

**LONG TERM DEBT FINANCING AS A DETERMINANT OF FIRM  
PERFORMANCE: A SURVEY OF SELECTED SUGAR MANUFACTURING  
FIRMS IN KENYA.**

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## DECLARATION

This is my original work and has never been presented for a degree in this or any other university for the conferment of a degree.

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**SBMS/PGMBM/001/13** Signature..... Date.....

### Supervisors' Approval

We hereby approve that the preparation and presentation of this thesis was supervised in accordance with the guidelines on supervision laid down by University of Eldoret.

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## **DEDICATION**

I dedicate this thesis to my beloved parents Mr. and Mrs. Kajirwa who have always been a pillar in my life in terms of prayers, financial support and encouragement through the entire period of the study. To my siblings Churchill, Beverlyne and Joyner for their moral support and prayers. To servants of God Pastor Douglas Okwomi and Apostle Pius Masinde for their prayers.

## ABSTRACT

The main purpose of this study was to analyze Long term debt financing as a determinant of the performance of sugar manufacturing firms in Kenya. The study was guided by the three long term debt financing constructs namely: Corporate bond financing on firm performance, Long term loan financing on firm performance, Operating lease financing on firm performance. The tradeoff theory was used to inform the study. The study adopted a longitudinal research design and a targeted population of 9 and a sample size of 3. Simple random sampling was used to select the respondents. Inferential techniques were utilized in data analysis. Multiple linear Regressions model was used to identify significant predictors of Return on Assets controlling for confounders. Corporate bond financing, long term loan financing and operating lease financing did not have a significant relationship with Return on Equity. Results indicated that: Corporate bond financing and firm performance, ( $\beta = 1.240$ ,  $p < 0.001$ ), Long term loan financing and firm performance, ( $\beta = -20.991$ ,  $p < .004$ ), Operating lease financing and firm performance, ( $\beta = 13.619$ ,  $p < .020$ ). The study concluded the following, Corporate bond financing significantly positively affects firm performance, Long term loan financing significantly negatively affects firm performance and operating lease financing does not significantly affect firm performance. The study recommended that, Sugar firms should become less dependent on long term loan financing in their capital structure. There is need for sugar firms to invest more in issuance of corporate bonds. Sugar firms should opt for outright purchase rather than excessive use of operating lease financing. The study contributed to literature review, policy and development of measurements of scale. The study suggests that other studies are needed to explore the effects of long term debt financing on performance of sugar firms in Kenya using predictors of firm performance other than long term loan financing and corporate bond financing.

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**LIST OF ABBREVIATIONS**

**EBIT** - Earnings before interest and tax

**EVA** - Economic value added

**LTDR** - Long term debt ratio

**MBVR** - Market to book value ratio

**NIS** - National insurance scheme

**ROA** - Return on assets

**ROE** - Return on equity

**ROS** - Return on sales

**SOE** - State owned enterprises

**SMES'** - Small and medium enterprises



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## OPERATIONAL DEFINITION OF TERMS

### **Firm performance**

Refers to a business entity end results and the results may be financial or non financial (Ittner, 2008). In this study it refers to the end of year financial results of the sugar firms.

### **Return on Assets**

It is a measure of the income available to debt and equity investors per dollar of the firm's total assets" (Brealey *et al.*, 2011). In this study it refers to total revenue divided by total assets of a firm.

### **Return on Equity**

Refers to the income generated for the shareholder's by the equity, which is the financing provided by the shareholders (Alexander & Nobes, 2010). In this study it is used as earnings before interest and tax divided by total shareholders' equity.

### **Long term debt financing**

Long term debt is a resource that is owed to lenders for a period of more than one year from the date of the current balance sheet (Lancett, 2008). In this study it referred to all those resources borrowed by sugar firms whose repayment period was more than one year from the current balance sheet date.

### **Corporate Bond Financing**

Corporate bonds are debt obligations issued by corporations for the purpose of raising capital for corporate projects and other means of expanding the issuing corporation

(Thune, 2014). In this study it referred to the proportion of corporate bond to total long term debt ratio.

### **Long term loan financing**

A Long term loan is a loan from a financial institution (Athreya, 2008). All types of long term loans sugar firms used were added to form the actual value for Long term loans in the study. In this study it refers to the proportion of long term loan financing to total long term debt ratio.

### **Operating lease financing**

Operating lease is a contract that allows for the use of an asset, but does not convey rights of ownership of the asset (Lorigan, 2014). In this study it referred to operating lease obligations of the firm that exceeded one year and it is the proportion of operating lease financing to total long term debt ratio.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Overview**

This chapter presents the background of the study, statement of the problem, objectives of the study, research hypotheses, justification of the study, significance of the study, scope of the study and limitations of the study.

#### **1.1 Background of the study**

Businesses must pay attention to how they are financed as optimality in their capital structure would only be achieved when the right financing is adopted. Long term debt financing is a component of debt finance which is basically resources borrowed to run business and whose repayment takes more than one year from the current balance sheet date (Lancett, 2008). Firm performance could either be financial and non-financial performance (Ittner, 2008). This study concentrates much on financial performance which measures 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 (Ukko, 2009).

The global sugar economy is essentially “managed” rather than allowing free market forces to hold sway (Tyler, 2007). The World sugar prices have normally been so low that even the world’s lowest cost, major exporters, Brazil, Australia, Thailand and

Guatemala have all had to find ways to subsidize their exports mainly by blending higher prices achieved in protected domestic markets with those available through exports. Brazil, the world's largest producer of sugar cane and exporter of sugar is facing financial problems which have resulted in excessive borrowing causing an increase in debts which are long overdue and the industry is unable to repay (Modi, 2014). Prices in the residual, free world market have fallen as low as US\$150 per tonne, which is less than the marginal cost of even the most efficient producers (Tyler, 2007).

Africa is not the world's largest sugar producer, but it embraces some of the world's best production facilities. Five African countries are consistently ranked amongst the lowest cost sugar producers in the world after Brazil and on a par with Australia that is, South Africa, Swaziland, Zambia, Malawi and Zimbabwe. However, since exports to the residual free world market have normally been at a financial loss, most of these countries have limited their core production capacity to meeting domestic requirements, exports under any available European Union and United States quotas and regional African markets (Tyler, 2007).

The sugar industry in Kenya is governed by the Kenya Sugar Board which is made up of the following firms. Nzoia sugar firm, Muhoroni, Mumias sugar firm, West Kenya, Soin, Butali, Chemilil, Sony and Kibos & Allied sugar firm (Kenya Sugar Board, 2014). Nzoia sugar firm is located in Bungoma County. The government is the majority shareholder owning 98% shares while Fives Cail Babcock and industrial development bank owning the remaining (Kenya Sugar Board, 2014). Muhoroni sugar firm which is in receivership and it is a firm engaged in sugar cane growing, processing and marketing of sugar. It was

set up in 1964. Muhoroni was placed under protective receivership in the year 2001 (Kenya Sugar Board, 2014).

Mumias Sugar firm is listed on the Nairobi Stock Exchange. Mumias is engaged in the manufacture and sale of sugar. It was established in 1973 (Kenya Sugar Board, 2014). The firm is currently highly indebted (Wachira, 2014). Soin Sugar firm is situated in Kericho District Soin division and it is a privately owned firm established in 1999 (Kenya Sugar Board, 2014). West Kenya Sugar Company Limited was incorporated in 1979 and it is situated in Shamberere South Kabras (Kenya Sugar Board, 2014).

Kibos Sugar and Allied firms is located a few kilometers from Kisumu town. Their main aim is to produce high quality refined sugar for the Kenyan market among other sugar products. (Kenya Sugar Board, 2014). Butali Sugar firm is located at Butali area, in Western Kenya (Kenya Sugar Board, 2014). South Nyanza Sugar Company Limited was established in 1976 and is located in South Western Kenya in Migori County. It's located along Kisii - Migori Highway (Kenya Sugar Board, 2014).

Chemelil Sugar firm is located along the Awasi-Nandi Hills road in Nyando District of Nyanza province. It was established in 1965 as a private limited company and later became a parastatal in 1974 (Kenya Sugar Board, 2014). There is an increase in the rate of indebtedness across the sugar firms which indicate financial instability of the sugar firms in Kenya and across the world (Otieno, 2014).

The sugar industry in Kenya is not performing well either for example, Sugar firms like Nzoia (Mutai, 2014), Mumias (Wachira, 2014), Muhoroni (Otieno, 2014), Chemilil



(Otieno, 2014), Nzoia are among the firms faced with deteriorating financial performance characterized with a reduction in firms' profitability and hence inability to meet the firm's financial needs. The persistent financial constraints have affected the image of the sugar industry as it sends away investors. The investors are afraid of investing in highly indebted firms (Mutai, 2014). This study will therefore add to existing literature that has discussed issues on long term debt financing such as Umar *et al.*, (2012), and how it has affected the performance of the Sugar firms.

