

EFFECT OF LOAN FINANCING ON FINANCIAL PERFORMANCE OF SUGAR FIRMS IN WESTERN KENYA

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Abstract: Debt or loan financing for a business firm is the process of borrowing money from a source outside the firm in order to continue operating the business. The business owner is responsible for paying back that principal amount, according to the terms of the loan, plus some percentage charge of interest. The purpose of this study was to determine the effect of Capital Structure decisions on financial performance of Sugar firms in Western Kenya. Specifically, this study sought to; examine the effect of loan financing on financial performance. The study used descriptive study design with both primary and secondary data sources, where 109 questionnaires were administered to different employees of sugar firms. The quantitative data were analyzed through descriptive statistics as well as Pearson correlation and linear regression analysis. According to the study findings, the respondents reacted to various components of loan financing. The results revealed that Cane Maintenance Loan is meant for farmers and the company for maintenance of their first and second ratoons. The intent of the loan is for the purchase of fertilizers, ploughing, weeding and procurement of agro-chemicals for quality cane production. The loan repayment period is up to 18 months with 5% interest charge on the reducing balance. In terms of factor loading analysis the loan had 0.897 weight loading.

Keywords: capital structure decisions, loan financing, financial performance

Background of the study

The Capital structure has attracted a strong debate and scholarly attention in the corporate finance literature for a long period of time. However, in the context of sugar industries, the topic has received inadequate research attention. Different studies on capital structure and financial performance done have mostly highlighted on the relationship between debt in capital structure and financial performance and in most cases, the results showed a positive relationship (Roden and Lewellen, (1995); Ghosh (2000); Deesomask et al., (2004); Berger and Bonaccorsi di Patti, (2006), Huang and Song, (2006); Chakraborty, (2010) showed positive relationship.

Huang & Song (2006) also studied determinants of capital structure among the companies in China, the study found that capital structure is the combination of Debt, Equity or internal funds that a firm chooses to run its operations. The decision to use Debt, equity or a combination of both is determined by several factors such as business risk, Tax exposers, Market conditions, the firm growth rate and the cost of capital as have been the case of sugar Firms in Kenya. A study by Huang & Song (2006) found that the optimal capital structure of the firm will therefore be obtained at a combination of debt and equity that maximizes the total value of the firm or minimizes the weighted average cost of capital. However, these findings by Huang & Song (2006) were based on the general firms hence would not be generalized for the sugar firm industries, hence it's not clear whether these capital structures influence profitability, sales volume, earning per share and return on equity and assets of sugar firms in Kenya. The present study seeks to fill these gaps by investigating the effects of

loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

Similarly, Salehi and Biglar (2009) studied the issue of whether the capital-structure decision impacts firms' performance of Iranian firms. Their study used three definition of capital structure in scope of book value to market value and five measures were assumed for financial performance. They applied the data of 117 corporate in Tehran Stock Exchange for the period from 2002 to 2007. Results of their study demonstrated that capital structure influences financial performance. The significance of the influence of capital structure on performance respectively is belonged to measures of adjusted value, market value and book value. However, this study did not bring out the different forms of capital structure decisions of these firms and how they affect the financial performance of the firms especially in the sugar industry. The present study seeks to fill these gaps by investigating the effects of loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

Gul et al., (2012) also investigated how firm characteristics affect the capital structure in banking and insurance sector in United States. They used a sample of 272 American firms listed on New York Stock Exchange for the years (2005-2007). They applied correlations and European Journal of Accounting, Auditing and Finance Research regression analysis to estimate the functions relating to profitability that is measured by return on equity with measures of capital structure. Empirical results show a positive relationship between debt to total assets and profitability and between total debt to total assets and profitability in the service industry. Similarly, the findings of their study show a positive relationship between debt to total assets and profitability in the short-run, long-term debt to total assets and profitability and between total debt to total assets and profitability in the manufacturing industry. However, this study was more of banking and insurance industry than sugar industry; hence their findings cannot be generalized for the sugar firms.

A study that's related to Nigerian listed companies was done in 2013 by Oyedijo, (2012) who examined the relationship between capital structure and firms performance of 25 companies using the data covering the periods of 2008-2012. Gross profit, net profit, returns on equity and return on assets, were used as the measures of firm performance whereas debt equity ratio and debt assets ratio were used as the measures of capital structure. The statistical tests were used, where, the results show that gross profit, net profit, return on equity, return on assets, are not significantly correlated with debt equity ratio. In addition, gross profit margin and return on equity are significantly correlated with debt assets ratio as the measures of capital structure, and capital structure has significant impact on gross profit and return on equity. However, this study by Oyedijo, did not bring out the different forms of capital structure decisions of these Nigerian listed firms. The study was also on the general Nigerian listed companies and not specifically on sugar firms, hence limiting its findings from generalization. The present study seeks to fill these gaps by investigating the effects of loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

Ghazouani (2013) also studied the capital structure of firms and the explanation of their behavior in the context of trade-off theory. It analyzes the determinants of capital structure of Tunisian firms through the existence or not of a dynamic model of adjustment to target leverage ratio. This validation leads to test two complementary successive models, the first is a static, while the second is a dynamic model that incorporates the variable of transaction costs to see how we can talk about a speed adjustment allowing firms to get closer to the target ratio. The results of the first model show that the profitability and asset structure are the main explanatory

variables of the level of leverage of Tunisian firms. While for the dynamic model, the most remarkable result is manifested at the level of the adjustment costs that are relatively high which engendered a slow adjustment towards the optimal ratio. However, this study only analyzed factors influencing capital-structure decisions of the Tunisian firms and not the effects of capital-structure decisions on financial performance of these firms. The present study seeks to fill these gaps by investigating the effects of loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

Muhammad and Abdul (2015) evaluate the financial and operating performance of newly privatized Egyptian state-owned enterprises and determine whether such performance differs across firms according to their new ownership structure. The Egyptian privatization program provides unique post-privatization data on different ownership structures. The study covers 69 firms, which were privatized between 1994 and 1998. For these newly privatized firms, these study documents significant increases in profitability, operating efficiency, capital expenditures, and dividends. Conversely, significant decreases in employment, leverage, and risk are found, although output shows an insignificant decrease following privatization. However, this study by Muhammad and Abdul (2015) did not bring out forms of capital structure decisions for these newly privatized Egyptian state-owned enterprises, as it only looked at the ownership structure. The study looked at the general listed companies and not specify on the sugar firms, hence limiting its findings from generalization. The present study seeks to fill these gaps by investigating the effects of loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

