

Examining the Influence of Capital Structure on the Performance of Firms Listed at the Dar es Salaam Stock Exchange

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ABSTRACT

The study examined the influences of capital structure on performance for firms listed at the Dar es Salaam stock Exchange. It applied descriptive statistics on nine non-financial firms listed at the DSE between 2020 and 2024. Secondary data were collected through website survey and documentary analysis. While correlation analysis was used to find out the relationship between dependent and independent variables, multiple linear regression analysis was used to investigate the impact of capital structure on firm performance. Capital structure was measured by the ratio of total debt to total equity, ratio of short-term debt to capital employed, ratio of long-term debt to capital employed and the ratio of total debt to capital employed. Performance was measured by return on asset (ROA) and return on equity (ROE).

The findings conclude that TD, LTD, STD and DE have significant negative relationship with ROA while there is no statistically significant relationship between firm performance and ROE. The study concludes that, in line with the Pecking Order Theory, capital structure has a negative relationship with firm performance.

Keywords: Capital structure, Capital Structure theories, Performance, Return on Assets, Return on Equity

INTRODUCTION

The capital structure, which is a mix of debt and equity on the firm's balance sheet critically impacts the firm's performance (Baisi, 2025; Riahi-Belkaonui, 1999). Studies have shown both positive and negative effects on profitability metrics like Return on Assets (ROA) and Return on Equity (ROE). While moderate debt can reduce capital costs and boost performance through tax shields, excessive debt is often detrimental to profitability. The trade-off theory as advanced by Myers (1984) assumes that a firm behaves in such a way that it trades off the benefit of debt financing of the favourable corporate tax effect against higher interest rates and bankruptcy cost. On the other hand, the Agency theory argues that the existence of the agency problem arises due to the conflicts between the principals and agents which results into agency costs to the firm (Jensen and Meckling, 1976). Meanwhile, the Perking order theory claims that asymmetry of information makes firms to prefer internally generated funds to external financing (Myers, 1984).

Although Tanzania started pursuing financial reforms in the mid-1980s, it was in the 1990s when fully-fledged financial reforms were implemented (Odhiambo, 2010). The resulting financial liberalization changed the operating environment of firms by giving more flexibility to financial managers in choosing their firms' capital structure. Unfortunately, like in many other developing countries financial liberalisation resulted in a number of challenges such as, wide and expanding spread between lending rates and deposit rates, high interest rates, mixed trends in financial depth and unstable exchange rates (Odhiambo, 2010).

The Dar es Salaam Stock Exchange Ltd (DSE) was incorporated on 19th September, 1996 under Cap.212 as a private company limited by guarantee and started operations in April, 1998. The formation of the DSE was after the enactment of Capital Markets and Securities Act in 1994 which established the Capital Markets and Securities Authority (CMSA), the industry regulatory body that was established with the mandate of promoting

orderly, fair and efficient capital markets in Tanzania (DSE Hand Book, 2011). As of January 2026, there was 28 companies listed on the Dar es Salaam Stock Exchange comprising 22 local companies and 6 cross-listed companies classified within the Banking and Investment and Industrial and Allied sectors. DSE's market capitalization is approximately TZS 29 Trillion (about USD 11 Billion).

Problem Statement

A mix of debt and equity used to finance a firm's operations significantly impacts its performance with the primary challenge being the determination of an optimal ratio to maximize value and profitability. Excessive debt increases financial risk which may lead to financial distress and ultimately to bankruptcy, while too little debt may limit growth (Baisi, 2025). This phenomenon necessitates a firm's urge to look for an optimal capital structure that minimizes the cost of capital and therefore maximizes return. The core problem in a firm's financing decision is finding the perfect debt-to-equity ratio, which varies by sector and is not a "one-size-fits-all" phenomenon. The value of a firm is maximized when a firm chooses an optimal capital structure that minimizes its weighted average cost of capital and the immediate option of measuring the quality of this financing decision is through examining and identifying the effect of that financial decision on the firm's performance. Performance on the other side is viewed as a comparison between the created firm's value with the value the firm's owners expected to receive (Alchian, 1972).