## **1.2 Statement of the Problem**

The sugar industry caters for the livelihood of many Kenyans in terms of employment and also forms a ready market for their sugar cane plantations. Statistically 54% of farmers in western region and part of Nyanza region grow sugarcane (Kenya Sugar Board, 2014). Most of the sugar firms in Kenya have been recording poor financial performance for over a decade (Wachira, 2014). For example, Muhoroni Sugar firm has been recording poor financial performance characterized by low profitability and the firm recording losses (Mutai, 2014). This financial problem has led to the firm's inability to pay for its administrative costs including wages and salaries expense for their employees and payment of their creditors. This financial problem at Muhoroni caused the firm being put under protective receivership to prevent the firm from total collapse and subsequent closure of the firm (Otieno, 2014). Poor financial performance is one of the reasons for total collapse of Miwani Sugar firm which up to date the sugar firm is not operational (Otieno, 2014). Therefore, there existed poor financial performance among the sugar manufacturing firms in Kenya. This study sought to investigate and provide a solution

and necessary recommendations for the problem of poor financial performance in its entirety.

### **1.3 Objectives of the study**

#### **1.3.1 General objective**

To analyze Long term debt financing as a determinant of the performance of selected sugar manufacturing firms in Kenya.

#### **1.3.2 Specific objectives of the study**

- i. To determine the effects of corporate bond financing on a firms performance.
- ii. To find out the effects of long term loan financing on a firms performance.
- iii. To evaluate the effects of operating lease financing on a firms performance.

### **1.4 Research Hypotheses**

H<sub>01</sub>: Corporate bond financing has no significant effect on firm performance.

H<sub>02</sub>: Long term loan financing has no significant effect on firm performance.

H<sub>03</sub>: Operating lease financing has no significant effect on firm performance.

### **1.5 Justification of the study**

Studies on Long term debt financing by various researchers yielded diverse results; in the case of, Ebaid (2009), Huang & Song (2006), Cai & Zhang (2006), Umar *et al.*, (2012), Onaolapo & Kajola (2010), Daskalakis & Psillaki (2005); they found a negative

relationship between long term debt financing and financial performance. Abor (2005), Mesquita & Lara (2003), Omran & Pointon (2009), Antwi, Mills & Zhao (2012), Aliakbar *et al.*, (2013), showed a positive correlation between long term debt financing and financial performance. The findings were not unanimous hence a gap in knowledge for further research.

Secondly, there were a few studies on long term debt financing in Kenya sugar manufacturing firms'. The researcher sought to address the knowledge gap of insufficient studies on long term debt financing in the sugar industry by focusing on the sugar manufacturing firms in Kenya.

A study by Alawwad (2013) on Capital Structure Effects on Firms' Performance: Evidence from Saudi Listed Companies recommended that for more reliable results to be achieved, a future study was to use annual financial data rather than quarterly financial data used in the study.

The researcher further recommended that another study on debt finance to be conducted on individual sectors in the economy could lead to more informed conclusions on how each sector responded to the choice of financing mix since each sector was subject to different regulations and investment requirements. The researcher replicated the recommendations made by Alawwad (2013) in a Kenyan context by focusing on sugar manufacturing sector.

## **1.6 Significance of the study**

Findings of the study will help contribute to policy development, literature review on long term debt financing and firm performance, development of conceptual framework and measurement of variables. It will also be of great help to firms' managers who are charged with the responsibility of effective management of the Sugar firms.

### **1.7 Scope of the study**

This research study was conducted on sugar firms' in Kenya. The main aspects investigated in this study were operating lease financing, corporate bond financing, long term loan financing and their effect on firm performance. Return on equity and Return on assets were the only measures of firm performance that were used in the study. A target population of 9 sugar manufacturing firms in Kenya were studied. A time period of five years were considered that was between 2010 to 2014.

### **1.8 Limitations of the Study**

The major limitation of the study was that this study was limited in scope as not all the sugar firms in Kenya were included in the sample size. This study was based on a time period of five years which is relatively a short period of time to access the trend of financial performance of the sugar firms.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter covers the concept of firm performance, the concept of long term debt financing, the concept of long term debt financing and firm performance, concept of corporate bond financing on firm performance, the concept of long term loan financing on firm performance, the concept of operating lease financing on firm performance, theoretical perspective, the conceptual framework of the study, summary of literature and finally the research gap.

#### **2.1 Concept of Firm Performance**

Firm performance focuses on providing financial returns, variously referred to as profits, return on investment (Ukko, 2009) Performance is the ability to distinguish the outcomes of organizational activities. 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). In Kenya some firms are under receivership as a result of financial instability such as Muhoroni (Otieno, 2014), other firms have been closed down due to financial constraints for example, Miwani sugar firm, other firms are experiencing rampant go slows from employees as a result of the firms unable to pay their salaries and wages such as Chemilil sugar firm (Otieno, 2014).

This study adopted the use of Return on assets and Return on equity since ROA measures the income available to debt and equity investors per dollar of the firm's total assets (Brealey *et al.*, 2011). That is, it measures financial soundness of the firm in terms of its assets. It was therefore used in the regression model as a measure of financial performance. Specifically, it is the ratio of revenues generated over a firm's total assets.

Another ratio that gave an indication of a firm's overall financial health is Return on equity (Bodie *et al.*, 2011). ROE shows the income generated for the shareholder's by the equity, which is the financing provided by the shareholders (Alexander & Nobes, 2010). It gave an indication of whether a firm was able to find profitable investment opportunities (Berk & DeMarzo, 2011), something that was of great importance for firms that wanted to stay competitive. The researcher therefore believed that it justified the use of Return on equity as a measure of financial performance in the regression model.

Return on equity is calculated as “earnings before interest and tax divided by equity”, following the lead of Abor (2005).

## **2.2 Concept of Long Term Debt Financing**

Long term debt is a resource that is owed to lenders for a period of more than one year from the date of the current balance sheet (Lancett, 2008). Long-term debt converts to short-term debt when the period left until the debt must be repaid becomes less than one year with the passage of time. Long-term debt is used to finance business investments that have longer payback periods. Long term debt financing is advantageous as it is usually less prone to short term shocks as it is secured by formally established contractual terms. Hence, they are relatively more stable than short-term debt (Lancett, 2008).

Long term debt financing is directly linked to the growth of the company's operating capacity. The purchase of capital assets such as machinery. Long-term debt financing is normally well structured and defined (Lancett, 2008). Thus fewer resources have to be channeled to monitor and maintain long-term debt financing accounts compared to short term debt financing such as supplier credit which, changes overtime and need to be monitored on a regular basis.

Long term debt financing options such as leases offer a certain degree of flexibility, compared to having to purchase the asset (Lancett, 2008). Long term debt financing is a widely used mode of financing around the world. Long term debt financing is a fast growing concept in the Sugar industry with little attention paid to its literature. In this study the indicators of long term debt financing are: corporate bond financing, long term

loan financing and operating lease financing which all are forms of long term debt financing. In Kenya Sugar firms have adopted the use of corporate bond financing, long term loan financing and operating lease financing. For example, Mumias sugar firm has been issuing corporate bond for over the past five years. Some of the Sugar firms using long term loan financing and operating lease financing are Muhoroni, Mumias sugar firm and Nzoia sugar.

### **2.3 Long Term Debt Financing and Firm Performance**

The link between Long term debt financing and firm performance are mostly inconclusive but a negative relations between the two have been reported in most of the studies. Studies have been done on long term debt financing in the sugar sector for example, Ahmad *et al.*, (2012), sought to investigate the impact of capital structure on performance of Malaysia sugar firms by analyzing the relationship between return on assets, return on equity and long term debt. The study established that long-term debt financing had significant negative relationship with ROA. It was also established that ROE had significant negative relationship with long-term debt financing. The researchers did not research on the various forms of long term debt financing that sugar firms are using and how it had affected firm performance.

A research by Mesquita & Lara (2003), on Capital structure and profitability: a case of Brazilian Sugar firms' and found that long-term debt financing had an insignificant negative relationship with Return on equity. Anandasayanan & Subramaniam (2013) examined the Effect of Capital Structure on profitability of Listed Sugar Manufacturing Companies in Sri Lanka. Their results revealed significantly negative relationship



between long term debt financing and firm's performance. Their studies did not provide the various forms of long term debt financing that sugar firms are using and how it had affected firm performance

Other studies on Long term debt financing and firm performance have shown positive relations between long term debt financing and firm performance. This means the more one uses the proportion of long term debt the better the performance of sugar firms. For example, Omran & Pointon (2009) found that the capital structure is not same for every industry and vary across some of the industries. Further, Egyptian firms with high business risks are not witnessed with low level of long term debt. The contracting sector has employed higher level of debt compared to services sector because of higher tax rate on the service industry confirming the trade off theory. Heavy industries have a positive relation with long term debt financing sources because of the large assets base employed by the firms.

