

## **The Effect of Capital Structure on the Financial Performance of Small and Medium Enterprises in Thika Sub-County, Kenya**

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### **Abstract**

*Whether the capital structure of a firm should have some effect on the financial performance of small and medium enterprises is a matter for empirical determination. The objective of this study was to determine the effect of capital structure on the financial performance of SMEs in Thika sub-county, Kenya. The study was conducted on 40 SMEs which were in operation for the five years 2009 to 2013, using multiple linear regression. The findings were that there was no significant effect of capital structure, asset turnover and asset tangibility on the financial performance of SMEs in Thika sub-county, Kenya. Therefore it is recommended that additional research be conducted in order to determine the major factors that influence financial performance of SMEs. This would enable these firms control these factors in order to ensure that profitability is maximised.*

**Keywords:** Small and Medium Enterprises, Financial Performance, Capital Structure, Asset Turnover, Asset Tangibility

### **Introduction**

Small and Medium Enterprises (SMEs) are firms that employ ten to 250 employees (Kushnir, Mirmulstein and Ramalho, 2010). SMEs serve an economy by satisfying the demands of various economic entities for which there are no or lower scale economies of production or distribution. SMEs also serve an economy by satisfying demands where the managerial costs of large business are greater than the market transaction costs of dealing by contract rather than by control within a firm (Bryman, 1998; and Mazur, 2007).

A firm's financial performance is measured by how better off the shareholder is at the end of a period, than he was at the beginning. The main objective of shareholders in investing in a business is to increase their wealth. Thus the measurement of performance of the business must give an indication of how wealthier the shareholder has become as a result of the investment over a specific time. Performance has different meanings depending on the perspective of the user of financial information. The financial performance of SMEs can be measured using a number of indicators such as revenue, profitability, liquidity and growth rate (Roshanak, 2013; and Cassar and Holmes, 2003).

Measures that indicate a firm's financial performance are grouped into five broad categories: liquidity, solvency, profitability, repayment capacity and financial efficiency. Liquidity measures the ability to meet financial obligations as they fall due without disrupting the operations of the firm. Three widely used financial ratios to measure solvency are the debt-to-asset ratio, the equity-to-asset ratio (sometimes referred to as percent ownership) and the debt-to-equity ratio (Mazur, 2007).

A firm's capital structure refers to the mix of its financial liabilities. As financial capital is an uncertain but critical resource for all firms, suppliers of finance are able to exert control over firms. Debt and equity are the two major classes of capital, with debt holders and equity holders representing the two types of investors in the firm. Each of

these is associated with different levels of risk, benefits, and control. It is the way the corporation finances its assets through some combination of equity, debt, or hybrid securities. A firm's capital structure is then a composition or structures of its liabilities (Harris and Raviv, 1991).

Capital structure can be measured as the debt-to-equity ratio. The higher the ratio, the higher the gearing and the greater the risk of insolvency. Repayment capacity method measures the ability to repay debt from both firm and non-firm income. It evaluates the capacity of the business to service additional debt or to invest additional funds after meeting all other cash commitments (Dybvig and Wang, 2002; and Gunasekaran, 2010).

There are two opposite views regarding the relationship between profitability and leverage. Myers and Majluf (1984) in the pecking order theory suggests that firms prefer raising capital from retained earnings, then from debt, then from issuing equity. If pecking order applies, then higher profitability will correspond to a lower debt ratio. As a result, the pecking order theory implies a negative relationship between leverage and profitability.

In the trade-off theory, agency costs, taxes and bankruptcy costs incline more profitable firms towards higher leverage. First, expected bankruptcy costs decline when profitability increases. In addition, if past profitability is a good proxy for future profitability, profitable firms can borrow more, as the likelihood of paying back the loans is greater. Secondly, the tax deductibility of corporate interest payments induces more profitable firms to finance with more debt. In the agency models of Jensen and Meckling (1976), higher leverage helps control agency problems by forcing managers to pay out more of the firms excess cash in interest payments. Accordingly, the trade-off theory predicts a positive relationship between profitability and leverage.

Asset turnover is defined as the ratio of sales to average total assets of the firm. It measures the organisations' efficiency in deploying and utilizing its assets to generate sales revenue. As sales revenue has an effect on financial performance and since asset turnover is related sales, it can therefore be concluded that asset turnover also has an impact on the eventual financial performance of the organisation. Profitability of the firm is net income to average assets. Holding margins and other operating expenses constant, it can be predicted that the higher the asset turnover, the higher the profitability of the firm (Bradley, Javrell and Kim, 1984; Mesquita and Lara, 2003).

