

The Impact of Short-Term Debt on the Performance of Manufacturing Companies Listed on the Ghana Stock Exchange

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Abstract: This study examines the impact of short-term debt on the financial performance of manufacturing companies listed on the Ghana Stock Exchange over an eight-year period (2015–2023). Using a combination of descriptive and causal research designs, the study utilizes secondary data from audited financial statements to investigate the relationship between short-term debt and firm performance, measured through Return on Assets (ROA). The findings reveal a significant but negative correlation between short-term debt and ROA, indicating that higher reliance on short-term financing may adversely affect profitability. Conversely, firm size demonstrates a positive but weak association with performance. Regression analysis confirms that short-term debt and firm size account for 9.9% of the variations in financial performance, highlighting the limited but impactful role of short-term debt in the capital structure. The study shows the need for manufacturing firms to optimize their financing strategies by prioritizing internal funds before resorting to external short-term debt. Recommendations include exploring alternative investment options, diversifying funding sources, and conducting similar studies across other sectors to validate these findings. This research contributes to the ongoing discourse on capital structure management in developing economies, providing insights for policymakers, investors, and corporate managers.

Keywords: short-term debt, financial performance, manufacturing firms, capital structure, Ghana Stock Exchange, Return on Assets (ROA)

I. Introduction

A company's ideal financial structure should be identified before making judgments about how much money should be borrowed and the best ratio of debt to equity utilized to fund commercial activities (Al-Slehat et al., 2020; Amraoui et al., 2018). In order to boost its operations, a company's financial structure is the way it finances its assets through a mixture of equity and debt. This combination of funding sources is referred to as the capital structure (Gill et al., 2011). As a component of the monetary system, debt with short-term maturities is an essential component (Sivalingam & Kengatharan, 2018). In a broad sense, the analysis of acts that have an effect on a company's current assets and current liabilities is what is meant to be covered by the phrase "short-term." When an asset or liability is expected to be used, liquidated, matured, or paid off within a year of when it was purchased, it is sometimes referred to as "short-term" (Chandio et al., 2018). According to Ranaldo et al. (2021), in order for short-term assets to be effective, they need be supported by short-term loans. According to the findings of Shikumo, et al., (2020), the capacity of a company to expand is positively correlated with its level of short-term debt. Financial success is linked to the utilization of short-term loan financing, based on anecdotal evidence (Devi et al., 2020; Purba & Septian, 2019). When it comes to financing via short-term debt, the maturity period is one year or less, and the debt needs to be paid back within ninety to one hundred and twenty days. You are able to take care of your present financial obligations with the assistance of short-term loans since you are not required to make a commitment for an extended period of time (Lemma et al., 2021). Short-term loans often have lower interest rates than long-term ones, and most lenders don't start collecting interest until the credit limit period has expired (Kahl et al., 2015). Because it shows both the status of the organization's finances and the situation of the financial market, the management of short-term assets and liabilities is an extremely important aspect of every business (Shikumo et al., 2020).

A number of academics and researchers have arrived at the conclusion that a company's financial success can be affected by its level of short-term debt (Habib et al., 2016; Muturi & Omondi, 2013; Purba & Septian, 2019). Increasing a company's earnings through the use of short-term finance is possible (Shikumo et al., 2020). In addition, Purba and Septian (2019) found that this factor can have a bearing on the company's bottom line, with the magnitude of the effect being influenced by the cost of the source of funding utilised by the specific company. Companies may have specific ratios of short-term liabilities in their financing structure, which Amraoui et al. (2018) state the companies feel is the most successful in terms of enhancing performance and profitability. In the study conducted by Nunes Serrasqueiro (2017), the authors found that businesses who had high levels of short-term debt in comparison to their total amount of long-term debt outperformed their competitors in terms of their overall financial success. As a consequence of this, it is possible that a company's profitability will benefit from the use of short-term debt. A measure of an organization's overall financial health might be defined as "financial growth" in a broader meaning (Naz et al., 2016). The value of a company's market capitalization may also be used to gauge financial growth, according to Buvanendra et al. (2017; Buvanendra et al., 2017). A company's market capitalization is equal to the total dollar market value of its outstanding shares (Le, 2019). Dollars are used to express this number (Buvanendra et al., 2017). Return on investment, return on assets, market value, and accounting profitability are all indicators of a company's financial health (Ongore & Kusa, 2013; Usman & Lestari, 2019). For a corporation, financial growth is a measure of how well it manages its debt capital in order to generate profits. A company's primary business mode generates money by effectively utilizing its assets, which is what is meant by