Since the work of Jensen and Meckling (1976) on whether capital structure influences firm performance there have been conflicting results from subsequent studies. Some of the studies found a positive relationship between capital structure and firm performance (Aburub, 2012) while others found a negative relationship (Kaumbuthu, 2011; San and Heng, 2011; and Lucy, *et al.*, 2014). Yet others had inconclusive results (Bokhtiar, *et. al.*, 2014; Ebrati, Farzad, Reza, and Ghorban, 2013; and Ebaid, 2009). Due to the inconclusive evidences this study sought to contribute to the literature highlighting the need for ongoing analysis of this relationship in the Tanzanian context.

LITERATURE REVIEW

According to Berle and Means (1932) ownership and control become more separated due the existence of continuous dilution of equity in large corporations which provides opportunity for managers to pursue their own interest instead shareholder's interest. That was the foundation of the Agency Theory which was later developed by Jensen and Meckling (1976) and Myers (1977). An agency problem arises whenever managers own less than hundred percentage of shares of firm's assets, as a result managers become unwilling to do their best to maximize firm value (Harris and Raviv, 1990). When ownership and control are separated it may result in managers executing insufficient work, taking in unnecessary perquisites, and sometimes choosing inputs and outputs that favour their own interest and preferences. Managers may invest in projects that are worthless that reduce the value of the firm but enhance their control over its resources. Jensen (1986) considered and recommended the benefit of debt as a restriction of managerial freedom of decisions because managers of firms with low debt are not controlled and thus spend available free cash flows more freely resulting in taking on less effective projects which generate lower returns. On the other hand, however, Grossman and Hart (1982) assert that equity financed firms, have very low possibility of bankruptcy and managers are not penalized in case of low profits and thus they do not have incentives to become more productive.

The pecking order theory also explains why firms apply a certain capital structure over another describing how firms raise their new capital when they are financing their future activities and growth (Arnold, 2005; Myers, 1984). With this theory, a firm having potentially profitable investments will first try to finance such investments by using retained earnings and when more funds are needed firms will go to the capital markets to search for external funds. In the capital markets, however, the debt market is called on first, and only as a last resort the firms will raise equity finance. The theory propounds an order of three steps in order of preferences. Companies prefer to use internally generated funds as compared to external financing (information asymmetries are considered relevant only for external financing). If the firms need external funds for capital investment, they will issue the safest security first by working down the pecking order from safe security to the riskier ones before issuing equity and the safest debt will be the approved bank credit followed by the bank loan from the current lender and it is after then that they will look for long term loans. If internally generated funds exceed capital

investment, the surplus is used to pay down debt first rather than repurchasing and or retiring equity. As the requirement for external financing increases to a firm, the firm will continue to work down the pecking order, perhaps firm will go to convertible securities or preference stock and will finally opt for equity as their last resort. When the firms reach the point that they need to issue equity, they will issue equity to the current owners before issuing to new investors.

The trading-off theory is an off-shoot of the Modigliani and Miller model. Myers (1984) argues that a firm behaves in such a way that it trades off the benefit of debt financing (favourable corporate tax treatment) against higher interest rates and bankruptcy cost. Therefore, an optimal capital structure results from making a balancing between the value of interest tax shields and various costs of financial distress or bankruptcy