A study by Antwi, Mills, & Zhao (2012) on the effect of capital structure on company's value by taking all 3 listed Sugar companies on Ghana stock exchange. Simple regression analysis was used to study this effect. Long term debt had been used as the independent variable to analyze its effect on firm value. Results of the study indicated that long term debt is positively and significantly related with firm value. Findings on effects of various forms of long term debt financing were missing in the study.

According to Aliakbar *et al.*, (2013), study on the "relationship between capital structure decisions and firm performance: A Comparison between big and small industries in firms listed on Tehran Stock Exchange." They found that there is positive and significant

relationship between long term debt and firm performance as measured by Tobin's Q in big and small industries.

### **2.3.1 Corporate Bond Financing and Firm performance**

Corporate bonds are debt obligations issued by corporations for the purpose of raising capital for corporate projects and other means of expanding the issuing corporation. When you purchase a corporate bond, you are lending money to a corporation, which in turn promises to pay you a specified amount of interest until the stated maturity date, at which time the original amount of the bond you purchased the principal is returned to you (Thune, 2014).

A corporate bond is a debt instrument that a firm can issue in order to raise funds for its operations. The buyer of the bond acts as a lender who lends money to the firm for a pre-specified time period, and who receives interest payments during this time. This interest that the buyer earns can come in different forms. The most common form is to regularly that is annual, semi-annual or quarterly receive a coupon, which is an amount calculated by the bond's coupon rate that is interest rate times its principal amount( Bodie *et al.*, 2011).

Corporate bond financing is more advantageous because when you invest in corporate bonds, you are taking part in a very safe type of investment in general. As a bond holder, you are actually a creditor to the corporation and the corporation becomes a debtor to the bondholders. The firm pays interest to the bondholder in return for the loan (Thune, 2014).

If the firm goes bankrupt, the bondholder will stand a chance of getting the money back since you are a creditor. There is also a clearly defined rating system offered by investment experts. The rating system allows the firms' determine exactly how much it is going to get before it invest. With a corporate bond, a firm pays regular interest to the bondholder which is cheap (Thune, 2014).

A study by Sanna & Emilie (2013), on bond-to-total debt ratio and its impact on firms' performance of Swedish firms. The study found using regression analysis that corporate bond financing had a positive significant effect on firm performance as measured by ROA and also there was a significant positive significant relationship between corporate bond financing and firm performance as measured by ROA, ROE and ROCE at the 99 % confidence level. The researchers also found that corporate bond financing had a positive significant effect on firm performance as measured by ROE. The researchers did not study on the effects of corporate bond to total long term debt but rather as a component of total debt which comprises the sum of both long term debt and short term debt financing.

A study on Corporate Debt Value, Bond Covenants, and Optimal Capital Structure of Ghanaian Manufacturing firms by Leland (2004) found that corporate bond financing had a significant positive effect on firm performance as measured by return on assets and return on equity. The study did not operationalize corporate bond as the proportion of corporate bond to total long term debt, therefore the results it provided were not for the effects of corporate bond on total long term debt financing on firm performance. Lagerlof & Rosenlof (2012) in their research on the Swedish High Yield Corporate Bond Market found that the issuance of high yield corporate bond resulted in improved firm

performance as measured by ROA, with an adjusted R Square Value of 0.624. High yield corporate bond led to an increase in firm performance as measured by ROA. The study focused on how high yield corporate bond affected firm performance and not on how corporate bonds to total long term debt affected firm performance.

A research by Oslo Børs (2013) on 'Issuance of corporate Bonds in Oslo market for raising debt capital' found that corporate bond financing had a positive significant effect with firm performance as measured by return on assets. Shirley & Xu (2001) examined the effects of corporate bond financing on firm performance. The researchers adopted the SoE panel data set used by Mengistae & Xu (2004) and found that corporate bonds were crucial in increasing firms' financial performance as measured by Return on asset. The researchers did not study on the effects of corporate bond to total long term debt on firm performance

Corporate bond financing has a positive in significant effect on firm performance for example Uchida (2008) researched on the relationship between Tobin's Q, corporate bond and bank debt on Japanese manufacturing firms' between 1989 to 1997. Regression results showed that corporate bond financing had positive and statistically insignificant coefficients. Corporate bond had a positive significant effect on firm performance. The study was carried out on corporate bond but it did not provide results on the effects of corporate bond to total long term debt on firm performance.

According to the researcher highly indebted firms have insufficient financial resources to repay debt obligations owed to creditors and whatever little amount that exists is used to offset part of the debt and hence the financial performance of the firms' decreases.

### **2.3.2 Long Term Loan Financing 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 (Athreya, 2008). According to Athreya (2008) terms and conditions of long term loan can be revised 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. The loans provide an opportunity to finance potential investments while maintaining control of the firm (Athreya, 2008).

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 for paying for future borrowing. Thus, reliable debtors experience a compounding effect of the advantages of a long term loan (Athreya, 2008).

Scholarly work of Hammes (2003) on firm performance, debt, bank loans and trade credit where by the researcher compared Polish and Hungarian Sugar firms to a large sample of firms in industrialized countries. The researcher used panel data analysis to investigate the relation between bank loan and firms' performance as measured by profitability. The results showed that long term loans had an insignificant and negative effect for most countries. The findings of the study did not bring out the effects of outstanding long term loans on performance.

Some studies on Long term loan financing found a negative significant effect on firm performance for example Abu (2012) examined "Capital structure and firm performance; Evidence from Palestine stock exchange" and found a negative effect existed between long terms loans and bank performance as measured by ROA although not statistically significant. In this study the researcher focused on the effects of bank loans on performance. The researcher did not capture the component of outstanding long term loans on firm performance.

Studies of Asterbro & Bernhardt (2003) on Start-up Financing, Owner Characteristics, and firm performance of French Sugar firms. They found long term loan financing had a negative significant effect on firm performance as measured by both ROA and ROE although not statistically significant. The researchers focused on long term loans as a source of start up financing and in their findings they did not provide results on long term loans outstanding obligations of the firms and how it has affected its performance.

The research work of Ghosh (2006) on profitability and capital structure of Amex and Nyse firms, found that the level of 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 Ghosh (2006) 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. The study focused on firms that used long term loans as disciplinary tool for repayment of debts and also it did not provide results on how outstanding long term loans affected firm performance.

A study by Fok *et al.*, (2004) researched on the impact of bank loan on performance of Taiwanese Sugar firms around the 1997 Asian financial crisis. The researchers found that domestic borrowed long term loans had a negative significant effect on firm performance, but long term loans borrowed from foreign countries had a positive significant effect on firm performance. The findings are tied in scope as it was conducted during the Asian financial crisis. The researchers focused on source of borrowing that is from domestic or foreign market, they did not provide findings on how outstanding long term loans affected performance.

According to Kang & Stulz (2000), they researched on how Banking Shocks affects Borrowing Firms' Performance on Tokyo Stock Exchange between 1990 to 1993. They found that firms whose debt had a higher fraction of long term loans in 1989 performed worse from 1990 to 1993 and also invested less than other firms did. The researchers

concentrated much on how firms performed in relation to the proportion of long term loans it held but did not provide results on the effects of outstanding long term loan obligations.

### **2.3.3 Operating Lease Financing and Firm performance**

Operating lease is a contract that allows for the use of an asset, but does not convey rights of ownership of the asset (Lorigan, 2014). The property may be leased for a period more than one year on an operating lease hence being a component of long term debt. Leasing is a contract between an owner of equipment, the lessor and another party, the lessee giving the lessee possession and use of a specific asset in return for payment of specific rentals over an agreed period (Kisaame, 2002).

An operating lease is usually signed for a period much shorter than the actual life of the asset, and the present value of lease payments are generally much lower than the actual price of the asset. At the end of the life of the lease, the equipment reverts back to the lessor that is, the owner of the equipment who will either offer to sell it to the lessee or lease it to somebody else. The lessee usually has the option to cancel the lease and return equipment to the lessor, sometimes at a cost (Lorigan, 2014).

Operating lease is advantageous to a business because operating lease is used to hide financially leveraged balance sheets by presenting capital leases as operating leases. Although an operating lease is, many a times, more expensive as compared to an outright purchase or a capital lease for the same equipment due to the guarantee of service obscured in an operating lease in addition to the obsolescence risk assumed by the leasing company (Lorigan, 2014).



However, this is justified by the lessee through the convenience of relying on fully operational equipment in addition to avoiding the obsolescence cost. An operating lease reduces the lessee's liabilities thus allowing it to borrow more than if it used a mortgaged loan or a capital lease. Leases offer a certain degree of flexibility, compared to having to purchase the asset. The tradeoff theory supports the opinion that leasing leads to tax allowable and thus high financial performance (Lorigan, 2014).

