AGENCY COST AND DIVIDEND POLICY: EVIDENCE FROM NIGERIA

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Abstract

The study examined agency cost and dividend policy with special reference to Nigeria. The assumption that a dependent variable is explained by a particular independent variable at a time while holding others are held constant could not be true. This necessitated interacting some non agency cost variables (mediating) with each of the agency cost variables to account for its marginal effect on dividend payout, thus the motivation for this study. Using a panel research design, a the study sampled 66 non financial quoted firms, secondary data were sourced from the Nigerian Stock Exchange (NSE) fact book with a time scope of five years (2010-2014). The choice of this period is that is long enough to capture the effect of the independent and mediating variables on the dependent variable. The data was analyzed using the panel regression estimation technique. The findings from the fixed effect estimation model (FEM) revealed that the marginal effect of interacting free cash flow/liquidity (FCF/LIQ), leverage (LEV), growth (GROWTH) and profitability (PROF) on large shareholders monitoring (LSM) all exhibited an insignificant impact on dividend payout, although mixed relationship. The marginal effect insider ownership (INSID) had as a result of FCF/LIQ and LEV on dividend payout is significant while GROWTH and PROF account for an insignificant marginal effect on dividend payout. Finally, the marginal effect executive compensation (EXEPAY) had on dividend payout as a result of LEV is significant while FCF/LIQ, GROWTH and PROF account for an insignificant

marginal effect on dividend payout, although with mixed relationship. Premised on the result of the study, the researchers concluded that agency cost variables alone does not account for firm dividend payout policy, it is considered simultaneously with other non agency cost variables. The study recommends research in this area to further explore the marginal effect agency cost has on dividend payout taking into consideration other likely variables.

Keywords: Dividend policy, agency cost, insider ownership, executive compensation, leverage

INTRODUCTION

The major interest of most investors/shareholders is to get returns on their investment. Agency problems arise when a manager has incentives beyond simply maximizing the shareholders value. Firm faces two types of agency problems vertical agency problem that exist between owners and managers, horizontal agency problems that exist between controlling majority shareholders and minority owners. However, of interest in this article is the former.

A few studies have examined the components which appear to impact dividend payout arrangement considering both agency and none agency variables (DeAngelo, DeAngelo & Stulz, 2006; Dennis & Osobove, 2008). While these studies focused majorly on developed economics such as - the United States, United Kingdom, Germany, Canada, Japan and France; few others focused on the impact of agency cost mechanisms in emerging economies such as Nigeria (Osegue, Ifurueze & Ifurueze, 2014; Badu, 2013). However, what is common among the above studies and other studies that employs panel regression is the assumption that a dependent variable is explained by a particular independent variable at a time while holding others constant. However, this assumption is not flawless because in the context of this study and many other study of this nature, a firm's ability to pay dividend could be a function of agency cost variables and together with the well being of the firm in terms of other factors such as less business going concern risk, high growth potentials, healthy liquidity/free cash flow position and good profitability bases, hence the need to consider the effect of these variables (mediating) on agency cost variables, thus affecting the ability of a firm to pay dividend. This line of thought is justified by Karaca-Manic, Norton and Dowd (2012) when they opined that interacting terms are cross-partial derivatives or differences in marginal effect that an independent variables has on a dependent variable depending on another independent variable. Thus, the coefficient beta of the resultant estimation shows the differences in marginal effect an independent variable has on a dependent variable depending on another independent variable (Karaca-Manic et al. 2012). Using a modified Al Taleb (2012) model, this study examined the

impact of agency cost variables on the inclination to pay dividend considering free cash flow/liquidity, leverage, growth and profitability as mediating variables. In the light of scanty research work on agency cost and dividend policy of this nature, an examination of this area of interest becomes necessary. Thus, the aim of this paper is agency cost and dividend policy: evidence from Nigeria.

The findings of the study revealed: The first set of hypothesis is that there is that large shareholders monitoring has no significant impact on dividend payout considering free cash flow/liquidity, leverage, growth and profitability as mediating variables. Giving that the fixed effect model estimation was favoured, the result is: [(LSM*FCF = 0.5564; LSM*LEV= FEM=0.5362;LSM*GROWTH=0.1978;LSM*PROF=0.2312)]; The second set of hypothesis is that insider ownership has no significant impact on dividend payout considering free cash flow/liquidity, leverage, growth and profitability as mediating variables. The results are: [(INSID*FCF=0.0000;INSID*LEV=0.0033;INSID*GROWTH=0.2603;INSID*PROF=0.6986)]; while the third set of hypothesis is that executive compensation has no significant impact on dividend payout considering free cash flow/liquidity, leverage, growth and profitability as mediating variables. The results are: [(EXEPAY*FCF=0.3056; EXEPAY*LEV=0.0001; EXAPAY*GROWTH=0.4120; EXEPAY*PROF=0.8949)].

The study contributes to the relevant literatures in two ways. First, the methodological improvement of interacting the mediating variables to account for the marginal effect agency cost variables has on dividend payout could be considered novel. Second, this study shall also be of great benefits to the government, financial analysts, potential investors and shareholders; it would serve as a means for communicating to the investors, shareholders, financial regulators and to the general public on several factors that could be of influence on dividend policies.

The paper proceeds as follows: following the introduction is section two which is on theoretical framework. Section three is on overview of extant empirical literature and hypotheses development, section four present estimation results and discussion of findings. Conclusion and recommendation forms the bases of section five.

REVIEW OF THEORIES

Agency Problems

One dimension of conflict in a corporate setting is the link between insiders (i.e., managers/agents) and outsiders (i.e. shareholders/principal). Management has an incentive to divert resources from outside shareholders by investing in unprofitable projects, perquisite consumption and even outright theft. The importance of agency issue in analyzing the structure and value of corporation has been identified in literature (Berle & Means, 1932; Jensen &

Meckling, 1976; Shleifer & Vishny 1986). Specifically, there is a theoretical underpinning between agent/principal relationship and dividend policy.

One of the implications of agency theory is on the level of dividend payments. Grossman and Hart (1980), Easterbrook (1984), and Jensen (1986) suggest that dividends payments can, at least partially solve the agency conflict between shareholders and managers by minimizing the cash that management controls, dividends make it more difficult for management to expropriate shareholder wealth through unmonitored activities. The extent of this expropriation is a function of two considerations: (1) the alignment of incentives between managers and shareholders; and (2) the ability of shareholders to observe and take recourse against any expropriation. These two considerations, in light of earlier discussions, suggest that wholly owned firms, for which the incentives between management and shareholders are relatively closely aligned, should pay relatively high dividends. Private dispersed firms, on the other hand, should pay relatively low dividends. This conjecture follows for two reasons: first, there is a relatively sharp misalignment of incentives between managers and shareholders in these firms; and second, shareholders in these firms have few resources available to detect expropriation and relatively little recourse against expropriation because these shareholders are afforded relative little protection. This situation is in contrast to public firms, whose shareholders can exert power over the firm's management because of the many governance mechanisms afforded to them by the firm's public status (La Porta, Lopez-de Silanes, Shleifer & Vishny, 2000). Shareholders of public firms do not have an explicit right to dividends per se but rather they have more general rights in terms of voting for directors and protesting wealth destroying activities. As such, public firms commit ex-ante to not undertake value-destroying actions by eliminating excess cash through dividend payments.

