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FREE CASH FLOW, AGENCY PROBLEMS AND DIVIDENDS IN EMERGING MARKETS: THE CASE OF NAIROBI SECURITIES EXCHANGE, KENYA

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Abstract
This study sought to identify the key determining variables NSE 20-Share Index companies use as basis in their dividend payout policies. Specifically, the study looked at: the effect of financial leverage on payout policy; the effect of institutional ownership on payout policy, and the effect of free cash flow on payout policy. This research was a 10-year panel study of NSE 20 –Share Index firms, using a sample of 15 firms. The population of interest comprised all the 20 NSE-20 share Index companies listed at the NSE as at December 2016. Secondary data was collected mainly from NSE Handbook 2015-2016, 2012-2013 NSE Handbook, and annual reports of the firms over ten years from 2007 to 2016. The analysis involved both descriptive statistics and inferential statistics. The econometric models used were fixed effect model, random effect model and Panel-Corrected Standard Error (PCSE) model. In conducting the final analysis, the researcher adopted and relied on the Ordinary Least Square (OLS) coefficient estimates with Panel Corrected Standard Errors (PCSE). The study found that institutional ownership has a significant positive correlation with dividend payout policy while financial leverage has a significant negative correlation with dividend payout ratio. The results, however, suggested that free cash flow has a negative correlation, but, is insignificant a factor in explaining why firms pay dividends. The study recommend that NSE listed firms should come up with ways to enhance their cash flow in order that they improve their payout ratios which this study view as modest. The NSE firms, in enhancing shareholders wealth, should identify positive Net Present Value (NPV) projects and diversify their operations to keep their cash flow stream robust and sustain their pattern of distribution. The study also recommends that NSE listed firms should reduce their gearing levels in order that they are able to make better payouts to the equity holders. These findings have implication for market regulators, investors, practitioners and enrichment of corporate finance literature.

Keywords: *Agency Problems, Financial Leverage, Free Cash Flow, Payout Policy*

I.INTRODUCTION

Enhancing shareholders' wealth and profit making are among the major objectives of a firm (Berk & Demarzo, 2014). To make towards the attainment of these strategic organizational goals, the financial manager of every enterprise the world over is generally thought to face two integral decisions. And these decisions evolve around financing and investment (capital budgeting). The capital budgeting decision is concerned with what real assets the firm should acquire whilst the financing decision is concerned with how the acquisition should be funded either by debt or shares floatation.

A third similarly imperative choice may, however, arise when the enterprise begins to be more profitable. Should the firm distribute all or proportion of earned profits in the form of dividends to the shareholders, or should it retain them for reinvestment in the business? This is referred to as dividend decision. Ross (2002) observed that organizations often view dividend choices to be worthy as it characterizes what moneys go to the shareholders and what is to be held income for the purpose of investment. Presumably, in taking any course of action, managers should concentrate on how to maximise the wealth of shareholders for whom the firm is being managed (Bishop, Harvey, Robert & Garry, 2000).

Brealey and Myers (2005) described dividend policy as one of the top ten most challenging and unresolved problems in financial economics. Frankfurter, Kosedag, Schmidt and Topalov

(2002) further lament that forty years have been spent researching dividend policy, but it has hitherto not been resolved. The dividend puzzle (Black, 1976), has been a prominent research topic to numerous financial economists over the past five decades. Since Modigliani and Miller (1961) introduced the dividend irrelevance discussion, a proliferation of empirical tests has been undertaken. The empirical findings are, however, rather diverse globally. This diverse array of findings gave rise to a handful of theories tackling the dividend puzzle and the determinants of dividend payout ratio. Throughout the past five decades, research concluded that aspects such as taxes, information asymmetries, clientele effects, agency explanations and life cycle implications, *inter alia,* influence the payout decisions of firms.

These rather diverse theories show that there is somewhat an emerging consensus amongst the academia that there is no singular universal explanation that can shed light on the dividend phenomena (Boban, 2011). As Black (1976) noted, "… the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together."

II.RESEARCH OBJECTIVES

(i) To identify the effect of financial leverage on dividend payout policy of NSE 20-Share Index firms.
(ii) To identify the effect of institutional ownership on dividend payout policy of NSE 20-Share Index firms.
(iii) To identify the effect of free cash flow on dividend payout policy of NSE 20-Share Index firms.

