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## Capital Structure Relation to the Performance of an Organization: Private Sugar Manufacturing Companies

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### Abstract:

*The sugar industry contributes extensively to the economy of Kenya. Despite this, in the recent past, the sector has faced a myriad of problems which led to a decline in financial performance. The paper determined the relationship between debt to equity ratio, debt to asset ratio, long-term debt ratio and the financial performance of private sugar manufacturing organizations. It also determined the correlation linking capital structure and the financial performance of private sugar sector. A cross-section survey was adopted as research design. Census of all the six private sugar firms in Kenya that had been in operation since the year 2010 to 2017. It relied on secondary data which was collected through secondary data collection schedule from published accounts of the participating firms. The paper adopted multiple regression models. The content pass through content validity index, supervisors and research experts. Audited published accounts from authentic source were used to increase reliability. The research findings showed that debt equity ratio had significant effect on financial performance, debt asset ratio has no significant effect on financial performance, long term debt equity ratio has a significant effect on financial performance and moderating factor of firm size has no effect on financial performance. In conclusion capital structure has no effect on financial performance of private manufacturing sugar companies. The study recommends that the debt equity ratio, long term debt ratio be considered, Firms should consider borrowing if they are able to repay.*

**Keywords:** Finance, capital structure, cross-sectional survey design, Kericho, Kenya

### 1. Introduction

Capital structure (CS) alludes to a blend of an array of enduring sources of resources and equity shares including assets and retain earnings of an organization. They uncovered the circumstances or conditions under which CS is significant or inappropriate to the fiscal presentation of the quoted companies. Brigham and Ehrhardt (2004) bear witness to that capital structure reflects how an enterprise funds its strategies that may both be through commitment, esteem capital or the combination of both. As indicated by Myers (2001), there was no standard hypothesis on the debt to equity decision however noticed that there were a few speculations that attempted to clarify the capital structure blend. Myers referred to the tradeoff hypothesis which expresses that organization look for obligation levels that adjust the tax cuts of extra obligation against the expenses of conceivable money related trouble.

There are several studies that global perspective of capital structure. Taub (1995) one of the contributors affirmative a connection linking obligation proportion and measures of productivity. India study by Majumdar and Chubbier (1999) demonstrated that leverage negatively affects performance. The analyst discovered that the kind of obligation, bank advances or exchange credit is not of essential significance, what makes a difference is obligation when all is said and done. The review of literature likewise completely portrayed the different endeavors to show organization debt/equity policy. In any case, the ideal blend of securities that an organization should issue remains unknown.

According to Kenyan sugar industry reports (GOK, 2008) the dominant in sugar industry value chain included sugar manufacturers, sugar farmers out growers, molasses processors and fixed-crusher artisanal juggleries. The Kenyan sugar industry is preferred as a background study for several reasons. The sugar sub-sector has an enormous dormant for affecting in general the wealth of Kenya. It is amongst the greatest grantors to the farming Gross Domestic Product (GDP), supporting at least 25% of the Kenyans population, generates over 520,000 metric tons of sugar for domestic consumption (saving the economy in excess of US\$ 250 million or Kshs. 20 billion in foreign exchange annually.

Furthermore, the sugar sub-area is as of now experiencing major change occasioned by advancement and deregulation in the working condition. These policy reforms have led to the liberation of sugar costs and promoting, the evacuation of money given by the government on farming and setting the parastatal elements under administration contracts to set them up for privatization. There is an approaching danger emerging from the facilitated commerce course of action which has already been protected our nation against territorial rivalry. Finally, this study focused on private sugar firms in Kenya while excluding publicly owned companies since the

management and ownership are different, they operate in the different economic environment and the regulations governing them is different.

## 2. Literature Review

The capital structure as measured using DAR, DER and LTDR bring conflicting result when all are used to measure financial performance. Often ROE is used to measure performance but some time firms over borrow hence accumulation debt. The measurement of the performance impact of strategies has been reported to be problematic in rising economies; Kenya included (Hoskisson, Edan, Lau & Wright, 2000). The paper attribute the situation to original financial reporting that make comparisons over time and across firms difficult to understand how debt financing can be teamed. The sugar companies in Kenya has fall to be a prey of debt problems and some time the government come in support through pumping finance to solve large debt of out growers and operation difficulties. To understand more theories will guide the study and empirical review.

### 2.1. Theoretical Review

Capital structure irrelevant theory is cornerstone of finance that it is substantive and stems from its nature of irrelevance proposition. Capital structure places into prospect the path wherein a company funds its operations which may be via dedication, esteem capital or a mixture of each (Brigham and Ehrhardt, 2004). Capital structure concept as ascribed by Modigliani and miller proposed that it is far unessential how a business enterprise funds its daily activities and that the estimation of a business enterprise is self- sufficient of its capital structure making capital structure beside the point (Modigliani & miller, 1958).

