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THE EFFECT OF LONG TERM LOAN ON FIRM PERFORMANCE IN KENYA: A SURVEY OF SELECTED SUGAR MANUFACTURING FIRMS

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Abstract

This study analyses the effect of long term loan of performance of selected sugar firms in Kenya. The specific objectives were to: find out the effects of long term loan on firm performance, determine the relationship between long term loan and firm performance. The study used a retrospective research strategy in collection of data. A target population of 9 sugar firms was considered in the study. A sample size of 3 firms was used in the study computed based on Mugenda and Mugenda (2003) 10 - 30% rule and simple random sampling was used in the collection of data from the sample. The test retest method was used to test for reliability. The data was then analyzed using multiple linear regression models and Pearson product moment correlation. The study found that Long term loan negatively affects ROA although not statistically significant ($\beta = -.479, p < 0.05$). Long term loan was strongly related to firm performance as measured by ROA. The conclusions of the study were that Long term loan negatively affects firm performance although not statistically significant. The study recommended that sugar firms should manage well the portfolio of its long term debt structure to minimize the risks associated with adoption of the various forms of long term debt.

Key words: Long term loan, ROA, ROE

1. INTRODUCTION

Loan is an alternative means of financing in a firm's capital structure. The sugar industry is characterized of firms with large loans which are long overdue. The findings by Hammes (2003) found a significant and negative effect existed between loans and performance for most countries. According to Abu (2012) a negative adjusted R square value of - 0.302 existed between loans and bank performance as measured by ROA. Asterbro and Bernhardt (2003) found that loans explained 4.787% variability in ROA and 1.14% variability in ROE. According to Ghosh (2006) in his research on World Bank he found that the level loan associated inversely with firms' performance as measured by ROA. The results by Hammes (2003), Abu (2012), Ghosh (2006) shows an inverse association between long term loan and firm



performance while Asterbro and Bernhardt (2003) found a positive association between loan and firm performance and hence a knowledge gap that necessitates a further research. In Kenya, Sugar manufacturing firms like Nzoia (Mutai, 2014); Mumias (Wachira, 2014) are among the firms faced with large long term loans in their debt structure which they were yet to repay. There was lack of studies on long term loan in Kenya sugar manufacturing firms' and yet sugar firms have huge loans which are long overdue and they are yet to pay. The researcher sought to address the knowledge gap on long term loan in the sugar industry by focusing on the sugar manufacturing firms in Kenya. This gap of knowledge in this research necessitated this study. Specifically to analyze the effects of long term loan on performance of selected sugar manufacturing firms in Kenya.

2. LITERATURE REVIEW

2.1 Concept of Firm Performance

Performance is best looked at in two ways that is, end results and a means to achieve the results. According to (Ukko, 2009) Performance is the ability to distinguish the outcomes of organizational activities. Performance could either be financial and non-financial performance (Ittner, 2008). The non-financial performance is measured using operational Key Performance Indicators such as Market share, innovation rate or customer satisfaction (Hyvonen, 2007). Financial performance is a subjective measure of how well a firm can use its assets from its primary role of conduction of business and its subsequent generation of revenues.

Financial performance is also used as a general measure of a firm's overall financial status over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in totality. The financial performance is measured using accounting Key Performance Indicators such as Return on assets, Return on sales, Earnings before interest and tax, Economic value added or Sales growth (Crabtree & DeBusk, 2008).

The advantage of these measurements is their general availability, since every profit oriented organization produces these figures for their yearly financial reporting (Chenhall *et al.*, 2007). This study was interested much with financial performance and used Return on assets which represents the amount of EBIT a firm can achieve for each dollar of assets it controls and return on equity which both are good indicators of a firm's profitability.

2.2 Long Term Loan and Firm performance

A Long term loan is a loan from a financial institution. Long term loans can be raised in relatively short period, because long term loans are negotiated directly between the lender and the borrower, and documentation is minimized. Terms and conditions of long term loan can be revised on by mutual agreement between the lender and borrower. Long term loan has lower issuance costs. Funds raised from Long term loan are typically used to finance permanent working capital, to pay for fixed assets or to discharge other loans a firm had borrowed (Athreya, 2008).

Long term loans minimize time spent saving for investments and investors are able to realize potential earnings sooner to help offset the cost. Long term loans increase the flexibility of an investor's limited capital by allowing for its distribution over multiple investments, and minimizing the immediate impact on operational cash flow. Long term loans provide an opportunity to finance potential investments while maintaining control of the firm.

Generally, long term loans have a very structured payment thus builds credit. It can be very advantageous to take out a long term loan for a business. After the maturity date and when full ownership is assumed, the former debtor and now owner can use the asset and the positive credit they have developed paying for it for future borrowing. Thus, reliable debtors experience a compounding effect of the advantages of a long term loan.



According to Hammes (2003), he examined the relationship between long term loan and performance by comparing Polish and Hungarian firms to a large sample of firms in industrialized countries. He used panel data analysis to investigate the relation between long term loan financing, and firms' performance measured by profitability. His results showed a significant and negative effect for most countries.

According to Abu (2012) He examined Capital structure and firm performance; Evidence from Palestine stock exchange" and found negative adjusted R square value of - 0.302 existed between long terms loans and bank performance as measured by ROA. Asterbro and Bernhardt (2003) researched on Start-up Financing, Owner Characteristics, and firm performance of French firms. They found long term loan financing explained 4.787% variability in ROA and 1.14% variability in ROE.