A study by Tarus (1997) on factors influencing the growth of lease in Kenya in which the researcher used descriptive research design and collected data through questionnaires both structured and unstructured while his population consisted of all companies listed in the stock exchange. The researcher found that leasing improves financial performance by influencing the cost of capital thus reducing the leverage level which in turn improves the working capital of the firm. The researcher focused on how leasing improves financial performance but did not provide results on long term operating lease obligations and how it affects firm performance.

A research on 'Effects of Lease Finance on Performance of Sugar Firms in Bangladesh' by Abdus (2013) found that operating lease financing had a positive significant effect on ROE. The Adjusted R square value was 0.279. Letoluo (2003) did a study of the influence of farmland leasing on household livelihood in Narok. The researcher did a survey with eighty respondent selected randomly and ten informants were interviewed. The researcher found that leasing of farmland increased revenue to the farmers who later shifted from pastoralism to doing business. The researcher focused on factors that influence farmland leasing and its subsequent impact on the farmers but did not research on long term operating leasing obligations and how it affected performance.

A study by Vasantha (2012) on capital market frictions, leasing and investment, found that firms with high information leased more and those with low agency costs leased less. In addition the researcher found that firms with significant tax-loss carry forwards were unable to take full advantage of tax benefits of asset ownership, hence they leased more. The coefficient on size was positive and size squared was negative indicating that largest firms used less operating lease financing. The coefficient on Tobin's Q is positive as higher growth firms leased more which led to an improvement in firm performance. The researcher dwelt much on characteristics of firms that leased more and those that leased less. The researcher did not provide findings on operating lease obligations of the firms and its effects on firm performance.

According to Akinbola & Otokiti (2012), they researched on the Effects of Lease Options as a Source of Finance on the Profitability Performance of Sugar Firms in Lagos State, Nigeria using a sample of 300 respondents and the results from the model summary revealed the extent to which the variance in profitability of organizations could be influenced by operating lease option. The adjusted R square value was .081. The researchers also used ANOVA and found that operating lease had significant effect on organizational profitability with an F-cal 7.540 at 0.01 significance level that is operating lease financing had significant effect on organizational profitability. The researcher focused much on leasing options that small and medium enterprises had adopted as a source of finance but did not emphasize on the effects of operating leasing obligations on performance.

A research on the effects of leasing on performance of companies listed at the Nairobi securities exchange by Munene (2011), found that operation lease financing had a negative but insignificant effect on firm performance as measured by ROA with p value of 0.876. The researcher provided results on the effects of lease on firm performance but did not provide results on outstanding operating lease obligations on performance.

A study on the factors influencing the profitability of leasing firms in Pakistan by (Muhammad *et al.*, 2012) where the researchers analyzed a pool of data of 28 leasing companies for a period of 2006-2008. The variables used to determine profitability were size, leverage liquidity, age and Return on assets in operating lease finance. The study applied ordinary least square model and Logistic models for estimation of results. The researchers found that operating lease financing had a negative insignificant effect on firm performance of leasing companies as measured by ROA. The researchers centered their study on factors influencing the profitability of leasing firms thus they did not study on outstanding operating lease obligations and how it affects firm performance.

Leasing is advantageous to outright purchase as it leads to improved financial performance. This is evident in Salam (2013), research on the casual relationship between firm performance using ROA and ROE with different sugar firms on lease finance. The researcher found that operating lease financing had a positive significant effect on firm performance as measured by ROA and ROE. The researcher did not research on outstanding operating lease obligation thus the study dwelt much on causal relationship between lease finance and performance. Eric (2012) did a study on French Small and medium enterprises for 11436 firms for the year 1999. The variables used were long term

debt, leasing, equity, short term assets, short term liabilities, financial fees, fiscal debt and firm age. The researcher found that operating lease financing had a significant positive effect on ROA. The study did not capture outstanding operating lease obligations.

Studies on the relationships between Operating lease financing and firm performance also proves a positive significant relationship between the two variables for example, Lasfer & Levis (2008) examined the relationship between lease finance and ROA for Sugar firms and found a positive relationship existed between operating lease financing and firm performance as measured by ROA. They also found that a positive relationship existed between operating lease financing and firm performance as measured by ROE. Kisaame (2002) researched on lease finance in sugar firms in Uganda and found that businesses with leasing competence were on average more profitable as measured by ROA. The researcher dwelt much on characteristics of firms in relation to leasing competence and not on the effects of outstanding operating lease obligations on firm performance.

The researcher argued that with leasing, you may pay more over the long term. Operating lease payments included taxes, insurance and risk premium since the lessor assumes the risk for the purchase and this leads to a decrease in firm performance.

## **2.4 Theoretical Framework**

The study adopted the trade-off theory by Myers (1984) which refers to the idea that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. The trade-off theory was taken under consideration after

the debate on the theorem of Modigliani-Miller (Iqbal *et al.*, 2012). When the irrelevance theorem was added with the corporate income tax, this favored benefit for debt that it shields the earnings from taxes. Firm manager evaluates and analyzes the various costs and benefits of several alternatives of leverage plans.

Most of the time it is presumed that interior solution should be obtained so that balance can be acquired between marginal costs and benefits. An important purpose of the trade theory is to explain the fact that corporations usually are financed partly with debt and partly with equity. The tradeoff theory assumes that there are benefits to leverage within a capital structure up until the optimal capital structure is reached.

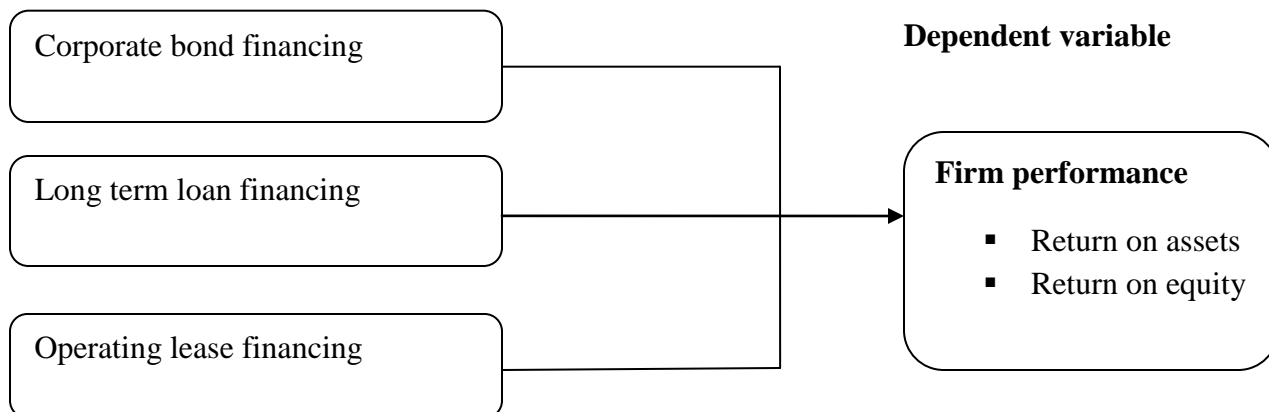
The trade off theory recognizes the tax benefit from interest payments. The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value focuses on this trade-off when choosing how much debt and equity to use for financing. Optimal capital structure is acquired by firms by trading off the costs of debt and equity against their benefits.

Empirically Abor (2007) researched on Debt Policy and Performance of SMEs, Evidence from Ghanaian and South African firms. The researcher supported the use of the tradeoff theory as the best in determining Long term debt financing as a source of firm financing. Other scholars in support of the tradeoff theory are Hovakimian, Opler & Titman (2001), Korajczyk & Levy (2003), Hovakimian & Tehranian (2004). The researcher held similar opinion with the above named researchers that marginal benefits and marginal cost should be considered in the determination of how much of a financial resource to borrow.

## 2.5 Conceptual Framework

The conceptual framework for this study figure 2.1 shows the constructs for Long term debt financing for the study which are, corporate bond financing, long term loan financing and Operating lease financing. The indicator of corporate bond financing is corporate bond to total long term debt ratio, the indicator of long term loan is long term loan to total long term debt ratio and finally the indicator of operating lease financing is operating lease to total long term debt ratio. Long term debt financing is the independent variable while firm performance (Sugar firms) is the dependent variable. The indicators of Firm performance are Return on assets and return on equity. The relationship between long term debt financing and firm performance as displayed in the conceptual framework is that corporate bond financing, long term loan financing and Operating lease financing are the predictor variables of firm performance, where by the overall financial performance of the firms is assessed using Return on assets and Return on Equity.

