

Dividend Payout and Performance of Quoted Manufacturing Firms in Ghana

Richard Ndibanla Onanjiri^{1*} Thomas Korankye²

1.First Atlantic Bank Ltd, Atlantic Place No.1 Seventh Avenue, Ridge West, Accra, Ghana

2.Consultancy and Business Incubation Centre, Institute of Entrepreneurship and Enterprise Development
Kumasi Polytechnic, P. O. Box 854, Kumasi, Ghana.

*Email of corresponding author: ndibanla@yahoo.co.uk ronanjiri@firstatlanticbank.com.gh

Abstract

Purpose - This study sought to ascertain the impact of dividend payout on the financial performance of manufacturing firms which trade on the Ghana Stock Exchange. Panel data extracted from audited financial statements of sampled firms from 2004 to 2011 financial years were analysed within the framework of the fixed effects model after carrying out Hausman specification test. The descriptive statistics show that the average dividend payout is 32.93% while the mean performance (return on assets) is 1.08% during the study period. The regression results reveal that dividend payout significantly but negatively impacts on quoted manufacturing firms' financial performance in Ghana. For the control variables, size and leverage were inversely related to performance while sales growth positively correlated with performance. Except size, all the control variables were found to be statistically significant. Intuitively, quoted manufacturing firms in Ghana which are interested in accentuating their return on assets may have to rationalize the quantum of dividend payout. This will help them accumulate high retained earnings to buttress investment in positive net present value projects which will fuel sales growth and thereby lessen their dependence on expensive debt finance in Ghana.

Keywords: Dividend payout, performance, manufacturing firms, Ghana

1. Introduction

Dividend policy is one of the core themes in corporate finance. Therefore, it is not surprising that several research papers spanning several decades ago have been undertaken on this theme. Research scholars including Miller and Modigliani (1961), Gordon (1963), and Lintner (1962) have all contributed to the dividend policy relevance and irrelevance debate. This paper focuses on ascertaining the impact of dividend payout on the financial performance of quoted manufacturing firms in Ghana from 2004 to 2011 financial years. Some scholars (including Marfo-Yiadom and Agyei, 2011b; Gul *et al.*, 2012, Uwuigbe *et al.*, 2012, and Badu, 2013) have used dividend policy and dividend payout interchangeably. Dividend policy is the strategy a firm adopts in distributing income to its shareholders (Gill *et al.*, 2010) while dividend payout is the income paid to shareholders of a firm (Amidu and Abor, 2006). A clear dichotomy between the two terms is crucial in advancing the debate on dividend in corporate finance. Amidu, (2007) reinforced this assertion when he revealed that dividend policy and dividend payout affect firm performance in opposite directions.

Dividend policy and payout research in Ghana as published in refereed journals have largely centred on quoted firms on the Ghana Stock Exchange (Amidu and Abor, 2006; Amidu, 2007; Adu-Boanyah *et al.*, 2013; Badu, 2013) and banking institutions (Marfo-Yiadom and Agyei, 2011a and Marfo-Yiadom and Agyei, 2011b). As Baker and Powell (2000) put it, dividend payout differs from industry to industry. This position is supported by Gill *et al.* (2010) who found the nature of the relationship between dividend payout and profitability to be different between service and manufacturing firms in the United States. This paper contributes to the debate on dividend relevance by focusing specifically on quoted manufacturing firms in Ghana. These manufacturing firms play key roles in employment generation and Gross Domestic Product (GDP) growth (Korankye and Adarquah, 2013). Krakah *et al.*, (2009) confirm that the manufacturing sector is vital in employment, wages and contribution to national output. The manufacturing sub-sector has also over the years been a significant contributor to the overall contributions by the industry sector in Ghana (ISSER, 2011). A research into the impact of dividend payout on their financial performance is necessary as it will assist respective corporate executives in making dividend payout decisions.

The rest of the paper presents overview of related literature, research methodology, results and conclusion.