III.RESEARCH HYPOTHESIS

(i) **H_{o1}:** There is no significant relationship between financial leverage and dividend payout of NSE 20-Share Index firms.
(ii) **H_{o2}:** There is no significant relationship between institutional ownership and dividend payout of NSE 20-Share Index firms.
(iii) **H_{o3}:** There is no significant relationship between free cash flow and dividend payout of NSE 20-Share Index firms.

IV.LITERATURE REVIEW

Financial Leverage and Dividend Payout Policy

Voluminous studies have been globally conducted to determine the effect of financial leverage on the dividend policy of a firm. Jensen et al. (1992) in their paper titled "Simultaneous Determination of Insider Ownership, Debt, and Dividend Policies" found that firms that pay high dividends are less attracted to debt financing which explains why firms with high fixed financial costs are reluctant to pay higher dividends. Asif, Rasool and Kamal (2011) in their article titled "Impact of financial leverage on dividend policy: Empirical evidence from Karachi Stock Exchange-listed companies" evaluated the impact of financial leverage on the dividend policy of companies listed on the Karachi Stock Exchange and found that the level of corporate debt (leverage) and widely practiced dividend policy, significantly, affect the dividend policy of the Pakistani firms. On the other hand, financial leverage was found to have a negative impact on dividend payout, indicating less dividend payments by highly geared firms.

Alisinaei and Habibi (2012) in their paper titled "An Investigation of Factors Relevant to Payout Ratio in Listed Firms on the Tehran Stock Exchange" find that financial leverage has a significant positive relationship with the dividend payout ratio. Rehman and Takumi (2012)

in their article titled "Determinants of Dividend Payout Ratio: Evidence from Karachi Stock Exchange" examined the determinants of dividend payout ratio of Pakistan companies listed on the Karachi Stock Exchange. The results indicated that debt to equity ratio had a positive influence on the dividend payout ratio. Anupam (2012) in his article titled "An Empirical Analysis of Determinants of Dividend Policy – Evidence from the UAE Companies" conclude that financial leverage has an insignificant effect on the dividend policy of firms. Ranti (2013) in his article "Determinants of Dividend Policy: A study of selected listed Firms in Nigeria" conclude that there is a significant negative relationship between firms' financial leverage and the dividend payout decisions of listed firms operating in Nigeria. Therefore, as the debt content in the capital structure of a firm decreases, its dividend payout ratio rises and vice versa. Azhagaiah and Gejalakshmi (2014) in their paper titled "Determinants of Dividend Policy: Evidence from IT Sector in India" find that the debt to equity ratio strongly positively affected the dividend policies of the selected firms.

Nuhu (2014) in his article "Revisiting the Determinants of Dividend Payout Ratios in Ghana" suggest that there is a significant negative relationship between leverage and dividend payout. Odawo and Ntoiti (2015) in their paper titled "Determinants of Dividend Payout Policy in Public Ltd Banks in Kenya: A Case Study of CFC Stanbic Bank" suggested that there is significant positive relationship between leverage and the dividend payout policy of CFC Stanbic Bank. Mohamadi and Amiri (2016) in their paper "Investigation the Effect of Ownership Structure, Financial Leverage, Profitability and Investment Opportunity on Dividend Policy" suggested that financial leverage has a negative relationship with dividend policy. Banerjee (2016) in his article titled "Determinants of Dividend Policy for Selected Information Technology Companies in India: An Empirical Analysis" suggest that there is a significant relationship between leverage and dividend distribution decisions of the firms selected.

Hossain (2016) in his paper titled "Determinants of the Dividend Payout Policy: A Study on Listed Private Commercial Banks of Dhaka Stock Exchange Limited in Bangladesh" conclude that financial leverage has a significant negative effect on dividend payout policy. Mworia (2016) in his thesis titled "The Relationship Between Financial Leverage and Dividend Pay Out Ratio of Firms Listed at the Nairobi Securities Exchange" found that leverage does significantly negatively influence the dividends payout ratio of companies listed at the NSE. Aziidah (2017) in her thesis titled "The Effect of Financial Leverage on the Financial Performance of Kenyan Energy and Petroleum Firms Listed on the NSE" find that most of the firms paid dividends to their shareholders annually during the period under study. Dividends were slightly reduced as financial leverage levels increased. The results of her study also indicated that there was a weak negative relationship between financial leverage and dividend payout ratio.

