

The Effect of Capital Structure on Organizational Performance of Listed Ghana Club 100 Companies

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The paper examines the effect of capital structure on the organizational performance of listed Ghana Club 100 companies on the Ghana Stock Exchange during a 10-year period from 2007 to 2016. The study focuses on Ghana Club 100 companies because these companies are touted as the role model for their peers. The Ghana Club 100 companies are the top 100 companies in Ghana that are ranked annually in order of excellent performance by the Ghana Investment Promotion Center. The three key ranking criteria used by the GIPC are size, profitability and growth. The study employs a Fixed Effect Panel Regression Model to test these variables in the light of capital structure adequacy and performance. The results showed a negative relationship between capital structure and organizational performance. Specifically, the different measures of debt to total capital reduce firms' performance. The study is robust to the use of different measures of capital structure. The study proposes that the high gearing levels among GC 100 firms are not profit enhancing.

Introduction

The concept of good financial management decisions has been an issue of concern to various firms across the globe. At the heart of this financial management pandemonium is capital structure choice that would be profit enhancing. Specifically, studies have attempted to find an optimal capital structure that could improve profit of firms (Addae et al., 2013; Saeed et al., 2013; Akeem et al., 2014; and Abor, 2005). The importance of an optimum capital structure is that it maximizes the value of the firm (Addae et al., 2013). This is possible because an optimal capital structure leads to minimum weighted average cost of capital

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which denotes lower cost of doing business. Although an earlier study by Modigliani and Miller (1958) posited that capital structure does not have any connection with the value of a firm, recent empirics revealed that the mix of debt and equity financing tend to affect the value of a firm (Abor, 2005; and Saeed et al., 2013). Abor (2005) discovered a positive correlation between profitability and gearing level of firms. The effect of appropriate capital structure cannot be marginalized. In Ghana, best performing firms are ranked and drafted into the Ghana Club 100 (GC 100) annually by the government through the Ghana Investment Promotion Center (GIPC). Largely, firms that are drafted into the coveted GC 100 are top performers in their industries and serve as role model to other firms. The ranking is purely based on three indicators: size, profitability and growth (GIPC, 2018). Recently, some firms among the GC 100 have come under intense scrutiny to be a source of concern. For instance, in the wake of Ghana's banking sector cleanup; five banks among the GC 100 were taken over by the Bank of Ghana mainly due to liquidity challenges (Bank of Ghana, 2019). In this study, we test the three indicators in the light of capital structure adequacy and performance.

Akeem et al. (2014) asserted that the capital structure of an organization has significant effect on the performance of the organization. Many studies, globally, have been conducted on capital structure and its effects on organizational performance. Considering this, Saeed et al. (2013) found that total debt to equity and firm size had a positive link with bank performance. Contrary to these findings; however, Iavorskyi (2013) found negative relationship between capital structure and performance; he attributed this reversal to ineffective market, poor corporate control, impracticable tax shields as a result of tax avoidance attempts among others. Moreover, Obiero (2016) identified a negative correlation between firm performance Return on Asset (ROA) and total debt. Also, Oladele et al. (2017) hold that organizational performance as measured by ROA, earnings per share and sales growth, are positively influenced by leverage; whereas, Return on Equity (ROE) experienced an inverse correlation towards leverage. There are other studies on Ghanaian firms (Abor, 2005; and Amidu, 2007) but we uniquely focus on firms that are among the GC 100 and also listed on the Ghana Stock Exchange. We employ recent data to retest the effect of capital structure on firms' performance. We contribute to the literature by specifically examining the interaction among short-term debt, long-term debt, total debt and firms' performance. The study does not only contribute to the capital structure—performance debate but also demystify the capital composition and performance of top performing firms in Ghana. As such, it offers guidelines for their peers.

Based on the variables used in the research, the null (H_0) and the alternative (H_a) research hypotheses are as follows:

1. H_0 : The finance source does not affect organizational performance in Ghana.
 H_a : The finance source affects organizational performance in Ghana.
2. H_0 : The GIPC criteria does not have limiting implications in determining corporate excellence.
 H_a : The GIPC criteria has limiting implications in determining corporate excellence.

3. H_0 : There is no relationship between cost of capital and organizational performance.

H_a : There is a relationship between cost of capital and organizational performance.