2. Overview of Empirical Literature

The various theories on corporate dividend decisions such as agency theory, clientele effect, signalling theory, life-cycle theory and tax preference theory have been largely expounded in corporate finance literature. This section reviews current empirical literature relating to dividend payout and firm performance.

Amidu and Abor, (2006) found profitability and cash flow to be statistically significant positive determinants of dividend payout ratio of listed firms in Ghana. Their results also showed an inverse association

between dividend payout, and sales growth and market-to-book value. Amidu, (2007) extended his studies with Abor by analyzing how dividend payout affects the performance of listed firms on the Ghana Stock Exchange (GSE). He based his studies on the financial data of sampled firms in Ghana from 1997 to 2004. From the results of the study, Amidu, (2007) ascertained an inverse relationship between return on assets, and dividend payout and leverage of quoted firms on the Ghana Stock Exchange. The nature of this relationship concurs with what Amidu, (2007) obtained with respect to return on equity in the same study. Clearly, Amidu's results do not move in tandem with the findings he made with Abor with respect to the nature of the relationship between dividend payout and profitability. This notwithstanding, Amidu's findings concur with that of Gill *et al.*, (2010). Gill *et al* undertook a study on the determinants of dividend payout in the manufacturing and the service industries in United States. They found a negative correlation between profitability and standard dividend payout when data from manufacturing and service sectors were combined to form the entire sample. Except for the service industry, the same relationship was also found to be true in the manufacturing industry.

Adu-Boanyahet, (2013) also sought to identify the determinants of dividend payout policy of some selected firms on the Ghana Stock Exchange from 1997 to 2006 financial years. The study by Adu-Boanyah *et al.*, (2013) consisted of samples from manufacturing as well as non-manufacturing listed firms in Ghana. This is evident in the fact that the authors based their study on ten (10) sampled firms purported to be manufacturing in nature, contrary to the classification by the Ghana Stock Exchange. According to the 2011 GSE fact book, there are only seven firms listed on its bourse that are manufacturing in nature. Not surprisingly, their finding that profit realization is directly related to dividend payments is generally consistent with that of Amidu and Abor, (2006) who also undertook a study on the determinants of dividend payout ratios in Ghana from 1998 to 2003.

Kanwal and Sujata, (2008) obtained a statistically insignificant but positive relationship between dividend payout and profitability in their study involving firms constituting CNX IT index of NSE in India from 2000 to 2006. Similarly, Badu, (2013) established a statistically insignificant but positive relationship between dividend paid and profitability of listed financial institutions on the Ghana Stock Exchange between 2005 and 2009. The findings of Kanwal and Sujata, (2008) on one hand and Badu, (2013) on the other hand suggest that profitability does not necessarily influence dividend payout in respect of the firms constituting the sample size for the two studies. Badu, (2013) argue that managers of such firms pay dividends regardless of prevailing profit levels.

Few *et al.*, (2007) argued that non-dividend paying firms experience low profitability compared with firms which pay dividends. This is surprising in the sense that companies which do not pay dividends, *ceteris paribus*, are expected to have enough retained earnings available to support positive net present value capital projects. Nonetheless, proponents of the agency theory argue that conflict of interest arising from principal-agent relationship could bring about the pursuance of managers' narcissistic interests at the expense of shareholders. Thus corporate profitability could be adversely affected if managers use the undistributed earnings in ways that may not be beneficial to shareholders.

Agyei and Marfo-Yiadom, (2011a) studied the relationship between dividend policy and performance in Ghana using a five-year panel data involving 16 commercial banks ending 2003. They found a positive correlation between profitability and dividend paid. Similarly, Marfo-Yiadom and Agyei, (2011b) ascertained profitability, debt, collateral capacity and dividend changes to be positive determinants of dividend payout. Uwuigbe *et al.*, (2012) also found a significant positive association between the performance of listed firms in Nigeria and dividend payout for the period 2006 to 2010. Uwuigbe *et al*'s result lays credence to the findings of Amidu and Abor, (2006) and Agyei and Marfo-Yiadom, (2011a) that a firm's ability to pay dividends increases with increases in profitability.