VI.RESEARCH METHODOLOGY

The study adopted a longitudinal research design as it was considered suitable for panel data analysis. A longitudinal study (or longitudinal survey, or panel study) is a research design that involves repeated observations of the same variables (e.g., people) over short or long periods of time (Shadish, Cook & Campbell, 2002). Panel data is the pooling of observations on a cross-section (for instance, firms, households or individuals) and following them over the years (Baltagi, Bresson & Pirotte, 2012). Longitudinal data allows a researcher to analyse a number of important economic questions that cannot be addressed using cross-sectional or time-series data sets (Brooks, 2014). Additionally, panel data also help to control for

unobservable variables that change over time but not across entities (i.e. national policies, federal regulations, international agreements, etc.). Panel data methodology is considered to be more superior to both cross sectional estimation methods when analysing the behaviour of micro-units in the economy (Shadish et al., 2002).

The study targeted the twenty NSE 20- Share Index firms quoted at the NSE as at December 2016 as detailed in Appendix II. NSE 20- Share Index firms that formed the sample space are drawn from the Main Investment Market Segment of the NSE which enhance representativeness and significant utilization of the research outcome. The period of analysis was ten years for the firms in the sample. The sample of the study comprised fifteen NSE 20-Share Index firms that were listed at the NSE since 2007 up to 2016 as shown in Appendix II. The firms under investigation constitute 75% of NSE 20-Share Index firms then which is significant a number to represent the entire population as supported by Gay, Mills and Airasian (2006) who posit that a sample size of 20% of the target population is adequate for small population with less than 1000 units.

Secondary data was collected mainly from NSE Handbook 2015-2016, 2012-2013 NSE Handbook and annual reports of the firms over ten years. Collection of data with respect to the cross-sectional and time series aspects was indented to mitigate biasness that could have a short term reactionary changes on output of findings; therefore, only audited financial statements that received unmodified opinion from ICPAK licensees and filed with the capital market were accepted whose authenticity meets the qualification stipulated by (Nyamosi et al., 2016). The analysis of data involved both descriptive statistics and inferential statistics. The econometric models used were fixed effect model, random effect model and Panel-Correlated Standard Error (PCSE) model. In conducting the final analysis, the researcher adopted and relied on the Ordinary Least Square (OLS) coefficient estimates with Panel Corrected Standard Errors (PCSE).

VII.RESEARCH FINDINGS AND DISCUSSIONS

Table 1: Descriptive Characteristics of the Variables

Reported values on Table 1 are averages of annual median values for measures of Financial Leverage, Institutional Ownership, and Free Cash Flow.

Variable	Obs	Mean	Std. Dev.	Min	Max
DPO	144	0.489186	0.321211	-0.6	1.226551
FL	143	3.125674	2.41419	0.198515	8.585753
IO	144	71.82042	14.97861	40.96	98.72
FCF	144	0.063202	0.115671	-0.3186	0.390827

Inferential Analysis

To quantify the effects of Financial Leverage, Institutional Ownership and Free Cash Flow on the probability of Dividend Payout, the study estimated Fixed and Random Effect regression models. Before applying the models, several diagnostic tests were carried out as detailed in the following subsections.

Fixed and Random Effect Regression Models Results for the Determinants of Dividend Pay Out (DPO)

To determine the influence of the Financial Leverage, Institutional Ownership and Free Cash Flow on the company's decision in making Dividend Payout policies, using the panel data,

the researcher adopted the Fixed and Random Effect regression models and the results were as shown in Table 2:

Table 2: Determinants of Dividend Payout Policies among NSE 20-Share Index Firms Using Fixed and Random Effect Modeling