Obonyo (2017) also studied the impact of capital structure on financial performance of companies listed at the Nairobi securities exchange in Kenya on 30 listed companies using non- profitability sampling design concludes that there is a weak positive relationship between capital structure and financial performance of the sampled companies listed at the Nairobi Securities Exchange market in Kenya. It also found out that there is a weak positive relationship between capital structure and earnings per share. Debt ratio has a weak positive relationship with return on assets and equity and also too much liabilities in the company's capital structure has an impact in performance of firms as measured by earnings per share, return on assets and return on equity. However, this study by Obonyo, did not bring out the different forms of capital structure decisions of these Nairobi listed firms. The study looked at the general listed companies and not specify on the sugar firms, hence limiting its findings from generalization. The present study seeks to fill these gaps by investigating the effects of loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

The sugar sector in the western part of Kenya include Muhoroni (1966), previously East African Sugar Company Ltd in 1961; Chemelil (1968); Mumias (1973); Nzoia (1978); South Nyanza (1979). Miwani Sugar which started in 1922 as private investment and was taken over in 1970. Private investment include: West Kenya Sugar, Soin Sugar Company, Kibos Sugar and Allied Industries Ltd, Butali Sugar Company and Busia Company. Of the private investments only Butali and West Kenya are presently in operation, at present, both Miwani and Muhoroni are under receivership. According to Kenya Sugar Board (2005) which also state that state holding in the industry are: Miwani Sugar (49%), Muhoroni (82.78%), Chemelil (97.64%), Nzoia (98.87%) and South Nyanza (99.79%). This implies that the government has invested in this industry. The government oversees the sub-sector principally through the Ministry of Agriculture (MoA) and the Kenya Sugar Board (KSB), the latter being made of representatives from the state, sugar companies, farmers' organization and general industry.

Despite these investments, self-sufficiency in sugar has remained elusive over the years as consumption continues to outstrip supply. The performance of the sugar industry has continued to be quite dismal. According to SUCAM 2019 report, Mumias Sugar Company's current production stands at 520,000 metric tonnes and consumption which has increased steadily over the last years at 740,000 leaving the country with a deficit of 220,000 metric tonnes. The sugar processing firms in Western Kenya is chosen due to myriad of problems they are facing that hurt their profitability. According to Kibet, (2013) the core problem affecting Kenya's sugar industry is the persistent deterioration in profitability due to insufficient working capital and liquidity that finance their operations. Consequently, most of these factories have accumulated large debts amounting to Kshs. 58 billion as at 31st Dec 2018 (Kenya Sugar Board, 2019) and as a result, approximately 50% of sugar companies in Kenya each year experience a declining financial hence going under (Mwanaongoro, & Imbambi, 2014).

A number of scholars have done studies on Sugar Firms to bring out factors affecting their performance. However, most of these studies have not dwelled on capital structure decisions of these firms and how the different capital structure influence financial performance of the firms. For instance, Wamalwa, (2014) studied effects of lean manufacturing technology strategy implementation on factory time efficiency of Mumias Sugar Company limited in Kakamega County, Kenya using descriptive case research design on 910 employees, the study found that lean manufacturing technology has significant impact on Factory Time Efficiency depending on the manner of implementation of the practice.

Wamalwa, (2014) results of the study further shows that the Company in Kenya has not implemented very important tools and techniques in their operations like total productive maintenance. However, this study Wamalwa, (2014), did not bring out the different forms of capital structure decisions of this company. The study also looked at manufacturing technology strategy implementation and not capital structure decision of the sugar firm. This therefore limits its findings from generalization. The present study seeks to fill these gaps by investigating the effects of loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

Similarly, Mbalwa (2014) studied effect of corporate governance on performance of sugar manufacturing firms in western Kenya using cross sectional sample survey research design on eleven (11) sugar manufacturing firms. The study concluded that although elements of board characteristics, top management characteristics, stakeholder communication and disclosure are practiced in sugar firms in Kenya, board characteristics had a greater influence on organizational performance compared to top management characteristics and stakeholder communication and disclosure characteristics. The study also found that element of corporate governance significantly influenced organizational performance in sugar firms. However, this study Mbalwa (2014), did not bring out the different forms of capital structure decisions used by sugar firms in western Kenya. The study also looked at corporate governance as a determinant on firm's performance, and not capital structure decision. This therefore limits its findings from generalization. The present study seeks to fill these gaps by investigating the effects of loan financing, debenture financing, preference shares capital financing, ordinary shares capital financing and institutional capital financing on financial performance of sugar industries in Kenya.

The capital structure approaches are specific combination of debt and equity adopted by business organizations to finance its overall operations and growth (Oke, & Babatunde, 2011). The debt approaches may come in the form of bond issues or loans, while equity may come in the form of common stock, preferred stock, or retained

earnings (Ronoh, & Ntoiti, 2015). Therefore, the approaches underscoring these models of financing are Net Income Approach, Net Operating Income Approach and WACC Approach (Traditional View).

In the net income approach, the capital structure decision is relevant to the valuation of the firm. Therefore, a change in the capital structure causes an overall change in the cost of capital and also in the total value of the firm (Ejupi, and Ferati, 2015). Higher debt content in the capital structure means a high financial leverage and this result in decline in the overall or weighted average cost of capital. This result in increase in the value of the firm and also increase in the value of the equity shares. In an opposite situation, the reverse conditions prevail. According to Wooldridge, (2012) the average cost of capital will reduce with greater use of debt and the equity shareholders will not insist for higher return with increased levels of gearing caused by the use of increasing level of debt component. It is also assumed that the lenders will also not insist for higher return with increasing levels of debt. Hence, the average cost of capital falls until the level of debt is reached since there is no upturn in the cost of either equity or debt.

Based on 'Net Operating Income Approach (NOI)', value of the firm is independent of its capital structure. It assumes that the weighted average cost of capital is unchanged irrespective of the level of gearing (Chakraborty, 2010). The underlying assumption behind this approach is that the increase in the employment of debt capital increases the expected rate of return by the stockholders and the benefit of using relatively cheaper debt funds is offset by the loss arising out of the increase in cost of equity.

Loan Financing

Debt or loan financing for a business firm is the process of borrowing money from a source outside the firm in order to continue operating the business. The business owner is responsible for paying back that principal amount, according to the terms of the loan, plus some percentage charge of interest (Zender, 2010). A repayment schedule for the principal and interest is generally established at the time the financing occurs. In most cases, repayment period is within six months to a year at most, 18 months. Any longer loan term than that is considered a medium term or long term loan. Long term loans can last from just over a year to 25 years.