Agency Theory and Dividend Policy

The separation of ownership from management of a firm creates principal/agent relationship between the owners (shareholders) and the management (agent). Differences in management and shareholders priorities have been recognized and accepted to exist (Frankfurter & Wood, 2000). These differences create problems in the agency being compounded by unsuccessful attempts by the principal (owners) to monitor the management (agent) with huge attendant costs (Kindelberger, 1984).

The principal-agent model by Jensen and Meckling (1976), distinguishes between two types of agency costs: the agency cost of equity arising from conflicts of interests between insiders and outside equity holders; and the agency costs of debt arising between equity holders and debt holders. This model has been extensively used in finance literature to understand

corporate decisions, including dividend payout ratio (Jensen, 1986; Kim & Sorenson, 1986; Mello & Parsons, 1992; Leland, 1998; Ang, Cole & Lin, 2000). In their findings, La Porta et al. (2000) outcome model established a link between minority shareholders' protection, the agency costs of equity and dividend payouts. Under this, dividend is an outcome of effective systems of legal protection of shareholders. By implication, dividend payment is as a result of minority shareholders' pressure on corporate management to reduce cash available in the firm.

There has been considerable research that seeks to identify the determinants of corporate dividend policy and there has been a considerable focus on agency-related rationale for paying dividends. It is based on the idea that monitoring of the firm and its management is helpful in reducing agency conflicts and in convincing the market that the managers are not in a position to abuse their position. Some shareholders may be monitoring managers, but the problem of collective action results in too little monitoring taking place. Thus Easterbrook (1984) suggests that one way of solving this problem is by increasing the payout ratio. When the firm increases its dividend payment, assuming it wishes to proceed with planned investment, it is forced to go to the capital market to raise additional finance. This induces monitoring by potential investors of the firm and its management, thus reducing agency problems.

Rozeff (1982) develops a model that underpins this theory, called the cost minimization model. The model combines the transaction costs that may be controlled by limiting the payout ratio, with the agency costs that may be controlled by raising the payout ratio. The central idea on which the model rests is that the optimal payout ratio is at the level where the sum of these two types of costs is minimised. Thus Rozeff's cost minimisation model is a regression of the firm target payout ratio on five variables that proxy for agency and transaction costs. Transaction costs in the model are represented by three variables that proxy for the firm's historic and predicted growth rates and risk. High growth and high risk imply greater dependency on external finance due to investment needs, and in order to honour financial obligations, respectively. This, in turn, means that the firm raises external finance more frequently, hence bears higher transaction costs that are associated with raising external finance. The model captures agency costs with two proxies. First, the fraction of the firm owned by insiders is a proxy for insider ownership and is expected to be negatively related to the target payout ratio. As insiders hold more of a firm's equity, the need to monitor their actions is reduced because the incentive for managers to misuse corporate resources falls. Second, the natural logarithm of the number of outside shareholders is a proxy for ownership dispersion. It is expected to be positively related to the target payout ratio because the greater the dispersion, the more severe is the collective action problem of monitoring. Indeed results from an Ordinary Least Squares cross sectional regression using 1981 data on 1000 US firms, support the theory

put forward. Thus the model provides good fit and consequently has attracted the attention in this study.

Dividend Policy

According to Lease, Kose, Avner, Uri and Oded (2000), dividend policy is concerned with the decisions regarding dividend payout and retention. It is paid in cash and/or stock for making investment and bearing risk. Dividend decision of the firm is yet another crucial area of financial management as it affects shareholders wealth and value of the firm. A study of dividend policy of listed firms in African has become pertinent in view of the growing investment in the continent. Scholars such as Han, Suk and David (1999) and Short, Hao and Kevin (2002) have argued that an increase in dividend payments increases a firm's value. One set determinants of dividend policy is agency factor. However, agency factors in isolation with other factors is insufficient in determining dividend payout, thus the simultaneous consideration of both agency factors and other factors (mediating) in order to account for the marginal impact agency factor could have on dividend payout is worth the while.

Independent Variables (Agency cost Proxies Variables)
Large shareholders monitoring and dividend policy

Firms with higher percentage of shareholdings (block holder of share/institutional investors) do suffer less agency problem than that of a dispersed ownership (Shleifer &Vishny, 1986). This position could be attributed to the institutional shareholders capacity to assert monitoring prowess over her agents (management) unlike a company with fragmented shareholders. La porta et al. (2000) posited that a legal environment provides strong protection to shareholders, thus enabling them to exert monitoring prowess on companies. Grossman and Hart (1980) stated that large shareholders could play a role in effectively monitoring the activities of firms managers and insider shareholders, thus alleviating the free-rider problem associated with dispersed small shareholders. They explained that large shareholders have more inducement and efforts than small shareholders to carry the cost of monitoring since the consequences of and returns from monitoring surpass the cost. Large shareholders have a strong incentive to adopt and enhance means to advance their role of effectively monitoring the activities of firm managers (Grinstein & Michaely, 2005; Redding, 1997).

On the state of empirics on large shareholders monitoring, Short, Zhang and Keasey (2002) revealed a positive relationship between dividends and shareholding by financial institutions. Also, Claessens, Dhiensiri and Lang (2000) revealed a positive relationship between dividends and large shareholders. This could be attributed to the monitoring capacity of

these institutional investors. This is also attributed to the fact that as larger shareholders are controlling smaller shareholders; they can choose to pay high dividends in order to minimize extraordinary monitoring costs. Large shareholders adopt large dividend payouts as a mechanism of maintaining firm value and enhancing the firm's reputation for not expropriating the wealth of its minority shareholders. On the contrary, Renneboog and Trojanowski (2005) revealed a negative relationship which is unexpected. In the study of Gesser, Halman and Sarig (2005), they found BLOCK shareholding to be insignificantly related to market reaction to share repurchase announcement. The insignificant coefficient of BLOCK shareholdings suggests that monitoring by large shareholders does not reduce the value of share repurchases as a means to alleviate agency problem. By extension, it implies that monitoring by large shareholders does not have a significant impact on dividend payout policy. Apart from large shareholders using their capacity to monitor manager, it has been argued that they can also use their power to expropriate small outside shareholders. Pergola and Verreault (2009), shleifer and Vishny (1997), Demsetz and Lehn (1985) posited that large shareholders might use their authority to act in pursuit of their private benefits, mostly at the expense of small shareholders. Giving the state of prior empiric on large shareholders monitoring on dividend payout, there is no further need to align with either sides of the divides, rather this study seeks to examine the marginal impact large shareholders monitoring has on dividend payout as a result of other mediating variables (free cash flow/liquidity, leverage, growth and profitability). Thus the first set of proposition is:

H_{0a}: Large shareholders has no significant impact on dividend payout as a result of free cash flow/liquidity mediating variable

H_{0b}: Large shareholders has no significant impact on dividend payout as a result of leverage as a mediating variable

H_{0c}: Large shareholders has no significant impact on dividend payout as a result of growth as a mediating variable

H_{0d}: Large shareholders has no significant impact on dividend payout as a result of profitability as a mediating variable

Insider ownership and dividend policy

It has been argued that agency costs may be reduced if insiders (managers, directors, and other executive officers) increase their ownership in the firm, because this can help to align the interests of both managers and shareholders (Jensen & Meckling, 1976). The higher the proportion of managerial ownership in firm, the less would be the need for using dividends as a tool of reducing agency cost (Al-Malkawi, 2007).