Conventionally, high payout ratios are expected to result in low earnings growth. This is because the payment of high dividends diminishes the internally generated funds available for reinvestment purposes. Accordingly, Farsio *et al.*, (2004) posit that a negative relationship exists between dividend payout and earnings growth for firms which pay high dividends at the expense of investments in growth opportunities. However, proponents of the free cash flow theory contend that low payout ratios predate low earnings growth. Consistent with the free cash flow theory, dividend payout ratios have been found to move in tandem with earnings growth, especially in developed markets (Arnott and Asness, 2003; Zhou and Ruland, 2006; and Gwilym *et al.*, 2006). Arnott and Asness, (2003) argued that the tendency for managers to invest in suboptimal investment projects is minimized when access to retained earnings is limited and managers would have to resort to alternative sources of financing. This notwithstanding, in a study involving 300 Malaysian firms listed on the Kuala Lumpur Stock Exchange from 2001 to 2005, Al-Twajjry, (2007) educed that payout ratios have no statistically significant association with earnings and earnings volatility, in a semi-developed market such as Malaysia. The finding by Al-Twajjry implies that dividend payments among Malaysian firms do not depend on past, current or future earnings. Thus the findings by Al-Twajjry, (2007) reinforce other studies such as Glen *et al.*, (1995), that the effects of dividend payout differ based on the type of market/economy, firm and over time. Hence, this study contributes to the body of knowledge on dividend payout with evidence from quoted manufacturing firms in

Ghana.

3. Methodology

The main purpose of this study was to ascertain the impact of dividend payout on the financial performance of quoted manufacturing firms in Ghana. This section gives a description of the research methodology employed in achieving the objective of the study. Specifically, the section presents the sampling and data collection procedures, the model specification and an overview of statistical tests performed.

3.1 Sampling and Data Collection

The population and sample for this study consisted of all the manufacturing firms quoted on GSE during the study time frame. As at 2013, the GSE classified seven firms listed on its bourse as manufacturing in nature (Korankye and Adarquah, 2013). The data for the study originated from the audited financial statements of all the quoted manufacturing firms for the period 2004 to 2011 inclusive. These financial statements were obtained from Ghana Stock Exchange Fact Book and Annual Reports Ghana. The financial statements used in this study comprise of statements of financial position and comprehensive income.

3.2 Model Specification

To help improve the efficiency of the economic estimates, as a result of increased degrees of freedom and reduced collinearity, panel data was used for the study. The general form of the panel regression equation could be stated as:

$$Y_{i,t} = \alpha + \beta X_{i,t} + e_{i,t} \quad (2)$$

In equation (2), subscripts i and t respectively represents the cross-sectional and time series dimension of the data, while α and β also connotes constant and regression coefficients respectively. As $Y_{i,t}$ indicates the dependent variable, $X_{i,t}$ represents the set of exogenous variables of firm i time t , and e measures the error term.

In concordance with the model used by Amidu, (2007), the specific panel regression equation used for the study is as follows:

$$ROA_{i,t} = \alpha + \beta_1 DPOUT_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEVE_{i,t} + \beta_4 SGRTH_{i,t} + e_{i,t} \quad (3)$$

Where:

$ROA_{i,t}$ = Earnings before interest and tax divided by the book value of assets for firm i in period t

$DPOUT_{i,t}$ = Dividend per share divided by earnings per share for firm i in period t ;

$LEVE_{i,t}$ = The ratio of total debt to total assets for firm i in period t ;

$SIZE_{i,t}$ = The natural logarithm of total assets for firm i in period t ;

$SGRTH_{i,t}$ = Growth in sales for firm i in period t .

As equation 3 shows, return on assets (ROA) serves as the dependent variable. This is used to measure the manufacturing firms' performance. The independent variable is the dividend payout ratio (DPOUT). Leverage (LEVE), firm size (SIZE), and sales growth (SGRTH) are used as control variables.