When you think of debt financing, you may immediately think of borrowing money from a bank to obtain a bank loan. However, there are many other types of debt financing depending on the needs of the business and its ability to repay the debt Kebewar (2012). Each has advantages and disadvantages depending on the riskiness of the business and its stage in the life cycle (Pouraghajan and Malekian, 2012). For instance, there is asset financing which is basically the utilization of a company's balance sheet assets, including short-term investments, inventory and accounts receivable, to borrow money or get a loan (Liaqat et al., 2017)

The company borrowing the funds must provide the lender with a security interest in the assets.

There is also lease financing, which is one of the important sources of medium and long-term financing where the owner of an asset gives another person, the right to use that asset against periodical payments. The owner of the asset is known as lessor and the user is called lessee. Wooldridge, (2012) also elaborate that a finance lease is a type of lease in which a finance company is typically the legal owner of the asset for the duration of the lease, while the lessee not only has operating control over the asset, but also some share of the economic risks and returns from the change in the valuation of the underlying asset (Ronoh, and Ntoiti, 2015). Another form of loan financing is inventory financing, where a credit is obtained by businesses to pay for products that aren't intended for immediate sale. Financing is collateralized by the inventory it is used to purchase (Pouraghajan and Malekian 2012). Inventory financing is often used by privately-owned businesses that don't have access to other options.

Loan Capital Financing and Financial Performance

This is a method of financing in which company receives the loan, don't give up the ownership or profits and bound to pay back the principal and interest at specified dates (Higgins, 2009). This kind of financing usually comes with strict conditions and secured by collateral as a guarantee that loan will be repaid. Hence, to have full authority and ownership of their businesses, business organizations choose debt financing over equity financing (Jagongo, & Mutswenje, 2014). Debt is the long term and short term borrowing that a firm has; mostly the long term borrowing is used to finance the capital structure of a firm and is at an interest which is pegged on to the agreement between the lenders and the firm, on the obligation of the firm to repay at a particular time (Ross, 2001). When it comes to debt, according to Myers and Majluf (1984) theory of pecking order, debt is considered as the last resort after a firm has realized that its internal financing that its equity and retained earnings are not enough. According to Mahakud and Jitendra, (2012) under pecking order there is no optimal capital structure since the observed debt ratio is the cumulative outcome of the pecking order financing behavior over time. The tradeoff theory of capital structure predicts that firms will choose their mix of debt and equity to balance the costs and benefits of debt.

Tax benefits and control of free cash flow problems are argued to push firms to use more debt. The theory describes a firm's optimal capital structure as the mix of financing that equates the marginal costs and benefits of debt (Zender, 2010). Debt offers firms a tax shield, therefore this makes firms to pursue higher levels of debt in order to gain the maximum tax benefit and in the end increase their profitability. On the other hand, high levels of debt increases the possibility of a firm going into bankruptcy (Myers, 2001). When it comes to increased levels of debt by a firm, managers should be very careful so as to mitigate the risk factor which may lead to bankruptcy. According to Leland and Pyle (1977) they propose that managers will take debt-equity ratio as a signal, by the fact that high leverage implies higher bankruptcy risk.

Kebewar (2012) using a data from a sample of 2240 of French non listed companies of service sector during 1999-2006 did a study on the effect of debt on corporate profitability. Descriptive study design was used; secondary data from audited financial statements was obtained. According to the study findings, debt has no influence on profitability either in a linear way, or in a non-linear way. This finding is consistent with that of Baum et al. (2007) on American industrial companies. In addition, in order to improve the precision of the estimation by reducing heterogeneousness between different sizes of companies, the study analyzed the behavior of the French firms according to their size. The study concluded that there was no impact debt had on profitability, regardless of the size of the company. Saad et al. (2015) also studied the association between the source of funds via equity and leverage, and the performance of SMEs in Malaysia. The study sampled 177 Malaysian SMEs involving manufacturing and agriculture sectors. Using the ordinary least squares method, the study revealed that equity financing has considerably positive connection with the performance of businesses, while debt financing was insignificant. The study concluded that SMEs in Malaysia employ equity financing as a source of business capital, due to its potential in affecting the performance of business. However studies Kebewar (2012) only focusses on effect of debt on corporate profitability in France and not sugar firms and Saad et al. (2015) only focusses on the association between the source of funds via equity and leverage, and the performance of SMEs in Malaysia and not sugar firms. This therefore limits their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Pouraghajan and Malekian (2012) conducted a study whose objective was to establish the impact of capital structure on financial performance of companies listed in the Tehran Stock Exchange in Iran. They studied and

tested a sample of 400 firms in the form of 12 industrial groups during the years 2006 to 2010. Variables of return on assets ratio (ROA) and return on equity ratio (ROE) were used to measure financial performance of companies. Regression analysis was used to test the relationship between the variables. The results suggest that there is a significant negative relationship between debt ratio and financial performance of companies. The result also shows that by reducing debt ratio, management can increase.

In Pakistan, Liaqat et al., (2017) examined the impacts of the composition of capital on the financial performance of firms in the energy and fuel sector of within the country by use of secondary data from the year of 2006 up to 2014. The study adopted the multiple regression model which established that there was a considerable negative effect of structure of capital on the return on equity and return on assets of firms in the sector of fuel & energy in Pakistan, whereas EPS was merely determined by the capital structure indicators, the size only has considerable positive behavior on EPS. However study by Pouraghajan and Malekian (2012) only focusses on the impact of capital structure on financial performance of companies listed in the Tehran Stock Exchange in Iran and not sugar firms and study by Liaqat et al., (2017) focusses on impacts of the composition of capital on the financial performance of firms in the energy and fuel sector in Pakistan and not sugar firms. These therefore limit their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya

Dube (2013) did a study on the impact of debt financing on productivity of small and medium scale enterprises in Zimbabwe, and concluded that productivity in a firm was positively related to the level of debt financing and changes in investment. The study also concluded that expenditure on investment was an important determinant of productivity in SMEs operations. The level of debt financing must be moderate to avoid large interest payments which can prevent SMEs from investing using internal sources of finance.