	Fixed Effect Model			Random Effect model		
Variable	Coefficient	t	Prob > t	Coefficient	Z	Prob > $\|Z\|$
FL	-.0167002	-0.99	0.323	-.0150778	-2.12	0.034
IO	.0025887	1.18	0.241	.0031482	2.90	0.004
FCF	.0368391	0.22	0.830	.0567265	0.34	0.734
_cons	.1958316	1.09	0.280	-.1851301	-2.00	0.045
	F (6, 116)	=	1.40	Walid Chi2	=	323.09
	Prob > F	=	0.2219	Prob > Chi2	=	0.000
	Overall R^2	=	0.6326	Overall R^2	=	71.31
	Observations	=	137	Observations	=	137
	Groups	=	15	Groups	=	15

From the test results in table 2, the Fixed Effect Model was found to be insignificant such that it assumes all the coefficients are equal to zero [F (6, 116) = 1.40, Prob > F = 0.2219 > 0.05]; an indication that it is likely not to be a good model to fit our panel data. Random Effect Model was found to be significant such that it assumes all the coefficients are not equal to zero [Walid Chi2 = 323.09, Prob > Chi2 = 0.000 < 0.05]; an indication that it is likely to be a good model to fit our panel data. To determine whether to adopt the results of Fixed or Random Effect model or to discard and adopt a better econometric Model, the following diagnostic tests were carried out:

Multicollinearity Test

Multicollinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly linearly related. We have perfect multicollinearity if, for instance, the correlation between two independent variables is equivalent to 1 or −1. Correlation Coefficients of 0.8 and above among independent variables indicate existence of collinearity between the two variables (Green, 2012). In practice, it is rare to find perfect multicollinearity in a data set. More commonly, the issue of multicollinearity arises when there is an approximate linear relationship among two or more independent variables. This turns result to an absurd effect – whilst the regression model fits the data well, none of the explanatory variables has a significant influence in forecasting the dependent variable (Gujarati, 2004). In this study, Variance Inflation Factors (VIF) was used to detect any problem of collinearity as shown in table 3 below.

Variables having VIF higher than 10 means they have a problem of multicollinearity (Myers, 1990). According to O'Brien (2007), a tolerance value of less than 0.20 and/or a VIF of 5 and above indicates a multicollinearity problem. From our results in table 4.4 below, tolerance values are above 0.20 and VIF values are below 5 for all the variables; an indication that there was no problem of multicollinearity.

Table 3: Results for Collinearity tests using Variance Inflation Factor (VIF)

Variable	Tolerance (1/VIF)	VIF
Free Cash Flow	0.598785	1.67
Financial Leverage	0.796237	1.26
Institutional Ownership	0.873221	1.15

Hausman Specification Test for Random Effects Versus Fixed Effects model

To decide between fixed or random effects, the researcher ran a Hausman test where the null hypothesis was that the preferred model was Random Effects versus the alternative, the Fixed Effects model (Green, 2012). It basically tests whether the unique errors (u_i) are correlated with the regressors; the null hypothesis is they are not.

Table 4: Hausman Specification Test Results

	Coefficients			
	(b) Fixed	(B) Random	(b-B) Difference	Sqrt (diag (v_b-v_B)) SE
FL	-.0167002	-.0150778	-.0016223	.0152508
IO	.0025887	.0031482	-.0005595	.0019101
FCF	.0368391	.0567265	-.0198874	.0367899

b = Consistent Under H_O and H_a ; obtained from xtreg.

B = Inconsistent Under H_a; Sufficient under H_O: obtained from xtreg.

Test: H_O: difference in coefficients not systematic

Chi2 (6) = (b-B)' [(v_b-v_B) ^ (1)] (b-B)

= 46.87

Prob>chi2 = 0.0000

From the results of the Hausman test as detailed in table 4 above, the probability value is greater than 5% significance level (Chi2 (6) = 46.87, Prob>chi2 = 0.0000 < 0.05); that means that the null hypothesis was rejected and the researcher concluded that the unique errors (u_i) were correlated with the regressors, hence Fixed Effect model was preferred to model the data, and not Random Effect model.

Testing For Random Effects for Specifying either Random Effect or Ordinary Least Square (OLS) Model

Breusch-Pagan Lagrange multiplier (LM) technique was used to test for the random effect. The null hypothesis in the LM test is that variances across entities are equal to zero. The results were as shown in Table 5.