Another theory that support the paper is trade-off theory of capital structure and taxes. Myers (2001) research on capital structure following the precepts of Modigliani and Miller noted trade off legitimizes normal obligation proportion. Pecking order theory through the works of Myers (1984). He expressed that lean towards the source of water; where to direct there profit objective payout towards venture openings. Through time different researcher has provided different measures which include debt ratio. Based on this theories the paper intended to find out the debt ratio as discuss in the objective. The theorist provide just a frame work and different scholar has given methods to obtain this ratios.

### 2.2. Empirical Review

Capital structure relates to the dedication and esteem utilized through an affiliation in funding crucial factors. Its decision is at the factor of convergence of numerous exceptional choices within the locale of association subsidize. Those represent benefit approach, develop financing, the difficulty of complete deal securities, financing of mergers, buyouts and so forth.

### 2.3. Debt Asset Ratio (DAR)

There is only handful of studies measuring capital structure by debt assets ratio. One notable study was that of Ebaid (2009) who did a research to look at the effects of decision of capital structure towards execution of firms in Egypt. The investigation showed that capital structure has practically zero effect on a company's execution. Mwangi, Anyango and Ameyia (2014), sought to establish significance of debt-asset ratio on firm performance. The study confirmed fulfillment of the company enhanced by utilizing to a greater extent current liabilities to finance assets. This is likely in light of the fact that present commitments are less exorbitant than non-current obligation.

### 2.4. Debt Equity Ratio (DER)

Hutchinson (1995) in his wise works discussed that budgetary utilize definitely influenced the affiliation's landing on esteem gave that wage's vitality of the wander's advantages outperforms the typical interest cost of firm's commitment. Dough Pucher (1973) additionally distinguished a clear relationship amongst obligation and benefit however for enterprises. In any case, a couple of examinations have shown that commitment adversely influences firm efficiency.

### 2.5. Long Term Debt Ratio (LTDR)

Mwangiet al (2010) distinguished that a solid positive connection amongst use and profit for value, liquidity, and degree of profitability existed. Mesquita and Lara (2003) revealed that the connection linking rates of return and obligation demonstrates an opposite association for long haul financing and established a connection for short term financing and value.

## 3. Research Objective

The objective of the study were given by; 1. To establish relationship between debt equity ratio and financial performance. 2. To examine the relationship between debt asset ratio and the financial performance. 3. To investigate the relationship between long-term debt ratio and the financial performance.

## 4. Methodology

The research design suitability relies on study idea and the research objects (Mugenda, 2008). This study adopted cross-section survey research design. Cross-section survey research design was preferred because it enabled the researcher to collect secondary data in different firms for the purpose of determining the existence and extent of a phenomenon as well as established the relationship between variables. This characteristic is a census study of all the six private sugar firms which were in existence and operational by 2010 to 2017 (Source: Kenya Sugar Board, 2017). Content validity empowered information being gathered to be dependable in

speaking to the particular substance of a specific idea. Supervisors and the research specialists at the School of Post Graduate of Kenyatta University were consulted to assess the relevance and fittingness of the substance, clearness, and ampleness of the optional information gathering plan from an examination point of view.

Quantitative data was analyzed by use of descriptive statistics presented in frequency tables. Simple and Multiple regression extent of the association between capital structure and performance of sugar manufacturing companies.

**5. Results and Discussion**

The results from secondary source were analyzed where simple regression model were used to test the objectives. The main objective was measured using multiple regression model. Both simple and multiple regression were represent using three tables model summary, ANOVA and coefficient tables.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724a	.524	.429	2.10655

Table 1: Summary Debt Equity Ratio (DER)

The results indicated that 52.4% of the variations between the dependent variable Return on Equity (ROE) and independent variable Debt Equity Ratio (DER) were accounted for or explained this indicated some significant relationship (table 1).

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	24.447	1	24.447	5.509	.046a
Residual	22.188	5	4.438		
Total	46.635	6			

Table 2: Debt Equity Ratio

According to table 2 results, it showed significant relationship between DER and ROE (F=5.509, P = .046 < 0.05).

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.589	2.102		-.756	.484
	Debt Equity Ratio	.595	.253	.724	2.347	.046

Table 3: Coefficient of DER

The results from table 3 showed that DER has a significance effect on financial. With a P value less than 0.05 at 0.046, this implied that null hypothesis that debt equity ratio has no significant effect on performance. The findings are in accordance with the discoveries by Hutchinson (1995) who found out that cash related utilize decidedly influenced the affiliation's entry on esteem gave that benefit's impact of the organization's advantages outperforms the typical premium cost of commitment to the firm. He additionally discovered fundamentally positive connection between obligation proportion and measures of gainfulness.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.338a	.114	-.063	2.87443

Table 4: Summary of Debt Asset Ratio (DAR)

About 11.4% of the variations was accorded to the relationship between debt asset ratio (DAR) and performance are explained this percentage points at a weak relationship (table 4). It indicated that there exist a weak correlation between the two variables.