financial growth (Usman & Lestari, 2019). As a result of using short-term obligations, such as trade payables and accruals, to fund a company's activities, it can have an influence on profitability. Trade receivables and accruals may be more cost-effective for the firm than long-term sources of financing (Naz et al., 2016). Additionally, because short-term finance sources have less contractual obligations, this may have an impact on a company's profitability. It's because short-term funding sources are utilised for a shorter length of time (Krishnamurthy & Vissing-Jorgensen, 2013). The company's cost of capital would rise, according to Chaleeda et al. (2019), if it takes on short-term debt with a short maturity time span.

No matter how big or small a company is, the impact of debt financing on its financial performance and profitability is of the utmost significance. The capital structure, as opposed to the debt structure of organisations, has been the focus of a significant amount of study that has been conducted on the subject of the financial structure of businesses and companies (Purba & Septian, 2019; Sivalingam & Kengatharan, 2018). As a direct consequence of this fact, there is not a solitary integrated theory that can be taken into consideration while attempting to evaluate the effect that debt financing has on the monetary performance of businesses in the here and now. When a corporation makes purchases or investments in new or existing assets, this influence will lead to current outcomes and repercussions. According to the findings of certain studies, carrying a debt load has a negative effect on a company's capacity to generate profits. According to a number of academics, including Adesina et. al., 2015; Batchimeg, 2017, Nassar, 2016; Vätavu, 2015 a high amount of debt has a detrimental impact on a company's capacity to satisfy its monetary commitments. The opposite has been shown by Afolabi et al. (2019) and Gamayuni (2015). A study by Sunardi and colleagues (2020) found no statistically significant impact on industrial enterprises in the United States.

Non-financial enterprises listed on the Ghana Stock Exchange (GSE) have, according to Bunyaminu et al. (2019), suffered from poor financial performance in large numbers. In the past, investors were wary of investing in such firms because of this concern. Creditors are less likely to lend money to enterprises in this situation because of the fall in their financial performance. The capital's organizational structure was the primary focus of much of the research (Akomeah et al., 2018; Antwi et al., 2012; Ganiyu et al., 2019; Musah, 2018). Consequently, this study was deemed relevant due to the fact that studies on debt funding got a lower level of attention than studies on capital structure. This study was also prompted by a lack of agreement amongst previous empirical studies on the impact of short-term debt on public company financial performance. This inconsistency in the findings of earlier empirical studies is another incentive for this study. Examining the effect that short-term debt has on the financial growth of manufacturing companies that are publicly listed on the Ghana Stock Exchange is the purpose of this study, which aims to fulfil the research objective of "closing this conceptual gap."

II. Literature Review

Theoretical Review

Agency Theory

Agency theory was created by Jensen and Meckling (1976) who claimed that a corporation's financial structure may reduce agency costs resulting from disagreements between managers and shareholders of the organization. This was one of the central hypotheses of the theory. The decline in the number of conflicts involving the agency would lead to a reduction in the expenditures incurred by the agency, which would in turn lead to improved financial performance. According to the results of Jensen and Meckling (1976), the utilisation of debt in a company may serve as a potential assistance in the management and monitoring of managers inside the firm. This is done with the intention of ensuring that managers work toward goals that are beneficial to the company. According to Kahl et al. (2015), the inclusion of debt into a company's financial structure offers a motive for managers to drive the growth of a firm to produce cash flows that can be utilized to repay loans. Several pieces of research go in the direction that this idea is correct. As a result, this makes a contribution toward the enhancement of the company's profitability (Yusuf et al., 2018). According to this line of thinking, a company's ability to take on debt, whether it be long-term or short-term debt, or any other kind of debt, will reduce the amount of agency conflicts that exist between the company's managers and its shareholders, which will lead to increased financial growth for the company (Cruz & Haugan, 2019). The agency theory is of critical significance in the process of decision-making on financing because of the potential for conflicts to arise between shareholders and holders of debt.