Interest expense is tax deductible and hence, a larger interest expenditure is finance cost and will result in lower amount of taxable profits resulting in lower taxes, *ceteris paribus*. By increasing the amount of debt on their balance sheets, firms can derive tax benefits through the interest tax shield. However, increasing debt can also increase financial distress. With very high debt levels, firms may not be able to meet their debt obligations as such increasing their probability of default. There is, thus, a trade-off between the costs and benefits of debt. The theory suggests the existence of a target capital structure towards which firm managers tend to adjust their behaviour. The theory further argues that the speed of adjustment towards that target depends on adjustment cost (Hovakimian, *et. al.*, 2001). Antoniou, *et al.* (2008), on the other hand, suggest that a quick examination of the effect of lagged leverage for one period on current leverage should disclose whether firms have a target capital structure or not and if so, what their speed of adjustment is. Firms are faced with a diminishing marginal benefit of debt and an increasing marginal cost of debt. In an attempt to maximize value, firms would then borrow up to a point where the marginal tax benefit is offset by the marginal costs of bankruptcy (Myers, 1984).

Kaumbuthu (2011) studied the relationship between capital structure and return on equity for industrial sectors and allied sectors listed at the Nairobi Securities Exchange with capital structure being measured by the debt to equity ratio while firm's performance was measured by return on equity (ROE). Using regression analysis Kaumbuthu (2011) established that there is a negative relationship between capital structure and firm performance. Given the shortcomings of the sample which focused on only one sector of the companies and just one aspect of funding, Kaumbuthu's (2011) findings cannot be generalised. Likewise, San and Heng's (2011) findings cannot be generalized for the same reasons as they studied the relationship between capital structure and firm performance only in the construction sector in Malaysia although the results showed that capital structure is significantly positively related with firm performance.

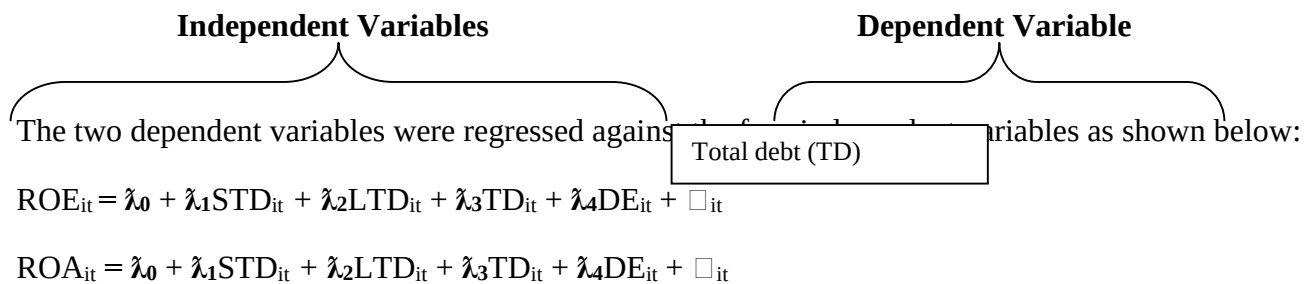
Lucy, Muathe and George (2014), used explanatory non-experimental research design utilising secondary panel data obtained from the annual reports and financial statements of all listed non-financial firms at the Nairobi Securities Exchange. The Feasible Generalised Least Square (FGLS) regression results revealed that firms' financial leverage is statistically significant and negatively associated with performance as measured by ROA and ROE. Likewise, Bundala (2012) found that Tanzanian listed firms are not only unlevered but also they are growing fast although they are illiquid and there is no significant relationship of working capital, growth opportunity and capital structure. Supporting this argument, Bundala (2012) and Bundala and Machogu (2012) allude that growth rate is not a determinant of the capital structure but rather profitability and asset tangibility are the two key determinants and that company size and dividend pay-outs are suggestive determinants. The financial leverage is positively related to liquidity in a company, and positively related to growth rate.

Conceptual Framework.