On the state of prior empirics on insiders ownership, Rozeff's (1982) posited that the optimal dividend payout is at the level where the sum of transaction cost and agency cost are minimized (cost minimization model). In his findings, insider ownership used as a proxy for agency cost exhibited a significant and negative relationship with dividend payout ratio. This implies that increase in managerial ownership has an inverse relationship with dividend payout. Rozeff's (1982) posited that the benefits of dividends in amelioration agent-principal conflict are smaller for companies with lower of ownership and/or higher insider ownership. Holder, Langrehr and Hexter (1998) while examining 477 US firms over the period 1980 to 1990 found that insider ownership exhibited a significant and negative relationship with dividend payout. This significant though negative findings is in tandem with studies of Dempsey and Laber (1992), Saxena (1999), Jensen, Solberg and Zorn (1992), Short, Zhang and Keasey (2002), Renneboog and Trojanowski (2005) and Farinha (2003). The reason for the above findings could be that directors becoming shareholders could still indulge in excessive perquisite despite being part owners of the company. In essence, there is a tradeoff between perquisite accruable to these directors and the dividend they will eventually receive at the end of the financial year. It is believed that the higher the opportunistic environment to enrich themselves, the tendency that they will underplay payment of dividend at the end of the financial year. Giving the state of prior empiric on large shareholders monitoring on dividend payout, there is no further need to align with either sides of the divides, rather this study seeks to examine the marginal impact insider ownership has on dividend payout as a result of other mediating variables (free cash flow/liquidity, leverage, growth and profitability). Thus the second set of proposition is:

H_{0a}: Insider ownership has no significant impact on dividend payout as a result of free cash flow/liquidity mediating variable

H_{0b}: Insider ownership has no significant impact on dividend payout as a result of leverage as a mediating variable

H_{0c}: Insider ownership has no significant impact on dividend payout as a result of growth as a mediating variable

H_{0d}: Insider ownership has no significant impact on dividend payout as a result of profitability as a mediating variable

Executive Compensation and Dividend Policy

As corporate executive compensation policies evolved, corporations drifted from traditional stock options executive compensation policy to restricted stocks, and performance stock policy with dividend equivalent rights (Akpotaire, 2011). The motivation for this was that there was a hand-full of criticisms of stock options policy in that executives often manipulate the structure to

increase their pay-out value, thereby increasing the agency cost to shareholders and the company.

It has been argued that the integration of stock options as well as restricted stocks into executive compensation may reduce the conflicts between shareholders and management but may at the same time give rise to other agency problems connected to debt. While this line of argument may hold some merit, the structure of executive compensation packages, has over the years, focused less on stock options and more on restricted stocks (Carlson & Vogel, 2006). A classic example of this trend is Microsoft, who in 2003, switched from using stock options to restricted stock. However, compensating executives through restricted stocks has recently come under scrutiny due to the fact that some of these executives receive dividend equivalents on restricted stocks even before the investing period. One recent example of a company that has received such criticism is CA. Inc. CA's executives received as much as $19,530 apiece on dividend equivalents from stock that they do not own. The relevant question that follows is whether executives are extracting additional compensation from shareholders using dividend equivalents or are dividend equivalents appropriate incentives to executives. Hence, it is expected that executive/ managerial incentives could affect and or influence dividend payout policy. Although there is limited work this area, this study will examine the marginal impact executive compensation has on dividend payout as a result of other mediating variables (free cash flow/liquidity, leverage, growth and profitability). Thus the third set of proposition is:

H_{0a}: Executive compensation has no significant impact on dividend payout as a result of free cash flow/liquidity mediating variable

H_{0b}: Executive compensation has no significant impact on dividend payout as a result of leverage as a mediating variable

H_{0c}: Executive compensation has no significant impact on dividend payout as a result of growth as a mediating variable

H_{0d}: Executive compensation has no significant impact on dividend payout as a result of profitability as a mediating variable

Mediating Variables

Dividend payout policy is a function of various determinants. Although the aim of this study is: agency cost and dividend payout: evidence from Nigeria, however, other variables such as financial leverage, growth, liquidity/cash flow and profitability could possibly determine dividend payout and as such were controlled for. In same vein, these controlled variables were also mediated or interacted on each of the agency cost variables to account for its marginal effect on dividend payout.

METHODOLOGY

The study used a panel research design which is a combination of cross sectional and time series design properties. The population consist of one hundred and fifty three (153) non-financial quoted companies in Nigeria Stock Exchange (NSE) as at December, 2014 of which one hundred and ten (110) companies was derived using the Yamane (1967) formula as cited in Israel (1992). However, due to the unavailability of most of the annual reports at the Stock Exchange, the researcher could only access sixty six (66) non-financial quoted companies using the convenience (haphazard) non probability sampling technique. The data estimation technique used is the panel estimation technique. The choice for the panel regression is that it is best suited for a study of this nature to treat the unobserved heterogeneity/latent effect associated with data that has cross section properties. The model for this study is a modification of the agency cost minimization model of Rozeff (1982). Also, in line with Osegbue et al. (2014) and Al-Taleb (2012) that other factors could determine on dividend payout policy, hence the need to be controlled for, this study added free cash flow/liquidity (FCF/LIQ), leverage (LEV), growth (GROW), and profitability (PROF) as controlled and mediating variables. The models are presented below:

Model One: Agency cost proxies variables

In its functional form, it is stated:

$DVP = f\ (LSM,\ INSID,\ EXEPAY)$……..(i)

Econometric form of the fixed effect model is stated thus:

$DVP_{it} = \beta_{1i} + \beta_2 LSM_{it} + \beta_3 INSID_{it} + \beta_4 EXEPAY_{it} + \mu_{it}$…………....................................(ii)

Where:

β_{1i} = Mean value of the intercept of each cross sections

DVP_{it} = Dividend payout of ith company at time ''t''

LSM_{it} = Large shareholders monitoring of ith company at time ''t''.

$INSID_{it}$ = Insider/Managerial ownership of ith company at time ''t''.

$EXEPAY_{it}$ = Executive pay for i^{th} company at time ''t''

μ_{it} = Error time considering both cross section and time dimension

β_2– β_4 = Unknown coefficients

The apriori signs are: $\beta_2, \beta_3, \beta_4, > 0$

Model Two: Combination of agency cost proxies variables and control variables

In its functional form, it is stated:

$DVP = f\ (LSM,\ INSID,\ EXEPAY,\ FCF,\ LEV, GROWTH,\ PROF)$………....................(iii)

Econometric form of the fixed effect is stated thus:

$DVP_{it} = \beta_{1i} + \beta_2 LSM_{it} + \beta_3 INSID_{it} + \beta_4 EXEPAY_{it} + \beta_5 FCF_{it} + \beta_6 LEV_{it} + \beta_7 GROWTH_{it} + \beta_8 PROF_{it} + \mu_{it}$...(iv)

Where:

FCF_{it} = Free cash flow of ith company at time ''t''.

LEV_{it} = Leverage of ith company at time ''t''.

