



Firm Characteristics and Dividend Policy of Quoted Manufacturing Firms in Sub-Sahara Africa

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Authors' contributions

This work was carried out in collaboration between both authors. Author AAT, supervised and performed the statistical analysis of the study. Author AMK, designed the study, wrote the protocol and managed the literature searches of the study. Both authors read and approved the final manuscript.

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ABSTRACT

The study examined the effect of firm characteristics on dividend policy in quoted manufacturing firms in Sub-Sahara Africa. Panel data were obtained from twenty (20) quoted manufacturing firms from the Nigerian Stock Exchange, Ghana Stock Exchange, Lusaka Stock Exchange, Johannesburg Stock Exchange and Nairobi Stock Exchange over a period of ten (10) years (2008-2017). The data were analyzed using both descriptive and inferential statistics. Dividend payout ratio was used as a proxy for dividend policy, while liquidity, ownership structure, firm size and leverage were used as proxies for firm characteristics. The study found liquidity to have a positive insignificant impact on dividend payout ratio; a positive insignificant impact of ownership structure on dividend payout ratio; a positive insignificant impact of firm size on dividend payout ratio; a positive significant impact of leverage on dividend payout ratio and jointly, a positive significant impact. It was therefore recommended that manufacturing firms should practice optimum working capital management in order to increase its liquidity level and diminish any likelihood of financial distress. An efficient use of its resources in order to improve performance, profitability as well as its ability to pay dividends. Investors should look out for trends in dividend payments before making investments.

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1. INTRODUCTION

The debate on the role dividend and dividend policy plays in the growth and development of a firm has been ongoing for many decades. Scholars have persisted in their effort to show the importance of dividend and corporate dividend policy in firms' value creation. Corporate and finance managers acknowledged the significance of dividend payments in fulfilling shareholders' expectations. They often smoothen dividends over time with the hope that, dividend reductions may have unfavorable impact on share price and therefore make use of dividends as a device to signal vital information to the market. The term dividend means a reward or an individual's share of something that is distributed or the distribution of earnings to the shareholders. The profits generated by a firm are invested further either in the existing business or in new investment opportunities to generate growth and hence, create value for the business. For many investors, an important consideration is whether a company pays dividends and the size of those dividends. The term dividend is used because the company's profits are being divided up amongst its shareholders. Dividend amounts are usually expressed and paid out on a per share basis, so the more shares shareholders own, the more dividends they will receive. One important document that help determine the method each organization adopts in carrying out dividend distribution among its shareholders is the dividend policy statement. This is because, dividends decisions are not standardized. They differ from company to company, industry to industry and from year to year [1].

Dividend policy has recorded major changes in the past decades. These changes are related not only to managers' willingness to pay but also to national regulations, macroeconomic trends, recessions, and financial crisis [2]. Soondur et al. [3] stated that the development of dividend policy walks in hand with corporate development as dividend policy has a direct bearing on the changing shape of financial markets. In the early stages of corporate history, managers realized the importance of dividend payments in fulfilling shareholders expectations.

A well regulated stock market is a vehicle for economic development, and should have a by-product effect on the dividend policy of public companies. The differences in the dividend policy

in different companies in Africa, has been noticed. Studies such as [3,4,5] have focused on various implications of dividend policy in developing economies particularly in Africa.

The irregularity of dividend in the region has in most cases been an intentional policy of the management of various companies. According to [6] the outline of dividend policies does not only fluctuate over time, but also across countries, especially between developed, developing and emerging markets. Recent developments such financial recession, economic meltdown, inconsistent economic policies, insolvency and bad management strategies among others have led to inconsistent characteristics among firms in sub-Saharan African thereby giving rise to the need of inquiries of this nature. To this end, this study seeks to evaluate firm characteristics and dividend policies of some listed manufacturing outfits in sub-Saharan Africa.

The inconsistency in the dividend policy of quoted firms in Africa and the implications on the general economic activities and growth has not gone unnoticed. Studies such as [7,8,9,10] have focused on various implications of dividend policy in developing economies particularly in Africa and stated that the abnormal design of dividend in the region has often been a deliberate management policy. Generally, the dividend policy of firms in developing economies varies in some respects with those of developed economies.

In the case of growing economies in Africa specifically, the sub-Saharan region, scarce research has been carried out and this is because most of the studies carried out on this aspect of corporate finance is based on data and information obtained from developed markets. As seen in literatures, majority of the studies have shown that dividend policy behaviors of firms operating in developing economies are significantly different from the dividend policy obtainable in developed markets. However, developing markets are more responsive to some variables, which show the greater financial limitations under which the firms operate [5] Vast studies have been published on dividend policy in developed markets but very few studies have examined dividend policy of listed firms in Africa stock exchange particularly, the sub-Saharan region. This study therefore intends to fill the function by examining whether firm

characteristics and factors such as ownership structure, liquidity, firm size, and leverage impact on dividend policy decisions of manufacturing firms quoted in sub-Saharan Africa.

