shares outstanding. Linter (1956) suggests that payment of dividend releases more information to investors especially where they don't actively participate in the management of the firm. He also noted that managers would rather raise than lower dividend because lowering dividend would send wrong signals to investors about the prospects of the firm. The role of dividend as a corporate governance mechanism has been supported by Jensen (1986) where he argued that dividend payment reduces the amount of free cash flow available to the managers so that they are not tempted to overinvest in their gratifying projects at the disadvantage of investors.

Shliefer and Vishny (1986) have argued that the presence of large institutional investors in a firm helps to monitor managerial activity because as large investors they have the ability and incentive to monitor firm managerial activities. Large shareholder have costs and benefits to the firm, while the benefit of control lies on their effectiveness and ability to monitor the managers, like other rational entrepreneurs, large shareholders have their interest which may not be the same with minority shareholders within the firm (Shliefer & Vishny, 1997; Demsetz & Lehn 1985). According to Jensen and Meckling (1976), investors can put in place mechanisms that will ensure managers work in the best interest of the firm, these mechanisms include incurring agency cost through active monitoring, adequate compensation through salaries and bonuses and curtailing managers' discretion. The role of managers as a control mechanism when they own a significant amount of ownership can mitigate agency problems and lower the cost of control to investors, but there is another corporate control mechanism like institutional investors, dividend and debt policy which are less costly.

Empirical Literature

Gurgler and Yurtoglo (2003) examine the relationship between Tobin q and dividend yield for different types of ownership subgroups in Germany and observed the control power of the highest shareholder to be seventy per cent and noted majority-controlled firms had higher Tobin Q when dividends increased, firms that decrease dividends had lower Tobin Q. Rozeff (1982)

examined the relationship between Growths, beta and agency costs as determinants of dividend pay-out and find that agency costs declines with an increase in dividend pay-out and notes that dividend pay-out is negatively associated with increased ownership by insiders and ownership dispersion is positively related to dividend pay-out. Genc and Angelo (2012), saw in Italy that ownership concentration by the largest shareholder had a positive influence on firm value.

Studies on shareholder influence in developing securities markets have mixed findings, Hong and Nguyen (2014) observed that managerial ownership had a positive effect on dividend payment but dividend payment and leverage are negatively related in Ho Chi Minh City Stock Exchange (HOSE). Abdul et al, (2015) found company size and profitability has a positive impact on company value and ownership structure has no influence on company value but all the two variables affect company value through dividend payment in Indonesia stock exchange (IDX). Nkobe, Simiyu and Kibiwott (2013), observed that dividend payment was a major determinant of share price volatility and dividend pay-out negatively affect share price volatility at Nairobi Securities exchange. Yegon, Cheruiyot and Sang (2014) observed that dividend payment was positively related to a fixed asset, return on capital employed (ROCE) and earnings per share (EPS) at Nairobi Securities Exchange.

Methodology

This study followed a longitudinal survey design, longitudinal survey was necessary to discern the pattern of change for the variables over time. The target population for this study was sixty-six companies listed at Nairobi Securities Exchange as at 31st December 2017 (Appendix I). The population was chosen because they are public entities with diverse ownership concentration and a common platform for ownership transferability which is of interest to the researcher. Empirical studies in this field have focused on firms listed at stock exchanges. This study obtained data through secondary sources, mainly from annual financial statements obtained from the respective company's website and the capital market authority where necessary. Data were derived from published financial statements by use of a pre-set data collection form. Operational definition and measurement of each variable in this study are as follows: firm value is defined as Tobin q and measured as the firm market value over its book value; dividend payment is operationalized as dividend yield and measured as the dividend paid over the market value of the firm; shareholder monitoring is defined as the level of ownership concentration which is measured as

the total of percentage of shares held by ten largest shareholders in the firm. A summary of statistical tests and regression models used to examine the research hypothesis is as follows.