**Independent variable: Long term debt financing**



**Fig 2.1 Conceptual Framework for Long term debt financing: (Corporate bond financing, long term loan financing, Operating lease financing and firm performance (ROA & ROE).**

**(Source: Author, 2015)**

## **2.6 Summary**

There was uniqueness shown in this study of which the literature review has made it clear. This study has examined major forms of long term debt which are a determinant of the performance of sugar firms. The study was aimed at identifying the effects of corporate bond financing, long term loan and operating lease financing on the performance of sugar firms. According to review studies, it was established that corporate bond financing, long term loan and operating lease financing affects the performance of sugar firms. The differences across the studies were that the effects were positively significant or insignificant and/or negatively significant or insignificant. This study therefore was aimed at finding whether long term debt financing is a determinant of firm

performance whereby it provided literature review on the various forms of long term debt and how it affects firm performance.

## **2.7 Research Gap**

There is lack of findings from the studies reviewed above as to the effects of long term debt financing (Corporate bond financing, long term loan and operating lease financing) when the above components are operationalized as a proportion of total long term debt on firm performance. The studies did not provide findings on the effects of corporate bonds to total long term debt on firm performance, outstanding long term loans to total long term debt on firm performance and also outstanding operating lease obligations to total long term debt on firm performance. The current study addresses this knowledge gap.



## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Research Design

The Researcher used a longitudinal research design because it is a type of survey where data is collected from the same target population at different points in time to study changes over time. Ideally subjects or participants in a study are followed over a long period to study changes on the same issue of interest (Kothari, 2004). A time span of 5 years between 2010 - 2014 was considered where the researcher drew data from the audited annual financial statements results of the firms.

#### 3.2 Study Area

The study area is on sugar manufacturing firms in Kenya. This sugar firm's fall under various categories; those totally owned by government, private investors and those which are partly owned by the government of Kenya and partly by private investors. The entire sugar firms are what comprises the sugar industry in Kenya and the firms are governed by the Kenya Sugar Board which was established on 1st April, 2002, under the Sugar Act 2001, succeeding the defunct Kenya Sugar Authority (Kenya Sugar Board, 2014). The problem of poor financial performance was analyzed in detail across these sugar firms.

#### 3.3 Target population

Target population is the objects a researcher selects as respondents in the study and is vital in achieving the set objectives (Mugenda & Mugenda, 2003). The study targeted a sum of 9 sugar manufacturing firms in Kenya that is Muhoroni, Mumias sugar firm,

Nzoia sugar firm, West Kenya, Soin, Butali, Chemilil, Sony and kibos & allied sugar firm (Kenya Sugar Board, 2014). These are sugar firms which have been in existence for a decade and above since their incorporation.

### **3.4 Sampling Procedure and Sample size**

This study adopted probability sampling because it allows generalizability to a larger population with a margin of error that is statistically determinable. Probability sampling is key to obtaining a representative sample as every sample of a given size in the accessible population has an equal chance of being selected (Mugenda & Mugenda, 2003). Simple random sampling technique was used to select the firms because it produces more precise estimates than other methods (Silverman, 2007). The sample size was determined using Mugenda & Mugenda (2003) 10% - 30% rule. In this case 30% of 9 firms, which are 3 firms. The Sugar firms were Mumias, Nzoia and Muhoroni Sugar firms.

### **3.5 Data Collection Procedure and Instruments**

The study used Secondary data. The data was collected using a data collection form for secondary data (Appendix 11) since secondary data was the main source of data. The firms prepared financial statements on a regular or continuous basis; this allowed the researcher to effectively analyze the debt ratios in the sugar firms in Kenya from 2010 to 2014. The data was obtained from the NSE handbook, firms' websites and firms' management. The data collection form was presented to the finance managers of the firms before the required documents were given to the researcher.

### **3.6 Measurement of Variables**

#### **3.6.1 Measures of long term debt financing**

The long term debt ratio was used to measure long term debt financing because it delivered the key insights to evaluating a firm's long term debt position. High leverage increased the risk of financial distress if there was slump in economic activity. The ratio was Long term debt ratio (LTDR) = Long term debt / total assets. Operating lease was measured using Operating lease to total long term debt ratio, Long term loan was measured using Long term loan to total long term debt ratio and corporate bond was measured using corporate bond to total long term debt ratio. A year-over-year decrease in this metrics would suggest the firm was progressively becoming less dependent on debt to grow their business.

#### **3.6.2 Measures of Firm performance**

This study adopted the use of Return on assets and Return on equity. ROA is the ratio of revenues generated over a firm's total assets that is (Total Revenue ÷ Total Assets). Return on equity is calculated as earnings before interest and tax divided by equity, which is (EBIT ÷ Equity).

### **3.7 Data Analysis**

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 variables (Long term loan financing, operating lease financing, and corporate bond financing). Multiple linear Regression model was used to

identify significant predictors of ROA controlling for confounders.  $P < 0.01$  was considered significant. The regression models were as follows:

$$ROA_{M,t} = \beta_0 + \beta_1 X_{1M,t} + \beta_2 X_{2M,t} + \beta_3 X_{3M,t} + e_{M,t}$$

$$ROE_{M,t} = \beta_k + \beta_a X_{aM,t} + \beta_b X_{bM,t} + \beta_c X_{cM,t} + e_{M,t}$$

**When using ROA;**

$X_{1M,t}$  = Corporate bond to total long term debt of the firm M in year t.

$X_{2M,t}$  = Long term loan to total long term debt of the firm M in year t.

$X_{3M,t}$  = Operating lease to total long term debt of the firm M in year t.

$e_{M,t}$  = error term,  $\beta_0$  = intercept,  $\beta_1, \beta_2, \beta_3$  = coefficients of  $x_1, x_2, x_3$  respectively.

**When using ROE;**

$X_{aM,t}$  = Corporate bond to total long term debt of the firm M in year t.

$X_{bM,t}$  = Long term loan to total long term debt of the firm M in year t.

$X_{cM,t}$  = Operating lease to total long term debt of the firm M in year t.

$e_{M,t}$  = error term,  $\beta_k$  = intercept,  $\beta_a, \beta_b, \beta_c$  = coefficients of  $x_a, x_b, x_c$  respectively.

## **CHAPTER FOUR**

### **RESULTS**

#### **4.1 Corporate Bond Financing and Firm Performance**

Pearson product moment correlation was used to assess for correlation between dependent variables (ROA and ROE) and the independent variable (corporate bond financing) before conducting regression analysis and the results were as follows.

##### **4.1.1 Correlation Analysis Results for Corporate Bond Financing**

The results of Table 4.1, at 99% level of confidence, showed that 1 unit change in corporate bond financing leads to 0.691 change in performance of sugar firms as measured by ROA. When ROE was used as a measure of firm performance the results were, 1 unit change in corporate bond financing leads to 0.119 change in performance of sugar firms as shown in Table 4.1.

**Table 4.1: Correlation between Corporate bond financing, long term loan financing, operating lease financing and performance (ROA & ROE).**

		<b>Operating lease financing</b>	<b>Corporate bond financing</b>	<b>Long term loan financing</b>	<b>Return on assets</b>	<b>Return on equity</b>
<b>Operating lease financing</b>	Pearson	1				
	Correlatio n					
	Sig. (2- tailed)	15				
	N					
<b>Corporate bond financing</b>	Pearson	.124	1			
	Correlatio n	.842				
	Sig. (2- tailed)	5	5			
	N					
<b>Long term loan financing</b>	Pearson	-.506	-.463	1		
	Correlatio n	.055	.432			
	Sig. (2- tailed)	15	5	15		
	N					
<b>Return on assets</b>	Pearson	.810**	.691**	-.832**	1	
	Correlatio n	.000	.005	.000		
	Sig. (2- tailed)	15	5	15	15	
	N					
<b>Return on equity</b>	Pearson	-.133	.119	-.097	.109	1
	Correlatio n	.637	.849	.732	.700	
	Sig. (2- tailed)	15	5	15	15	15
	N					

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

(Source: Survey data, 2015)

#### 4.1.2 Regression analysis Results for Corporate Bond Financing

Multiple linear regressions was then done on corporate bond financing and ROA and the results showed that 1 unit change in corporate bond financing led to .080 change in ROA as shown in Table 4.2. Multiple linear regression was not conducted on corporate bond financing using return on equity because there was no significant relationship between corporate bond financing and firm performance as measured by ROE at 0.01 level of significance. The significance was .849 which is above the required 99 % level of confidence as shown in Table 4.1.

**Table 4.2: Regression Results for Corporate Bond, Long Term Loans & Leasing**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	59.383	24.647		2.409	.250
Operating lease financing	13.619	7.206	.565	1.890	.020
Corporate bond financing	1.240	4.560	.080	.272	.001
Long term loan financing	-20.991	13.521	-.520	-1.552	.004

a. Dependent Variable: Return on Assets

(Source: Survey data, 2015)

## **4.2 Long Term Loan Financing and Firm Performance**

The study conducted Pearson product moment correlation to assess for correlation between dependent variables (ROA and ROE) and the independent variable (long term loan financing) before conducting regression analysis and the results were as follows.