$GROWTH_{it}$ = Growth of ith company at time ''t''

$PROF_{it}$ = Profitability of ith company at time ''t''.

$\beta_2 - \beta_8$ = Unknown coefficients

The apriori signs are: $\beta_2, \beta_3, \beta_4, \beta_5 \beta_6, \beta_7, \beta_8 > 0$

The justification of the apriori expectations is the findings of most studies that have used the above mentioned variables as determinants of dividend payout.

Model Three: Interacting each of the agency cost proxies variables

with the mediating variables

In its functional form, it is stated:

DVP = f (LSM*FCF, LSM*LEV, LSM*GROWTH, LSM*PROF, INSID*FCF, INSID*LEV, INSID* GROWTH, INSID*PROF, EXEPAY*FCF, EXEPAY*LEV, EXEPAY*GROWTH, EXEPAY*PROF)……………………………………………………........................(v)

Econometric form of the fixed effect model is stated thus:

$DVP_{it} = \beta_{1i} + \beta_2 LSM_{it}*FCF_{it} + \beta_3 LSM_{it}*LEV_{it} + \beta_4 LSM_{it}*GROWTH_{it} + \beta_5 LSM_{it}*PROF_{it} + \beta_6 INSID_{it}*FCF_{it} + \beta_7 INSID_{it}*LEV_{it} + \beta_8 INSID_{it}*GROWTH_{it} + \beta_9 INSID_{it}*PROF_{it} + \beta_{10} EXEPAY_{it}*FCF_{it} + \beta_{11} EXEPAY_{it}*LEV_{it} + \beta_{12} EXEPAY_{it}*GROWTH_{it} + \beta_{13} EXEPAY_{it}*PROF_{it} + \mu_{it}$
……………………………………………………………………………......(vi)

Where:

$\beta_2 - \beta_8$ = Unknown marginal coefficients/effect the agency cost variable has on dividend payout considering the presence of another independent variables (mediating variables)

The apriori signs are: $\beta_2, \beta_3, \beta_4, \beta_5 \beta_6, \beta_7, \beta_{8,}, \beta_9, \beta_{10}, \beta_{11}, \beta_{12}, \beta_{13} > 0$

The justification for the apriori expectations above cannot be substantiated by prior empirics giving the paucity of research work of this nature.

However, intuitively, it can be infer to be positive. These can either be affirmed or negated in our estimation result.

The variables are operationalized thus:

S/N	Variable	Measurement	Justification	Notation
	Dependent variable			
1	Dividend payout	It is measured by the proportion of earnings paid out as dividend	Manos (2002)	DVP
	Independent variables (Agency cost variables)			
2	Large shareholders monitoring	It is measured by the percentage of the firm's equity that is held by block shareholders (institutional investors)	Gesser, Halman and Sarig (2005)	LSM
3	Insider ownership	It is measured by the percentage of share held by the directors of the company	Manos (2002)	INSID
4	Executive compensation	It is measured by the sum of CEO salary, current bonuses and payouts from long-term incentive plans paid in cash or stock	Frydman and Jenser (2005)	EXEPAY
	Mediating variables			
5	Free cash flow/liquidity position	It is measured as net profit less changes in fixed assets divided by total assets	Aivazian, Booth and Cleary (2003) , Al-Kuwari (2009)	FCF/LIQ
6	Leverage	It is measured as the ratio of debt to equity	Jensen et al. (1992)	LEV
7	Growth	It is measured as the sum of total assets and market value of equity less total equity divided by total assets	Jensen et al. (1992), Holder et al. (1998),	GROWTH
8	Profitability	It is measured as net profit divided by shareholders equity	Akinola (2008)	PROF

ANALYSIS AND RESULTS

Table 1: Descriptive Statistics (E-view output)

	DVP	LSM	INSID	EXEPAY	FCF	LEV	GROWTH	PROF
Mean	38	52	12	62,556	9	55	9	1
Median	31	56	1	26,417	6	55	6	5
Maximum	333	95	164	670,133	62	151	190	100
Minimum	-192	0	0	305	-5	-253	-86	-1,123
Std. Dev.	51	22	20	98,031	11	26	28	68
Jarque-Bera	835	15	2,219	2,521	598	56,816	1,109	741,044
Probability	0	0	0	0	0	0	0	0
Observations	314	314	314	314	314	314	314	314

Table 1 shows the descriptive statistics for the variables. The dependent variable dividend payout (DVP) has a maximum value of 332.66 and a minimum value of -191.65. The mean and standard deviation are 38.44 and 50.88 respectively which shows that the data is appreciably dispersed from the mean value. LSM has mean value of 52.4 and standard deviation of 22.5, which show that sample data exhibits a considerable clustering around the mean value, with max. and min. values of 95 and 0 respectively. INSID mean value 12.07 and STD of 19.9, again revealing that sample data exhibits a considerable clustering around the mean, with max. and min. values of 164 and 0 respectively. EXEPAY mean value of 62,555, STD of 98,031 indicates that sample data are reasonably dispersed from the mean with maxi. and min values of 670,133 and 305 respectively. With respect to Free cash flow (FCF), the mean and standard values are 9.24 and 10.54 respectively indicating considerable clustering around the mean value, with maxi. and min. values of 62 and -2. LEV with a mean of 54.7 and standard deviation of 25.63, reveals a considerable clustering around the mean value, with a maxi. and min. values of 151 and -253 respectively. GROWTH mean= 8.99, STD= 27.9 which indicates that some most observations cluster around the mean value, with maxi and min values of 190 and -86 respectively. Finally, PROF mean=0.599, STD=68.05, shows strong dispersions of most of the observations from the mean and with max and min value of 100 and -1123 respectively. The Jarque-Bera statistic probability values of zero (0) for each of the variables indicates a normal distribution curve because it is significant at 5% (0<0.05)

Table 2: Correlation analysis

	DVP	LSM	INSID	EXEPAY	FCF	LEV	GROWTH	PROF
DVP	1							
LSM	0.04	1						
INSID	0.05	-0.13	1					
EXEPAY	0.25	-0.04	0.04	1				
FCF	0.22	0.14	-0.04	-0.04	1			
LEV	-0.03	0.09	-0.03	0.04	-0.23	1		
GROWTH	0.02	-0.05	-0.03	0.11	-0.01	0.06	1	
PROF	0.09	0.18	-0.03	0.10	0.11	-0.09	0.24	1

Table 2 is the correlation matrix of the dependent and explanatory variables in the study. The dependent variable DVP is negatively related to LEV (r=-0.03) while positively related to other explanatory variables (LSM=0.04; INSID=0.05; EXEPAY=0.25; FCF=0.22; GROWTH=0.02; PROF=0.09). The strongest and weakest of the correlation are EXEPAY(r=0.25) and GROWTH (r=0.02) respectively. A cursory look will show that the variables are not strongly related to one another, the result indicate that the presence of autocorrelation is minimized, thus likely yielding

best linear unbiased estimates. This is also corroborated by one of the post estimation results, the Variance inflation Factor as shown in table 3 below:

Table 3: Multicollinearity Result

Variable	Centered VIF
C	NA
LSM	1.09627
INSID	1.019478
EXEPAY	1.026228
FCF	1.093051
LEV	1.09438
GROWTH	1.085875
PROF	1.132992

The table 3 above shows the extent of correlation among the explanatory variables. An examination of the centered variance inflation factor statistic (VIF) revealed that none of the explanatory variables exceeded the cutoff point of 10, indicating that the presence of multicollinearity amongst the explanatory variables under consideration is unlikely. Giving the symmetric nature between the dependent and the independent variables, the correlation is not best suited for a study of this nature, thus panel regression is done.