Pecking Order Theory

According to this theory, businesses prefer to raise cash from inside rather than from outside sources. In the event that an organisation needs financing from outside sources, it will pick debt over stock, and it will only turn to equity as a last choice in these kinds of circumstances. As a result of the uneven distribution of information, organisations do not have a debt-to-equity ratio that has been calculated in advance or that is ideal (Martinez et al., 2018). When it comes to dividends, the businesses adhere to established procedures and make use of debt financing in order to raise the value of the firm. This is done in an effort to maximise shareholder returns. According to the idea, businesses have a preferred order in which they would want to receive cash for the purpose of financing their activities. This order might either be chronological or non-chronological. In order to maximize profits and account for the knowledge gaps between the company and potential investors, the firm would prioritize short-term debt over long-term debt, debt over equity, and debt over retained earnings (Agyei et al., 2020).

Empirical review

An analysis by Langat et al. (2014) indicated that long-term debt and total debt had a substantial and positive association with the profitability of Kenya Tea Development Authority processing facilities, while a negative and significant relationship with short-term debt was observed at 5%. This result was obtained because short-term debt is negatively correlated with long-term debt. It is unable to secure

finance for tea processing through short-term debt because of the negative connection between short-term debt and the profitability of tea processing factories. Companies listed on the National Stock Exchange were the topic of research by Maina and Ishmail (2014). The results of the study, which included statistical software and a regression model, showed that NSE-listed companies' financial performance is strongly influenced by debt and returns to shareholders. An adverse link between financial performance and capital structure might be regarded statistically significant, according to the statistics. This association is in the opposite direction of what we would expect. If a corporation relied more heavily on debt to fund its operations, its performance would be negatively affected. In addition, the study found that firms on the NSE were more likely to employ short-term debt than long-term debt in their financing.

The term "long-term debt" refers to money that is owing to lenders for more than a year. Baid (2009) found that there is no statistically significant association between a high return on assets and a high amount of long-term debt. Long-term loans are the preferred mode of debt financing for well-established corporate entities because of the value of their assets and collateral. This is because the high value of these assets and collateral makes them the most attractive sources of debt financing in the majority of circumstances. The capacity of small and medium-sized businesses (SMEs) to grow and do well in the financial markets has been hindered by the huge decline in financing received from major financial institutions. According to Masiega and co-authors (2013), they set out to find out how much the capital structure of publicly traded firms on the National Stock Exchange influences their financial performance (NSE). During a period of five years beginning in 2001, data was collected from thirty firms that were traded on the National Stock Exchange (NSE). The results of the analysis show that there is a statistically significant association between a company's total assets and its long-term debt. Githaig and Kabiru (2015) found empirical evidence that long-term indebtedness has a negative impact on the financial performance of small and medium-sized enterprises (SMEs). After analyzing the data, the writers came to this conclusion.

Long-term loans have been shown to improve productivity in the past, but our analysis demonstrates that this is not the case in this situation. According to Huang and Song (2006), long-term debt can have a detrimental impact on return on assets (ROA). Debt in the long run is beneficial to one's financial well-being, according to a study by Abor (2005). The existing research on long-term debt is divided, however several studies, such as Ebaid (2009) and Huang and Song (2006), have indicated that long-term debt has a negative impact on financial performance. As a result, we have a knowledge gap that has to be filled. According to the findings of Jaramillo and Schiantarelli (2002), a study conducted in Ecuador found evidence that a shorter maturity did not favour better productivity. According to their findings, a company's ability to obtain long-term debt was critical to its success. Delaying debt repayment might have the unintended consequence of increasing output in some circumstances.

During the global financial crisis of 2013, Fosberg published his results on short-term loan finance. The global financial crisis had a significant impact on the United States and other countries' capital and credit markets in the second part of this decade. Short-term loan financing grew from 1.3 percent of assets in 2006 to 2.2 percent of assets in 2008, according to the data provided. This tendency accelerated between 2006 and 2008. When short-term debt financing rose at the end of 2009 and quickly returned to its pre-crisis levels, we may conclude that it was not a deliberate effort. By the end of 2009, the expansion in short-term debt financing had been completely reversed, confirming this. The decline in long-term debt and equity financing, as well as a reduction in the amount of capital obtained through accounts receivable from suppliers, have all contributed to a rise in the usage of short-term loan financing. Another factor that led to the requirement for extra short-term debt financing, which had not been accessible before, was the significant reduction in the quantity of assets that were sold. The financial crisis, rather than the concomitant recession, appears to be the cause of the surge in the use of short-term debt as a source of funding, as shown by the findings of a regression analysis.