The rest of the paper is organized as follows: first, the paper gives the theoretical and empirical background to the study; then presents the econometric model and data to address the study objective; followed by results and discussion. Finally, the paper ends with conclusion and recommendations.

Literature Review

The topical theory underpinning capital structure choice include agency theory, trade-off theory, pecking order theory and Modigliani and Miller theory. The background of the agency theory is rooted to a number of authors. Initially, Ross (1973), in the economic theory of agency, explained an agency to be a contractual relationship between a principal and an agent where the agent acts in the best interest of the principal. Subsequently, Mitnick (1975) described the pervasive nature of agency, while, Jensen and Meckling (1976) studied the theory of the ownership structure of the firm.

Apparently, with regard to this research, the agency theory posits the understanding that management as agents act on behalf of the shareholders as principals. It follows that the finance decisions and capital structure of companies is left to the discretion of the management. The result; however, is that management may not decide the capital mix that will please the owners. According to Jensen and Meckling (1976), the principal and the agent are all interested in maximizing their utility; hence, the agent is not always going to act best on behalf of the principal since the agent aims at maximizing utility. Because the principal has limited or no knowledge about the actions of the agent, the goals of the principal may not align with the goals of the agent. For instance, the choice of increasing market shares by management to expand long-term growth potentials may be different from shareholders' objectives to increase current profitability. Another theory that influences capital structure decisions of firms is the trade-off theory as proposed by Myers (1984) weighs the benefits of financing through debt against the cost of financing through debt. Evidently, the benefit of debt financing is the tax shield due to the tax-deductible interest charges on the debt. If this benefit is compared to certain costs such as bankruptcy costs, there will be a trade-off. Consequently, Myers (1984) suggested the essence of an optimal capital structure. The position of trade-off theory clearly states that, since a firm will initially prefer debt over equity because of tax shields, this benefit begin to set off when more debt is incurred because the risks increase as well; hence, a trade-off between the benefit of the tax shield and the cost of bankruptcy. In a case as this, the mix of debt and equity financing becomes essential; thus, affecting capital structure.

Chen and Chen (2011) asserted that, organizations that earn highly are more likely to use debt financing because these organizations will pay high taxes, and in order to control this, these organizations will seek to benefit from the tax shields. A margin of safety is; therefore, maintained before employing debt financing because of tax shield. Drawing from information asymmetry, the pecking order theory stipulates that the financing costs increase

as the information asymmetry increases. The pecking order model ranks the choice of financing in a hierarchy which explains that internal funds will be considered first for financing followed by debt and lastly, equity. Regarding information asymmetry, the internal funds are the closest source of finance that an organization will rely on. Subsequently, the organization will source for debt where the internal funds are insufficient because of the unwillingness to dilute ownership and control. Finally, the company will rely on equity financing where all the other sources are not enough. The pecking order model was developed by Myers and Majluf (1984) after Donaldson first mentioned it in 1961.

Positively, many studies have proven the proposition of the pecking order theory on capital structure. In the findings of Wanja (2017), firms decide to cut the cost of information that exist with debt and equity and; thus, rely on retained profits before seeking debt financing and finally equity financing. Concurrently, Benito (2003) structured the finance preference of organizations in descending order as: retained earnings, debt and equity. Myers and Majluf (1984) posited that asymmetric information affects capital structure of an organization. Also, Mostafa and Boregowda (2014) opined that because internal funds have low information asymmetry and equity has the highest information asymmetry, firms will first rely on retained profits, then debt and finally equity. On this basis, it can be concluded that pecking order theory has a lot to do with the capital structure of companies. Regarding the shortcomings of the pecking order theory, Butt *et al.* (2013) argued that the pecking order theory does not regard taxes, agency costs and presupposes a positive net present value of business operations. Following this, Butt *et al.* (2013) supported that the pecking order theory perfects the trade-off theory other than substituting it.

In addition, the Modigliani and Miller theory is of the view that in an efficient and a perfect market and without the presence of taxes, bankruptcy costs, agency costs and asymmetric information, the value of a firm is not altered by the financing choice of the firm. It follows that if the value of a firm changes, then it is due to the role of taxes, bankruptcy costs, agency costs and asymmetric information in the market (Modigliani and Miller, 1958). However, the M&M theory has been criticized on the grounds that it is not possible to find a perfect capital market.