This study examined the influence of capital structure on firm performance. The reviewed literature infer that return on equity (ROE) and return on assets (ROA) are used as proxies of firm performance measures (Bokhtiar and Mainul, 2014). ROE measures the profitability of a firm by showing how much profit it generates with the money shareholders have invested (Tezel and McManus 2003). It is a popular and useful tool among researchers because it provides information from both the balance sheets and income statements (Rothschild 2006). ROA, on the other hand, shows how efficiently a firm's management can convert the funds used to purchase assets into profits. A firm with a high ROA means that it is good at converting assets into profits (Casteuble, 1997). From Kaumbuthu (2011) and Lucy, *et. al.* (2014), the independent variable, capital structure, was measured by the

debt to equity (DE) ratio, short-term debt (STD) that was measured by short term debt to capital employed, long-term debt (LTD) that was measured as long term debt to capital employed and the total debt (TD) which was measured by total debt to capital employed (Figure 1).

Figure 1. Conceptual Framework



Where:

λ_0 = Constant term

$\lambda_1, \lambda_2, \lambda_3, \lambda_4$ = Coefficients of the explanatory variables

STD_{it} = Short term debt of company i at time t.

LTD_{it} = Long term debt of company i at time t.

TD_{it} = Total debt of company i at time t.

DE_{it} = Debt to equity ratio of company i at time t.

ROA_{it} = Return on assets of company i at time t

ROE_{it} = Return on equity of company i at time t

ε_{it} = Error term

METHODOLOGY

The study applied an explanatory non-experimental research design as advocated by Saunders, *et al.* (2009), and Kerlinger and Lee (2000). The population comprised all listed companies at the Dar es Salaam Stock Exchange except the six financial sector companies. The financial sector companies were excluded in order to avoid any potential biasness as this sector is highly regulated by the central bank due to prudential issues of liquidity, capital holding and assets, and provision for bad debts among other factors (Saunders, *et al.* 2009; Mwangi, *et al.* (2012). For data collection, secondary data with audited financial statements and published annual reports were surveyed online and from DSE hand books (Church, 2001; Bundala, 2014).

Data was analysed using descriptive statistics, regression and correlation techniques. Correlation analysis helped to find out the relationship between dependent and independent variables, whereas regression analysis investigated the impact of capital structure on firm performance using the SPSS software. In order to ensure reliability, the data for all the variables in the study were extracted from audited and published annual reports or financial statements of the listed companies at the DSE covering the years 2020 to 2024 (Patton, 2002). Validity was ensured by defining strict data rules (data type, range, and format checks), using triangulation, conducting a pilot study, and by continuously auditing data quality (Babbie, 1992).

FINDINGS

Table 1: Descriptive Statistics for dependent and independent variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
DE	45	0.23	5.94	1.8427	1.84990
TD	45	0.21	1.72	0.7184	0.44349
LTD	45	0.06	0.80	0.3564	0.27166
STD	45	0.07	1.21	0.3627	0.26263
ROA	45	-0.26	0.47	0.1791	0.14246
ROE	45	-1.17	1.28	0.3127	0.33675
Valid N (list-wise)	45				

Table 1 shows a summary of descriptive statistics of the study's dependent variable and independent variables. The results indicate that ROA has a mean 0.1791 with a standard deviation of 0.14246 with a minimum value of -0.26 and maximum value of 0.47. The positive ROA implies that firms are on average profitable although some firms have a negative profit as represented by the observed negative minimum value of ROA. The ROE has a mean of 0.3127 with a standard deviation of 0.33675 and the maximum and minimum values are -1.17 and 1.28 respectively. The negative minimum value suggests that some of the listed firms were operating with losses during the study period.

Furthermore, the mean value of total debt (which is measured by total debt to capital employed) is 0.7184 suggesting that on average about 71.84% of capital employed of the listed firms are financed by debt. The mean value of total debt to total equity is 1.827 implying that the firms are highly geared with debt surpassing equity by a massive 183%. The standard deviation is 1.84990 with a minimum value of 0.23 and maximum value of 5.94. The high average leverage ratio of the DSE listed firms is mainly caused by cross listed firms all of them having high gearing ratios of above 1.0 while the local listed firms, with the exception of TOL, have gearing ratios below 1.0. These results are consistent with Lucy, *et. al.* (2014) who found that cross listed firms are highly geared.