3.3 Statistical Tests

To check the robustness of the model used in the study, a number of statistical tests were carried out. First, Pearson correlation was used to check for the presence of multicollinearity among the explanatory variables. Second, Hausman specification test was performed to decide the appropriate estimation technique to use to estimate the parameters of the variables in the model. Next, the Breusch-Godfrey/Wooldridge test was used to test for serial correlation. Finally, The Breusch-Pagan test was used in order to test for heteroskedasticity to see if the variance for each observation in the statistical model is not the same. The R statistical software was used to perform the statistical tests.

4. Results and Discussion

4.1 Descriptive Statistics

The descriptive summary statistics is reported in table 1. The quoted manufacturing firms paid mean dividend of 32.93% from their earnings during the study period. During this period their average return on assets stood at 1.08%; while the mean values for size, leverage and sales growth were 7.1018, 58.70% and 27.47% respectively. The manufacturing firms' average profitability is significantly low compared with the ratio of dividend per share to earnings per share. The firms' reliance on debt is also significantly high.

4.2 Correlation Matrix and Diagnostic Tests

The Pearson correlation test (table 2) is used to check for multicollinearity. The results show that multicollinearity is not a problem in the regression model since the low correlation values are not near perfect correlation.

From table 3, the p-value for the Hausman specification test is significant at 99%. This means that the

Hausman test carried out supports the fixed-effects as robust and appropriate specification for this study than the random effects. The Breusch-Godfrey/Wooldridge test for serial correlation (table 3) indicates the absence of autocorrelation in the model. This means that the error terms are uncorrelated. Finally, the Breusch-Pagan test for heteroskedasticity (table 3) shows that homoscedasticity exists. This implies that $ROA_{i,t}$ and e_{ij} are homoscedastic.

4.3 Regression results

The regression model result under fixed effects (FE), random effects (RE) and ordinary least squares (OLS) estimates are presented in table 4. The 99% statistical significance level F-statistics under each estimation technique shows that all the coefficients in the model are different than zero. This validates the regression model in equation 3. The R-square values reveal that 30%, 64% and 67% of variations in the dependent variable can be explained by the exogenous variables under the FE, RE and OLS estimations. Dividend payout is significant under FE and RE, but it is not significant in influencing performance under OLS. The study uses the FE model as the reference point for the analysis since the Hausman test shown in table 3 supports this model.

Based on the FE model from table 4, Dividend payout is negatively related to performance at the 95% level of significance. This means that dividend payout adversely impacts on the financial performance (measured by return on assets) of quoted manufacturing firms in Ghana. As a firm pays more dividends relative to earnings, its performance attenuates. Intuitively, firms with low dividend payout experience high return on assets. Such firms have access to high retained earnings which they can use as a source of finance to fund profitable net present value capital investment projects. High dividend payout manufacturing firms in Ghana end up with low retained earnings for financing capital projects. Such firms may lack the financial capability to raise funds internally and may rely on debt financing to fund capital projects. It is therefore not surprising that the manufacturing firms have high dependence on debt financing (see table 1 under descriptive statistics). The burden of paying high interest rates on debt, besides having to honour principal repayments on the debt culminate in adversely affecting the financial performance of such firms. The finding is congruent with the results of Amidu, (2007) in terms of the impact of dividend payout on return on assets. It also supports the findings by Gill *et al.*, (2010) and Farsio *et al.*, (2004). However, it disaffirms the findings of Amidu and Abor, (2006), Agyei and Marfo-Yiadom, (2011a), Uwuigbe *et al.*, (2012) and Adu-Boanyah *et al.*, (2013).

In respect of the control variables, firm size is negatively related to performance. But this is not significant in influencing manufacturing firms' return on assets. Leverage is 95% significant, and impacts on firm performance negatively. This implies that high debt usage results in low financial performance for the listed manufacturing firms in Ghana. Sales growth is 99% statistically significant and influences return on assets positively. Therefore, increasing sales is favourably associated with increasing performance. Hence, manufacturing firms desiring to increase return on assets should desire to put in place measures to stem growth in revenue.