Jaramillo and Schiantarelli (2016) conducted a study on access to long term debt and effects on firm performance in Ecuador. They found evidence that suggests that a shorter maturity is not conducive to greater productivity. Long-term debt may actually lead to productivity improvements. Al-Tally (2014) revealed that there is a relationship between capital structure and financial performance in Saudi Arabian firms while conducting a study on the effect of financial leverage on firm financial performance in Saudi Arabia's public listed companies. On an average, the mean financial performance of 57 firms tended to increase with respect to a decrease in leverage level. Lower leverage levels were found to be linked with higher gross profit margins, NPM, ROA and ROE. However Dube (2013) study focusses on the impact of debt financing on productivity of small and medium scale enterprises in Zimbabwe and not sugar firms, Jaramillo and Schiantarelli (2016) study focusses on access to long term debt and effects on firm performance in Ecuador and not sugar firms and Al-Tally (2014) focusses on a relationship between capital structure and financial performance in Saudi Arabian firms and not sugar firms. These therefore limit their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Adesina, Nwidobie and Adesina (2015) studied the effect of capital composition on the financial performance of the quoted banks in Nigeria. The authors sampled 10 Nigerian commercial banks and collected data for time period of eight years from year 2005 up to 2012. Using the ordinary least square regression examination of the secondary data collected, the study found that the structure of capital had a considerable positive connection with the financial performance of the quoted banks in Nigeria. This study suggested that the management of quoted banks in that country should from time to time make use of equity and debt funds when financing their

operations so as to improve their earnings. Moreover, Lambe (2014) examined the functions of debt fund, the effects of capital mix and parameters that affected a company's capital selection and the general impact of the company's value in the Nigerian market. This study used both primary data which was obtained through the use questionnaires and secondary data collected from the periodic publications and the fact book of the Nigerian Stock Exchange. Findings of the study established that the value in the market for a company is positive and considerably affected by its selection of financial debt.

Dube (2013) completed a research study on the effect of debt on the profitability of SMEs in Zimbabwe, and noted that productivity in a firm had a positive connection to the level of leverage use as well as variations in investments. The study further established that investment expenditure was a vital deciding factor of efficiency in SMEs operations. The level of leverage must be reasonable to evade high costs of leverage which can deter SMEs from employing retained earnings. However study by Adesina, Nwidobie and Adesina (2015) focuses on the effect of capital composition on the financial performance of the quoted banks in Nigeria and not sugar firms, study by Lambe (2014) focusses on the functions of debt fund, the effects of capital mix and parameters that affected a company's capital selection and the general impact of the company's value in the Nigerian market and not sugar firms and study by Dube (2013) focusses on the effect of debt on the profitability of SMEs in Zimbabwe and not sugar firms. These therefore limit their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Ebaid (2009) carried out a study to investigate the impact of choice of capital structure on the performance of firms in Egypt. Performance was measured using ROE, ROA, and gross profit margin. Capital structure was measured by short-term debt to asset ratio, long-term debt to asset ratio, and total debt to total assets. Multiple regression analysis was applied to estimate the relationship between the leverage level and performance. The study indicated that capital structure has little to no impact on a firm's performance. Langat, et al., (2014) conducted a study on the effect of debt financing on the profitability of Kenya Tea Development Authority processing factories and indicated that firm performance, which was measured by (ROE and ROA), was significantly and positively associated with long-term debt and total debt at 1% and 5% respectively, while on the other hand, short-term debt showed a negative and significant relationship at 5% in the two models. The negative relation between short-term debt and the profitability of tea processing factories meant that supplying the finance through short-term debts does not lead to profitability. However study by Ebaid (2009) focusses on the impact of choice of capital structure on the performance of firms in Egypt and not sugar firms and study by Langat, et al., (2014) focusses on the effect of debt financing on the profitability of Kenya Tea Development Authority processing factories and not sugar firms. This therefore limits the generalization of their findings. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Omesa, et al., (2013) examined the relationship between a firm's capital structure and financial performance among a sample of 30 companies listed at the NSE whose data for 5 years period 2007 - 2011. The findings indicate that there was a significant correlation between total assets of a firm and long term debt. Long term debt had a positive correlation with ROE which is insignificant and weak. Maina & Ishmail (2014) did a study on capital structure and financial performance of firms listed at the NSE. Using a regression model and statistical software, the study concluded that debt and equity are major determinants of financial performance of firms listed at the NSE. There was evidence of a negative and significant relationship between capital structure financial performances. This implied that the more debt the firms used as a source of finance the more they experienced low performance. The study also concluded that firms listed at NSE used more short-

term debts than long term. However study by Omesa, et al., (2013) on the relationship between a firm's capital structure and financial performance among a sample of 30 companies listed at the NSE and not sugar firms and study by Maina & Ishmail (2014) focusses on capital structure and financial performance of firms listed at the NSE and not sugar firms. These therefore limit the generalization of their findings. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Chepkemai (2013) carried out a study to analyze the effect of capital structure of SMEs on their financial performance in Kenyan market. The sample of the study was 295 SMEs in Nakuru town. Descriptive statistics and multiple regression models were used. The finding revealed that capital structure had a negative effect on firm profitability but positive effect on sales growth. Magara (2012) did a study on capital structure and its determinants at Nairobi Securities Exchange. The study sought to find determinants of capital structure. It was established that from the period 2007 to 2011, there was a positive significant relationship between the size, tangibility and growth rate and degree of leverage of the firm.

Muchugia (2013) examined the effect of debt financing on firm profitability of commercial banks in Kenya. The study showed a significant positive relationship between short term debt financing and profitability since short-term debt tends to be less expensive and increasing it with a relatively low interest rate will lead to an increase in profit levels and hence performance. However study by Chepkemai (2013) focusses on the effect of capital structure of SMEs on their financial performance in Kenyan market in Nakuru and not sugar firms and study by Muchugia (2013) focusses on effect of debt financing on firm profitability of commercial banks in Kenya and not sugar firms. These therefore limit their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Koskei (2017) also examined the association between long-term debt ratio, debt to asset ratio, debt to equity ratio and the financial performance of the private sugar manufacturing companies in Kenya. The study carried out a survey of all six private sugar companies in Kenya and relied on secondary data. The study revealed that debt to equity ratio has considerable effects on the financial performance, debt asset ratio has no considerable impact on financial performance and long-term debt equity ratio has considerable effects on financial performance and the moderating factor of a firm's size have no impact on the financial performance of firms.

Makanga (2015) also studied the impacts of debt financing on financial performance of the firms listed at the NSE. The study used a quantitative research design with analysis being done using linear regression models using SPSS. The study revealed that short-term debt was negatively connected to return on assets but not significantly. The study also found that long-term debt was also negatively correlated to return on assets but less significantly than short term debt and found a weak negative connection between return on assets and total debt. However study by Koskei (2017) on the association between long-term debt ratio, debt to asset ratio, debt to equity ratio and the financial performance of the private sugar manufacturing companies in Kenya and not sugar firms and study by Makanga (2015) focusses on impacts of debt financing on financial performance of the firms listed at the NSE and not sugar firms. These therefore limit their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Onchong'a, Muturi and Atambo (2016) examined the effects of leverage financing in financial performance of selected firms in the country. The study targeted a population of 60 firms with debt in their capital structure in Nairobi Security Exchange, and utilized secondary data from audited financial reports of these firms between

periods of 2009-2012. Using regression analysis coefficient on the debt effects on return on asset the study revealed that a unit increase of short term debt reduces return on asset. However, the study found a unit increase in short term debt however will reduce the profit margin ratio.