Regression result and interpretation

The study employs three models to determine the effect of agency cost on dividend policy. Model 1 uses indicators of agency cost as explanatory variables. Model 2 controls for some variables indicated from previous literature as affecting dividend policy. Model 3 which is the basis for the hypotheses testing interact the control variables (serving as mediating variables) with the agency cost variables to establish the marginal effect the agency cost variables have on dividend payout.

Each of the three models has sub models (POOL, REM/ECM and FEM respectively). The POOL ignores the heterogeneity problem as a result of cross section effect while both the REM/ECM and FEM considers such effect, thus taking a decision on the basis of the hausman test statistic on which is better. However, emphasis was on the FEM because the hausman test statistic favours it.

Model 1

$$DIV_{it} = \beta_{1i} + \beta_2 LSM_{it} + \beta_3 INSID_{it} + \beta_4 EXEPAY_{it} + \mu_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\text{(FEM)}$$

Table 4: Regression result of agency cost variables

MODEL 1			
Variables	POOL	REM	FEM
C	14.2439	18.3340	21.1120
t-value	1.1304	1.9779	1.7695
p-value	0.2594	0.0488	0.0785
LSM	0.1785	0.1239	0.0166
t-value	0.8899	0.8414	0.0758
p-value	0.3744	0.4008	0.9397
INSID	0.1674	0.1729	0.1918
t-value	0.8648	1.1297	0.9535
p-value	0.3880	0.2595	0.3416
EXEPAY	0.0002	0.0002	0.0002
t-value	5.5945	5.6165	4.7222
p-value	0.0000	0.0000	0.0000
R-squared	0.1964	0.0994	0.5845
Adj. R-squared	0.1833	0.0907	0.4355
F-statistic	15.0262	11.4029	3.9217
Prob.(F-statistic)	0.0000	0.0000	0.0000
D-W stat	2.2300	1.9300	2.1300
Hausman	8.199		
Prob.	0.0421		

Table 4 shows the result of model 1: considering only the agency cost proxies variables. Giving that the hausman test statistic value is less than 0.05, the FEM result is chosen which implies that the estimations result was on mean corrected values which takes care of the heterogeneity problem in the cross section. The Adjusted R-square of 0.4355 indicates that about 43.6% changes in DVP are jointly explained by the explanatory variables (LSM, INSID and EXEPAY). The f-statistic probability value of 0.0000 indicates that there is a joint significant relationship (0.000<0.05) between all the explanatory variables and the dependent variable, while the DW statistic value of 2.13 indicate that the presence of autocorrelation in the model is unlikely (Durbin & Watson, 1951). On the specific performance of the explanatory variables, LSM is positively related to DVP with a coefficient of 0.0166, although insignificant at 5% (0.9397>0.05). INSID is also positively to DVP with a coefficient of 0.1918, although insignificant at 5% (0.3416>0.05). On the contrary, EXEPAY exhibits a significant (0.000<0.05) with a coefficient of 0.0002

Model 2

$$DIV_{it} = \beta_{1i} + \beta_2 LSM_{it} + \beta_3 INSID_{it} + \beta_4 EXEPAY_{it} + \beta_5 FCF_{it} + \beta_6 LEV_{it} + \beta_7 GROWTH_{it} + \beta_8 PROF_{it} + \mu_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(FEM)$$

Table 5: Regression result of agency cost and control variables

MODEL 2			
Variable	POOL	REM	FEM
C	10.0201	13.07661	18.8828
t-value	0.891902	0.876968	1.555332
p-value	0.3732	0.3812	0.1212
LSM	0.09791	0.065301	0.05664
t-value	0.660303	1.478918	0.587793
p-value	0.5096	0.1402	0.5572
INSID	0.130121	0.151319	0.208139
t-value	0.851954	1.104272	1.871031
p-value	0.3949	0.2703	0.0625
EXEPAPY	0.000167	0.000176	0.000254
t-value	5.054647	3.923632	5.8961
p-value	0.000	0.0001	0.000
FCF	0.824	0.764724	0.037737
t-value	2.636945	1.285982	0.053576
p-value	0.0088	0.1994	0.9573
LEV	0.070703	0.038689	-0.03899
t-value	0.585299	0.236737	-0.38363
p-value	0.5588	0.813	0.7016
GROWTH	-0.03619	-0.01542	-0.00222
t-value	-0.36673	-0.21805	-0.04676
p-value	0.7141	0.8275	0.9627
PROF	0.01782	0.017146	0.006673
t-value	0.421492	1.648879	1.964734
p-value	0.6737	0.1002	0.0506
R-squared	0.17355	0.113421	0.50739
Adj. R-squared	0.151802	0.09314	0.368086
F-statistic	7.979812	5.59242	3.642332
Prob.(F-statistic)	0.000	0.000004	0.000
D-W stat	2.143187	1.935648	2.338953
Hausman	19.024		
Prob.	0.0147		

Table 5 shows the result of model 2: considering both the agency cost proxies variables and the control variables. Giving that the hausman test statistic value of 0.0147 is less than 0.05, the FEM result is chosen. The Adjusted R-square of 0.368 indicates that about 36.8% changes in DVP are jointly explained by both the agency cost variables and the control variables (LSM, INSID, EXEPAY, FCF, LEV, GROWTH and PROF). The f-statistic probability value of 0.0000 indicates that there is a joint significant relationship (0.000<0.05) between all the explanatory variables and the dependent variable with DW statistic of 2.34 which implies that the presence of autocorrelation is unlikely. On the specific performance of the explanatory variables, LSM is positively related to DVP with a coefficient of 0.057, although insignificant at 5% (0.5573>0.05).

INSID is also positively to DVP with a coefficient of 0.2081, although insignificant at 5% (0.0625>0.05). On the contrary, EXEPAY exhibits a significant (0.000<0.05) with a coefficient of 0.000254. The result for the control variables were: FCF is positively related to DVP with a coefficient of 0.038, although insignificant at 5% (0.9573 >0.05), LEV is negatively related to DVP with a coefficient of 0.039, although insignificant at 5% (0.7016>0.05), GROWTH is negatively related to DVP with a coefficient of 0.002, although insignificant at 5% (0.9627>0.05), while PROF is positively related to DVP with a coefficient of 0.007, although insignificant at 5% (0.0506>0.05).