Table 5: Breusch-Pagan LM Estimated Test Results For Random Effects

	Variance	Standard Deviation = sqrt (Variance)
DPO	.1050615	.324132
E	.0248871	.1577564
U	0	0

Tests: Var (u) = 0

Chi2 (1) = 0.000

Prob > Chi2 = 1.0000

From the results of the Breusch-Pagan LM test as detailed in table 5 above, the probability value is greater than 5% significance level (Chi2 (1) = 0.000, Prob>chi2 = 1.0000 > 0.05); that means that the null hypothesis was rejected and the researcher concluded that Random effects model was not appropriate. This is, no evidence of significant differences across the 15 companies, therefore the researcher would prefer simple OLS regression to Random effect model.

Testing For Cross-Sectional Independence and Serial Correlation

To test for the Cross-sectional dependence, Pasaran CD (cross-sectional dependence) test was used to test whether the residuals are correlated across entities where the null hypothesis is; H_0 = There is no Cross-sectional dependence across entities. The results were as shown in Table 6 below.

Table 6: Pesaran CD Test for Detecting Cross-Sectional Dependence

Pesaran's test of cross sectional independence = 2.079, Pr = 0.0371
Average absolute value of the off-diagonal elements = 0.317

Since the Probability value is less than the 5% significance level used (Prob = 0.0371) as shown in table 6 above, then we reject the null hypothesis and conclude that there was existence of cross sectional dependence across the entities.

To test for serial correlation in the Fixed Effect and Random Model used, Wooldridge test for autocorrelation in panel data was applied and the results were as shown in table 7 below. H_0 = No first order autocorrelation.

Table7: Wooldridge Test for Autocorrelation in Panel Data

Statistic	Value
F (6, 116)	0.214
Prob > F	0.0603

From above results in table 7, we fail to reject the null and conclude the data have no first-order autocorrelation hence the Fixed and Random Effect Models were found to be suitable to model the panel data set.

Testing for Heteroscedasticity

In this study, it was tested using three approaches as shown in Table 8 below. Here, the null hypothesis is;

H_0 = Panel Homoscedasticity Versus H_a = Panel Heteroscedasticity

Table 1: Panel Group-wise Heteroscedasticity tests

Statistic	Chi2 value.		Prob>Chi2
Lagrange Multiplier LM Test	Chi2 (6)	= 3628.8213	0.000
Likelihood Ration LR Test	Chi2 (6)	= 30.4538	0.0001
Walid Test	Chi2 (6)	= 6.42378	0.000

From the Panel Group-wise Heteroscedasticity test results in table 8 the researcher had to reject the null hypothesis (since probability values were less than 0.05 significance level) and conclude that there exist Heteroscedasticity in the panel dataset thus Fixed effect and Random effect models were not appropriate to model the dataset.

Since Fixed and Random Effect models are having spherical error structure such as existence Heteroscedasticity and existence of cross-sectional dependence, Parks (1967) and Kmenta (1986) recommended that when fitting linear models to Time Series Cross-Sectional data (panel data), it is common to use this non-spherical error structure to improve inference and estimation efficiency by a Feasible Generalized Least Squares (FGLS) estimator. However,

FGLS requires that the number of periods should be greater than the number of groups (cross-sections) since the method is infeasible when the number of periods is less than the number of groups (cross-sections).

Therefore, the researcher adopted and relied on the Ordinary Least Square (OLS) coefficient estimates with Panel Corrected Standard Errors (PCSE); that is, the researcher adopted the pooled OLS regression with Panel Corrected Standard Errors (PCSE) econometric model as recommended by Beck and Katz (1995). The results were as shown in Table 9 below.

Table 9: Panel-Correlated Standard Error (PCSE) model results

Group variable: Code	Number of observations	=	137
Time variable: Year	Number of groups	=	15
Panels: correlated (unbalanced)	Observations per group: min	=	5
Autocorrelation: panel-specific AR(1)	Avg.	=	9.133333
Sigma computed by case-wise selection	Max.	=	10
Estimated covariances = 120	R-squared	=	0.7609
Estimated autocorrelations = 15	Wald chi2 (6)	=	7375.50
Estimated coefficients = 7	Prob > chi2	=	0.0000

DPO	Coefficient	Std. Err.	Z	P > Z	[95% Conf.	Interval]
FL	-0.0158718	0.0057635	-2.75	0.006	-0.0271681	-0.0045754
IO	0.0031447	0.0006156	5.11	0	0.0019382	0.0043512
FCF	-0.0729742	0.1932909	-0.38	0.706	-0.4518174	0.305869
_cons.	-0.207282	0.0649875	-3.19	0.001	-0.3346552	-0.0799087
Rhos	0.5906246	0.3775077	-.0242934	-0.0259169	0.4890042	-0.120078

Analysis of Panel Data Regression Findings

We observe that PCSE model explained 76.09% of the variation in determining Divided Payout Policies for the NSE 20-Share Index companies. From table 9 above, 59.06% of the variance in the Dividend Payout among NSE Share Index Companies as indicated by rho = 0. 5906246.