Kajirwa (2015) also studied if the use of debt funds in a firms' capital composition had an effect on performance of firms. This study carried out an assessment of the commercial banks listed on NSE in the country and a targeted population that comprised of 11 commercial banks was put into consideration. The study employed correlation and regression models. The study revealed that leverage negatively affected the firms' performance although not statistically considerable. The study concluded that the use of leverage in a firms' capital composition has negative impacts on the performance of commercial banks which is not statistically considerable. However study by Onchong'a, Muturi and Atambo (2016) focusses on the effects of leverage financing in financial performance of selected firms in the Nairobi Kenya and not sugar firms and study by Kajirwa (2015) focusses on the use of debt funds in a firms' capital composition had an effect on performance of firms and not sugar firms. These therefore limit their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Gabrijelcic, Herman and Lenarcic (2016) studied the impacts of financial debts and the foreign funding on a firms' performance prior to and in times of the current crisis. The study used a large panel of firms in Slovenia. The study found a considerable negative effect of debt on the firms' performance and also that firms with some foreign leverage performed healthier averagely than those firms that rely entirely on domestic financing. Concurrently, these firms suffered a huge decline in their performance if the total debt was raised. However study by Gabrijelcic, Herman and Lenarcic (2016) focusses on the impacts of financial debts and the foreign funding on a firms' performance prior to and in times of the current crisis and not sugar firms. This therefore limits their findings from generalization. The present study seeks to fill these gaps by focusing on sugar firms in Western Kenya, and how loan financing influence their financial performance of sugar industries in Kenya.

Statement of the Problem

According to Kibet, (2013) the core problem affecting Kenya's sugar industry is the persistent deterioration in profitability due to insufficient working capital and liquidity that finance their operations. Consequently, most of these factories have accumulated large debts amounting to Kshs. 58 billion as at 31st Dec 2018 (Kenya Sugar Board, 2019) and as a result, approximately 50% of sugar companies in Kenya each year experience a declining financial hence going under (Mwanaongoro, & Imbambi, 2014). Similarly, a report by Harding (2015) on Sugar Campaign for change (SUCAM) Kenya concluded that the sugar industry in Kenya will face collapse if the current scenario characterized by frequent company shut downs, huge debt; unwise investment practices and liquidity shortages are not resolved before the COMESA protectionism clause will be lifted soon. This implies that the sugar companies both private and public are in urgent need of financial leverage to survive competition from the entry of other sugar producers and an impending end to sugar import limits from the Common Market for Eastern and Southern Africa (COMESA) trade bloc after the end of a one year extension given early this year.

Although the problems facing the sugar companies have been largely blamed on corporate management, it is not clear whether capital structure decisions also plays a role in financial performance of these firms. Capital structure decisions are critical for the firm's financial decision makers; since it affects earnings before interest and tax and leads to change in market value of the firm and share value. However, academician's studies on corporate finance have not found the optimal capital structure which increases firm's performance. Besides, in

as much as there are a number of studies on Sugar Firms, the effect of capital structure decisions on the financial performance of sugar firms in western Kenya remains unclear. This implies that there is a lacuna of evidence on the relationship between capital structure decisions and financial performance of sugar industries in Kenya. It is against this gap that the present study seeks to investigate the effects of capital structure decisions on financial performance of sugar firms in western Kenya.

Objective of the Study

The general objective of this study was to determine the effect of capital structure decisions on financial performance with a specific objective to examine the effect of loan financing on financial performance of sugar firms in western Kenya.

Research Methodology

This study was anchored on pragmatic knowledge which focuses on the research problem which in this study was financial performance of selected sugar firms in Western Kenya. The pragmatic perspective in employing “what works” used diverse approaches, give primacy to the importance of the research problem and question, and values both objective and subjective knowledge. The study employed a descriptive study approach, with quantitative analysis methods. The study area covered Western Kenya, comprising of Nyanza and Western provinces. Nyanza province has latitude of 0°10'S and longitude of 34°15'E while western province has latitude of 15.9455° S and longitude of 23.3824° E. Target population was the 11 (eleven) sugar manufacturing companies in western Kenya and their respective employees in different departments. Given the small number of 11 firms in the Sugar industry in Western Kenya, which of course do not warrant sampling to be undertaken, a probability study was conducted to capture all the eleven (11) sugar manufacturing firms operational in Western Kenya. Therefore, in this research, all the 11 Sugar manufacturing companies and their various employees in Western Kenya were defined as the target population from where the sample sizes for the respondents were drawn.

Results and Discussions

The first objective of the study was to establish the effect of loan financing on the financial performance of the sugar companies in western Kenya. The respondents were interviewed about the components of various loan financing. The information established from the respondents of the study about the various loans used by sugar companies are presented as in *Table 1* below. The factor loading for indicators of the effectiveness of the loan financing indicators and financial performance of the sugar companies was established.

Table 1: Factor loading for the loan financing indicators and financial performance of the sugar companies

Loan type indicator	Qualitative information (Responses from the interviews)	Factor loading effect on performance of Sugar Companies
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Cane Maintenance Loan	Respondents revealed that the loan is meant for farmers and the company for maintenance of their first and second ratoons. The intent of the loan is for the purchase of fertilizers, ploughing, weeding and procurement of agro-chemicals for quality cane production. The loan repayment period is up to 18 months with 5% interest charge on the reducing balance.	0.897 weight loading This loading factor weight reveal that the indicator of loan financing contributes greatly to financial performance of sugar companies in western Kenya, through quality and quantity of cane for crushing resulting in high tonnage of sugar and sugar products for high sales and profits.
Cane Value Addition Loan	The respondents revealed that cane value addition loan is given to cane farmers engaged in cane processing to enhance the quality of sugar products before selling. The loan repayment period is upto 24 months with interest charge of 10% on reducing balance. This loan is given to farmers affiliated to a sugar company. This helps to minimize operational costs in the early stages of processing thus increasing tonnage produced at minimum operating costs.	0.689 weight loading The effect of this loan on financial performance of sugar companies is fairly high as it increases tonnage at lower cost leading to high profitability
Cane development loan	The respondents in the study revealed that this loan is given to farmers or sugar companies wanting to establish and maintain ratoons. The loan is structured and disbursed in phases: 40% of the loan is for establishing cane plants and it is given within the first 24 months; the second phase of the loan is 30% of the loan meant for the maintenance of the first ratoon and the last phase of 30% of the loan is meant for maintenance of the second ratoon. The respondents indicated that this loan is important as its interest charge is 4% if given to farmers and at 5% if it is the sugar company that uses the loan to enhance cane development.	0.864 weight loading The rating of this loan by respondents reveal that when the loan is well utilized by both the farmers and sugar company its effect is on high and continuous production of quality cane. This will boost the sugar company's financial performance through high sales volume of sugar and sugar products.