Asset tangibility is defined as the ratio of net tangible asset to total assets. Assets play an important role in leverage level of firms, its turnover and ultimately its profitability. Tangible assets are less subject to informational asymmetries and tend to have a greater value than intangible assets in the event of bankruptcy. A firm with large amount of fixed assets can borrow at relatively lower rate of interest by providing the security of these assets. Having the incentive of getting debt at lower interest rate, a firm with higher percentage of fixed asset is expected to borrow more as compared to a firm whose cost of borrowing is higher because of having less fixed assets. If the relatively more borrowed funds are used efficiently they will increase its turnover and its financial performance (Baker and Zingales, 1994; and Niu, 2008).

### **Research Problem**

In Kenya, SMEs employ 74% of the labor force and contribute over 18% of the country's gross domestic product. SMEs are therefore an important component of the economy, especially with regard to absorbing a large percentage of the workforce. Good financial performance of these entities is therefore critical so that they can continue with their economic contribution. Thika municipality, which is within Thika sub-county had a population of about 136,000 people as per Kenya's 2009 census (Kenya National Bureau of Statistics, 2013; and Ngugi, 2012).

Empirical studies on the relationship between leverage and financial performance of SMEs have yielded conflicting results. A negative relationship between leverage and profitability was found by Kuria (2010) and Abor (2007). Muiru and Kamau (2014) found no relationship, while Kyule and Ngugi (2014) established a positive relationship between leverage and profitability.

Improved performance of SMEs is important in an economy due to their positive contribution especially with regard to offering employment. The factors that contribute to their success are varied but include their access to debt finance, which results in their observed capital structures. The relationship between leverage and financial performance has not yet been conclusively established. Consequently, the objective of this study was to determine the effect of capital structure on the financial performance of SMEs in Thika Sub-County, Kenya.

**Methodology**

The research adopted descriptive research design. According to Kenya Bureau of Statistics (KBS), 2013 Statistics Business Register, approximately 1,890 SMEs operated in Thika, and this constituted the population. A sample size of 40 was used, and was selected using convenient random sampling. Secondary data was collected from the annual financial reports of the SMEs for the years 2009 – 2013.

Multiple regression and correlation analysis were used to determine the nature and significance of relationship between changes in the response variable and change in the predictor variables (determinants) identified in the study. The regression equation model was as below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

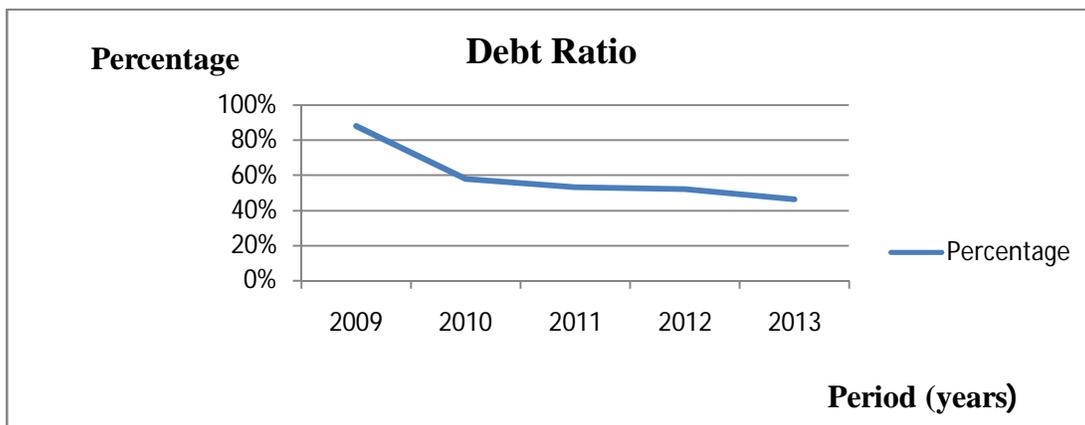
Where:

- Y= Dependent Variable –(return on assets –ROA)
- X<sub>1</sub>=Debt Ratio (ratio of total debt to total assets)
- X<sub>2</sub>= Asset turnover (ratio of sales to total assets)
- X<sub>3</sub>= Asset tangibility (Net tangible assets to total assets)
- β<sub>0</sub> = Constant
- ε = error term

**Results and Discussion**

From the findings of the study, the aggregate SMEs debt ratio started at 88% in 2009 then reduced over the period to 46% in 2013, as shown in Figure 1.