5. Conclusion

This study ascertained the impact of dividend payout on the financial performance of quoted manufacturing firms in Ghana. Financial statement data for the study were obtained from GSE Fact Book and Annual Reports Ghana from 2004 to 2011 financial years. The Panel data regression results were analysed within the framework of the fixed effects model after carrying out Hausman specification test. The descriptive statistics have shown that the average dividend payout was 32.93% while the respective mean performance (return on assets) and leverage were 1.08% and 58.7% during the study period. The regression results have also revealed that dividend payout significantly but negatively impacts on listed manufacturing firms' financial performance. For the control variables, size and leverage inversely related to performance while sales growth positively correlated with performance. With the exception of size, all the control variables were found to be statistically significant. Intuitively, listed manufacturing firms interested in accentuating their return on assets may have to rationalize the quantum of dividend payout. This will help them accumulate high retained earnings to buttress investment in positive net present value projects which will fuel sales growth and thereby lessen their dependence on expensive debt finance.

References

- Adu-Boanyah, E., Ayentimi, T. D., and Osei-Yaw, F. (2013), "Determinants of dividend payout policy of some selected manufacturing firms listed on the Ghana Stock Exchange", *Research Journal of Finance and Accounting*, Vol. 4(5), pp. 49-60.
- Agyei, S.K. and Marfo-Yiadom, E. (2011a), "Dividend Policy and Bank Performance in Ghana", *International Journal of Economics and Finance*, Vol. 3(4), pp. 202-207.
- Amidu, M. and Abor, J. (2006), "Determinants of the Dividend Payout Ratio in Ghana", *The Journal of Risk Finance*, Vol. 7(2), pp. 136-145.

- Al-Twaijry, A. A. (2007), "Dividend Policy and Payout Ratio: Evidence from the Kuala Lumpur Stock Exchange", *Journal of Risk Finance*, Vol. 8(4), pp. 349-363
- Amidu, M. (2007), "How Does Dividend Policy Affect Performance of the Firm on Ghana Stock Exchange?", *Investment Management and Financial Innovations*, Vol. 4, Issue 2, 103-112.
- Arnott, R. and Asness, C. (2003), "Surprise! Higher Dividends – Higher Earnings Growth", *Financial Analysts Journal*, Vol. 59 No. 1, pp. 70-87.
- Badu, E.A. (2013), "Determinants of Dividend Payout Policy of Listed Financial Institutions in Ghana", *Research Journal of Finance and Accounting*, Vol.4 (7), pp. 185-190
- Baker, H.K. and Powell, G.E. (2000), "Determinants of Corporate Dividend Policy: A Survey of NYSE Firms", *Financial Practice and Education*, Vol. 10, pp. 29-40.
- Farsio, F., Geary, A., and Moser, J. (2004), "The Relationship between Dividends and Earnings", *Journal for Economic Educators*, Vol. 4(4), pp. 1-5.
- Few, S. L., Abdull, M., Mohd, L., Shahrin, A. R. and Othman, M. S. (2007), *Dividend Policy: Evidence From Public Listed Companies in Malaysia*, In: The 7th International Business Research Conference, December 3-6, 2007, Sydney, Australia.
- Gill, A., Biger, N., and Tibrewala, R. (2010), "Determinants of Dividend Payout Ratios: Evidence from United States", *The Open Business Journal*, Vol.(3), pp. 8 -14
- Glen, J.D., Karmokolias, Y., Miller, R. R. and Shah, S. (1995). *Dividend Policy and behavior in emerging markets*, International Financial Corporation, Discussion Paper No. 26.
- Gordon, M. J. (1963), "Optimal Investment and Financing Policy", *Journal of Finance*, Vol.18 (2): 264-72
- Gwilym, O., Seaton, J., Suddason, K. and Thomas, S. (2006), "International Evidence on the Payout Ratio, Earnings, Dividends, and Returns", *Financial Analysts Journal*, Vol. 62(1), pp. 36-53
- ISSER (2011), *The State of the Ghanaian Economy in 2010*, Institute of Statistical, Social and Economic Research, Legon, Ghana
- Lintner, J. (1956), "Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes", *America Economic Review*, 46, pp. 97-113.
- Marfo-Yiadom, E. and Agyei, S.K. (2011b), "Determinants of Dividend Policy of Banks in Ghana", *International Research Journal of Finance and Economics*, Issue 61, pp. 99-108
- Miller, M. H., and Modigliani, F. (1961), "Dividend Policy, Growth, and the Valuation of Shares", *Journal of Business* 34, 411-433
- Kanwal, A. and Sujata, K. (2008), "Determinants of Dividend Payout Ratios – A Study of Indian Information Technology Sector", *International Research Journal of Finance and Economics*, Issue 15, pp. 63-71
- Krakah, A., Nsowah-Nuamah, N. and Awoonor-Williams (2009), "Manufacturing Firms in Ghana: Comparing the 1987 and 2003 Censuses", *CSAE Conference Proceedings*, March 2009, Oxford
- Uwuijbe, U., Jafaru, J., and Ajayi, A. (2012), "Dividend Policy and Firm Performance: A Study of Listed Firms in Nigeria", *Accounting and Management Information Systems*, Vol. 11 (3), pp. 442-454
- Zhou, P. and Ruland, W. (2006), "Dividend Payout and Future Earnings Growth", *Financial Analysts Journal*, Vol. 62 No. 3, pp. 58-69.