Model 3

$$DIV_{it} = \beta_{1i} + \beta_2 LSM_{it}*LEV_{it} + \beta_3 LSM_{it}*GROW_{it} + \beta_4 LSM_{it}*FCF_{it} + \beta_5 LSM_{it}*PROF_{it} + \beta_6 INSID_{it}$$
$$*\beta LEV_{it} + \beta_7 INSID_{it}*GROW_{it} + \beta_8 INSID_{it}*FCF_{it} + \beta_9 INSID_{it}*PROF_{it} + \beta_{10} EXEPAY_{it}*LEV_{it}$$
$$+\beta_{11} EXEPAY_{it}*GROW_{it} + \beta_{12} EXEPAY_{it}*FCF_{it} + \beta_{13} EXEPAY_{it}*PROF_{it} + \mu_{it} \ldots\ldots\ldots..(FEM)$$

Table 6: Regression result of agency cost proxies with the control variables acting as mediating variables

MODEL 3			
Variables	POOL	REM	FEM
C	29.7730	29.24951	33.69215
t-value	3.0579	3.998034	3.754789
p-value	0.0025	0.0001	0.0002
LSM*FCF	0.0043	0.007552	-0.00591
t-value	0.4862	1.093744	-0.58939
p-value	0.6272	0.2749	0.5564
LSM*LEV	-0.0007	-0.00158	-0.00179
t-value	-0.2632	-0.77518	-0.6198
p-value	0.7926	0.4388	0.5362
LSM*GROWTH	-0.0056	-0.00401	-0.00304
t-value	-2.4184	-2.05088	-1.29277
p-value	0.0163	0.0411	0.1978
LSM*PROF	0.0033	0.003812	0.0054
t-value	0.7978	1.31786	1.201535
p-value	0.4258	0.1886	0.2312
INSID*FCF	0.0563	0.053286	0.095471
t-value	2.8450	3.350679	4.199583
p-value	0.0048	0.0009	0.0001
INSID*LEV	-0.0075	-0.00762	-0.01348
t-value	-1.7357	-2.19243	-2.97558
p-value	0.0839	0.0291	0.0033
INSID*GROWTH	0.0083	0.008179	0.008019
t-value	1.1791	1.358987	1.129357
p-value	0.2395	0.1752	0.2603

Table 6...

INSID*PROF	0.0006	0.000138	-0.00156
t-value	0.1514	0.041094	-0.3878
p-value	0.8798	0.9672	0.6986
EXEPAY*FCF	0.0000	-6.51E-06	-8.32E-06
t-value	-1.0550	-1.06699	-1.02741
p-value	0.2925	0.2868	0.3056
EXEPAY*LEV	0.0000	3.76E-06	4.25E-06
t-value	4.6077	4.77793	3.921549
p-value	0.0000	0.000	0.0001
EXEPAY*GROWTH	0.0000	6.74E-07	6.19E-07
t-value	0.9769	1.034898	0.822366
p-value	0.3296	0.3015	0.412
EXEPAY*PROF	0.0000	-1.85E-06	-3.64E-07
t-value	-0.8915	-1.0448	-0.13228
p-value	0.3736	0.297	0.8949
R-squared	0.24821	0.629181	0.629181
Adj R-squared	0.206973	0.470259	0.470259
F-statistic	6.019063	3.959049	3.959049
Prob.(F-statistic)	0.000	0.0001	0.000
D-W stat	2.1900	2.2200	2.2200
Hausman	13.495		
Prob.	0.000		

Table 6 shows the result of model 3: mediating each of the control variables with the agency cost variables. In most econometric regression of this nature, there is the assumption that the dependent variable is explained by the independent variables holding other factors constant. Giving that the hausman test statistic value of 0.000 is less than 0.05, the FEM result is chosen. The Adjusted R-square of 0.470 indicates that about 47% changes in DVP are jointly explained by both the agency cost and the control variables when interacted with each other. The f-statistic probability value of 0.0000 indicates that there is a joint significant relationship (0.000<0.05) between all the explanatory variables when interacted together and the dependent variable with DW statistic value of 2.22 which implies that the presence of autocorrelation in the model is unlikely.

The result above showed: when FCF/LIQ was mediated on LSM, it has a negative insignificant (0.5564>0.05) impact of 0.00591 on the firms' ability to pay dividend. The coefficient beta of 0.591% indicates the marginal effect LSM has on dividend payout as a result of FCF/LIQ as a mediating variable (Karaca-Manic et al. 2012). The direction of relationship is inverse which implies that a unit rise in LSM and FCF/LIQ leads to a 0.591% decline in dividend payout; when LEV was mediated on LSM, it has a negative insignificant (0.5362>0.05) impact of 0.00179 on the firms' ability to pay dividend. The coefficient beta of 0.179% indicates the marginal effect LSM has on dividend payout as a result of LEV as a mediating variable. The

direction of relationship is inverse which implies that a unit rise in LSM and LEV leads to a 0.179% decline in dividend payout; when GROWTH was mediated on LSM, it has a negative insignificant (0.1978>0.05) impact of 0.00304 on the firms' ability to pay dividend. The coefficient beta of 0.304% indicates the marginal effect LSM has on dividend payout as a result of GROWTH as a mediating variable. The direction of relationship is inverse which implies that a unit rise in LSM and GROWTH leads to a 0.304% decline in dividend payout; and when PROF was mediated on LSM, it has a positive insignificant (0.2312>0.05) impact of 0.0054 on the firms' ability to pay dividend. The coefficient beta of 0.54% indicates the marginal effect LSM has on dividend payout as a result of GROWTH as a mediating variable. The direction of relationship is linear which implies that a unit rise in LSM and PROF leads to a 0.54% rise in dividend payout.

On INSID: FCF/LIQ being mediated on INSID, it has a positive significant (0.000<0.05) impact of 0.095471 on the firms' ability to pay dividend. The coefficient beta of 9.55% indicates the marginal effect INSID has on dividend payout as a result of FCF/LIQ as a mediating variable. The direction of relationship is positive which implies that a unit rise in INSID and FCF/LIQ leads to a 9.55% rise in dividend payout; LEV being mediated on INSID, it has a negative significant (0.0033<0.05) impact of 0.01348 on the firms' ability to pay dividend. The coefficient beta of 1.348% indicates the marginal effect INSID has on dividend payout as a result of LEV as a mediating variable. The direction of relationship is negative which implies that a unit rise in INSID and LEV leads to a 1.348% decline in dividend payout; GROWTH being mediated on INSID, it has a positive insignificant (0.2603>0.05) impact of 0.008019 on the firms' ability to pay dividend. The coefficient beta of 0.80% indicates the marginal effect INSID has on dividend payout as a result GROWTH as a mediating variable. The direction of relationship is positive which implies that a unit rise in INSID and GROWTH leads to a 0.80% rise in dividend payout; and PROF being mediated on INSID, it has a negative insignificant (0.6986>0.05) impact of 0.00156 on the firms' ability to pay dividend. The coefficient beta of 0.16% indicates the marginal effect INSID has on dividend payout as a result of PROF as a mediating variable. The direction of relationship is negative which implies that a unit rise in INSID and PROF leads to a 0.16% decline in dividend payout.