### **4.2.1 Correlation Analysis Results for Long Term Loan Financing**

The results showed that 1 unit change in long term loan financing leads to - 0.832 change in performance of sugar firms as measured by ROA at 99% level of confidence as shown in Table 4.1. When ROE was used as a measure of firm performance the results were 1 unit change in corporate bond financing leads to -.097 change in performance of sugar firms as shown in Table 4.1.

### **4.2.2 Regression analysis Results for Long Term Loans Financing**

Multiple linear regressions was then done on Long-term loans financing and ROA and the results showed that 1 unit change in Long term loan financing led to -.520 change in firm performance as shown in Table 4.2. Multiple linear regression was not conducted on Long term loan financing using return on equity because there was no significant relationship at 0.01 level of significance between long term loan financing and firm performance as measured by ROE as shown in Table 4.1. The significance was .732 as shown in Table 4.1. This is above the required 99 % level of confidence.



### **4.3 Operating Lease Financing and Firm Performance**

Pearson product moment correlation was used to assess for correlation between dependent variables (ROA and ROE) and the independent variable (operating lease financing) before conducting regression analysis and the results were as follows.

#### **4.3.1 Correlation Analysis Results for Operating Lease Financing**

At 99% level of confidence as shown in Table 4.1, 1 unit change in operating lease financing leads to .810 change in performance of sugar firms as measured by ROA. When ROE was used as a measure of firm performance the results were 1 unit change in operating lease financing leads to - 0.133 change in performance of sugar firms as shown in Table 4.1.

In summary the findings clearly show that corporate bond financing and operating lease financing are positively related to firm performance. However, Long term loan financing is negatively related to firm performance. Operating lease financing compared to other independent variables has the highest level of positive relationship that is, 0.810 since an operating lease reduces the lessee's liabilities thus allowing it to borrow more than if it used a capital lease and also operating leases offer a certain degree of flexibility, compared to having to purchase the asset. Long term loan financing compared to other independent variables has the highest level of a negative relationship that is, - 0.832. Some of the factors that explain the negative relationship are such as, changes in interest rates, inflation rates. From the findings of this study, return on assets is a good measure of firm performance as compared to return on equity as all the three independent variables were significantly related to return on assets.

### **4.3.2 Regression analysis Results for Operating Lease Financing**

The results of multiple linear regression on operating lease financing showed that 1 unit change in operating lease financing led to .565 change in ROA as shown in Table 4.2. There was no significant relationship between operating lease financing and return on equity at 0.01 level of significance therefore multiple linear regression was not conducted on operating lease financing and ROE as shown in Table 4.1. Operating lease financing had a .637 level of significance which is above 0.01 level of significance.

### **4.4 Regression Model Summary**

From the results in Table 4.3,  $R = .973$ ,  $R \text{ square} = .947$ ,  $\text{adjusted } R \text{ Square} = .787$ , and the standard estimate error = 7.12780. R coefficients indicate the degree of linear relationship of performance in sugar firms with all predictor variables, whereas the coefficient of multiple determinations R square shows the provision of the total variation in firm performance as explained by the independent variables, long-term loan financing, operating lease financing and corporate bond financing in the regression equation. The adjusted R square gives us the coefficient of determination indicating that the independent variables explains 78.7% change in firm performance as shown in Table 4.3.

**Table 4.3: Regression model summary Results**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.973 <sup>a</sup>	.947	.787	7.12780

a. Predictors: (Constant), Long term loan financing, Corporate bond financing, Operating lease financing.

(Source: Survey data, 2015).

#### 4.5 Hypothesis Testing

From the regression model computed in Table 4.3, the research hypotheses were tested using the significance level of the coefficients. The research aimed at testing the hypothesis with the aim of accepting whether there was any significant effect of long term debt financing on firm performance. A multiple linear regression model was used to investigate these hypotheses. The study hypothesized that:

H<sub>01</sub>: Corporate bond financing has no significant effect on firm performance. The study rejected the null hypothesis ( $\beta = 1.240$ ,  $p < 0.001$ ).

H<sub>02</sub>: Long term loan financing has no significant effect on firm performance and therefore the null hypothesis was rejected ( $\beta = -20.991$ ,  $p < .004$ ).

H<sub>03</sub>: Operating lease financing has no significant effect on firm performance. From the results the null hypothesis was not rejected ( $\beta = 13.619$ ,  $p < .020$ ).

Results from the regression model in Table 4.2 show that the regression weights of long term loan financing and corporate bond financing were significant. This means that two

of the three postulated hypotheses were supported. Therefore, long term loan financing and corporate bond financing are predictor variables which are determinants of performance in sugar firms.

## CHAPTER FIVE

### DISCUSSIONS

#### **5.1 Summary of findings**

##### **5.1.1 Corporate bond financing on performance of Sugar Firms**

Results for objective one indicated that corporate bond financing had  $\beta = 1.240$ ,  $p < 0.001$  and the hypothesis was rejected. This shows that one unit of corporate bond financing resulted to 1.240 units of performance of Sugar Firms.

##### **5.1.2 Long term loan financing on performance of Sugar firms**

Results for objective two indicated that Long term loan financing had  $\beta = - 20.991$ ,  $p < .004$  and the hypothesis was rejected. This shows that one unit of long term loan financing resulted to - 20.991 units of performance of Sugar Firms.

##### **5.1.3 Operating Lease financing on performance of Sugar firms**

Results for objective three indicated that Operating lease financing had  $\beta = 13.619$ ,  $p < .020$  and the hypothesis was not rejected. This shows that one unit of Operating lease financing resulted to 13.619 units of performance of Sugar Firms.

## **5.2 Discussion**

### **5.2.1 Corporate bond financing and Sugar Firms performance**

Under Corporate bond financing, it was found that corporate bond financing had a positive significant effect on the performance of sugar firms. This implied that the more sugar firms used corporate bond financing the better the performance of the firms. The reasons for improved financial performance are; investment in corporate bonds is a very safe type of investment as there is a clearly defined rating system offered by investment experts. The rating system allows sugar firms determine exactly how much the firms are going to get before they invest. Also a firm pays regular interest to the bondholder which is cheap compared to short term loan financing.

Corporate bond usually offer higher yields, and also provides an opportunity to choose from a variety of sectors, structures and credit quality characteristics to meet sugar firms' investment objectives. The marketability of corporate bonds is easy as a firm can sell a corporate bond before maturity easily and quickly because of the size and liquidity of the market which in turn improves the financial performance of the Sugar firms. The study found similar results to Mengistae & Xu (2004), Oslo Børs (2013), Sanna & Emilie (2013) and positive effect on firm performance. The results of the current study were different from the findings of Uchida (2008) because of differences in the sample size, investment policies, and interest rates.

### **5.2 .2 Long term loan financing and Sugar firms performance**

On objective two, it was found that Long term loan financing had a negative significant effect on firm performance as measured by ROA. This implied that the more sugar firms' uses long term loan financing the poor the performance of the firms. The reasons for poor financial performance are, higher interest rates that is, the interest rates available for a long term loan financing agreement are usually higher and the level of the interest rate is established based upon the risk involved with making the loan. Long term loan financing includes a greater span of time for default and hence more interest payments are made which affect the financial performance of sugar firms.

Another reason is greater interest cost, the higher rates alone for a long term loan means that the sugar firms pays more over the life of the loan than they would for a short term loan, and that is exacerbated by the length of time the firm pays the higher interest rates. Also the debt to income ratio affect firm performance as accessing credit involves a review of the sugar firms' total financial picture. Included in that picture is the firms' debt to income ratio, or the amount of outstanding debt the firms owe in relation to the firms cash flows. The longer the terms for the loan, the longer the firms have a hefty number in the debt column of the sugar firms' credit worthiness evaluation.

Slow growth of equity is another reason for poor financial performance as long term loan financing accrues equity as the firms' repays the loan. The firms' net worth is defined as assets minus debt. Long term loan financing, with generally smaller installment payments, adds equity at a slower rate which affects the sugar firms' financial performance. The results were similar to the findings of Abu (2012), Asterbro &

Bernhardt (2003), Ghosh (2006), Kang & Stulz (2000), Fok *et al.*, (2004). The findings of this study were different from the results of Hammes (2003) because the researcher carried out the research on firms from different sectors, differences in sample size and differences in economic growth.

### **5.2.3 Operating Lease financing and Sugar firms performance**

On operating lease financing, the study found that operating lease financing positively affects firm performance as measured by ROA although not statistically significant. This implied that the use of operating lease financing in sugar firms capital structure does not significantly affect the firm's performance. Some of the reasons for the non significant effect are, entering an operating lease involves the higher level of expenses reported. Sugar firms which enter operating leases record a lease expense for each period throughout the duration of the lease. These expenses appear on the company's income statement. The income statement reports the revenues earned for the period, the expenses incurred and the net income for the period. Financial statement users like to see companies report a positive net income. Expenses, including the operating lease expense, reduce the company's net income.