Empirical Review

Capital structure is influenced by many factors and variables. Notably, where some of these factors are significant in determining the capital structure of organizations in some economies, it may be insignificant in determining the capital structure of organizations in other economies. Following this, in the bid to study which factors affect capital structure of Slovakia firms by running three regressions, Reznakova *et al.* (2010) explained that it is not all the factors that will significantly affect capital structure of companies in other economies. Acaravci (2015) used the panel regression survey to examine the determinants of capital structure of Turkish organizations and discovered that growth potentials tend to significantly affect capital structure of organizations as represented by leveraging. Contrariwise, Hussain and Miras (2015) studied the firm-specific factors that influence capital structure of Malaysian companies by running multiple linear regressions and found that growth potentials are insignificant in determining

the capital structure of Malaysian companies. Amidu (2007) also used the regression technique on the capital structure of banks in Ghana and revealed that the size of banks, growth of banks and the profitability of banks influence the capital structure of banks in Ghana. Extensively, Reznakova *et al.* (2010) represented the capital structure of companies in Slovakia by short-term debt, long-term debt and total debt. Furthermore, variables which determined capital structure were: size of the firm, tangibility of the firm, profitability of the firm, growth opportunities of the firm, product uniqueness of the firm, earnings volatility of the firm, tax shields of the firm and the liquidity of the firm.

Also, in measuring the organizational performance of organizations, different methods may be employed. To a large extent, the ROAs and the ROE are parts of the most popularly used ratios to measure organizational performance (Samiloglu *et al.*, 2017). Following this assertion, Samiloglu *et al.* (2017) examined the determinants of the financial performance of 51 firms that were listed on the Istanbul Stock Exchange of Turkey. The study was covered across a 10-year duration from 2005 to 2015. After using ROE and ROA as dependent variables and independent variables as Earnings per Share (EPS), Price Earnings (PE) and Price Book (PB), it was found that there was a significant inverse relationship between ROA towards price to earnings ratio and ROE towards EPS. However, EPS and Dividend Yield (DY) were significant and directly related to ROA. Masa'deh *et al.* (2015) posited that financial performance can be viewed from a lot of dimensions like ROAs, return on sales, ROE and market share.

Moreover, as a result of examining the effect of capital structure on performance of firms of Nigeria manufacturing companies, Akeem *et al.* (2014) observed that capital structure as represented by total debt and the debt to equity ratio are of inverse relationship towards the firm performance. The study further revealed that firms should maintain weighted average cost of capital at a minimal level, and maintain gearing ratio in a way that the companies value will be kept as the firm's capital structure is optimal if all other things were held constant.

In the study of Addae *et al.* (2013) on the effect of capital structure on profitability of listed firms in Ghana, short-term debt, long-term debt and total debt were used as proxies for capital structure, and the results revealed that, there is a statistically significant positive relationship between short-term debt and profitability (ROE) and a significantly negative relationship between long-term debt and profitability. The study further revealed a statistically negative relationship between total debt and profitability. The relationship between total debt and profitability of Addae *et al.* (2013) is contrary to Abor (2005) findings.

Methodology

The data covers all 10 firms that are part of the GC 100 and listed on the Ghana Stock Exchange which have issued audited annual report from 2007 to 2016. We followed Abor (2005) to specify the following models:

$$ROA_{it} = a_0 + a_1STD_{it} + a_2GROWTH_{it} + a_3LIQ_{it} + a_4AGE_{it} + a_5SIZE_{it} + \mu_{it} \quad \dots(1)$$

$$ROA_{it} = a_0 + a_1LTD_{it} + a_2GROWTH_{it} + a_3LIQ_{it} + a_4AGE_{it} + a_5SIZE_{it} + \mu_{it} \quad \dots(2)$$

$$ROA_{it} = a_0 + a_1TD_{it} + a_2GROWTH_{it} + a_3LIQ_{it} + a_4AGE_{it} + a_5SIZE_{it} + \mu_{it} \quad \dots(3)$$

where 'it' represents firm 'i' at time 't'. ROA represents return of assets, SDA is short-term debt to capital, LDA signifies long-term debt to capital, TD represents total debt to capital, GROWTH represents growth of firm and LIQ signifies liquidity of firm. AGE represents age of firm, SIZE signifies size of firm and μ is the error term. Table 1 presents definitions of the variables and how they were measured.