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	5.323	1	5.323	.644	.459a
Residual	41.312	5	8.262		
Total	46.635	6			

Table 5: Debt Asset Ratio

The result indicated that there was no significant relationship between debt asset ratio (DAR) and financial performance (F=0.644, P-value of 0.459) was more than 0.05 significance.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.699	2.407		1.953	.108
debt assestratio	-2.606	3.247	-.338	-.803	.459

Table 6: Coefficient of Debt Asset Ratio (DAR)

The model indicated DAR has got no significant relationship with performance where the P value 0.459 is more than 0.05. This lead to failure of rejection of the null hypothesis that DAR does not significantly affect the performance of private sugar manufacturing. Ebaid (2009), and Ghosh, Nag and Sirmans (2000), uncovered a positive connection between money related use and decision of capital structure. Different examinations demonstrated a negative relationship, for example, whereby bring down value capital proportion is related with more noteworthy firm execution. Capital structure was calculated without a moment's hesitation commitment to asset extent, whole deal commitment to asset extent, and total commitment to indicate assets.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.773a	.597	.517	1.93855

Table 7: Summary of LTDR

Findings from table 7 indicated that R2 of 0.597 meaning that 59.7% of the variations between ROE and LTDR are explained or accounted for the remaining is due to other factors.

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	27.845	1	27.845	7.410	.042a
Residual	18.790	5	3.758		
Total	46.635	6			

Table 8: Long term debt ratio

The paper's findings (table 8) indicated that F=7.410 with a P value 0.042 which is less than 0.05 this shows that F statistic is significant. Hence long term debt ratio was significantly affecting the financial performance.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.050	1.651		-.636	.553
	long term debt ratio	1.450	.533	.773	2.722	.042

Table 9: Coefficient of LTDR

The results from table 9 indicated that LTDR has a significant effect on performance since P value is less than 0.05 at 0.042 implying that the null hypothesis of that long term debt ratio does not significantly affect the performance of private sugar manufacturing companies was rejected and the alternative hypothesis is accepted. These findings are support the findings by Walker and Ruekert (1987) assert that proper firms' performance scope must include efficiency, competence, and flexibility, suggesting the existence of vital linkages connecting strategic control, strategic orientations and organizational performance. Performance measurement impact of strategies has, however, been reported to be problematic in rising economy, Kenya included (Hoskisson, Edan, Lau & Wright, 2000). Such researchers attribute the situation to unconventional financial reporting that make comparisons over time and across firms difficult.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.617a	.381	.246	1.54394

Table 10: Model summary

Findings from table 4.5 showed that when all independent variables are combined the R2=0.617 indicating that only 38.1% of the variations are accounted for. Meaning that the independent variable which is capital structure has no significant effect on dependent variable that is financial performance.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	39.484	3	13.161	5.521	.097a
	Residual	7.151	3	2.384		
	Total	46.635	6			

Table 11: Return on Equity and independent variables

From the results in table 4.5.1 it was found out that  $F=5.521$  with a P value of 0.097 which was more than 0.05 implied that variations were not significant.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-1.926	2.206		-.873	.447
	debt asset ratio	-1.656	1.891	-.215	-.876	.445
	long term debt ratio	.918	.499	.489	1.842	.163
	Debt Equity ratio	.449	.207	.547	2.172	.118

Table 12: Coefficients of ROE and independent variables

Results from table 12 indicated that the independent variables debt asset ratio, long term debt ratio and debt equity ratio showed that there was no significant effect on the dependent variable ROE with all the P values was more than 0.05 hence it was concluded that there was statistically significant difference between capital structures and financial performance. This is because all the three debt ratio (DAR, LTDR and DER).

## 6. Conclusion and Recommendation

The study concludes that there exist association linking debt equity ratio and the financial performance. Hence DER has a significant effect on the performance of private sugar manufacturing companies in Kenya. The paper noted relationship of Debt Asset Ratio and financial performance had no significant influence and there exist a weak or no relationship between capital structure and financial performance. The study also concluded that long term debt ratio affects the financial performance of the private sugar firms. Finally, from the study when all variables put together it was found that there was no significant impact of capital structure on financial performance.

The study recommends that the debt equity ratio be considered since they affect the financial performance. Firms should consider borrowing so long as the firm is able to pay; too much borrowing is dangerous to the firm since it means firm is being financed by creditors rather than its financial resources. Creditors and buyers prefers low debt ratio due to the fact their interest are included in the occasion of an enterprise decline. A high debt equity ratio results in additional interest expense and therefore incase the interest outweigh its return it may lead to bankruptcy which may leave shareholder with nothing. Firms should consider having an optimal debt to equity ratio in the longrun.

The study recommends that debt asset ratio should not be considered since it does not affect financial performance; it deals with the amount of total assets that are financed by creditors instead of investors. A higher debt-asset ratio implies that it is more leverage hence greater financial risk. A company should consider financing its assets with less debt to minimize financial risk. Therefore should set an optimum debt asset ratio that suit the firm in the long run.

Finally, the study recommends firms should consider lowering long term debt ratio for a company success that is the loan element should be low as possible as asset should be more this is because long term debt ratio affect the firm this will enhance positive business results.

## 7. Acronyms

- DAR – Debt Asset Ratio
- DER – Debt Equity Ratio
- LTDR – Long Term Debt Ratio
- ROE – Return on Equity
- CS – Capital Structure

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