Entering an operating lease is that the leased asset appears nowhere as an asset on the company's accounting records. The company holds no ability to sell or modify the asset without the lessor's permission. Operating leases represent temporary arrangements between the lessor and the Sugar firm. When the lease expires, the terms of that lease become void. The lessor and the Sugar firm spend time renegotiating the terms or ending the relationship. The Sugar firm needs to reconsider the lease and evaluate its options on



a regular basis. This lack of continuity makes it difficult for the sugar firm to plan and hence affects the financial performance of the firms.

The results of this current study were similar to the findings of Abdus (2013), Akinbola & Otokiti (2012), Muhammad, *et al.*, (2012), Letoluo (2003), Tarus (1997), Eric (2012) and Lasfer & Levis (2008). The results were different from the findings of Munene (2011) because of differences in asset base of the firms, market characteristics and capital base of the firms under study,

## **CHAPTER SIX**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Conclusions**

From the results on corporate bond financing, the study concluded that corporate bond financing positively significantly affects firm performance as measured by return on assets. The use of a corporate bond improves the financial performance of Sugar firms. On long term loan financing, it was concluded that long term loan financing negatively significantly affects firm performance. The more sugar firms borrows the poor the financial performance of firms. Lastly on operating lease financing, it does not significantly affect firm performance. The Financial performance of Sugar firms is therefore not significantly affected by the use of operating lease in their capital structure.

#### **6.2 Recommendations**

##### **6.2.1 Policy Recommendations**

The study recommends that the sugar firms should become less dependent on long term loan financing in their capital structure. Sugar firms needs to invest more in income generating projects for financial empowerment rather than overreliance on borrowing. This is because larger proportion of long term loan financing negatively significantly affects the performance of Sugar firms. There is need for sugar firms to invest more in issuance of corporate bonds as there is a clearly defined rating system offered by investment experts which allows the firms' determine exactly how much it is going to get before it invests. Sugar firms should opt for outright purchase rather than excessive use of

operating lease financing as in the long run the operating lease obligations exceeds the initial value of the leased product or property.

### **6.2.2 Recommendation for Further Research**

The study suggests that further research to be conducted on the effects of long term debt financing on performance of sugar firms using predictors of firm performance other than long term loan financing and corporate bond financing. The researcher found that the data used in carrying out the research were obtained from sugar firms. A Further study that includes all manufacturing firms in Kenya is highly recommended. Extensive studies are also needed to explore the relationship between short term debt financing and performance of sugar firms in Kenya.

## REFERENCES

- Abor, J. (2005). "The effect of capital structure on profitability: an empirical analysis of Listed Firms in Ghana". *Journal of Risk Finance*, 6, 438- 447.
- Abor, J. (2007). "Debt Policy and Performance of SMEs, Evidence from Ghanaian and South African Firms". *Journal of Risk Finance*, 8, 364-379.
- Abu, R.N. (2012). "Capital Capital structure and firm performance; Evidence from Palestine Stock exchange". *Journal of Money, Investment and Banking*, 3(23).
- Abdus, S. (2013). "Effects of Lease Finance on Performance of Sugar Firms in Bangladesh". *International Journal of Science and Research*, 2 (12), 2319-7064.
- Akinbola, O. A., & Otokiti, B. O. (2012). "Effects of Lease Options as a Source of Finance On the Profitability Performance of Sugar Firms in Lagos State, Nigeria". *International Journal of Economic Development Research and Investment*, 3(3).
- Alawwad, S. (2013). Capital Structure Effect on Firms' Performance: : Evidence from Saudi Listed Companies Evidence. *International Journal of Economics and Finance*, 4(11), 217 – 224.
- Alexander, D., & Nobes, C. (2010). *Financial accounting* (4th Ed.). Harlow: Pearson Education Limited.
- Ahmad, Z., Abdullah, H.M.N., & Roslan, S. (2012). Capital Structure and Effect on Firms Performance: Focusing on Malaysian Sugar Firms. *International Journal of Business and Social Science*, 8(5), 137-155.
- Aliakbar, R., Seyed, H.S. N., & Peyen, M. (2013). The relationship between capital structure Decisions and firm performance: Comparison between big and small industries In firms listed on Tehran Stock Exchange. *World of sciences journal*, 1(9), 83-92.
- Anandasayanan & subrenaman (2013).The determinant of leverage of the Sugar companies in Sri Lanka. *International Journal of Research in Commerce & Management*, 3(6).

- Antwi, S., Mills, E. F. E. A., & Zhao, X. (2012). Capital Structure and Firm Value: Empirical evidence from Ghana Sugar Firms. *International Journal of Business and Social Science*, 3(22), 103-111.
- Asterbro, T., & Bernhardt, I. (2003). "Start-up Financing, Owner Characteristics, and Survival". *Journal of Economics and Business*, 55, 303-319.
- Athreya, K. B. (2008). "Default, insurance, and debt over the life-cycle". *Journal of Monetary Economics*, 55(4), 752-774.
- Berk, J., & DeMarzo, P.M. (2011). *Corporate finance* (2nd Ed.). Harlow: Pearson Education Limited.
- Bodie, Z., Kane, A., & Marcus, A.J. (2011). *Investments and portfolio management* (9th Ed.). New York: McGraw-Hill/Irwin.
- Brealey, R.A., Myers, S.C., & Allen, F. (2011). *Principles of corporate finance* (10th Ed.). New York: McGraw-Hill/Irwin.
- Bryman, A. (2005). *Social research methods* (3rd Ed.). Oxford: Oxford University Press.
- Cai & Zhang (2006). Capital structure dynamics and stock returns. Working papers Series from <http://ssrn.com/abstracts>
- Chen, J. J. (2003). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*, 57, 1341- 1351.
- Chenhall, R. H., & Langfield, S. K. (2007). Multiple perspectives of performance Measures. *European Management Journal*, 25(4), 266-282.
- Crabtree, A. D., & DeBusk, G. K. (2008). The effects of adopting the balanced scorecard on shareholder returns. *Advances in Accounting*, 24(1), 8-10.
- Daskalakis, N., & Psillaki, M. (2005). The Determinants of Capital Structure of the SMEs: Evidence from the Greek and the French firms. *Journal of Business & Economics Research*, 13, 37- 44.
- Ebaid, I.E. (2009). The Impact of Capital- Structure choice on Firm Performance: Empirical Evidence from Egypt. *The Journal of Risk Finance*, 10(5), 477-487.
- Ebrati, M. R., Emadi, F., Balasang, R. S., & Safari, G. (2013). The Impact of Capital Structure on Firm Performance: Evidence from Tehran Stock Exchange. *Australian Journal of Basic and Applied Sciences*, 7(4), 1-8.

- Eric, S. (2012). Determinants of the choice leasing vs. bank loan: Evidence from the French SME, working paper, University of Durham.
- Fama, E., & French, K.L. (2002). "Testing trade-off and pecking order predictions about Dividends and debt", *Review of Financial Studies*, 15, 1-33.
- Fok, Robert, C.W., & Chang, Yuan, C., & Lee, W. T. (2004). Bank Loans and their effects on firm performance around the Asian Financial Crisis: Evidence from Taiwan Sugar Firms. *Financial Management*, 33(2).
- Ghosh, A. (2006). Profitability and Capital Structure of Amex and Nyse Firms. *Journal of Business & Economics Research*, 11, 57-64.
- Gleason, K.C., Mathur, L.K., & Mathur, I. (2000). The Interrelationship between Cultures Capital Structure and Performance: Evidence from European Retailers. *Journal of Business Research*, 50, 185-191.
- Hammes, K. (2003). "Firm performance, debt, bank loans and trade credit. An empirical Study", working paper, Department of Economics, Gothenburg University of Gothenburg.
- Hovakimian, A., Hovakimian, G., & Tehranian, H. (2004). Determinants of target capital Structure: The case of dual debt and equity issues. *Journal of Financial Economics*, 71(3), 517-540.
- Hovakimian, A., Opler, T., & Titman, S. (2001). The Debt-Equity Choice. *The Journal of Financial and Quantitative Analysis*, 36(1), 1-24.
- Huang, G., & Song, F. M. (2006). "The determinants of capital structure: Evidence from China". *China Economic Review*, 17(1), 14-36.
- Hyvonen, J. (2007). Strategy, performance measurement techniques and information technology of the firm and their links to organization performance Management. Cambridge, MA: Harvard Business School Press.
- Ittner, C. D. (2008). Does measuring intangible for management purposes improve firm performance? A review of the evidence, 38(3), 61-127.
- Iqbal, S. M. J., Muneer, S., Jahanzeb, A., & Rehman, S.U. (2012). A Critical Review of Capital Structure Theories. *Information Management and Business Review*, 4(11), 553-557.
- Kang, J. K., & Stulz, R.M. (2000). Do Banking Shocks Affect Borrowing Firm Performance? An Analysis of the Japanese Experience. *The Journal of Business*, 73(1), 1-23.