According to Ghosh (2006) in his research on World Bank he found that the level long term loan associated inversely with firms' performance as measured by ROA. The result referred to the creditors who were using Long term loans as disciplinary tool on the firm. This tool bases on the restrictions imposed by creditors on the firm as prevention on the firm from distributing the earnings on the shareholders or impose restrictive conditions on the loans by increasing the interest rates or impose sufficient collaterals on loans, thus, these restrictions according to the researcher led the management of the firms' to use a large proportion of its finances on repayment of debt owed to creditors which in turn reduces firm performance.

H01: Long term loan has no significant effect on ROA

H02: Long term loan has no significant effect on ROE

H03: There is no significant relationship between Long term loan and ROA

H04: There is no significant relationship between Long term loan and ROE

3. RESEARCH METHODOLOGY

This study used the retrospective research design as it allows for the use of existing data that has been recorded for any time period in this study the time spans between 2010- 2014. A target population of 9 sugar manufacturing firms in Kenya was considered that is Muhoroni, Mumias sugar firm, Nzoia sugar firm, West Kenya, Soin, Butali, Chemilil, Sony and kibos and allied sugar firm. Simple random sampling was adopted in selecting what comprised the sample size. Simple random sampling allows researchers to use statistical methods to analyze sample results. The sample size was calculated according to Mugenda and Mugenda (2003), a sample size of between 10 and 30 % was a good representation of the target population and hence the 30% was adequate for analysis. The sample size of this study was 3 firms calculated as 0.30 of 9. Secondary data was the main source of data supplemented by primary data. A test retest method was used to test for the reliability of the data collection form for secondary data. Data entry and analysis was done using SPSS V.20. Pearson product moment correlation was used to assess for significant association between dependent variables (ROA and ROE) and the independent variable (Long term loan). Linear Regression model was used to identify significant predictors of ROA controlling for confounders. $P < 0.05$ was considered significant. The regression models were as follows:

$$ROA_{M,t} = \beta_0 + \beta_1 x_{1M,t} + e_{M,t}$$

$$ROE_{M,t} = \beta_0 + \beta_1 x_{1M,t} + e_{M,t}$$



Where; $X_{1M, t}$ = Long term loan to total assets of the firm M in year t

$e_{M, t}$ = error term

β_0 = y intercept

β_1 , = coefficient of x_1 .

4. RESULTS

The study found that there was significant negative correlation between long term loan and firm performance as measured by ROA ($r = -0.909$, $p = 0.032$). This implied that the higher the long term loan the lower the ROA. There was no significant relationship between long term loan and firm performance as measured by ROE ($r = 0.233$, $p = 0.706$), as shown in Table 4.1.

Table 4.1: Correlation between long-term loan and performance (ROA&ROE)

Performance	Long-term loan
ROA	$r = -0.909$ $p=0.032$
ROE	$r =0.233$ $p=0.706$

Source: (Survey Data 2015)

Regression

A Multiple linear regressions model was done on Long-term loans and ROA and the results showed that long term loan negatively affected ROA though not statistically significant ($p > 0.05$), as shown in Table 4.2.

Table 4.2: Multiple linear regression ROA and long-term loans

Variable	Regression co-efficient (β)	Standard Error	t	P- value	95% Confidence interval
Constant	.407 -.479	.098	4.154	.053	-.015 - .828
Long-term loans		.162	2.956	.098	- 2.218 - 1.176

Source: (Survey data, 2015)

The results of Table 4.2 indicate a significant negative effect between long term loan and firm performance as measured by ROA. Hence we reject the null hypothesis (H_0) and conclude that long term loan significantly affects firm's



performance as measured by ROA though not statistically significant. Furthermore, we fail to reject the null hypothesis (H_0_2) and conclude that long term loan does not significantly affect firm's performance as measured by ROE.

There existed a strong negative relationship between long term loan and ROA and hence we reject the null hypothesis and conclude that there is a significant relationship between Long term loan and ROA (H_0_3). We fail to reject the null hypothesis and conclude that Long term loan is not significantly related to firm performance as measured by ROE (H_0_4).

Further analysis (Multiple linear regressions) revealed that, when using ROA as the predictor of firm performance the adjusted R-square value was 0.668 (Table 4.3). This implied that Long term loan explained 66.8% variability in firm performance as measured by ROA. This further implies that there are other factors that affect ROA which were not captured in this study.

Table 4.3: Multiple linear regression model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.906 ^a	.814	.668	.026390

Predictors: (Constant), Long term loan

5. CONCLUSIONS

The study concluded that Long term loan negatively affects firm performance as measured by ROA although not statistically significant. Long term loan is strongly negatively related to firm performance as measured by ROA. This implies as the proportion of long term loan used in a firm's debt structure increases its financial performance decreases.

6. RECOMMENDATIONS

- i. The study recommends that the sugar firms should come up with policy stipulations' to govern promptness in repayment of long term loans owed to lenders. This is to avoid heavy penalties that accompany late repayment or the repayment running over due which subsequently affects its reputation.
- ii. Kenya sugar board should identify more alternative sources of funding at lower interest rates that sugar firms could borrow money from to cut down on the high interest rate burden the firms' are forced to incur from Commercial Banks in Kenya. The Kenya sugar board should explore other sources of soliciting much financial resources to empower the sugar development fund to cater for the financial needs of the sugar firms in Kenya.
- iii. The study suggests that further research to be conducted on the effects of long term loan on performance of sugar firms by use of performance indicators such as Net profit Margin and ROCE. A further research on the effects of long term loan on performance of sugar firms could also be carried out on private sugar manufacturing firms only in Kenya.



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