Primarily, the study aims at examining the impact of firm characteristics on dividend policy of listed firms in Sub-Saharan Africa from 2008-2017. Other objectives are to ascertain the impact of liquidity on dividend policy, determine the impact of ownership structure on dividend policy, evaluate the impact of the firm size on dividend policy and to identify the impact of financial leverage on the dividend policy of quoted manufacturing firms in Sub-Saharan Africa.

This findings investigated the significance level on the impact of liquidity, ownership structure, firm size, and financial leverage on the dividend policy of quoted manufacturing firms in Sub-Saharan Africa from 2008-2017.

It is believed that this study will contribute to the corporate finance literature, already existing knowledge on dividend policy, create a nexus between the determinants of dividend policy and existing firm characteristics, both financial and non-financial in sub-Saharan Africa and as well make up for the insufficient scholarly paper in sub-Saharan Africa on the impact of firm characteristics on dividend policy.

2. LITERATURE REVIEW

2.1 Firm Characteristics

Firm characteristics are the firm's resources and objectives that influence the performance of organization, [11]. These firm characteristics include structure, market and capital-related variables. Structure related variables include firm size, ownership and firm age. Market related variables include industry type, environmental uncertainty and market environment. Capital related variables include capital density and liquidity. Structure related firm characteristics include size, age and ownership. The size reflects how large an enterprise is in infrastructure and employment terms. Firm characteristics can be in form of enterprise size which is significantly linked to a better business performance [12]. High performance reflects management effectiveness and efficiency in making use of company's resources and this in turn contributes to the country's economy at large. Empirical literature examines how financial and non-financial characteristics, such as leverage, liquidity, size; age and diversification

have an influence on the firms' financial performance and growth. These characteristics can be easily measured by using available data from respective firms.

According to Kaguri [13], also stated that these firm characteristics have an influence on firms' financial performance and growth. [14] acknowledged that relationship between firm characteristics and entrepreneurial performance is a controversial issue in the field of research. However, in their study, [14] stated that firm characteristics are the essential determinants of firm performance as well as its success.

2.2 Dividend Policy

Dividend policy is a statement guiding the payment or appropriation of profit between the firm and its shareholders. It is a statement clarifying the proportion of profit that should be paid out as dividend to shareholders taking cognizance of the organization's environment and the expectations of the shareholders. It is a statement that comprises the two extreme of zero percent dividend (retain all) and hundred percent dividend (pay-out all) [15]. Dividend policy assists management in decision making as regards to what to do with profit earned during a financial period. According to Miller and Modigliani [16], the dividend policy of a firm determines the magnitude of the earnings distributed to shareholders. The net operating profit or profit after tax (PAT) has to be intelligently apportioned between dividend payments and investment. It also determines the amount of dividend payment to be made to the shareholders, the date of payment of dividends and the effect of the dividend policy on the value of the firm.

According to Das [17], Dividend payout policy of any organization depends on the expected cash inflows and can be defined as the percentage of amount distributed among shareholders out of profit. This implies that without profit, there will be no dividend. Dividends are normally paid either in form of cash or stock dividend that might be stock of other company as well, which is subsidiary of parent company announcing dividend. In general, investors will not invest in a company, which does not have fair dividend policy or will definitely divest from such. This could clarify why firms adhere to certain dividend strategy and management tries to at-least maintain a constant amount of dividend payable within a specified period.

2.3 Theoretical Framework

This study is anchored on Agency theory [18], Pecking order theory [19] modified by Myers and Majluf [20] and Signaling theory [21].

2.4 Agency Theory

The Agency theory assumes that a human being is rational, self-interested and opportunistic. According to Eisenhardt [22] the principals (shareholders) own the company, but the agents (managers) control it. The relationship brings about the need for agency costs. It holds that payment of dividend reduces free cash flow available for management to pursue their personal opportunistic consumption and suboptimal investments [23]. Payment of dividend forces management to go to the capital market in order to raise needed capital for investment hence ensuring that only viable projects are undertaken. The company should pay the shareholders profits that rightly belongs to them and let them make their own investment decisions. When a company is controlled by a majority of insiders; there is less need to pay dividends to reduce agency costs. At the contrary, agency cost will become higher when the shareholding structure of a company is dispersed and hence higher dividend payout.