The results in table 1 further show that the mean value of LTD is 35.64% with a standard deviation of 0.27166 and minimum value of 0.06 and maximum value of 0.8 while the STD has a mean value of 0.3627 with a standard deviation of 0.26263 and minimum and maximum value of 0.07 and 1.21 respectively. The results in Table 1 indicate that the firms listed at the DSE employ more short term debt than long term debt in financing their assets and that they have, on average, a positive ROA and ROE as well as having a general upward trend in their profit although performance is not as good as required.

Linkage between the Value of Total Debt and Firm Performance

The first objective of the study was to evaluate the linkage between the value of total debt (TD) and firm's performance (ROA and ROI) with a proposition that there is no significant relationship between the total debt to capital employed ratio and performance of companies listed at the DSE. Using correlation analysis, the estimated coefficients were statistically different from zero at 5% levels of significance as shown in Table 2.

Table 2: Linkage between the value of the Total Debt and Firms Performance

Variables		TD	ROA	ROE
TD	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	45		
ROA	Pearson Correlation	-0.644**	1	
	Sig. (2-tailed)	0.000		

	N	45	45	
ROE	Pearson Correlation	-0.231	0.772**	1
	Sig. (2-tailed)	0.128	0.000	
	N	45	45	45

** Correlation is significant at the 0.01 level (2-tailed)

The correlation analysis shows that TD has a significant negative correlation with ROA ($P = 0.000$, $R = -0.644$) implying that a one-unit change of TD can reduce ROA by 0.644 (i.e. any increase in total debt will decrease firm performance as measured by return on assets). Moreover, TD has a significant negative correlation with ROE ($P = 0.128$, $R = -0.231$) implying that a single unit change of TD has a weak potential of reducing ROE by 0.231. We, therefore, reject the proposition of there being no significant relationship between the ratio of total debts to capital employed ratio and performance and conclude that there is a significant relationship between the total debts to capital employed ratio and performance. This is consistent with Mohamed, *et. al*, (2013) that ROA has a strong negative significance correlation with capital structure and TD does not have significant correlation with ROE. On the other hand, the results differ with Saeedi and Mahmood, (2011) and Morteza and Mohammad (2015) who found that ROA is positively related to capital structure while no significant relationship exists between ROE capital structure. The results further confirm Ntobya's (2014) findings that within the Tanzanian firm's capital structure the debt components decrease year to year implying that companies consistently continue to substitute debt with equity in their capital structure. Additionally, the results are inconsistent with the agency theory argument that the use of debt in the capital structure helps to discipline the managers from investing the recourses into non-profitable ventures (Jensen and Meckling, 1976; Myers, 1977; Grossman and Hart, 1982).

Linkage between Long Term Debts and Firm's Performance

The second objective of the study was to examine the linkage between long term debts (LTD) and firm's performance (ROA and ROE). Using correlation analysis the results are shown in Table 3.

Table 3: Linkage between Long Term Debts and Firm Performance

Variables		LTD	ROA	ROE
LTD	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	45		
ROA	Pearson Correlation	-0.630**	1	
	Sig. (2-tailed)	0.000		
	N	45	45	
ROE	Pearson Correlation	-0.104	0.772**	1
	Sig. (2-tailed)	0.496	0.000	
	N	45	45	45

** Correlation is significant at the 0.01 level (2-tailed)

Table 3 reveals that LTD significantly negatively correlates with ROA ($P = 0.000$, $R = -0.630$) but has no significant correlation with ROE ($P = 0.496$, $R = -0.104$) implying that a single unit change of LTD can reduce ROA by 0.630 but it has a weak ability of reducing ROE by 0.104. Therefore, we reject the proposition that that there is no significant relationship between long-term debts to capital employed ratio and performance and infer that there is a significant relationship between the long-term debt to capital employed ratio and performance.