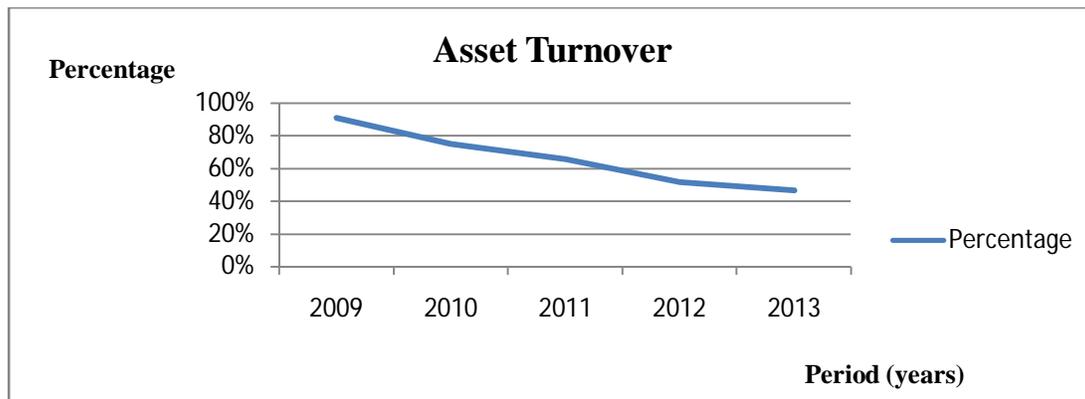
**Figure 1: Debt Ratio**



Source: Researcher (2014)

Asset turnover was 91% in 2009 reducing to 47% in 2013 as depicted in Figure 2.

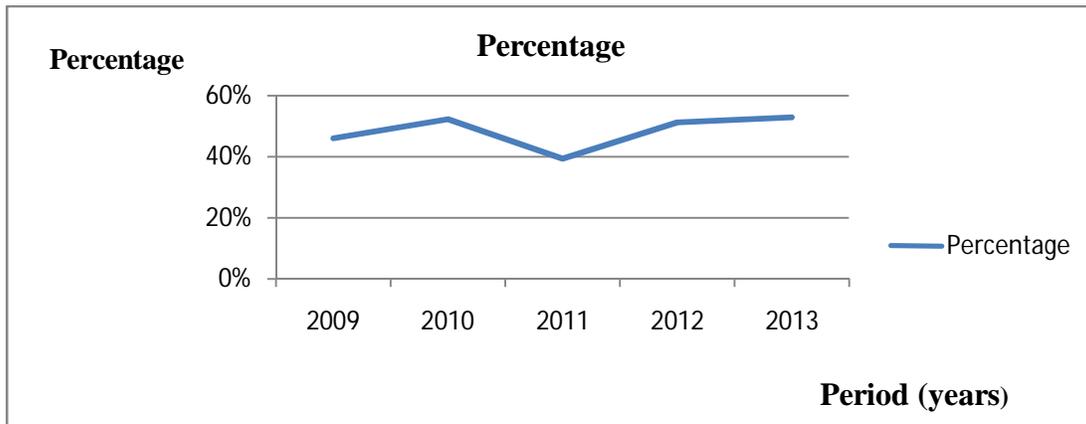
**Figure 2: Asset Turnover**



Source: Researcher (2014)

Asset tangibility of the SMEs was at 46% in the year 2009 and fluctuated during the period ending at 53% in 2013 as shown in Figure 3.