2.5 Pecking Order Theory

This theory was first suggested by Donaldson [19] and further modified by Myers and Majluf [20]. The Pecking Order Theory explained that firms follow a hierarchy of financial decisions when establishing its capital structure. The pecking order theory backs the explanation on the type of capital structure decision by managers. The use of debt financing may result in substantial costs including bankruptcy costs and debt agency costs incurred as debt holders have to bear higher risk. Additionally, similar to the use of debt, dividend payout policy is not costless. Since external capital is raised to pay for the dividends, substantial flotation costs will be paid to investment bankers [24]. As such, firms may find that it is optimal to utilize the combination of debt and dividend as well as managerial ownership to control agency conflicts in the firm. This theory will be used to support the negative effect of leverage on dividend policy since it is expensive.

2.6 Signaling Theory

The signaling theory was introduced by Michael [21]. Signaling is the idea that one agent conveys

some information about itself to another party through an action. The theory considers that Insiders obtain both positive and negative private information, and they must decide whether to communicate this information to outsiders. Signaling theory focuses primarily on the deliberate communication of positive information in an effort to convey positive organizational attributes. Most times, firm size, ownership structures and dividend payments are used as a signal by the management to the outsiders that the firm is performing well, thereby increasing its chances of getting more investors. This improves firm's performance, while a decrease suggests a worsening of its future profitability.

3. RESEARCH METHODOLOGY

Through descriptive and inferential statistic, this study examined the impact of firm characteristics on dividend policy of quoted manufacturing firms in Sub-Sahara Africa. Twenty (20) manufacturing firms were used from the period of 2008-2017, giving a total observation of two hundred (n = 200). Data were sourced from the annual reports of the manufacturing firms. Dividend payout ratio (DPR) was used as a proxy for Dividend policy while liquidity (LIQ), ownership structure (OS), firm size (FS) and leverage (LEV) were used as proxies for Firm Characteristics.

The pre-estimation analysis was done in two-folds: the first provides descriptive statistics for all the variables employed in the study, the second shows the association of the variables using a panel ordinary least square regression.

3.1 Model Specification

The following models were stated to guide the test of hypothesis;

$$DPR = f(LIQ, OS, FS, LEV) \quad (1)$$

Equation (1) above is specified as an econometric model below

$$DPR_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 OS_{it} + \beta_3 FS_{it} + \beta_4 LEV_{it} + \mu_{it}$$

Where:

DPR=Dividend payout ratio

LIQ = Liquidity

OS = Ownership Structure

FS = Firm Size

LEV = Leverage

μ = Error Term

t = the period of study (2008-2017)

i = the firms under study

β_0 is the constant, and β_1 - β_4 coefficients of independent variables of the model stated above which captures the impact of the changes in each independent variable on the dependent variable. (DPR) μ is the error term which captures the unexplained variations in the model.

Table 1. A priori expectation

S/N	Coefficients	Expected
1.	β_1	+
2.	β_2	+
3.	β_3	+
4.	β_4	-

Source: Researcher's field survey desk report, 2019

Furthermore, it was expected that the coefficients of the dependent and independent variables will be β_1 - $\beta_3 > 0$ while $\beta_4 < 0$.

3.2 Analysis of Data

The Table 2 shows the descriptive statistics of the variables under study from 20 quoted manufacturing companies in Sub-Saharan region of African. In reference to the explanatory variables LIQ represents liquidity, OS represents Ownership structure, FS represents Firm size while LEV represents Leverage. The mean values show the average value of the data set, the minimum and maximum values show the lowest and highest values in the data set respectively.

In order to establish the statistical significance of the independent variables on the dependent variable (DP) regression analysis was employed. The results indicate the independent variables LIQ, OS, FS, and LEV are significant in explaining the dividend policy of 20 quoted manufacturing companies in Sub Sahara region of African. Supported by (f-stat, p-value= 0.000 < 0.05).

Table 3 showed the extent at which each independent variables impact the dependent variable.

4. DISCUSSION AND INTERPRETATION OF FINDINGS

From Table 2, it shows the relationship between joint firm characteristics and dividend policy in quoted manufacturing firms in Sub-Sahara Africa. The regression result shows R-squared of 33.21% and adjusted R-squared of 31.84% revealing that 31.84% of changes in the dependent variable can be explained by the independent variable. The F-statistics is positive (24.24) which shows that the probability of the f-statistic is significant at 5% level of significance. From the analysis, it is revealed that there is a significant relationship between firm characteristics and dividend policy of quoted manufacturing firms in sub-sahara Africa. This correlates with a study conducted by [25] in Pakistan, who found a positive significant effect of firm characteristics on dividends policy of the firm. Similarly Again, [6] found that lucrative companies out of the selected 48 companies listed on the Tunisian stock exchange with constant earnings (firm characteristics) can support bigger free cash flows and pay higher dividend. In the line [26] reported from their studies on the effect of firm characteristics on dividend decisions at Bulgarian companies. It was established that firm size (firm characteristics) has a positive significant effect on dividend policy.