Sugar Factory Rehabilitation Loan	Respondents revealed that the loan is meant for rehabilitation of machinery to increase efficiency and effectiveness. This loan repayment period is 24 months and at 5% interest rate at a reducing balance.	0.673 weight loading The respondents revealed that the effect of this loan product leads to increased production of sugar from raw cane due to crushing efficiency, high tonnage of inventory of sugar products which result in high profitability
Machinery and equipment loan	The respondents expressed that this loan is mean to facilitate the sugar factories to acquire new machinery and equipment for production purposes. The loan interest charge is 5% on a reducing balance.	0.871 weight loading This loan effect on the financial performance of sugar companies is high. It helps to improve on production which in-turn increases inventory for sales revenue.

The study further sought to examine effect of loan financing parameters relating to asset-based lenders, trade credit, commercial finance companies, interest on Loan and repayment Period and their effect on the financial performance of sugar firms. The respondents were asked to rate the Loan Financing constructs on a 5- point likert scale, where 1.0 mean weight = Strongly Disagree (SD); 2.0 mean weight = Disagree (D); 3.0 mean weight = Neutral (N); 4.0 mean weight = Agree (A); 5.0 mean weight = Strongly Agree (SA). The responses obtained from the field is presented as in *Table 2* below.

Table 2: Loan Financing constructs and Performance of Sugar Industry

Loan Financing constructs	SD	D	N	A	SA	Mean	STD
The sugar company relies on Asset-based lenders	7.2%	20.6%	7.2%	40.2%	24.7%	3.546	1.056
The sugar company relies on Trade credit	5.2%	9.3%	12.4%	43.3%	29.9%	3.835	0.913
The sugar company access Bank overdrafts loans from Commercial finance companies	0.0%	0.0%	3.1%	32.0%	64.9%	4.619	0.672
The Interest charged on Loan is affordable to our sugar company	23.7%	36.1%	18.6%	15.5%	6.2%	2.443	1.071
The Repayment Period for loans accessed by sugar companies is manageable	20.6%	21.6%	6.2%	32.0%	19.6%	3.082	1.258
Sugar firms engages in lease financing for long term benefits	12.4%	10.3%	12.4%	38.1%	26.8%	3.567	0.974
The sugar firms engages in inventory financing to boost cash flow	8.2%	11.3%	11.3%	41.2%	27.9%	3.690	0.982

From *Table 2* the results indicate that sugar companies relies on Asset-based lenders as 40.2% agreed response rate with a mean weight of 3.546 magnitude strength with a standard deviation of 1.056. This result concurs with the results in *Table 1* on indicators of sugar factory rehabilitation loans with 0.673 mean weight loading and machinery and equipment loan with 0.871 mean weight loading in relation to financial performance of the sugar companies in western Kenya. This shows that most of sugar firms mostly opt for asset based financing loans as it is associated with faster approvals and funding delivery than conventional bank loans.

The study established that sugar Companies rely on Trade credit as 43.3% of the respondents agreed response rate with a mean weight of 3.835 magnitude strength and 0.913 standard deviation. This concurs with results in table 4.5 on loan financing indicators relating to cane maintenance loans whose mean weight is 0.897 weight loading in relation to financial performance of sugar companies in western Kenya.

Further the sugar Company's access loans from Commercial finance companies as indicated by 64.9% response rate with mean weight of 4.619 and a standard deviation of 0.672. Most of the sugar firms prefer getting credit facilities from the commercial finance for they find it easy to access. Further the study established that the Interest rate charged on Loans is not affordable to the sugar companies as expressed by majority of the respondents 36.1% with a mean weight of 2.443 and standard deviation of 1.07. This finding failed to concur with the findings in table 4.5 about the interest rates charged loan financing indicators of products in the sugar sector. This shows that although most of the sugar firms in western Kenya preferred commercial loans, they were not able to afford the interest charged on loan facilities by the financial institutions. On the statement on whether "the Repayment Period for loans accessed by Sugar Company is manageable 32.0% response rate agreed with mean weight of 3.082 magnitude strength and standard deviation of 1.258. For lease financing for long term benefits the study results revealed that 38.1% of the responses agreed the sugar firms in western Kenya engage in lease financing to boost their financial performance. On the statement whether their sugar firms also practice inventory financing, 41.2% responses agreed that most of the sugar firms in western Kenya would engage in inventory financing to boost their cash flow.

Correlation Analysis for Loan financing Constructs and Financial performance of Sugar companies

The study established the degree of association between the constructs of loan financing and financial performance of the sugar companies. The variables are FP- financial performance, CML –is cane maintenance loan, CDL is cane development loan, FRL- is factory rehabilitation loan and CVAL is cane value addition loan, and MEL is machinery and equipment loan. The results of the analysis are presented as in *Table 3* below.

Table 3: Correlation coefficients

Variables in the Model		FP	CML	CDL	FRL	CVAL	MEL
FP	Pearson Correlation	1					
	Sig. (2-tailed)						
CML	Pearson Correlation	.831**	1				
	Sig. (2-tailed)	.000					
CDL	Pearson Correlation	.768**	.871**	1			
	Sig. (2-tailed)	.000	.000				
FRL	Pearson Correlation	.907**	.913**	.873**	1		
	Sig. (2-tailed)	.000	.000	.000			
CVAL	Pearson Correlation	.768**	.814**	.873**	.803**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
MEL	Pearson Correlation	.797**	.863**	.899**	.816**	.920**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
N		101	101	101	101	101	101

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

The correlation coefficients indicate strong and positive association between the variables, this indicate that factory rehabilitation loans has the highest correlation coefficient at .907** with financial performance of the sugar companies while cane value addition loan and cane development loan had the lowest correlation with financial performance of sugar companies in western Kenya.