Habib, Khan and Wazir (2016) performed a research on how debt affects the profitability of Pakistani firms, relying on data acquired from the country's non-financial sector. The non-financial sector of Pakistan was chosen to conduct the study, however, several businesses were not included since there was insufficient information on how they functioned. After excluding the 340 companies that traded on the Karachi Stock Exchange (KSE) between 2003 and 2012 from the dataset, the examination focused on the remaining companies. In order to conduct this research, a panel research methodology was utilized. The profitability of a corporation is calculated using the dependent variable, return on assets. When calculating the overall debt to asset ratio, we don't consider any one of the other debt-to-asset ratios. Instead, we look at each one separately. The size of the company, the rate of sales growth, and the potential for growth are all examples of control variables. Utilizing random effect regression analysis helps researchers estimate how much of an impact debt has on a company's capacity to turn a profit. There was found to be a correlation that was not only statistically significant but also negative between total and net asset returns, as well as between short-term and long-term debt.

Conceptual framework

The conceptual framework lays out the interconnections that exist between the many conceptions that are of interest to the research. The model illustrates the connection between the independent variable, short-term debt, and the dependent variable, firm performance, as it relates to manufacturing enterprises that are listed on the Ghana Stock Exchange.

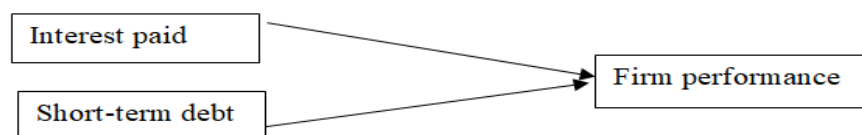


Figure 1: Conceptual framework

The framework shows the hypothesised impact of short-term debt and interest on the financial performance of manufacturing firms on the Ghana stock exchange.

III. Methodology

Research design

In this study, the descriptive and causal research designs were utilised. A descriptive study design is a method that is used in the scientific community, and it entails watching and describing the behaviour of a subject without having any impact on that behaviour in any manner (Martyn, 2017). According to Brains, Willnat, and Rich (2011), causal research is the analysis of cause-and-effect interactions. Causal research is utilised when sufficient evidence is available for examining the cause and effect link in a phenomenon. For the purpose of this study, descriptive research was helpful in attempting to explain the phenomenon in its current state. On the other hand, a causal research design was also appropriate for determining whether a change in one of the variables being studied causes a change in the dependent variable.

Sources of data

Secondary data were utilised for this study. These data were gathered from the yearly audited financial statements of the concern businesses that were published on the Ghana Stock Exchange Market. In order to conduct statistical analysis, the data that was obtained was examined to ensure that it was both comprehensive and consistent. The research was conducted over a span of eight (8) years, from 2015 to 2023, which is the time frame that is being deemed appropriate for determining the study's dependability (effects of short – term debt on the performance of registered manufacturing companies in Ghana). In order to be eligible for consideration for data collection, the firms in question must have been actively engaged in the trade industry during the past twelve years.

Population, Sample and sampling technique

The primary demographic of interest for this study consisted of the manufacturing businesses that are traded on the Ghana Stock Exchange (GSE). Purposive sampling was used to choose the sample for the study since the major goal was to establish whether or not having short-term debt had an impact on the overall performance of manufacturing companies listed on the Ghana Stock Exchange. This selection strategy is commonly used when dealing with tiny samples, such as in case study research, and when selecting examples that are particularly informative (Neuman 2005).

Variable measurements

Short-term debts

To determine the quantity of short-term debt, Githaiga et al. (2015) utilized the ratio of short-term loans to total loans as the basis for their calculation. Short-term debt, as defined by Magoro and Abeywardhana (2017), was defined as the percentage of total assets that equaled to debt that was due to be repaid within a year of the investigation. According to Ma'aji et al. (2018), the ratio of short-term obligations to total assets is short-term debt. A different way to calculate short-term debt was to use this metric. The amount of short-term debt in this inquiry was determined by comparing the amount of overall assets to the amount of current liabilities.