Table 1: Definitions and Formulae		
Variables	Indicator (s)	Measurement
Capital structure	Short-term debt to capital	$\frac{\text{Short-term debt}}{\text{Total capital}}$
	Long-term debt to capital	$\frac{\text{Long-term debt}}{\text{Total capital}}$
	Total debt to capital	$\frac{\text{Total debt}}{\text{Total capital}}$
Capital structure determinants	Size	Natural logarithm of total assets
	Growth	Annual percentage changes in total assets
	Liquidity	$\frac{\text{Total current assets}}{\text{Total current liabilities}}$
	Firm Age	Number of years a company has been in operation
Organizational performance	Return on Asset	$\frac{\text{Profit after tax}}{\text{Total assets}}$

Justification of Variables

Long-Term Debt to Capital: This is measured by dividing long-term debt by total capital (Abor, 2005; Addae et al., 2013; and Saeed et al., 2013). In the study of Addae et al. (2013) on the effect of capital structure on profitability of listed firms in Ghana, they considered long-term debt as a measure of capital structure. Their findings showed a statistically significant relationship between long-term debt and performance.

Short-Term Debt to Capital: All items included in the current liability section of the firm's financial statement are recognized as short-term debt. It is measured by dividing short-term debt by total capital. Abor (2005), Addae et al. (2013) and Saeed et al. (2013) used short-term debt as a measure of capital structure. These studies, however, revealed statistically significant relationship between performance and short-term debt. Abor (2005) showed that Ghanaian firms relied more on short-term debt than long-term debt.

Total Debt to Capital: This was used as one of the proxies of capital structure (Abor, 2005). The study revealed a statistically significant positive relationship between the ratio of total debt to capital and ROE. Similarly, Addae *et al.* (2013) measured total debt to capital by dividing total debt by total capital. Their findings however, were similar to the findings of Abor (2005).

Size: The size of an organization looks at the natural logarithm of the entirety of an organization's asset (Amidu, 2007). It follows that the total assets owned by an entity within a given time range constitute the size of the entity. This was emphasized by Saeed *et al.* (2013) when they described a measurement approach of size as the logarithm of sales. According to Amidu (2007), size of an organization is a very important part of the capital structure of the organization. Drawing from this, Amidu (2007) noted that the size of banks in Ghana affects the capital of the banks such that less capital is used given a larger size of the banks.

Growth: The capital structure of organizations is also described by the growth of the organization which is measured by proportioning the changes in total asset over a period (Deari and Deari, 2009). Applying the multiple linear regression on 450 companies in Malaysia from 2003 to 2012, Hussain and Miras (2015) identified that growth does not significantly determine (at 0.01, 0.05, 0.1 significant levels) the capital structure of the Malaysian food sector organizations. However, Acaravci (2015) presented that growth, like and profitability had a relatively higher significance in determining the capital structure of Turkish organizations.

Liquidity: when drawing the ratios such as the current ratio, acid test ratio and the cash ratio, the outcome is determining the liquidity of the entity. The description of liquidity by Hussain and Miras (2015) covered the concept of the ratio of current assets and current liabilities. Regarding their findings, liquidity had a direct relationship towards capital structure, and was noted to be significant in the study.

Firm Age: Firm age depicts the experience the firm has in the issue of making financial decisions which occurs regularly since the start of the firm. Evidently, Akeem *et al.* (2014) and Sibindi (2016) posited that firm age has a relationship with capital structure.

Return on Asset: As asserted by Masa'deh *et al.* (2015), organizational performance is subjected to the measurement of different accounting ratios such as profitability ratios and market ratios. However, Masa'deh *et al.* (2015) opined that the commonest used ratios by investors are: ROA and ROE. This study will focus on the use of ROA to measure organizational performance, because asset encompasses both capital and liabilities; hence, measuring the ROA for organizational performance will be devoid of any bias.

Results and Discussion

Descriptive Statistics

The descriptive statistics examine the effect of capital structure on organizational performance of listed Club 100 companies on the Ghana Stock Exchange within a time period of 2007 to 2016.