On EXEPAY: FCF/LIQ being mediated on EXEPAY, it has a negative insignificant (0.3056>0.05) impact of 8.32 on the firms' ability to pay dividend. The coefficient beta of 832% indicates the marginal effect EXEPAY has on dividend payout as a result of FCF/LIQ as a mediating variable. The direction of relationship is negative which implies that a unit rise in EXEPAY and FCF/LIQ leads to a 832% decline in dividend payout; LEV being mediated on EXEPAY, it has a positive significant (0.000<0.05) impact of 4.25 on the firms' ability to pay

dividend. The coefficient beta of 425% indicates the marginal effect EXEPAY has on dividend payout as a result of LEV as a mediating variable. The direction of relationship is positive which implies that a unit rise in EXEPAY and LEV leads to a 425% rise in dividend payout; GROWTH being mediated on EXEPAY, it has a positive insignificant (0.412>0.05) impact of 6.19 on the firms' ability to pay dividend. The coefficient beta of 619% indicates the marginal effect EXEPAY has on dividend payout as a result of GROWTH as a mediating variable. The direction of relationship is positive which implies that a unit rise in EXEPAY and GROWTH leads to a 619% decline in dividend payout; and PROF being mediated on EXEPAY, it has a negative insignificant (0.8947>0.05) impact of 3.64 on the firms' ability to pay dividend. The coefficient beta of 364% indicates the marginal effect EXEPAY has on dividend payout as a result of PROF as a mediating variable. The direction of relationship is negative which implies that a unit rise in EXEPAY and PROF leads to a 364% decline in dividend payout.

Test of Hypotheses

 The aim of the study is to determine the effect of agency factors on dividend policy. However, the specific objective was to determine the marginal impact agency cost variables has on dividend payout as a result of other mediating variables such as free cash flow, leverage, growth and profitability. In order to achieve these specific objectives, the study raised three set of hypotheses, each with four sub-hypotheses. The FEM result on table 6 served as the basis for the hypotheses testing and discussion of findings.

First set of Hypothesis

H_{0a}: Large shareholders monitoring has no significant impact on dividend payout as a result of free cash flow/liquidity mediating variable: The null hypothesis that large shareholders monitoring has no significant impact on dividend payout as a result of free cash flow/liquidity as a mediating variable was accepted because the probability statistic value of 0.5564 is greater than 5% (0.5564>0.05).This implies that the marginal effect of -0.00591 LSM has on dividend payout as a result of FCF position is insignificant to determine whether these sampled company will pay dividend or not. This seems to be contrary to general expectation that is it only a firm that is liquid that has the capacity to pay dividend. The explanation for this result could be that liquidity does not necessarily translate into paying of dividend; firms may pursue expansionary policies and could see internal sources of revenue (earnings) as a cheap source of financing this expansion drive rather than relying on external means of financing. This argument is in tandem with the study of Chen and Dhiensiri (2009) that firms with high growth are likely to pay lower dividend in order to drive their expansionary drive. Most of the findings on the impact of

LSM on dividend are mixed: study of significant impact is Claessens et al. (2000) while study of insignificant impact is Gesser et al. (2005). On the impact of FCF on dividend payout, it has been both significant (La porta et al. 2000) and insignificant (Marfo-Yiadom & Agyei, 2011). However, due to the paucity of studies on the marginal impact LSM has on dividend payout as a result of FCF/LIQ, there is no basis of comparison of findings in this study with others.

H$_{0b}$: Large shareholders monitoring has no significant impact on dividend payout as a result of leverage as a mediating variable: The null hypothesis that large shareholders monitoring has no significant impact on dividend payout as a result of leverage as a mediating variable was accepted because the probability statistic value of 0.5362 is greater than 5% (0.5362>0.05).This implies that the marginal effect of -0.00179 LSM has on dividend payout as a result of the proportion of debt financing in its capital structure is insignificant to determine whether these sampled company will pay dividend or not. This seems not to be in tandem with general expectation that a firm which is prone to liquidation risk as a result of high debt profile in its capital structure may want to withhold earning in form of dividend so as to settle the liability of debt holders. The explanation for this result could be the signaling effect of dividend payment, that is a dividend paying firm attracts prospective investors which translates into enhanced resource inflow and as such whether the firm has high debt capital structure or not, its ability to pay dividend could attract more capital, thus its survival. Studies of Kowalewski, Stetsyuk, and Talavera (2007) and Mollah, Keasey, and Short (2002) opined that more indebted firms prefer to pay lower dividend. On the marginal impact of LSM on dividend payout as a result of LEV, there is no basis of comparison.

H$_{0c}$: Large shareholders monitoring has no significant impact on dividend payout as a result of growth as a mediating variable: The null hypothesis that large shareholders monitoring has no significant impact on dividend payout as a result of growth as a mediating variable was accepted because the probability statistic value of 0.1978 is greater than 5% (0.1978>0.05).This implies that the marginal effect of -0.00304 LSM has on dividend payout as a result of the GROWTH position is insignificant to determine whether these sampled company will pay dividend or not. This seems not to be in tandem with general expectation that growth of the firm should have a significant marginal effect on dividend payout. The explanation for this result could be that small company may strive to pay dividend thus signaling prospective investors. It is expected that an enhanced capital base will translate to expansionary drive, thus firm growth. Myer and Majluf (1984) posited that an investment policy of a growing firm can be substituted for dividend payout. On the marginal impact of LSM on dividend payout as a result of GROWTH, there is no basis of comparison.

H$_{0d}$: Large shareholders monitoring has no significant impact on dividend payout as a result of profitability as a mediating variable: The null hypothesis that large shareholders monitoring has no significant impact on dividend payout as a result of profitability as a mediating variable was accepted because the probability statistic value of 0.2312 is greater than 5% (0.2312>0.05).This implies that the marginal effect of 0.0054 LSM has on dividend payout as a result of PROF position is insignificant to determine whether these sampled company will pay dividend or not. This result could be explained against the backdrop that profitability of these firms does not necessarily mean they are liquid. Similarly, an enhanced liquidity position may also not translate to dividend payment in view of the fact that these institutional investors may not be interested in annual dividend, rather rapid expansionary drive of the firms. A particular line of studies opined that profitable firms are most likely to pay dividend compared to non profitable firms (Eriostis & Vasiliou, 2003; Ahmed & Javid, 2009; Al-Kuwari, 2009). On the contrary, Al-Kuwari (1998) noted that managers settle to pay smaller amount of dividend in order to cope with the changes in the future when a company expects less cash flow. On the marginal impact of LSM on dividend payout as a result of PROF, there is no basis of comparison.

Second set of Hypothesis

H$_{0a}$: Insider ownership has no significant impact on dividend payout as a result of free cash flow/liquidity mediating variable: The null hypothesis that insider ownership has no significant impact on dividend payout as a result of free cash flow/liquidity as a mediating variable was rejected because the probability statistic value of 0.0001 is lesser than 5% (0.0001<0.05). This implies that the marginal effect of 4.199583 INSID has on dividend payout as a result of FCF position is significant to determine the payment of dividend by these firms. This result is in tandem with general expectation that insider ownership could curtail information asymmetry between the agents (managers) and principal (owners) and one means of doing so is through dividend payment. This is also enhanced with a good liquidity position of the firms. A further explanation for this result is that managers may want to work efficiently to achieve high profitability and liquidity base giving that they are part owners of the firms. The following particular line of studies find significant impact of INSID on dividend payout: Holder, Langrehr and Hexter (1998), Short, Zhang and Keasey (2002). On FCF on dividend payout, it has been both significant (Laporta et al. 2000) and insignificant (Marfo-Yiadom & Agyei, 2011). To the best of my knowledge, no extant literature exists on the marginal effect of INSID on dividend payout as a result of FCC, thus no basis of comparison.