Research model

As part of this research, a multivariate regression model was utilized to examine the relationship between short-term debt and business financial performance on the Ghana Stock Exchange. There was an application of a multiple regression model, which consisted of two independent variables, namely interest rate and short-term debt. The level of profitability served as the dependent variable. This approach sought to adhere to the paradigm proposed by Rajan and Zingales (1995), as well as Tale (2014).

$$ROA_{it} = \alpha + \beta_1 STDA_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it} + e_i \dots\dots\dots 1$$

$$ROA_{it} = \alpha + \beta_1 INT_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it} + e_i \dots\dots\dots 2$$

Where,

ROA = firm financial performance

STDA = Short – term debt

Size = Firm size

Lev = Leverage

e = error term

Data analysis

Following the completion of the data gathering, it was necessary to organise the information so that it could be used to make informed decisions. Observing and characterising the behaviour of the variables that were the focus of the study required the use of descriptive statistics. These statistics include the minimum, maximum, mean, and standard deviation of the data. The data that was collected was evaluated with inferential statistics in order to obtain inferences that are relevant from the data. The study utilised inferential statistics,

such as Pearson's Coefficient and Regression Analysis, to determine the amount of reliability and consistency of the findings in relation to the primary purpose of the study.

Multicollinearity test

The problem of multicollinearity may appear if two or more variables were found to have a strong correlation between them. It is possible that the estimate of the regression parameters was impacted as a result (Hair et al., 2010). Examining the correlation matrix allowed the researcher to test for the presence of multicollinearity. The Variance Inflation Factor (VIF), was used to do this. There is no multicollinearity problem if the VIF ratio is less than five, which is the ratio of the true disparity percentage to the total disparity (Fox, 1991).

Table 1: Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	STD/A	.688	1.454
	Rate	.971	1.030
	Leverage	.883	1.133
	FIRM SIZE	.739	1.353
a. Dependent Variable: ROA			

The multicollinearity coefficient result, as presented in the table indicates that the items for measuring the constructs in the study are less than the conventional acceptable (5) (Fox, 1991). Thus, in essence, the multicollinearity value of 1.454, 1.030, 1.133 and 1.353 for STD/A, Rate, Leverage and Firm Size respectively as in the case of this study is an indication that there no problem of multicollinearity among the variables.

IV. Findings

Descriptive analysis

Included in this section the descriptive statistics of all the variable under study. This gave a pattern ranging from minimum to maximum values as well as the mean scores and standard deviation of the variables to find out how they related to firm performance. The Table 1 provides a summary of the descriptive statistics of the dependent and independent variables for the sample of firms.

Table 2: Descriptive statistics

	N	Min	Max	Mean	S. D
ROA	73	-0.14	0.47	0.06	0.14
STD/A	73	0.01	0.89	0.38	0.25
INTEREST RATE	73	0.13	0.26	0.20	0.05
FIRM SIZE	73	15.21	20.40	18.37	1.41
LEVERAGE	73	-7.51	55.09	2.34	7.14

From 2015 through 2023, the average ROA was 6%. The maximum and minimum values for ROA were 47% and -14%, respectively. This implies that listed companies did poorly during the time period under review. The findings also show that there was a huge discrepancy in corporate performance, such that although some organizations made significant profits, others lost a lot of money. With short-term debt to total asset ratios ranging from as low as 0.01 percentile units to as high as 89 percentile units on our short list, it's clear that most Ghanaian businesses are dependent on short-term loan funding. As seen in the table, businesses pay an average interest rate of 20%, with rates ranging from 13% to 26%. The average size of the organizations researched is 18.37. From -7.51 to 55.09, the debt-to-equity ratio (leverage) went up to 2.34 with a standard deviation of 7.14.

Correlation analysis

Prior to conducting a multiple regression analysis, a correlation matrix was created to analyse the correlations between the independent variables. The purpose of this was to help in the development of a multiple prediction model. The use of correlation analysis was beneficial in identifying any potential instances of multicollinearity. A correlation value of 0 indicates that there is no link between the variable that is being dependently measured and the variable that is being independently measured. On the other side, if the correlation is less than one, it indicates that the connection is either perfectly positive or perfectly negative (Hair et al., 2010). The table below shows the normal Pearson's correlation without the control variables (firm size and growth rate).