Table 2 presents the descriptive statistics of capital structure proxy variables, control variables and a variable for organizational performance of listed GC100 companies on GSE using the mean of each variable. Accordingly, it is apparent that the average of ROA which is the measurement basis for performance is 7.33%, approximately. The findings regarding the proxy variables for short-term debt to capital is 0.5667, long-term debt to capital is 0.0771 and total debt to capital is 0.6439. This shows that on the average, about 56.67% of the capital of the GC100 companies listed on GSE are short-term debt, and about 7.71% of the capital of the GC100 companies on GSE are long-term debt. The total debt to capital displaying 0.6439 indicates that the GC100 companies listed on the GSE has an average of about 64.39% of their capital to be debt. This depicts that the companies are highly geared. That is, the companies tend to solicit more debt in financing their businesses over equity with the ratio of total debt to equity exhibiting 1.81:1. Consistent with the Modigliani and Miller theory, such behavior is a result of the fact that organizations will want to enjoy the tax-deductible interest charges associated with debt financing. Also, this is consistent with the pecking order theory which suggest that firms prefer debt financing to equity financing. In addition, a greater percentage of debt employed by the companies are short-term. This can be attributed to the inexpensiveness of soliciting short-term debt in the bid to increase organizational performance and the underdeveloped nature of the capital market of the economy of Ghana. Evidently, this finding is consistent with the findings of Abor (2005).

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
<i>ROA</i>	100	0.0733317	0.0795945	-0.06359	0.38794
<i>STD</i>	100	0.566739	0.1994846	0.162701	0.949544
<i>LTD</i>	100	0.0771451	0.1241538	0	0.64568
<i>TD</i>	100	0.6438842	0.2383172	0.211449	1.32887
<i>AGE</i>	100	43.1	13.26079	15	65
<i>SIZE</i>	100	15.72297	3.142112	10.0735	21.6189
<i>GROWTH</i>	100	0.158673	0.3075532	-1.4721	2.37155
<i>LIQ</i>	100	1.04229	0.5965719	0.134207	3.63002

In view of the control variables, the mean AGE of GC100 companies listed on the GSE for the period of 2007 to 2016 is 43.1 years. This depicts that on an average, the companies are experienced and are matured in issues regarding capital structure, financing choices and financial management. Following this, SIZE which was measured by the natural log of total assets displays an average of 15.72; that is, firms within the study sample has a mean total asset of GHC 6.74 billion. The GROWTH of the companies has a mean of 15.87%, approximately. This means that, averagely, the total assets of the companies increased by 15.87% annually.

In similar terms, the annual change in the SIZE of the companies for the period under study is, on an average, 15.87%. Justifiably, the experience of the companies relative to other companies resulted to a competitive advantage which ultimately led to the increase in the total assets annually. The mean of liquidity is 1.04, approximately. This interprets that the current assets of the GC100 companies listed on the GSE can pay off or provide for the current liabilities of the companies by an average of 1.04 times. Thus, the current assets of the companies can cover all its short-term debts and still have about 4% remaining.

Correlation Matrix

Table 3 shows the correlation matrix. There is a significant low negative relationship between ROA and short-term debt to capital. This indicates that short-term debt to capital is inversely related to organizational performance as measured by ROA, and the inverse relationship that exists between ROA and short-term debt to capital is not fierce. Comparatively, long-term debt to capital exhibits a lower negative relationship towards ROA. This also implies a weak negative relationship between long-term debt to capital and organizational performance. Total debt to capital has a significantly low negative relationship towards ROA. This means that the more debt is solicited by GC100 companies listed on the GSE, the lesser their performance level, and the lesser debt is employed, the higher their performance level. Following this, the correlation results display an approximately no association between age of the GC100 companies listed on GSE and ROA. The indication is that the age of the companies has nothing to do with the performance of the companies. The correlation results for size held a significantly moderate negative relationship between size of the companies and ROA. This shows that bigger companies have lower performance and smaller companies have higher performance. This association is significant to the study and is moderate with regard to strength of association. Contrariwise, growth exhibits a low positive relationship towards ROA. Hence, there is a direct response between growth and performance of companies. This relationship is feeble and deviate farther from the linear

Table 3: Correlation Matrix								
	ROA	STD	LTD	TD	AGE	SIZE	GROWTH	LIQ
ROA	1.0000							
STD	-0.3009*	1.0000						
LTD	-0.1798	0.0320	1.0000					
TD	-0.3455*	0.8537*	0.5478*	1.0000				
AGE	-0.0131	-0.4071*	-0.2625*	-0.4775*	1.0000			
SIZE	-0.5571*	0.2287*	-0.0465	0.1672	0.0855	1.0000		
GROWTH	0.1221	0.0862	-0.0187	0.0624	-0.0785	-0.0061	1.0000	
LIQ	0.2444*	-0.7117*	-0.2160*	-0.7083*	0.3785*	-0.2982*	-0.0233	1.0000
Note: * Significant at 5%.								

correlation frontier. The relationship between liquidity and ROA is significant and positive but not fierce.