This confirms Bokhtiar, *et. al.* (2014) that LTD is negatively related to ROA and ROE and contradicts Ebrati, *et. al.* (2013) who found that LTD is insignificantly positively related with ROA and ROE.

Linkage between Short Term Debts and Firm's Performance

The third objective of the study was to examine the linkage between short term debts (STD) and firm's performance. *A priori*, it was proposed that there is no significant relationship between short-term debts to capital employed ratio and firm performance. The correlation analysis results are shown in Table 4.

Table 4. Linkage between Short Term Debts and Firm's Performance

Variables		LTD	ROA	ROE
LTD	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	45		
ROA	Pearson Correlation	-0.434**	1	
	Sig. (2-tailed)	0.003		
	N	45	45	
ROE	Pearson Correlation	-0.278	0.772**	1
	Sig. (2-tailed)	0.064	0.000	
	N	45	45	45

** Correlation is significant at the 0.01 level (2-tailed)

Table 4 shows that STD significantly negatively correlates with ROA ($P = 0.003$, $R = -0.434$) but does not have a significant correlation with ROE ($P = 0.064$, $R = -0.278$) implying that a single unit change of STD can change ROA and ROE at 0.434 and 0.278 respectively. We reject the proposition that there is no significant relationship between short-term debts (STD) to the capital employed ratio and firm performance. This is in line with Bokhtiar, *et. al.* (2014) who found that STD has a negative relationship with the ROA and is not significantly associated with ROE while the results contradict Ebrati, *et. al.* (2013) who assert that STD is insignificantly positively related with ROA and ROE.

Association between Financial Leverage (DE) and Firm Performance

The fourth objective of the study was determining the association between financial leverage (DE) and firm performance by, *a priori*, proposing that there is no significant relationship between debt-equity ratio (DE) and firm performance. The correlation analysis results are presented in Table 5.

Table 5: Association between Financial Leverage (DE) and Firm Performance

Variables		LTD	ROA	ROE
LTD	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	45		
ROA	Pearson Correlation	-0.568**	1	
	Sig. (2-tailed)	0.000		
	N	45	45	

ROE	Pearson Correlation	-0.025	0.772**	1
	Sig. (2-tailed)	0.869	0.000	
	N	45	45	45

** Correlation is significant at the 0.01 level (2-tailed)

Table 5 shows that there is significant correlation between DE and ROA ($P = 0.000$, $R = -0.568$) but not with ROE ($P = 0.869$, $R = -0.025$) implying that a unit change of DE can change ROA and ROE by 0.568 and 0.025 respectively leading to the rejection of the *a priori* proposition and asserting that there is significant relationship between debt-equity ratio (DE) and firm performance which is consistent with Zeitun and Tian (2007), Mustafa and Omasa (2007), Lucy, *et. al.*, (2014), and Kaumbuthu (2011). The results are also consistent with the perking order theory that firms prefer internal financing sources and when that is insufficient they use external financing with debt being preferred over equity (Myers, 1984).

Regression Test

Regression equations were used to determine the impact of capital structure (TD, LTD, STD and DE) on firm financial performance as measured by ROA and ROE. Multiple linear regression was used to calculate how much firm financial performance (dependent variable) changes when capital structure (independent) variables change, while other factors are controlled. The regression equation of the best-fit line is given as:

$$Y = \beta_0 + \beta_i X_i + S.E.,$$

Where β_0 is the intercept and β is the slope of the line for the predicted linear relationship between Y (dependent variable) and X (independent variable).

$$X_i = X_1 + X_2 + \dots$$

$$B_i = \beta_1 + \beta_2 + \dots$$

$$\text{If } S.E = 0 \text{ then } Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

The following models were constructed

$$ROE_{it} = \lambda_0 + \lambda_1 STD_{it} + \lambda_2 LTD_{it} + \lambda_3 TD_{it} + \lambda_4 DE_{it} + \epsilon_{it}$$

$$ROA_{it} = \lambda_0 + \lambda_1 STD_{it} + \lambda_2 LTD_{it} + \lambda_3 TD_{it} + \lambda_4 DE_{it} + \epsilon_{it}$$

Where:

λ_0 = intercept or Constant term

$\lambda_1, \lambda_2, \lambda_3, \lambda_4$ = Coefficient of the explanatory variable

STD_{it} = Short term debt of company i at time t.