Table 4: Coefficients of loan Financing Constructs and Financial Performance

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error	Beta	T		Tolerance	VIF
1 (Constant)	.603	.075		8.055	.000		
CML	.255	.049	.374	5.238	.000	.115	8.664
CDL	.224	.390	.319	.606	.000	.141	7.075
FRL	.429	.023	.940	18.609	.000	.230	4.340
MEL	.219	.035	.423	6.290	.000	.130	7.695

b. Dependent Variable: Financial Performance

The study established the contribution of each of the loan constructs towards the financial performance of the sugar companies in western Kenya. The results in *Table 4* formed the foundation of interpretation and discussion. The correlation coefficients in *Table 4* are high and indicate the likelihood of multicollinearity effect among the variables. The result in *Table 4* indicate that the variance inflation factor (VIF) values are greater than 1.0 but less than 10.0 hence the severity of multicollinearity does not exist among the variables under investigation; therefore these variables can be included in the model of analysis in this study.

The regression model below was adopted in the study to establish the relationship between the variables;

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \epsilon \quad \dots\dots\dots \text{(Equation 1)}$$

From the regression model above, the constructs of loan financial were included in the first variable and the model for objective one was regenerated as below;

$$Y = \beta_0 + \beta_1 X_{1i} + \epsilon \quad \dots\dots\dots \text{(Equation 2)}$$

The constructs of loan financing were then operationalized and included in the model above;

$$Y = \beta_0 + \beta_1 \text{CML} + \beta_2 \text{CDL} + \beta_3 \text{FRL} + \beta_4 \text{MEL} + \epsilon \quad \dots\dots\dots \text{(Equation 3)}$$

Where:

CML- is cane maintenance loan

CDL- is Cane Development Loan

FRL- is factory rehabilitation loan

MEL- is machinery and equipment loan

The coefficients when substituted in the model, the equation above becomes;

$$Y = 0.603 + 0.255\text{CML} + 0.224\text{CDL} + 0.429\text{FRL} + 0.219\text{MEL} \quad \dots\dots\dots \text{(Equation 3a)}$$

The results in the model indicate that one unit increase in cane maintenance loan causes 0.225 unit change in financial performance of the sugar firms in western Kenya. For cane development loans a unit increase in their use causes 0.224 unit increase in financial performance of the sugar firms. Further it is observed that a unit increase in the use of factory rehabilitation loans causes 0.429 increase in financial performance and for

machinery and equipment loans a unit increase in its use causes 0.219 unit increase in financial performance in the sugar firms in western Kenya.

Descriptive Statistics

The study established the analysis of loan financing variables and financial performance of the sugar companies in this study. The results are presented as in *Table 5* below

Table 5: Loan Financing variables and Financial Performance of Sugar Companies

Variable	Mean	SE Mean	St.Dev	Min.	Max	Skew	Kurt.
FP	4119068	844447	2388456	1078864	7848316	0.33	-1.02
CML	49282594	7944440	22470268	16932462	84671817	0.23	-0.66
CDL	49282594	7048012	19934787	13832756	75292211	-0.00	-0.44
FRL	538935	109308	309171	69164	972023	-0.35	-0.77
MEL	1594093	316414	894955	1002394	3734712	2.47	6.46

The descriptive statistics results in *Table 5* reveal that financial performance of sugar companies over the period of study had a minimum value of Kshs 1078864 and a maximum value of Kshs7848316 all in billions with a mean of Kshs 4119068 where the annual financial performance values of the sugar companies is deviating from this mean by a standard margin of 2388456. This implies that the data values were scattered far away from the mean in the sugar companies in western Kenya. The financial performance was positively skewed with a skewness index of 0.33. This skewness is not very high implying the degree of deviation of the frequency distribution from the normal distribution is small in terms of financial performance.

With regard to cane maintenance loans the results shows that the minimum value of Kshs16932462 and the maximum was of Kshs84671817 all in billions with a mean of the cane maintenance loan of Kshs49282594 with the values in the sugar companies deviating from this mean by a standard margin of 22470268. The data for cane maintenance loans were positively skewed with a Skewness index of 0.23 which is not high also implying that the degree of deviation of the frequency distribution of this cane maintenance loans from the normal distribution is small in terms of cane maintenance loans to sugar companies in western Kenya.

In respect of cane development loans, the results shows that the minimum loan amount was Kshs13832756 and the maximum was of Kshs75292211. The mean of the cane development loans was Kshs49282594 all in billions with the sugar company's values deviating from this mean by a standard margin of 19934787. The data for cane development loans to sugar companies were negatively skewed with a Skewness index of -0.00 which implies that the frequency distribution of cane development loans to sugar companies was of a normal distribution.

With regard to factory rehabilitation loans to sugar companies in western Kenya, the results shows that the minimum amount was Kshs69164 and the maximum was of Kshs972023 all in billions. The mean of the factory rehabilitation loans was Kshs538935 with the sugar company's values of factory rehabilitation loans deviating from this mean by a standard margin of 309171. The data for factory rehabilitation loans were negatively skewed with a Skewness index of -0.35 which was however small hence the conclusion that the departure of the frequency distribution of factory rehabilitation loans from a normal distribution is small.

Finally, in respect of machinery and equipment loans, the results shows that the minimum amount was Kshs1002394 and the maximum was of Kshs3734712 all in billions. The mean of this loan was Kshs1594093 with the sugar company's values deviating from this mean by a standard margin of 894955. The data for

machinery and equipment loans were positively skewed with a Skewness index of 2.47 which was very high hence the conclusion that the departure of the frequency distribution of machinery and equipment loans in a normal distribution is quite high. Also, the very high degree of Kurtosis of 6.46 indicate that the data for the machinery and equipment loans is not a normal distribution but the value of kurtosis is less than the standard value of 10.0 indicating that despite a high value of kurtosis of 6.46 is less than the standard. Therefore normality test of the data show that this data used in the study is normally distributed and data has no problem and its analysis results can be relied on for decision making.

Summary of the Findings

The study established the effect of loan financing on the financial performance of the sugar companies in western Kenya. The respondents reacted to various components of loan financing. The results revealed that Cane Maintenance Loan is meant for farmers and the company for maintenance of their first and second ratoons. The intent of the loan is for the purchase of fertilizers, ploughing, weeding and procurement of agro-chemicals for quality cane production. The loan repayment period is up to 18 months with 5% interest charge on the reducing balance. In terms of factor loading analysis the loan had 0.897 weight loading. This loading factor weight reveal that the indicator of loan financing contributes greatly to financial performance of sugar companies in western Kenya, through quality and quantity of cane for crushing resulting in high tonnage of sugar and sugar products for high sales and profits. This loading factor reveal that the indicator of loan financing contributes greatly to financial performance of sugar companies in western Kenya, through quality and quantity of cane for crushing resulting in high tonnage of sugar and sugar products for high sales and profits. Moreover, the Cane Value Addition Loan results revealed that cane value addition loan is given to cane farmers engaged in cane processing to enhance the quality of sugar products before selling. The loan repayment period is upto 24 months with interest charge of 10% on reducing balance. This loan is given to farmers affiliated to a sugar company. This helps to minimize operational costs in the early stages of processing thus increasing tonnage produced at minimum operating costs. Factor analysis loading was at 0.689 weight. Therefore the effect of this loan on financial performance of sugar companies is fairly high as it increases tonnage at lower cost leading to high profitability.