Regression Analysis

This section presents discussion on the regression results. The discussion focuses more on the significant variables while touching briefly on the other variables that were found to be insignificant.

The regression results for (1), (2) and (3) of the study are shown in Table 4. Essentially, a test was conducted on the parameters of variance exhibited by the variables of the study. The test enables the choice between the Ordinary Least Square (OLS) and the Generalized Least Square (GLS). When the parameters of variance from the mean is equal, the OLS is said to be appropriate. However, parameters of unequal variance indicate that the error variance from the regression relies on the independent variables, and this depicts GLS. In order to choose between OLS and GLS, the Breusch-Pagan (BP)/Cook-Weisberg test for heteroskedasticity was performed. The BP is used to test for constant or non-constant error variance. A constant error variance depicts homoskedasticity, whereas a non-constant error variance depicts heteroskedasticity. The objective of the BP is to test the null hypothesis of homoskedasticity so that a conclusion in support of heteroskedasticity is reached if the p -value is below a significant level. The results of the test indicate a p -value lesser than the significant level held at 0.05 for all the regressions. This means that heteroskedasticity is present, and the regressions are GLS regressions.

Subsequently, the study can employ either a fixed effect or a random effect estimation technique. The fixed effect technique assumes sufficient data points which produce satisfactory effects in the analysis. On the other hand, random effect technique pools data from other groups within the population due to the few data points available to produce interesting effects. Following this, the Hausman specification test was performed on the regressions to choose between the random effect and the fixed effect. For all the regressions, the result of the test displayed that the alternative hypothesis was inconsistent, but the null hypothesis was efficient. This indicates that the fixed effect and the random effect are both consistent, but the random effect is the most efficient. The Breusch and Pagan Lagrangian Multiplier (LM) test for random effects confirms that the null hypothesis should not be rejected in all the regressions. On this basis, the random effect estimation technique was employed for the analysis.

Hence, random effect regressions, results of the Breusch-Pagan test for heteroskedasticity, results of the Breusch and Pagan Lagrangian Multiplier test for random effects and results of the Hausman test are shown in Table 4.

The findings of *STD* show that short-term debt to capital significantly reduces performance. The implication is that soliciting more short-term debt will eventually reduce the performance of the companies. This finding is consistent with the trade-off theory and the findings of Mahfuzah and Raj (2012), Salim and Yadav (2012), and Moghaddam *et al.* (2015). The significant control variable and size reveal a negative relationship towards organizational

Table 4: Regression Results			
ROA	STD	LTD	TD
STD	-0.1001633** (0.0487893)		
LTD		-0.1096504** (0.0551484)	
TD			-0.1378781*** (0.0402686)
AGE	0.0002989 (0.0009602)	0.0001426 (0.0010055)	-0.0002683 (0.0009066)
SIZE	-0.0119405*** (0.0042806)	-0.0131247*** (0.0043872)	-0.0114782*** (0.0039154)
GROWTH	0.0225842 (0.0182911)	0.0176508 (0.0181653)	0.0230429 (0.0176792)
LIQ	-0.0139916 (0.0159922)	-0.0003112 (0.0147467)	-0.0183322 (0.0149897)
CONS	0.3159537*** (0.0783948)	0.2795285*** (0.0765302)	0.3695939*** (0.0749273)
Prob > chi2	0.0071	0.0116	0.0001
Wald chi2(5)	15.91	14.72	25.78
R ²	0.3560	0.3629	0.4124
BP	9.31 (0.0023)	17.80 (0.0000)	13.26 (0.0003)
LM	32.10 (0.0000)	31.15 (0.000)	27.59 (0.0000)
Hausman	13.47 (0.0193)	2.43 (0.7869)	11.75 (0.0384)
Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; and Standard Errors are in bracket.			

performance. The other control variables are insignificant. Age and growth demonstrate positive relationships toward organizational performance, while liquidity demonstrates a negative relationship towards organizational performance. That is, as age and growth increase, the performance of the companies also increases, and as they decrease, the performance decreases. On the other hand, liquidity decreases the organizational performance. The validity of these results is proven by the *F*-statistics.