- (i) Dividend payment (Dyield) and Firm value (Tobin q)

Simple linear regression

$$Tobin\ q = \beta_0 + \beta_1 Dyield_{it} + e_{it}$$

- (ii) Dividend payment, Shareholder monitoring and Firm value

Stepwise regression Equation

Step 1: Dividend payment and Firm value

$$Tobin\ q = \beta_0 + \beta_1 Dyield_{it} + e_{it}$$

Step 2: Dividend payment, Shareholder monitoring (OC) and Firm value

$$Tobin\ q = b_0 + b_1 DYield_{it} + b_2 OC_{it} + e_{it}$$

Tobin q = Firm Value (Tobin q)

OC = Ownership Concentration (shareholder monitoring).

β_1 = Regression coefficient

e_1 = error term

The complementary effect of ownership concentration occurs if b_1 increases when ownership concentration variable is included in the model and is statistically significant and model reliable where F-test is significant ($p < .05$)

Results and Discussion of the Findings

Data summary

Data for the analysis was derived from annual financial reports of listed companies at Nairobi securities exchange for the trading period between 2008 and 2017. The total observations included in the analysis are presented in table 1 below

Table 1 Data summary: Source research data 2020

Data Summary			
	Cases		
	Included	Excluded	Total

	N	Per cent	N	Per cent	N	Per cent
Tobin q	554	100.0%	0	0.0%	554	100.0%
ownership concentration	481	86.8%	73	13.2%	554	100.0%
Dividend yield	406	73.3%	148	26.7%	554	100.0%

Seventy-three observations were missing for ownership concentration over the period, which represents (13.2%) for shareholder concentration; one hundred forty-eight observations were missing for dividend yield over the period, which represents (26.7%) of total observations for dividend policy during the period.

Descriptive Statistics

A summary of descriptive statistics for shareholder concentration, dividend payment and firm value is presented in table 3. This information is derived from listed companies at the NSE for ten years (2008-2017).

Table 2: Descriptive statistics for normal data

Descriptive Analysis			
	Tobin q	ownership concentration	Dividend yield
N	554	481	406
Mean	1.69	.72	.042
Minimum	.06	.221	.000
Maximum	41.95	.990	.146
Std. Deviation	2.7	.148	.026
Skewness	8.309	-.704	1.148

Tobin q and dividend yield are positively skewed with a skewness statistics of 8.063 and 1.148 and this poses a challenge to parametric statistical analysis. To improve the normality characteristic of the data, the data were transformed to logarithm values. Firms listed in NSE have a high level of ownership concentration (72%) firm value measured by Tobin q is 1.69. The number of complete observation for this analysis was 364 out of the possible 554.

Table 3: Correlation Matrix

Correlations				
		Log Tobin q	ownership concentration	Log Dyield
Log Tobin q	Pearson Correlation	1	-.107*	-.104*
	Sig. (2-tailed)		.019	.038
	N	554	481	401
ownership concentration	Pearson Correlation	-.107*	1	-.019
	Sig. (2-tailed)	.019		.712
	N	481	481	366
Log Dyield	Pearson Correlation	-.104*	-.019	1
	Sig. (2-tailed)	.038	.712	
	N	401	366	401

*. Correlation is significant at the 0.05 level (2-tailed).

All independent variable interaction with dependent variable are moderately weak and significant, ownership concentration(-.107*) and dividend yield(-.104*) have a weak but negative significant correlation with the dependent variable Tobin q , table 3 above explains.

Inferential statistical analysis

The relationship between dividend payment and the firm value was analyzed by a linear regression model, the statistical hypothesis was to test whether there was a significant relationship between dividend payment and firm value. The statistical model for the relation was:

Hypothesis (i) the influence of dividend payment on firm value

$$\text{Regression Model 1: Tobin } q = \beta_0 + \beta_1 \text{Dyield}_{it} + e_{it}$$

FV (Tobin q) = Firm Value

β_1 = coefficient

e_1 = error term

The results for the analysis is presented in the statistical summary below

Table 4: Statistical summary for hypothesis (i)