LTD_{it} = Long term debt of company i at time t.

TD_{it} = Total debt of company i at time t.

DE_{it} = Debt to equity ratio of company i at time t.

ROA_{it} = Return on assets of company i at time t

ROE_{it} = Return on equity of company i at time t

ε_{it} = Error term

Table 6: Regression Results for the Return on Assets

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Constant	0.388	0.040		9.649	0.000
	TD	-0.957	2.784	-2.979	-0.344	0.733
	LTD	0.177	2.808	0.338	0.063	0.950
	STD	0.729	2.804	1.344	0.260	0.796
	DE	0.082	0.034	1.063	2.425	0.020
R = 0.720		R-Square = 0.519		Adj R-Square = 0.471		

The regression results for the return on assets in Table 6 show that ROA has a positive slope of 0.388 which indicates a positive relationship between the expected level of the ROA and the predictors (TD, LTD, STD, and DE) at 5% level. The model indicates the correlation coefficient (R Square) is 0.519 showing a moderate (neither strong nor weak) correlation between ROA and the predictors. The model summary shows that the correlation coefficient R is 0.720, using all predictors simultaneously, $R^2 = 0.519$ and the adjusted R^2 is 0.471 implying that 47.1% of the variance in ROA can be predicted from independent variables (TD, LTD, STD and DE), whereas the remaining 52.9% is influenced by other variables which were not considered in this study. Generally, the model is statistically significant since the level of significance is below 0.05 at 5% level of significance ($P = 0.000$). Additionally, TD, LTD and STD are not good predictors of ROA since their probability values are greater than 0.05. Only DE is a good predictor of ROA. It can be seen that the P-value between ROA and TD is 0.735 (>0.05), LTD is 0.950 (>0.05), STD is 0.796 (>0.05) and DE is 0.020 (<0.05). These results are consistent with Ebaid's (2009) assertion that ROA has little to no impact on a firm's performance. The resultant regression equation is:

$$ROA = 0.388 - 0.957TD + 0.177LTD + 0.729STD + 0.082DE$$

Table 7: Regression Results for Return on Equity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Constant	0.700	0.115		6.110	0.000
	TD	-2.062	7.931	-2.716	-0.260	0.796
	LTD	0.033	8.002	0.026	0.004	0.997
	STD	1.272	7.991	0.992	0.159	0.874
	DE	0.337	0.096	1.851	3.503	0.001
R = 0.548		R-Square = 0.300		Adj R-Square = 0.230		

The regression results for the return on equity as shown in Table 7 indicate that coefficient of correlation (R-Square) between ROE and the predictor variables is 0.300 which indicates a weak correlation. The coefficient of determination is 0.230 which implies that the variables in the regression equation contribute 23.0% of ROE. ROE has a positive slope of 0.701 with the predictors indicating a positive relationship between ROE and capital structure. However, DE appears to be a significant predictor of ROE since p-value is 0.001. TD ($p = 0.799$), LTD ($p = 0.997$) and STD ($p = 0.874$) do not have significance power to predict ROE. As with Bokhtiar et al.

(2014), the results show that ROE has negative relationship with TD. The resultant regression equation is: **ROE = 0.7 – 2.062TD + 0.033LTD + 1.272STD + 0.337DE**

It is noted, however, that TD, LTD and STD do not have significant power to predict ROE at 5% level based on the P-value between ROE and TD ($p = 0.799$), LTD ($p = 0.997$) and STD ($p = 0.874$). This implies that, as with Ntobya (2012), there are other predictors which can predict ROE well besides those in this study. Ntobya (2012) found that a firm's capital structure is mostly determined by profitability, assets tangibility, Company size and liquidity indicating that these may be good predictors in determining firm performance.