It was noted that all the Independent variables had a significant influence in determining the Dividend Payouts of the NSE Share Index Companies, except Free Cash Flow as indicated by Probability values less than 5% significance level.

Effect of Financial Leverage on Dividend Payout Policy

The results of Financial Leverage (FL) as shown in table 9 shows that Financial Leverage had a significant negative regression coefficient of -0.0158718 [Z = - 2.75, P > Z = 0.006]; an indication that an increase in Financial Leverage is likely to lead to 1.59% decrease in the Dividend Payout for the NSE Share Index Companies. The result corroborate Jensen et al.

(1992) who in their paper titled "Simultaneous Determination of Insider Ownership, Debt, and Dividend Policies" found out that firms that pay high dividends are less attracted to debt financing which explains why firms with high fixed financial costs are reluctant to pay higher dividends.

Asif, Rasool and Kamal (2011) also support these findings in their paper titled "Impact of financial leverage on dividend policy: Empirical evidence from Karachi Stock Exchange-listed companies" where they assert that the level of corporate debt (leverage) and widely practiced dividend policy, significantly, affect the dividend policy of the Pakistani firms; financial leverage was found to have a negative impact on dividend payout, indicating less dividend payments by high-debt firms. These findings are also supported by Thu, Trien, Anh, & Nhon, (2013) who in their paper titled "Determinants of Dividend Payout Policy a Case of Nonfinancial Listed Companies" suggest that financial leverage relate strongly and negatively with the dividend payout ratio.

Similar results have been reported by Hossain (2016) who in his paper titled "Determinants of the Dividend Payout Policy: A Study on Listed Private Commercial Banks of Dhaka Stock Exchange Limited in Bangladesh" conclude that financial leverage has a significant negative effect on dividend payout policy. The study findings agree with Kaźmierska-Jóźwiak (2015) who in their article titled "Determinants of Dividend Policy: Evidence from Polish Listed Companies" suggested that there is a significant negative relationship between dividend payout ratio and leverage. Similar findings were shown in a study by Ranti (2013) who in his article "Determinants of Dividend Policy: A study of selected listed Firms in Nigeria" conclude that there is a significant negative relationship between firms' financial leverage and the dividend payout policies of listed firms operating in Nigeria. Therefore, as the debt content in the capital structure of a firm decreases, its dividend payout ratio rises and vice versa.

These findings here corroborate those ones of Yusof and Ismail (2016) who in their paper titled "Determinants of Dividend Policy of Public Listed Companies in Malaysia" indicate that debt level has a significant negative effect on the dividend policy. The findings of Asad and Yousaf (2014) who in their article "Impact of Leverage on Dividend Payment Behavior of Pakistani Manufacturing Firms" conclude that leverage had a significant negative impact on the dividend payment pattern of the sampled firms also concur with the findings of this study.

The study findings, however, contradict Odawo and Ntoiti (2015) who in their paper titled "Determinants of Dividend Payout Policy in Public Ltd Banks in Kenya: A Case Study of CFC Stanbic Bank" suggested that there is significant positive relationship between leverage and the dividend payout policy of CFC Stanbic Bank. Also inconsistent with this study is Khan and Ahmad (2017) who in their paper titled "Determinants of Dividend Payout: An Empirical Study of Pharmaceutical Companies of Pakistan Stock Exchange (PSX)" find that leverage has an insignificant effect on the dividend payout decisions of the companies. Aziidah (2017) in her thesis titled "The Effect of Financial Leverage on the Financial Performance of Kenyan Energy and Petroleum Firms Listed on the NSE" find, in contradiction with this study, that although dividends were slightly reduced as financial leverage levels increased, there was a weak negative relationship between financial leverage and dividend payout ratio