Table 1: Descriptive Statistics

	Mean	Std. Dev	Median	Minimum	Maximum
ROA	0.0108	0.1245	0.0142	-0.2264	0.2795
DPOUT	0.3293	1.3275	0.0000	-0.0177	9.8652
SIZE	7.1018	0.8184	7.4237	5.4251	8.3814
LEVE	0.5870	0.3140	0.4585	0.1964	2.0323
SGRTH	0.2747	0.4648	0.1479	-0.4991	1.5745

Table 2. Correlation Matrix

	<i>ROA</i>	<i>DPOUT</i>	<i>SIZE</i>	<i>LEVE</i>	<i>SGRTH</i>
<i>ROA</i>	1				
<i>DPOUT</i>	0.1531	1			
<i>SIZE</i>	0.7132	0.2830	1		
<i>LEVE</i>	-0.3771	-0.1189	-0.0839	1	
<i>SGRTH</i>	0.2828	-0.0171	0.1429	0.1547	1

Table 3. Diagnostic Tests

Hausman Test: Fixed Vs. Random Effects

Chisq	df	P-value
68.0358	4	0.0000

Breusch-Godfrey/Woolridge Test: Serial Correlation

Chisq	df	P-value
8.5966	8	0.3775

Breusch-Pagan Test Heteroskedasticity

BP	df	P-value
2.8913	4	0.5762

Table 4. Rgression Results (Dependent Variable: Return on Assets)

	FIXED EFFECTS			RANDOM EFFECTS			OLS		
	Coefficients	t-value	Pr(> t)	Coefficients	t-value	Pr(> t)	Coefficients	t-value	Pr(> t)
Constant				-0.6433	-6.4666	0.0000***	-0.6421	-6.8364	0.0000***
DPOUT	-0.0146	-2.0558	0.0456**	-0.0083	-1.0612	0.2936	-0.0071	-0.9022	0.3712
SIZE	-0.0432	-0.7449	0.4602	0.1017	7.4232	0.0000***	0.1018	7.8936	0.0000***
LEVE	-0.0848	-2.5452	0.0144**	-0.1411	-4.3337	0.0000***	-0.1457	-4.4886	0.0000***
SGRTH	0.0653	3.1651	0.0028***	0.0623	2.8691	0.0060***	0.0650	2.9532	0.0047***
R-Squared		0.3082			0.64402			0.6729	
F-Statistic:		5.0117			23.0662			26.2261	
Significance F		0.0020			0.0000			0.0000	
N		56			56			56	

Significant codes: *** 0.01, ** 0.05

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