The regression results of *LTD* reveal a significant negative relationship between long-term debt to capital and ROA. Thus, as the companies employ more long-term debt, the performance of the companies reduces. The negative relationship of the long-term debt towards organizational performance as revealed in this study supports the findings of Abor (2005), Mahfuzah and Raj (2012), Addae *et al.* (2013), and Moghaddam *et al.* (2015). Size

is significant and is negatively-related to organizational performance. Liquidity is inversely-related to organizational performance indicating that an increase in liquidity by one unit causes organizational performance to decrease by the coefficient of liquidity, and a decrease in liquidity by a unit causes organizational performance to increase by the coefficient of liquidity. The other insignificant control variables, age and growth, are directly-related to organizational performance. Thus, an increase in these control variables cause performance to increase by their respective parameters, and a decrease in these control variables cause performance to decrease by their respective parameters. The *F*-statistics show that the estimated models are valid.

Lastly, *TD* shows that the regression result of the relationship between total debt to capital and organizational performance. The result reveals that total debt to capital is significantly inversely-related to organizational performance of the GC100 companies listed on GSE. The extent of the relationship can be deduced from the coefficient of total debt to capital. Accordingly, if a unit of total debt is solicited by the companies, the performance of the companies as measured by ROA reduces by an approximate value of 13.79%. Hence, total debt reduces performance and the extent to which total debt reduces performance is approximately 13.79%. The finding of the significant inverse association of total debt to capital towards ROA is consistent with the findings of Addae *et al.* (2013) and Vatavu (2015). Like the other regressions, size is the significant control variable which displays a negative relationship towards performance. Liquidity is insignificant and displays a negative relationship towards performance. The other control variables are insignificant and positively relates to the performance of the companies. The *F*-statistics proves the validity of the study.

From the three regression models, it is apparent that short-term debt to capital, long-term debt to capital, total debt to capital and size significantly reduce ROA. An optimal capital structure aims at maximizing returns. However, the findings from the three regressions show that all the capital structure measures: short-term debt to capital, long-term debt to capital and total debt to capital tend to reduce returns. Hence, on an average, the GC100 companies listed on GSE can be said not to be optimal with capital structure. This can be attributed to the over reliance on debt relative to equity for financing which increases the financial risks of the companies; thus, breaching the optimality threshold of capital structure. The companies preferred debt to equity due to tax shield benefits, avoidance of control dilution, and flexibility. Supposedly, the over reliance of debt has the propensity to reduce organizational performance. That said, the companies will have to settle these debts which entail the principal amount solicited and the costs associated with the debt. From the findings of the study, performance exhibits an inverse relationship with short-term debt to capital, long-term debt to capital, and total debt to capital. This indicates that the debts solicited by the companies did not increase the performance of these companies. Therefore, the capital mixes do not meet the ultimate objective of an optimal capital structure. The stance of Fama and French (1993) disclosed that smaller firms have lower stock price relative to bigger firms, and given that capital gains form a portion of returns, it implies that as the

stock prices of smaller firms appreciate, they tend to have higher capital gains compared to larger firms. This is because, the appreciated stock price is spread over the initial low stock price of the smaller companies which will result in increased capital gains per stock price. The negative relationship between size measured by natural log of assets and organizational performance was also found by Olawale *et al.* (2017). Other reasons for smaller firms exhibiting higher performance relative to larger firms are the larger growth opportunities and the correction of difficulties plagued with the operations of the company through innovation.

Conclusion

The study examined the effect of capital structure on organizational performance of listed Club 100 companies listed on Ghana Stock Exchange from the period of 2007 to 2016. The study established an intuition about the financing attributes of the Ghana Club 100 companies listed on the Ghana Stock Exchange. There was a significant negative relationship between capital structure and organizational performance. This implies that capital structure reduces organizational performance of the companies. This is attributed to the high debt burden of firms within the GC 100 enclave. We propose that although firms should explore the benefits of employing debt to finance their operations, they should also be mindful so as not to trade one risk for the other.■

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