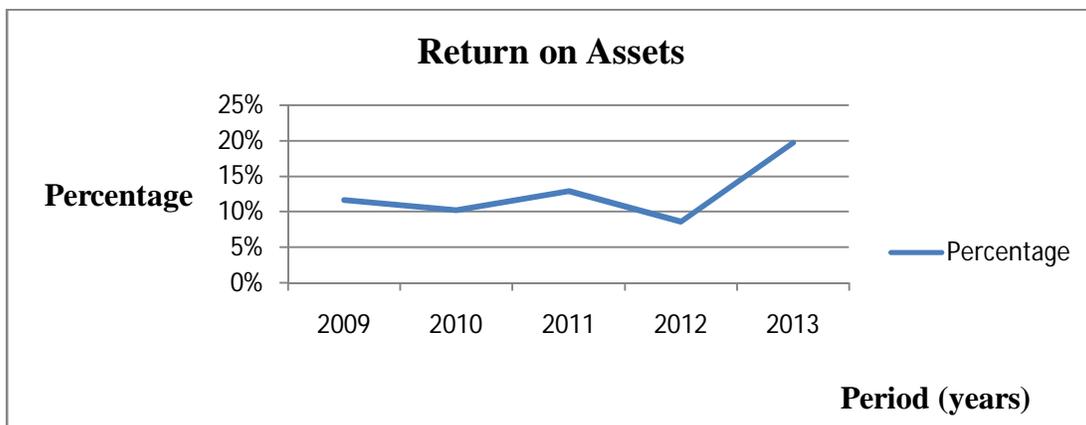
**Figure 3: Asset Tangibility**



Source: Researcher (2014)

The financial performance of the SMEs was measured using return on assets. ROA was 12% in the year 2009. It fluctuated during the five year period and closed at 20% in 2013. This is illustrated in Figure 4.

**Figure 4: Return on Assets**



Source: Researcher (2014)

**2.2. Correlation Analysis**

Table 1 shows correlation among the four variables. Multi-collinearity was not detected among the independent variables and hence none was dropped.

**Table 1: Correlation Matrix**

	ROA	Debt ratio	Asset turnover	Asset tangibility
ROA	1			
Debt ratio	-.315	1		
Asset turnover	-.405	.894*	1	
Asset tangibility	.117	-.236	-.369	1

\*. Correlation is significant at the 0.05 level (2-tailed).

Source: Researcher (2014)

The results of the multiple regression analysis are shown in Table 2.

**Table 2: Regression Results for Return on Assets as Dependent Variable and Various Factors as Predictors****a) Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.422(a)	.178	-2.286	.07744

**b) Goodness of Fit - ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.001	4	0.000	0.072	0.966(a)
	Residual	0.006	35	0.006		
	Total	0.007	39			

**c) Regression Coefficients**

Model		B	Std. Error	t	Sig.
1	(Constant)	.214	.443	.484	.713
	Debt ratio	.068	.533	.127	.920
	Asset turnover	-.157	.511	-.307	.811
	Asset tangibility	-.050	.757	-.066	.958

aDependent Variable: ROA

The goodness of fit results of standard linear multiple regression with ROA as the dependent variable and various determinants as predictors are reported in Table 2(a). The model summary is in Table 2 (b). The model reveals that there is no statistically significant relationship between ROA and determinants (Sig.> 0.05). The model coefficients are shown in Table 2(c). The findings indicate that none of the indicators of ROA were significant ( $p>0.05$  in all cases).

The study explored the relationship between ROA and various determinants by suggesting that there is a statistically significant relationship between on one hand ROA and on the other capital structure and other determinants. Results of this study indicate that the relationship between ROA and capital structure and other determinants is not statistically significant ( $p>0.05$ ) for all the three predictor variables (capital structure, asset turnover and asset tangibility). The null hypothesis was therefore accepted, meaning that there is no significant relationship between ROA of SMEs in Thika sub-county, Kenya and capital structure, asset turnover and asset tangibility. With regard to the relationship between ROA and capital structure, the focus of this study, the results are consistent with Muiru and Kamau (2014) who studied capital structure decisions by SMEs in Kenya.

**Conclusion**

It can therefore be concluded that capital structure, asset turnover and asset tangibility do not have significant effects on financial performance of SMEs. Therefore it can be concluded that there are other more significant factors which affect the financial performance of SMEs.

These findings, especially the non-existence of a significant relationship between ROA and capital structure would tend to support the pecking order theory of capital structure which argues that there does not exist an optimum leverage for firms.

The recommendation to managers and owners of SMEs is that they need not focus on maintaining a specific leverage ratio but rather they should let the actual capital structure be dictated by business needs. However, they should not load the business with more debt than it has the capacity to service as this would potentially lead to financial challenges that ultimately could lead to bankruptcy.

The study considered data for only five years. Another study could be carried out that extends the period to say 20 years or more. It is also suggested that further studies be carried out with regard to empirically assessing the relationship between financial performance of SMEs in Thika sub-county, Kenya and other factors that theoretically can be expected to be related. Another study that could be carried out is to determine the effect of leverage on bankruptcy or generally financial distress of SMEs.

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