Effect of Institutional Ownership on Dividend Payout

Institutional Ownership (IO) was found to have a significant positive regression coefficient of 0.0031447 [Z = 5.11, P > Z = 0.000] as shown in table 9 above; an indication that an increase in Institutional Ownership is likely to lead to 0.31% increase in the Dividend Payout for the NSE 20-Share Index Companies. The results are in line with Short, Zhang, & Keasey (2002) who in their paper titled "The link between dividend policy and institutional ownerships" suggest that there is positive and significant relationship between the dividend policy and institutional ownership in UK.

The study findings concur with those of Shariff et al. (2010) who in their article titled "Ownership Structure of Iranian Evidence and Payout Ratio" found a significant positive correlation between institutional ownership and payout ratio. Ullah et al. (2012) also support these findings in their paper titled "The Impact of Ownership Structure on Dividend Policy Evidence from Emerging Markets KSE-100 Index Pakistan" where they observe that institutional ownership has positive impact on the dividend payout ratio and increase in this will lead to increases in the dividend. The reason is that the institutional investors preferred to have dividend and that will help them to reduce the opportunistic predispositions of the manager. In emerging economies there has less legal protection given to the investors that leads these institutions fail to directly enforce or control the firm and another reason is that in emerging economies the ownership lies in the hand of families and these institutions have less portion of ownership and thus they will prefer dividend.

Similar results have been reported by Chang, Kang and Li (2016) who in their paper titled "Effect of institutional ownership on dividends: An agency theory-based analysis" records a positive relationship and finds this relationship to be more salient in firms with high agency costs. The study findings, however, contradict Kouki and Gouizani (2009) who in their paper titled "Ownership Structure and Dividend Policy Evidence from the Tunisian Stock Market" find that there is a significant negative correlation between institutional ownership and distributed dividend level.

Also inconsistent with this study is Mancinelli and Ozkazi (2010) who in their paper titled "Ownership structure and dividend policy: Evidence from Italian firms" report that firms exhibit lower dividend payout ratios as the voting rights of the largest shareholders' increase. Their results also suggest that the presence of agreements among large shareholders might explain the limited monitoring power of other strong non-controlling shareholders. The study findings also differ with those of Thanatawe (2014) who in his article titled "Ownership Structure and Dividend Policy: Evidence from China" note that institutional ownership has a negative impact on dividend policy of Chinese firms, suggesting that large institutional investors expropriate minority shareholders. These findings are inconsistent with those ones of Wasike and Ambrose (2015) who in their paper titled "Determinants of Dividend Policy in Kenya" suggest that a negative association between dividend policy and institutional holding exist among firms listed at the NSE.

Effect of Free Cash Flow on Dividend Payout Policy

The results of Free Cash Flow (FCF) as shown in table 9 shows that FCF had a negative regression coefficient of -0.0729742 though the coefficient was not significant [Z = -0.38, P > Z = 0.706]; an indication that an increase in Free Cash Flow is likely to lead to 7.30% drop in the Dividend Payout for the NSE 20-Share Index Companies. The results are in line with

Benjamin and Kathleen (2008) who in their paper titled "Flexibility and dividends" noticed that dividend payout is negatively related to free cash flow, and a firm with lower free cash flow will pay higher dividend.

The findings are consistent with Kuzucu (2015) who in his paper titled "Determinants of Dividend Policy: A Panel Data Analysis for Turkish Listed Firms" report that the relationship growth rate with dividends is negative. Therefore, firms with higher growth rates are likely to retain more of their earnings. He suggests that as a firm matures, the availability of profitable projects reduces and earnings decrease. As the investment opportunities reduce, the need for resources decreases and the firm increases dividend payout to shareholders.