Furthermore from Table 3, Examining the individual coefficients of the independent variables, it shows that there exists a positive (0.0519) insignificant (t=0.04) relationship between liquidity and dividend payout ratio in quoted manufacturing firms in sub-sahara Africa. These findings are in line with [27] whose study revealed a positive but not significance relationship between liquidity and dividend payout. Opposed by [28] who observed that Liquidity is a significant factor determining dividend policy.

Table 2. Descriptive statistics from 2008-2017

Variables	Mean	Std. Dev.	Min	Max
LIQ	1.375	1.812	0.110	13.538
OS	0.021	0.084	0	1
FS	21.557	2.946	14.006	26.669
LEV	15.133	49.020	0	329.255
DPR	4.051	35.134	-1.683	363.946

Source: Researcher's Computation, 2019

Table 3. Regression, weighted statistics

Model Indicators	Coefficients
R-squared	0.3321
Adjusted R-squared	0.3184
F statistic (4;195)	24.24
P-value (F-statistic)	0.000
Evaluating statistics	Values
• Breusch and pagan Lagrangian statistics	0.00
• Test for heteroskedasticity stat	2300.89
• Wooldridge test for autocorrelation stat	124.025

Source: Researcher's Computation, 2019

Table 4. Regression coefficients

Variable	Coefficient	Std error	T	P-value
LIQ	0.052	1.357	0.04	0.970
OS	10.497	27.830	0.38	0.706
FS	0.160	0.818	0.20	0.845
LEV	0.410	0.044	9.38	0.000*
Cons	-5.900	18.731	-0.31	0.753
F statistics	24.24			
Prob (f-statistics)	0.0000			
Adj. R ²	0.3282			
t-tabulated	1.96			

Source: Researcher's Computation, 2019

Moreover, There exists a positive (10.497) insignificant (t=0.38) relationship between ownership structure and dividend payout ratio in quoted manufacturing firms in sub-sahara Africa. This corroborates with a study led by Sumail [29], Hong et al. [30] observed a positive relationship between ownership structure and dividend payout. Conversely, [25] shows that ownership structure has significant positive effect on dividend policy of the firm.

Furthermore, there exists positive (0.160) insignificant (t=0.20) relation between firm size and dividend payout ratio in quoted manufacturing firms in sub-sahara Africa. This finding is in line with those of Rafailov and Trifonova [26] who found a positive but significant effect on dividend policy and [31].

There exists a positive (0.410) significant (t=9.38) relationship between leverage and dividend payout ratio in quoted manufacturing firms in Sub-sahara Africa. This is in line with the work of Odum and Odum [32] as opposed by Maziar et al. [33] who found to have a simultaneous negative impact of leverage on dividends. In the same line [5] showed a negative significant relationship between leverage and dividend policy.

It was found that The combined effect (F-stat) of all the independent variables on dependent variable at 24.24 with a p-value of 0.000 revealed that joint firm characteristics (liquidity, ownership structure, firm size, leverage) had a significant effect on dividend policy in quoted manufacturing firms in Sub-Saharan Africa.

It also revealed that only leverage had a positive significant effect on dividend policy. This finding is consistent with the *a priori* expectation as it was expected that leverage would have a negative effect on dividend payout decisions. This implies that some companies may use part of their long term debts to pay dividends in order not to send a negative signal to investors and potential investors out there, compare to others variables {LOQ (0.97) > 0.05; OS (0.70) > 0.05 and FS (0.84) > 0.05}.

5. CONCLUSION AND RECOMMENDATION

This study examined the effect of firm characteristics on dividend policy of quoted manufacturing firms in sub-sahara Africa, using an observation of 200 from 2008-2017. The study concluded that there is a positive and insignificant relationship between liquidity and

dividend payout ratio, a positive and insignificant relationship between ownership structure and dividend payout ratio, a positive and insignificant relationship between firm size and dividend payout ratio and also a positive and significant relationship between leverage and dividend payout ratio.

Based on the conclusion in the above paragraph it was therefore recommended that manufacturing firms should practice optimum working capital management in order to increase its liquidity level and diminish any likelihood of financial distress. An efficient use of its resources in order to improve performance, profitability as well as its ability to pay dividends. Investors should look out for trends in dividend payments before making investments.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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