Table 3: Correlations

		ROA	STD/A	Rate	Leverage	Firm Size
ROA	Pearson Correlation	1	-.257*	-.263*	-.196	.072
	Sig. (2-tailed)		.028	.024	.097	.545
	N	73	73	73	73	73
STD/A	Pearson Correlation	-.257*	1	-.037	.306**	.509**
	Sig. (2-tailed)	.028		.759	.008	.000
	N	73	73	73	73	73
Rate	Pearson Correlation	-.263*	-.037	1	-.164	-.061
	Sig. (2-tailed)	.024	.759		.166	.606
	N	73	73	73	73	73
Leverage	Pearson Correlation	-.196	.306**	-.164	1	.157
	Sig. (2-tailed)	.097	.008	.166		.183
	N	73	73	73	73	73
FIRM SIZE	Pearson Correlation	.072	.509**	-.061	.157	1
	Sig. (2-tailed)	.545	.000	.606	.183	
	N	73	73	73	73	73
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

In the table above, the correlations between the dependent and independent variables are shown. The short-term to asset (STD/A) and return on asset (ROA) have a negative correlation coefficient. This suggests that there is a weak and negative association (correlation) between (STD/A) and the return on asset. The test's p-value is 0.028, which is less than the 0.05 level of significance. As a result, the association between ROA and (STD/A) is statistically significant (using a 5 percent significance level). Interest Rate (Rate) has a negative correlation coefficient with return on asset (ROA). There is a modest link (correlation) between the interest rate and the asset's return. The test's p-value is 0.024, which is higher than the 0.05 level of significance. As a result, the link shown between ROA and rate is strong (using a 5 percent significance level). This suggests that the performance of a company is influenced by changes in the interest rate. Leverage and ROA have a negative association, as evidenced by the correlation coefficient .196, this shows that the growth rate and asset return have a weak and negative link (correlation). P-value for the test is 0.097, which is larger than the 0.05 level of significance required for the test. According to this, the association between ROA and leverage is insignificant (using a 55 percent significance level). In the analysis of company size and return on asset (ROA), a positive link was found. According to the correlation coefficient of 0.072, there is a modest and positive association (correlation) between business size and asset return. The test's p-value is 0.545, which is higher than the 0.05 level of significance. The association between ROA and size is therefore not substantial, as this suggests (using a 5 percent significance level). This suggests that the performance of a business is unaffected by its size.

Regression analysis

A multiple regression analysis was carried out to investigate the possible effect of one predictor variable on another. The study made use of a multiple regression analysis with Return on Assets (ROA), and it comprises an analysis of variance along with model coefficients and a model summary (ANOVA).

$$ROA_{it} = \alpha + \beta_1 STD A_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it} + e_i$$

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.370 ^a	.137	.099	.12877
a. Predictors: (Constant), STD/A, Leverage, FIRM SIZE				

The modified R squared coefficient of determination tells us how much the dependent variable changes as a result of changes in the independent variable. Short-term debt, leverage and business size were shown to have a 9.9 percent impact on the financial performance of listed manufacturing enterprises in Ghana at a 95 percent confidence interval. These findings were based on the findings presented in

the table that was presented earlier. This demonstrates that short-term debt, leverage, and company size might be responsible for accounting for 9.9 percent of the fluctuations in the financial performance of listed manufacturing businesses. R is the correlation coefficient, and it illustrates the degree to which the variables under examination are related to one another. According to the data, there was a somewhat favourable connection between the several factors that were investigated, as shown by the value of 0.370.

Table 5: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.181	3	.060	3.643	.017 ^b
	Residual	1.144	69	.017		
	Total	1.325	72			
a. Dependent Variable: ROA						
b. Predictors: (Constant), STD/A, Leverage, FIRM SIZE						

The significant level of the processed data, which reflects the population parameters, was 0.017, according to the ANOVA statistics shown in the table above. Since the significance level is less than 5%, the data can be used to draw conclusions about a population parameter. The fact that the calculated F_{count} was greater than the critical value (3.643) showed that the financial performance (ROA) of listed manufacturing companies in Ghana was considerably affected by STD, leverage and firm size. Because the significance value was lower than 0.05, it may be deduced that the model was significant from a statistical point of view.