H$_{0b}$: Insider ownership has no significant impact on dividend payout as a result of leverage as a mediating variable: The null hypothesis that insider ownership has no significant impact on

dividend payout as a result of leverage as a mediating variable was rejected because the probability statistic value of 0.0033 is lesser than 5% (0.0033<0.05). This implies that the marginal effect of -0.01348 INSID has on dividend payout as a result of leverage position is significant to determine the payment of dividend by these firms. This result seems to be in tandem with general expectation that an ailing firm may not be able to pay dividend to its principals. A further explanation for this result could be that management will be primarily interested in settling the obligation of debt holders rather that dividend payment. On the marginal impact of LSM on dividend payout as a result of LEV, there is no basis of comparison as extant literature is lacking in this area.

H_{0c}: Insider ownership has no significant impact on dividend payout as a result of growth as a mediating variable: The null hypothesis that insider ownership has no significant impact on dividend payout as a result of growth as a mediating variable was accepted because the probability statistic value of 0.2603 is greater than 5% (0.2603>0.05). This implies that the marginal effect of 0.008019 INSID has on dividend payout as a result of GROWTH position is insignificant to determine whether theses samples company will pay dividend or not. The explanation for this result is in two folds: first, a growing firm may not want to pay dividend, rather would want to further expand the firm; second, a firm that is not growing may want to pay dividend as a signaling measure to attract prospective investors. On the marginal impact of LSM on dividend payout as a result of GROWTH, there is no basis of comparison as extant literature is lacking in this area.

H_{0d}: Insider ownership has no significant impact on dividend payout as a result of profitability as a mediating variable: The null hypothesis that insider ownership has no significant impact on dividend payout as a result of profitability as a mediating variable was accepted because the probability statistic value of 0.6986 is greater than 5% (0.6986>0.05). This implies that the marginal effect of -0.00156 INSID has on dividend payout as a result of profitability position is insignificant to determine whether theses samples company will pay dividend or not. As explained earlier, a profitable firm does not necessarily translate into liquidity. On the marginal impact of LSM on dividend payout as a result of PROF, there is no basis of comparison as extant literature is lacking in this area.

Third set of hypotheses

H_{0a}: Executive compensation has no significant impact on dividend payout as a result of free cash flow/liquidity mediating variable: The null hypothesis that executive compensation has no significant impact on dividend payout as a result of free cash flow/liquidity as a mediating variable was accepted because the probability statistic value of 0.3056 is greater than 5%

(0.3056>0.05).This implies that the marginal effect of -8.32E-06 EXEPAY has on dividend payout as a result of FCF position is insignificant to determine the payment of dividend by these firms. This unexpected result could be explained against the backdrop that managerial incentive could be insignificant compared to other perquisites they may gain by withholding information from their principal. As such, trying to discourage this insider information through managerial incentive may have no impact on managers to refrain from insider practices. The study of Carlson and Vogel (2006) found a significant impact of EXEPAY on dividend payout. On the marginal impact of EXEPAY on dividend payout as a result of FCF/LIQ, there is no basis of comparison as extant literature is lacking in this area.

H_{0b}: Executive compensation has no significant impact on dividend payout as a result of leverage as a mediating variable: The null hypothesis that executive compensation has no significant impact on dividend payout as a result of leverage as a mediating variable was rejected because the probability statistic value of 0.0001 is lesser than 5% (0.0001<0.05).This implies that the marginal effect of 4.25E-06 EXEPAY has on dividend payout as a result of LEV is significant to determine the payment of dividend by these firms. As earlier mentioned, the explanation for this is that an ailing firm may not have the well withal to pay dividend to its principal. On the marginal impact of EXEPAY on dividend payout as a result of LEV, there is no basis of comparison as extant literature is lacking in this area.

H_{0c}: Executive compensation has no significant impact on dividend payout as a result of growth as a mediating variable: The null hypothesis that executive compensation has no significant impact on dividend payout as a result of growth as a mediating variable was accepted because the probability statistic value of 0.412 is greater than 5% (0.412>0.05).This implies that the marginal effect of 6.16E-07 EXEPAY has on dividend payout as a result of GROWTH position is insignificant to determine the payment of dividend by these firms. As explained earlier, not all well grown firms may want to pay dividend, also small firms may want to pay dividend in order to attract investors. On the marginal impact of EXEPAY on dividend payout as a result of GROWTH, there is no basis of comparison as extant literature is lacking in this area.

H_{0d}: Executive compensation has no significant impact of dividend payout as a result of profitability as a mediating variable: The null hypothesis that executive compensation has no significant impact on dividend payout as a result of profitability as a mediating variable was accepted because the probability statistic value of 0.8949 is greater than 5% (0.8949>0.05).This implies that the marginal effect of -3.64E-07 EXEPAY has on dividend payout as a result of PROF position is insignificant to determine the payment of dividend by these firms. The explanation for this result is in line with previous explanation in the case of LSM and EXEPAY.

On the marginal impact of EXEPAY on dividend payout as a result of PROF, there is no basis of comparison as extant literature is lacking in this area.

CONCLUSION AND RECOMMENDATIONS

The study investigates the effect of agency cost factors on the dividend policy of listed firms in Nigeria. The assumption that a dependent variable is explained by a particular independent variable per time while holding others constant could not be true. This idea necessitated interacting each of the agency cost variable with other variables to account for its marginal effect on dividend payout, thus the motivation for this study. The study covered a period of five years, 2010 to 2014, with coverage of sixty-six (66) listed firms in the Nigerian Stock Exchange (NSE). However taken each of the agency cost variable individually, only executive compensation is significantly related to dividend payout. However, interacting FCF/LIQ, LEV, GROWTH and PROF with LSM, the marginal effect revealed insignificant impact on dividend payout, though with mixed relationship. Interacting FCF/LIQ and LEV on INSID, the marginal effect on dividend payout appears significant while GROWTH and PROF on INSID exhibited insignificant marginal impact on dividend payout. Finally, interacting LEV with EXEPAY exhibited significant marginal impact on dividend payout while FCF, GROWTH and PROF on EXEPAY exhibited insignificant impact on dividend payout, though with mixed relationship.

In line with the motivation for this study, the researcher recommend further research work in this area to explore the marginal effect agency cost has on dividend payout taking into consideration other likely variables. Outside academics and research, the result of the study has implication for both investors and management. The fortune of the management is inexorably tied to that of shareholders. The symbiotic relationship between management and shareholders is established by the significance of executive compensation in relationship with dividend payout. In same vein, this significant symbiotic relationship is also a function of the leverage position in the firm. An ailing firm may chose to pay low dividend in order to meet up with its financial obligation. The study gave the following further recommendation:

Investor- Particularly the study provides evidence that executive compensation is positively related to dividend policy and this significantly so. The implication for the investors is that as the firm's management seeks to achieve their own interest, it is incumbent on them to make shareholders happy. This can be done by the dividend distribution made by the management of the companies. The investors who focus on dividend as a source of revenue should pay particular attention to those firms in which management compensation seem to increase over time.

Management- The relationship established between dividend payout and executive compensation, implies that management compensation improvement must be matched with distribution to shareholders. Pursuing a dividend policy that is not in consonance with executive compensation may likely trigger shareholder disaffection. This can be expressed in different ways such as dumping the shares of the company.

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