The results on Cane development loan revealed that this loan is given to farmers or sugar companies wanting to establish and maintain ratoons. The loan is structured and disbursed in phases: 40% of the loan is for establishing cane plants and it is given within the first 24 months; the second phase of the loan is 30% of the loan meant for the maintenance of the first ratoon and the last phase of 30% of the loan is meant for maintenance of the second ratoon. The respondents indicated that this loan is important as its interest of the first ratoon and the last phase of 30% of the loan is meant for maintenance of the second ratoon. The respondents indicated that this loan is important as its interest charge is 4% if given to farmers and at 5% if it is the sugar company that uses the loan to enhance cane development. The factor loading analysis had 0.864 weight; the rating of this loan by respondents reveal that when the loan is well utilized by both the farmers and sugar company its effect is on high and continuous production of quality cane. This will boost the sugar company's financial performance through high sales volume of sugar and sugar products. Further, the analysis of Sugar Factory Rehabilitation Loan the results revealed that the loan is meant for rehabilitation of machinery to increase efficiency and effectiveness. This loan repayment period is 24 months and at 5% interest rate at a reducing balance. The loan construct was rated at 0.673 weight loading. This reveals that the effect of this loan product leads to increased production of sugar from raw cane due to crushing efficiency, high tonnage of inventory of sugar products which resulting in high profitability. Further, the Machinery and equipment loan component was also established, the respondents expressed that this loan is mean to facilitate the sugar factories to acquire

new machinery and equipment for production purposes. The loan interest charge is 5% on a reducing balance. The factor loading analysis established that this construct had 0.871 weight loading; meaning that this loan component had a high effect on the financial performance of sugar companies for it helps to improve on production which in-turn increases inventory for sales revenue.

The study further examined the effect of loan financing parameters relating to asset-based lenders, trade credit, commercial finance companies, interest on Loan and repayment Period and their effect on the financial performance of sugar firms. The respondents rated the Loan Financing constructs on a 5- point likert scale the results indicate that sugar companies relies on Asset-based lenders as 40.2% agreed response rate with a mean weight of 3.546 magnitude strength with a standard deviation of 1.056. This result concurred with the results on indicators of sugar factory rehabilitation loans which had 0.673 mean weight loading and machinery and equipment loan with 0.871 mean weight loading in relation to financial performance of the sugar companies in western Kenya. This showed that most of sugar firms mostly opt for asset based financing loans as it is associated with faster approvals and funding delivery than conventional bank loans. The results relating to sugar Companies reliance on Trade credit, 43.3% of the total respondents agreed on this construct and rated it with a mean weight of 3.835 magnitude strength and 0.913 standard deviation. This also concurred with results on loan financing indicators relating to cane maintenance loans whose mean weight is 0.897 weight loading in relation to financial performance of sugar companies in western Kenya.

The results of Correlation Analysis for Loan financing Constructs and Financial performance of Sugar companies. The correlation coefficients indicate strong and positive association between the variables, this indicate that factory rehabilitation loans has the highest correlation coefficient at .907** with financial performance of the sugar companies while cane value addition loan and cane development loan had the lowest correlation with financial performance of sugar companies in western Kenya. The study regression results when the coefficients when substituted in the model showed that:

$Y = 0.603 + 0.255CML + 0.224CDL + 0.429FRL + 0.219MEL$. The results in the model indicate that one unit increase in cane maintenance loan causes 0.225 unit change in financial performance of the sugar firms in western Kenya. For cane development loans a unit increase in their use causes 0.224 unit increase in financial performance of the sugar firms. Further it is observed that a unit increase in the use of factory rehabilitation loans causes 0.429 increase in financial performance and for machinery and equipment loans a unit increase in its use causes 0.219 unit increase in financial performance in the sugar firms in western Kenya.

Further, the descriptive statistics results revealed that financial performance of sugar companies over the period of study had a minimum value of Kshs1078864 and a maximum value of Kshs7848316 all in billions with a mean of Kshs4119068 where the annual financial performance values of the sugar companies is deviating from this mean by a standard margin of 2388456. This implies that the data values were scattered far away from the mean in the sugar companies in western Kenya. The financial performance was positively skewed with a skewness index of 0.33. This skewness is not very high implying the degree of deviation of the frequency distribution from the normal distribution is small in terms of financial performance. With regard to cane maintenance loans the results shows that the minimum value of Kshs16932462 and the maximum was of Kshs84671817 all in billions with a mean of the cane maintenance loan of Kshs49282594 with the values in the sugar companies deviating from this mean by a standard margin of 22470268. The data for cane maintenance loans were positively skewed with a Skewness index of 0.23 which is not high also implying that the degree of deviation of the frequency distribution of this cane maintenance loans from the normal distribution is small in terms of cane maintenance loans to sugar companies in western Kenya. In respect of

cane development loans, the results shows that the minimum loan amount was Kshs13832756 and the maximum was of Kshs75292211. The mean of the cane development loans was Kshs49282594 all in billions with the sugar company's values deviating from this mean by a standard margin of 19934787. The data for cane development loans to sugar companies were negatively skewed with a Skewness index of -0.00 which implies that the frequency distribution of cane development loans to sugar companies was of a normal distribution. With regard to factory rehabilitation loans to sugar companies in western Kenya, the results shows that the minimum amount was Kshs69164 and the maximum was of Kshs972023 all in billions. The mean of the factory rehabilitation loans was Kshs538935 with the sugar company's values of factory rehabilitation loans deviating from this mean by a standard margin of 309171. The data for factory rehabilitation loans were negatively skewed with a Skewness index of -0.35 which was however small hence the conclusion that the departure of the frequency distribution of factory rehabilitation loans from a normal distribution is small. Finally, in respect of machinery and equipment loans, the results shows that the minimum amount was Kshs1002394 and the maximum was of Kshs3734712 all in billions. The mean of this loan was Kshs1594093 with the sugar company's values deviating from this mean by a standard margin of 894955. The data for machinery and equipment loans were positively skewed with a Skewness index of 2.47 which was very high hence the conclusion that the departure of the frequency distribution of machinery and equipment loans in a normal distribution is quite high. Also, the very high degree of Kurtosis of 6.46 indicate that the data for the machinery and equipment loans is not a normal distribution.

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