Table 6: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.350	.218		-1.603	.113
	Leverage	-.002	.002	-.129	-1.102	.274
	FIRM SIZE	.026	.013	.274	2.108	.039
	STD/A	-.194	.073	-.357	-2.647	.010
a. Dependent Variable: ROA						

At a significance level of 0.05, it can be shown from Table that STD/regression's coefficient (-0.194) and the coefficient significance test (tcount) are both equal to -2.647 with an error probability of (p) = 0.10. According to the p value (0.010), which is less than the significance threshold (0.05). As a result, the ROA variable is adversely and considerably influenced by the STD/A variable to some extent. A look at Table shows that the regression coefficient for company size is 0.026, and that in a coefficient significance test using the t statistic, it is 2.108 tcounts at the significance level of 0.05. P-value (0.039) is below than significant threshold (0.10), according to the results (0.05). As a result, the ROA variable is favourably and significantly influenced to some extent by the firm size variable. At the significance level of 0.05, an error probability of (p) = 0.27 (4%) is calculated for the regression co-efficients of leverage, which is equivalent to -0.002 (see Table). According to the results, the p value (0.274) is higher than the significance threshold (0.05). (0.05). As a result, the ROA variable is only slightly impacted by the leverage variable.

Interest rate on Debt on ROA model2

$$ROA_{it} = \alpha + \beta_1 INT_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it} + e_i$$

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.360 ^a	.137	.039	.12878
a. Predictors: (Constant), FIRM SIZE, Rate , Leverage				

The modified R squared coefficient of determination tells us how much the dependent variable changes as a result of changes in the independent variable. Adjusted R squared (0.039) indicates that listed manufacturing enterprises in Ghana's financial performance (ROA) can be affected by interest rate, leverage, and company size at a 95 percent confidence interval, which is consistent with the data in the table above. This demonstrates that variations in the financial performance of publicly traded manufacturing businesses can be accounted for by interest rate, leverage, and firm size to the tune of 3.9 percent. R is the correlation coefficient, and it illustrates the degree to which the variables under examination are related to one another. According to the data, there was a somewhat favourable connection between the several factors that were investigated, as shown by the value of 0.360.

Table 8: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.181	3	.060	3.641	.017 ^b
	Residual	1.144	69	.017		
	Total	1.325	72			
a. Dependent Variable: ROA						
b. Predictors: (Constant), FIRM SIZE, Rate , Leverage						

The significant level of the processed data, which reflects the population parameters, was 0.017, according to the ANOVA statistics shown in the table above. Since the significance level is less than 5%, the data can be used to draw conclusions about a population parameter. For listed Ghanaian manufacturing enterprises with a turnover (ROA) greater than the critical value (3.641), variables such as interest rates, leverage, and company size had a significant influence on financial performance (ROA). Because the significance value was lower than 0.05, it may be deduced that the model was significant from a statistical point of view.

Table 9: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.074	.214		.346	.731
	Rate	-.889	.336	-.300	-2.646	.010
	Leverage	-.005	.002	-.260	-2.263	.027
	FIRM SIZE	.009	.011	.095	.834	.407
a. Dependent Variable: ROA						

Table shows that the interest rate's regression coefficient is -0.889, and the t statistic's coefficient significance test is tcount = -2.646, with an error probability of (p) = 0.010 at a significance level of 0.05. These values are significant at the 0.05 level of significance. According to the p value (0.010), which is less than the significance threshold (0.05). As a result, the ROA is influenced both adversely and significantly by the interest rate variable. Regression leverage co-efficient are -0.002 in the table, and the coefficient significance test using the t statistic yields an error probability of (p) = 0.27, which is significant at a level of 0.05, as can be seen. According to the results, the p value (0.274) is higher than the significance threshold (0.05). As a result, the ROA variable is only slightly impacted by the leverage variable. It is also clear from the data in Table that the regression coefficient for company size is just under zero (0.009), and the corresponding coefficient significance test (p) equals just under four-hundredths of one at the significance level of 0.05, using the t statistic. According to the results, the p value (0.407) is higher than the significance threshold (0.05). Since ROA was favourably influenced by company size but not considerably, this may be concluded.