CONCLUSION

Examining the linkage between the value of the total debt and firm performance the study has found that there is a significant negative correlation between TD and ROA while there is an insignificant negative relationship with ROE implying that there is a linkage between the value of total debt (total debt to capital employed ratio) and firm performance (ROA and ROE). This is consistent with Mohamed, *et al.*, (2013), Abor (2007), Ebaid (2009), and Li (2000) who found that ROA has a significant negative correlation with TD but does not have significant correlation with ROE. Contrary to this study's findings, however, Saeedi and Mahmood, (2011) and Morteza and Mohammad (2015) utilizing different variables found that performance is positively related to capital structure.

On the linkage between long term debt and firm performance it is concluded that there is a linkage between the value of long term debt to capital employed and firm's performance (ROA and ROE). LTD has a significant negative correlation with ROA while there is insignificant negative correlation with ROE. This confirms Bokhtiar, *et. al.* (2014) that LTD is negatively related to ROA and ROE and that ROE is insignificantly related to LTD. Zeitun and Tian (2007), Abor (2007), Mahfuzah and Yadav (2012) also asserted that LTD has a significant negative impact on firm performance. These findings, however, contradict the works of Ebrati, *et. al.* (2013), Gosh *et. al.* (2000), Saeedi and Mahmoodi (2011) who found that LTD is positively related with ROA and ROE. Furthermore, Phillips and Sipahioglu (2004) found that LTD has no significant relationship with firm performance.

It has been established that there is a linkage between short term debts to capital employed ratio and ROA and ROE. Like Abor (2007), Mahfuzah and Yadav (2012), the study has revealed that the STD has a significant negative correlation with the ROA and has no statistical correlation with ROE and confirms the findings of Bokhtiar, *et. al.* (2014) who found that STD has a negative relation with the ROA and is not significant with ROE which is inconsistent with Ebrati, *et. al.* (2013), Saeedi and Mahmoodi (2011) who found that STD is positively related with ROA and ROE.

We have found that increased financial leverage has a weak negative effect on ROE and strong significant negative relation with ROA as a measure of firm performance which is contrary to the assertion of the Agency theory's argument that financial leverage mitigates agency problem. Moreover, the findings are contrary with the Trade-off theory because as the company employs more debt the higher the cost to the firm implying that the firm will not achieve a trade-off resulting from the benefit of debt financing (favourable corporate tax treatment) against higher interest rates and bankruptcy cost. The results are consistent with the works of Zeitun and Tian (2007), Mustafa and Omasa (2007), Lucy, *at el.*, (2014), Kaumbuthu (2011) and the perking order theory (Myers, 1984) that in order to finance growth firms prefer to use internally generated funds first and when these funds are insufficient companies are forced to turn to external funding where debt is preferred over equity.

It has been revealed that ROE is not significantly associated with TD, DE, LTD and STD (all capital structure variables) which means that firm's capital structure has neither immediate nor long term effect on returns to shareholders (ROE). As with Hutchinson (1995), the possible reason for this is that assets earning power is less than the average interest cost of the debt to that firm. Thus, investors who look at ROE as measure of performance have to be indifferent to any debt level used by the firms because the level of debt does not affect return of the firm's equity (ROE).

It is recommended that companies should take debts in their capital structure as a financing last alternative. In order for the listed firms in Tanzania to maximize their market values, their major focus when deciding on the choice of their capital structure is to make sure that there is a positive significant relationship between capital structure choices that is debt-equity mix and their performance as identified in the findings of this study. Listed firms should always strive to obtain a balance between the choice of capital structure and the resultant effect of that choice of capital on its performance because this will affect the shareholders risks, returns and the cost of capital.

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