Model Summary										
Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.832 ^a	.692	.690	.22856	.692	445.270	2	397	.000	2.027
a. Predictors: (Constant), LAGS(LogDyield,1), LAGS(LogTobinq,1)										
b. Dependent Variable: Log Tobin q										
ANOVA										
Model			Sum of Squares	df	Mean Square	F			Sig.	
1	Regression		46.523	2	23.261	445.270			.000 ^b	
	Residual		20.740	397	.052					
	Total		67.263	399						
a. Dependent Variable: Log Tobin q										
b. Predictors: (Constant), LAGS(LogDyield,1), LAGS(LogToinq,1)										
Coefficients										
Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.				
	B	Std. Error	Beta							
1	(Constant)				3.531	.000				
	LAGS(LogToinq,1)			.835	29.824	.000				
	LAGS(LogDyield,1)			.114	4.056	.000				
a. Dependent Variable: Log Tobin q										

2008-2017	Const.	Dyield _{t-1}	Tobin q _{t-1}
Tobin q			
Coefficients	.231	.17	.841
Sig	(.000)**	(.000)**	(.000)**
R ²	.692		
DW	2.027		
	**sig<.01		

The model is significant ANOVA (.000), R² (.692) and Dividend yield coefficients (.17) is significant (.000) dividend policy has a significant positive effect on firm value, the inclusion of lagged log Tobin q variable helped to improve Durbin Watson statistic (DW) 2.027 is closer to 2 means that the variables serial dependency has been minimized and therefore the model output

can be relied upon to make statistical inference for dividend policy and firm value. Dividend policy has a significant positive effect (.17) on firm value.

Hypothesis (ii). The complementary effect of ownership concentration and dividend policy

Regression Model 2:

(i) Step 1: Dividend payment and Firm value

$$\text{Tobin } q_{it} = \beta_0 + \beta_1 \text{Dyield}_{it-1} + \beta_2 \text{Tobin } q_{it-1} + e_{it}$$

The model is significant (table 4) ANOVA (.000), R^2 (.692) and Dividend yield coefficients (.17) is significant (.000) DW statistic of 2.027 is significant, dividend policy has a significant effect on firm value, the model output can be relied upon to make statistical inference for dividend payment and firm value.

(ii) Dividend payment (Dyield), ownership concentration (OC) and Firm value (Tobin q)

Step 2: Dividend signaling (Dyield), Shareholder monitoring (OC) and Firm value

Multiple linear regression

$$\text{Tobin } q_{it} = b_0 + b_1 \text{Dyield}_{it-1} + b_2 \text{OC}_{it} + e_{it}$$

Table 5: statistical summary for ownership concentration and dividend signaling

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.783 ^a	.614	.612	.27394	.614	286.750	2	361	.000	
2	.784 ^b	.614	.611	.27413	.001	.480	1	360	.489	1.949
a. Predictors: (Constant), LAGS(LogDyield,1), LAGS(LogToinq,1)										
b. Predictors: (Constant), LAGS(LogDyield,1), LAGS(LogToinq,1), ownership concentration										
c. Dependent Variable: Log Tobin q										

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.036	2	21.518	286.750	.000 ^b
	Residual	27.090	361	.075		
	Total	70.126	363			
2	Regression	43.072	3	14.357	191.051	.000 ^c
	Residual	27.054	360	.075		
	Total	70.126	363			
a. Dependent Variable: Log Tobin q						
b. Predictors: (Constant), LAGS(LogDyield,1), LAGS(LogTobinq,1)						
c. Predictors: (Constant), LAGS(LogDyield,1), LAGS(LogTobinq,1), ownership concentration						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.332	.076		4.390	.000
	LAGS(Log Tobin q,1)	.786	.033	.787	23.931	.000
	LAGS(LogDyield,1)	.174	.053	.109	3.306	.001
2	(Constant)	.275	.112		2.448	.015
	LAGS(Log Tobin q,1)	.790	.033	.791	23.700	.000
	LAGS(LogDyield,1)	.175	.053	.109	3.320	.001
	ownership concentration	.068	.099	.023	.693	.489
a. Dependent Variable: Log Tobin q						

Statistical summary for hypothesis (ii) Table 5

2008-2017	Const.	Dyield	OC	Tobin q _{t-1}
Tobin q				
Coefficients	.275	.175	.068	.79
Sig	(.015)*	(.001)**	(.489)	(.000)**
R ²	.614			
DW	1.974			
*Sig<.05 **sig<.01				

To test the complementary effect of shareholder monitoring, variable ownership concentration is included in the model and a stepwise regression model used to analyze the relationship between dividend payment and firm value. Results of the analysis indicate the regression model is strong, R^2 (.614), the model is significant ANOVA (.000), the coefficient for dividend yield (.175) is significant, Ownership concentration OC (.068) is insignificant $\rho=.489>.05$. Even though the dividend yield coefficient has improved marginally by .001 from .174 to .175 after including ownership concentration (OC) variable in the equation, OC parameter estimate was not significant. There is therefore insufficient evidence to infer the monitoring or the complementary effect of shareholder concentration with dividend policy at the Nairobi Securities Exchange.