V. Discussions of findings

According to the descriptive statistics produced from the data gathered, firms' ROA performance suggests an average of 6.0 percent with a standard deviation of 14 percent. For example, the variable STD/A is found to have an average value of 38%, while the variable interest rate has an average value of 20%, with a standard deviation of 5 percentage points. Finally, the natural log of total assets yields an average firm size of 18.37. Return on asset (ROA) and short-term debt (STD/A) have a negative association for the average person. It's for this reason that ROA and STD/A are inversely proportional. A modest association (correlation) exists between the STD/A and asset return, but it is a negative correlation. Mirza and Javed (2013), who studied Pakistan's macro- and microeconomic factors of financial performance, came to the same result. They observed that the short-term asset-to-total asset ratio was a large and negative one. It contradicts Goyal (2013) and Yegon, Cheruiyot, Sang, and Cheruiyot (2014) who found a positive and statistically significant correlation between the STD/A ratio and ROA when investigating the link between the firm's capital structure and profitability. Capital structure and profitability were studied by Goyal (2013), Yegon (2014), Cheruiyot (2014), Sang (2014), and Cheruiyot (2014).

Furthermore, the correlation coefficient between interest rate and return on asset (ROA) is shown to be negative. This shows that interest rates and return on assets have a relationship (correlation), but it is a weak and negative one. This supports the findings of Mnang'at et al. (2016), who found that the interest rate and the financial success of micro businesses in Kenya are closely linked. Firm size and return on asset have a positive correlation value of 0.072, which suggests that the two variables have a very weak and positive association (correlation). The interest rate has a strong negative impact on stock market returns in Ghana, according to Barnor (2014). Finally, a negative correlation of 0.196 has been found between leverage and return on asset (ROA). As a result, there appears to be a weak and negative link between leverage and asset return. The p-value for the test was 0.005 at the 0.05 level of significance when the association between STD/A and ROA was adjusted for firm size and leverage. Although the interest rate-ROA correlation fell to -0.303, the test's p-

value was 0.005 at a significance level of 0.05, suggesting that the result is statistically significant. These results are significant because of this fact: STD/A, interest rate and ROA are all associated with each other (using a 5 percent significance level).

The coefficient of determination (R) for regression (model one) is 0.370, as shown in the model description above, which was produced from the SPSS result. Return on Asset (ROA) and short-term debt, leverage, and business size appear to have a moderately significant positive association. The conclusions of this study are in line with those of Safa and Maulana (2017), who showed that short-term borrowing had a positive impact on firm profitability. Both Safa and Maulana confirmed the existence of such a bond. Regression model 2 has an R-value of 0.360, indicating a fairly positive and statistically significant relationship between Return on Asset and the interest rate, the leverage, and the size of the company. The findings of Kanwal and Nadeem (2013) support their conclusion that the real interest rate and ROA have a strong positive association. Despite this, Obamuyi and Olorunfemi (2011) showed that financial reform and interest rate adjustments have a major impact on Nigeria's economic development.

VI. Conclusion and Recommendations

Whatever the size of the business, the impact of debt financing on its financial performance and profitability is critical. Determining whether to use an optimal or ideal debt-to-equity ratio can have an impact on a company's financial performance as well as its market value. Including short-term debt in the entire financial system is vital. Short-term debt financing has been shown to have a significant influence on the financial performance of industrial businesses quoted on the Ghana Stock Exchange since 2015. Research shows that the majority of publicly listed manufacturing firms do not make a profit, and descriptive data shows that these firms are heavily dependent on short-term capital. Debt in short-term terms was similarly shown to be negatively correlated with company success; however, when the variables that influence this correlation were controlled, it was revealed that short-term loans had a modest but significant association with firm performance. Consequently, the relationship between short-term indebtedness and total financial success is both negative and large. Thus, it is recommended for publicly traded companies to deplete their retained earnings completely before considering the use of alternative kinds of investment, such as debt or stock. This will guarantee that the greatest amount of funds is accessible and that a proper choice of investment is made, while also limiting the amount of money that is wasted. Also, the upper management of a company have to investigate many investment options before settling on the finest investment to make. This will guarantee that the firm's investments in prioritised areas are based on the finances available, which will boost the firm's ability to utilise available money to their fullest potential. It is also recommended that a similar research study be carried out in a different industry, such as the financial sector or Small and Medium Scale Enterprises (SMEs) in Ghana, in order to determine whether or not the same results will be obtained despite the differences in debts and equity acquired by these companies. This will allow for a more informed conclusion to be drawn regarding the findings. It is also recommended that future researchers carry out a comparable study when a significant amount of time has passed, such as twenty years, because of the rapid pace at which technical advancements and legal frameworks are evolving. In light of this, it is important to conduct a comparison and arrive at factually sound conclusions.

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