The study findings concur with those of De Jong et al. (2003) who in their paper titled "The dividend and share repurchase policies of Canadian firms: empirical evidence based on an alternative research design" use the multinomial logit regressions and observe that free cash flow has a negative relationship with the dividend payout; they indicated that if the firm has more free cash flow, then they will less likely pay out the fund. The study findings, however, contradict Jensen (1986) who suggested that firms that have a greater "free cash flow" could pay more dividends thereby reducing the agency costs of free cash flow. The Jensen (1986) free cash-flow hypothesis suggest that if firms have excess cash, it is better to pay this cash as dividend in order to reduce managerial discretionary funds and, thus, avoid agency costs of free cash-flow. Inconsistent also with this research is La Porta et al. (2000) who in their paper titled "Agency Problems and Dividend Policy around the World" suggest that firms with a greater free cash flow need to pay more dividends in order to reduce the agency costs of the free cash flow.

The findings here are inconsistent with those ones of Wu and Stouraitis (2004) who in their article titled "The Impact of Ownership Structure on the Dividend Policy of Japanese Firms with Free Cash Flow Problem" found evidence in support of the hypothesis that a positive relation exists between dividends and free cash flow, and it's greater for low-growth firms than amongst the high-growth firms .This imply that low growth firms have the potential to pay higher dividend payout by investing a little amount in capital expenditure.

The result contradict those of Tijjany and Sani (2016) who in their paper titled "An Empirical Analysis of Free Cash Flow and Dividend Policy in the Nigerian Oil and Gas Sector" found that free cash flow has positive effects on the dividend policy of listed oil and gas companies Nigeria.

VIII CONCLUSION

Effect of Financial Leverage on Dividend Payout Policy of NSE 20-Share Index Firms

Financial leverage was found to be significant in the determination of dividend payout policy of NSE 20-Share Index firms. The study suggests that financial leverage was negatively related to dividend payout and significant to be included as a factor in discussing dividend payout policy among NSE firms. It can also be concluded that debt may be a substitute for dividends as they reduce free cash flow and, therefore, agency costs.

Effect of Institutional Ownership on Dividend Payout Policy of NSE 20-Share Index Firms

The study concludes that there exist a significant positive relationship between institutional ownership and the dividend payout policy amongst NSE 20-Share Index firms. It can be

concluded that institutional investors do improve a firm's propensity to pay dividends, and this relationship is salient in firms with higher agency costs. It can also be concluded that institutional investors preferred receiving dividends since they are tax exempt. That will help them reduce the opportunistic predispositions of the manager.

Effect of Free Cash Flow on Dividend Payout Policy of NSE 20-Share Index Firms

This study suggests that free cash flow has a negative effect on the dividend payout policy but was an insignificant factor in discussing the payout policy of NSE 20-Share Index firms. The findings suggest that an increase in free cash flow would lead to a decrease in the payout ratio. It is possible to conclude that in a world of uncertainty and informational asymmetry, even as profitable projects reduce and earnings decrease and consequently the free cash to equity, an increase in dividends among NSE 20-Share Index firms may likely be interpreted as good news and brighter prospects and vice versa. This finding also suggest high agency problems that may range from investing the available cash at value destroying projects to diversion or expropriation. The negative relationship, also, indicates that as the amount of free cash flow increases managerial incentives to deviates from the purported objective, shareholders' value maximization, increase.

IX. RECOMMENDATIONS

NSE listed firms should come up with ways to enhance their cash flow in order that they improve their payout ratios which this study view as modest. This is by effectively implementing sound and sustainable strategic financial plans and investment policies that would result in improved cash flow stream, consequently reducing their reliance on external financing which most often come with inflexible conditions, some of which are inconsistent with the long-term view of the firm. The NSE firms, in enhancing shareholders wealth, should identify positive Net Present Value (NPV) projects and diversify their operations to keep their cash flow stream robust and sustain their pattern of distribution. The study also recommends that NSE listed firms should reduce their gearing levels in order that they are able to make better payouts to the equity holders.

The study recommends that the Capital Market Authority (CMA) should foster and enhance the role of insitutional investors in the board in order to diminish information asymmetry and agency conflicts. They should encourage firms to disclose their whole shareholding structure, and also in terms of domicile to enable better evaluation of effects of different forms of ownership on payout policies such as foreign ownership which has not been possible since most firms diclose the top ten shareholders only. This panel study on NSE-20 share Index firms covered only three possible determinants, all which were firm specific. Another panel study can be done on other variables such as earned-contributed equity mix, previous year's dividends, concentrated ownership, ownership dispersion, foreign ownership and liquidity, and as well include market specific factors such as state of the economy and creditors rights.

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