Discussion of the Findings

The main objective of the study was to test the complementary effect of dividend signalling and shareholder monitoring hypothesis at Nairobi Securities Exchanges and the statistical hypothesis was to examine whether there was a significant relationship between dividend payment, shareholder monitoring and firm value. Shareholder influence was operationalized as shareholder monitoring and defined as the level of ownership concentration in the firm, dividend signaling was defined as dividend yield and measured as a dividend paid over market value. A simple linear regression model was used to test whether a predictive relationship exists between dividend policy and firm value, multiple regression equation was used to test the predictive ability of shareholders to influence dividend policy and firm value. Dividend payment has a positive significant effect on firm value at NSE, with a model significance (.000), R^2 (.692) and Dividend yield coefficients (.17) which is significant (.000). The second objective was to examine the effect of ownership concentration on dividend payment, the results of the analysis presented in table 5, is as follows; F- test = 000, $\rho<.01$, $R^2=.614$ the overall regression model is significant but only the coefficient for dividend signaling is significant (Table 5). The coefficient for shareholder concentration (.068) is insignificant at $\rho =.489 >.05$ implying that shareholder monitoring has no significant effect on dividend policy and firm value at Nairobi securities exchange. The above results are in line with the findings of Kisavi, Mukras, Oginda (2013) who found insignificant results for shareholder concentration on firm performance. But contradicts the findings of Genc and Angelo 2011 who observed a significant shareholder influence on firm

value when a single investor had control in Italy and Hong and Nguyen (2014) who observed that managerial ownership had a positive effect on dividend payment in Ho Chi Minh City Stock Exchange (HOSE) in Vietnam.

Shareholder monitoring by the level of ownership concentration is a corporate governance mechanism that finance theory suggests can complement other corporate governance mechanisms in the firm. There is a high-level shareholder concentration at NSE. (72%) a significant improvement from 65.3% observed by Kisavi et al. in 2013. Firm value as indicated by Tobin q was on average 1.67 this compares favorably against Kisavi et al. (2013) 1.32. The influence of ownership concentration on dividend policy and firm value was insignificant. The coefficient of dividend yield is (.17) and this implies that dividend payment has a significant effect on firm value most firms did not maintain their dividend position in subsequent periods and that could explain the moderately weak coefficient. The inclusion of shareholder monitoring variable in the regression equation marginally changed the dividend yield coefficient but OC variable remained insignificant thus insufficiently negating the effect of ownership concentration on dividend policy.

Conclusions

Empirical evidence so far is inconclusive and the study is made on the background of a developing market. The findings of this study are significant for finance theory and validate the basic assumptions of agency cost theory by Jensen and Meckling, (1976) and invalidate shareholder monitoring hypothesis (Shliefer and Vishny, 1986). Most companies quoted at Nairobi securities exchange have significant large shareholder and are likely to be entrenched and derive the benefit of control if they significantly increase their shareholding. We note a high dividend omission during the period of study and most companies maintained a fluctuating dividend policy pattern over the period. Nairobi Securities Exchange is still a developing market, the presence of dominant block shareholders in the market disadvantages minority shareholders because large shareholders are entrenched and empirical data suggests that they may not monitor the firm for the benefit of all shareholders. The study encourages policymakers to make policy reforms that will encourage more active regulation of the stock market activities. Researchers in developing countries should empirically test the relevance and applicability of finance theories developed through empirical evidence in developed markets, studies made in developed

countries may have a different business environment and this could lead to a different theoretical conceptualization. The study is significant to theory and practice of finance particularly in the field of corporate governance and knowledge gaps and avenue for further research are very apparent.

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