- Kenya Sugar Board, (2014). *Year Book of Statistics*; KSB Headquarters, Nairobi.
- Kisaame, J. (2002). Financing of Sugar Firms. Paper presented at a United Nations Conference on Trade and Development, Kampala.
- Kieso, D. E., Weygand, J. J., Warfield, T. D., Young, N. M., & Wiecek, I. M. (2005). *Intermediate accounting* (7th ed. Vol. 1): Wiley.
- Korajczyk, R., & Levy, A. (2003). Capital structure choice: macroeconomic conditions and Financial constraints. *Journal of Financial Economics*, 68, 75-109.
- Kothari, C.R. (2004). *Research Methodology, Methods and Techniques*: New age International (P) Limited
- Lagerlof, A., & Rosenlof, F. (2012). Swedish High Yield Corporate Bond Market – A Market Outlook in the Light of Increasing Financial Regulations Retrieved 12 August, 2014, from [https:// gupea.ub. gu.se/ bitstream /2077/ 30592/ 1/gupea 2077305021. pdf](https://gupea.ub.gu.se/bitstream/2077/30592/1/gupea_2077305021.pdf)
- Lancett, p., & media, D. (2008). Types of Long term debt: Retrieved 28 June, 2014, from [http://www.chron.com/ privacy\\_ Policy/#caprivacyrights](http://www.chron.com/privacy_Policy/#caprivacyrights)
- Lasfer, M.A., & Levis, M. (2008). The Determinants of Leasing Decision of Small and Large Sugar Companies. *European Financial Management*, 4, 159-184.
- Leland, H.E. (2004). Corporate Debt Value, Bond Covenants, and Optimal Capital Structure, *Journal of Finance*, 49(4), 1213-1252.
- Letoluo, J.L., (2003). The influence of Farmland Leasing on Household Livelihood Strategies. Study of the Wheat belt Region in Narok District. Unpublished MBA Research paper, University of Nairobi.
- Li, L. R., & Simerly, M. (2008). The moderating effect of environmental dynamism on the ownership and performance relationship. *Strategic Management Journal*, 19, 69-79.
- Lorigan, p. (2014). Definition of Operating Leases. Retrieved 5 June, 2014, from <http://www.linkedin.com/today/post/article/20140605230933-182358definition-of-Operating-leases>
- Mengistae, T., & Xu, L. (2004). ‘Agency Theory and Executive Compensation: the Case of Chinese State-Owned Enterprises’, *Journal of Labor Economics*, 22 (3), 15-637.

- Mesquita, J.M.C., & Lara, J.E. (2003). "Capital structure and profitability: The Brazilian Case Academy of Business and Administration Sciences Conference, Vancouver, 11-13.
- Miller, M.H. (1977). Debt and Taxes, *Journal of Finance*, 32(2), 261-275.
- Modi, A. (2014). Blame it on Rio. Retrieved 30 March, 2014, from [http:// Brazil debt](http://Brazil%20debt)
- Mugenda, O.M., & Mugenda, A.G. (2003). *Research Methods. Quantitative and Quantitative Approaches*. Nairobi: Acts Press.
- Muhammad, J.K., Naveed, K., & Hammad, H.M. (2012). Factors Influencing the Profitability of Leasing Firms in Pakistan: Application of OLS and LOGIT Model.
- Munene, W.W. (2011). The effect of lease finance on the financial performance of Companies listed at the Nairobi securities exchange, unpublished masters Dissertation, University of Nairobi.
- Murugesu, T. (2013). Effect of debt on corporate profitability of 11 listed hotels in Sri Lanka Between 2008 to 2012. *European Journal of Business and Management*, 5(30).
- Mutai, E. (2014). Nzoia Sugar owes sh.32bn and is insolvent, pic told. Retrieved 7 May 2014, from [http:// Nzoia debt .html](http://Nzoia%20debt.html)
- Myers, S.C. (1984). The Capital Structure Puzzle, *the Journal of Finance*, Papers and Proceedings, Forty-Second Annual Meeting, American Finance Association, 39 (3), 575-592.
- Onaolapo, A.A., & Kajola, S.O. (2010). Capital Structure and Firm Performance: Evidence from Nigeria. *European Journal of Economics, Finance and Administrative Sciences*, 25, 70-82.
- Omran, M. M. and Pointon, J. (2009), "Capital structure and firm characteristics: an Empirical analysis from Egypt Sugar Firms", *Review of Accounting and Finance*, 8(4), 454-474.
- Oslo Børs. (2013). Issuing corporate Bonds in Oslo - market for raising debt capital. Retrieved 20 February, 2013, from [http://www.oslobors.no/ob eng/Oslo-Boers/Products- and services / Brochure material/Bonds](http://www.oslobors.no/ob%20eng/Oslo-Boers/Products-and%20services/Brochure%20material/Bonds)
- Otieno, J. (2014). Sugar cane farmers to wait longer for payout. Retrieved 22 March, 2014, from [http:// www.the eastfrican.co.ke/-/2456/2024932/-/abf12iz/-/index.html](http://www.the%20eastfrican.co.ke/-/2456/2024932/-/abf12iz/-/index.html)



- Pandey, M. (2001). Capital structure and the firm characteristics: evidence from an emerging Market, working paper, Indian Institute of Management Ahmadabad.
- Penman, S.H. (2010). *Financial Statement Analysis and Security Valuation*. (4 th ED.). New York: McGraw-Hill/Irwin.
- Saeed, M. M., Gull, A. A., & Rasheed, M. Y. (2013). Impact of Capital Structure on Banking. Empirical Evidence from Tehran Stock Exchange Companies. *The Journal of Business*, 13(2), 10-26.
- Salam, A. (2013). Effects of Lease Finance on Performance of Sugar Firms in Bangladesh. *International Journal of Science and Research*, 2(12), 2319 – 7064.
- Sanna, M., & Emilie, R. (2013). The Bond-to-Total Debt Ratio and its Impact on Firms' Performance, Unpublished Management Research Project of the Umea School of Business and Economics.
- Silverman, D. (2007), *Qualitative Research: Theory, Method and Practice*. London, UK: SAGE Publications Limited.
- Shirley, M., & Xu, L. C. (2001). 'The Empirical Effects of Performance Contracts: Evidence from China'. *Journal of Law, Economics and Organization* 17,168-200.
- Tarus, K. (1997). Determination of the factors influencing the growth of finance leases in Kenya. Unpublished MBA Research paper, University of Nairobi.
- Thune, k. (2014). Definition and Basics on Corporate Bonds and Corporate Bond Funds. Retrieved 10 August, 2014, from [http://mutualfunds.about.com/od/mutualfund\\_glossary/a/What-Are-Corporate-Bonds.html](http://mutualfunds.about.com/od/mutualfund_glossary/a/What-Are-Corporate-Bonds.html)
- Tyler, G. (2006). Competitive Commercial Agriculture in Sub Saharan Africa. Paper Presented at a United Nations Conference on Trade and Development, Ethiopia.
- Uchida, K. (2008). "The Relation between corporate bond and bank debt on Japanese Manufacturing firms". *Journal of Financial Economics* 15, 251-169.
- Ukko, J. (2009). Managing through measurement: A framework for successful operative level Performance measurement. PhD thesis at the Lappeenranta University of Technology.
- Umar, Tanveer, Aslam, & Sajid. (2012). Impact of capital structure on firm's financial Performance. *Research Journal of Finance and Economics*, 3(12), 319 -764.

Vasantha (2012). Essays on Capital Market Frictions: Evidence from Leasing Financing. *Journal of Financial Economics*, 14, 501-521.

Wachira, C. (2014). Mumias sugar to renegotiate Debt payments with lenders. Retrieved 11 June, 2014 from [http://mumias-sugar-to-Renegotiate-debt-payments-with Lenders.html](http://mumias-sugar-to-Renegotiate-debt-payments-with-Lenders.html)

**APPENDIX 1: LIST OF SELECTED SUGAR FIRMS IN KENYA**

1. MUHORONI
2. KIBOS & ALLIED
3. SOIN SUGAR FIRM
4. MUMIAS
5. NZOIA
6. WEST KENYA
7. SONY SUGAR
8. CHEMILIL
9. BUTALI

**SOURCE: KENYA SUGAR BOARD (2014)**

**APPENDIX 1I: DATA COLLECTION FORM FOR SECONDARY DATA****Tick as appropriate**

Company Id.....

Indicator	Year				
	2010	2011	2012	2013	2014
Long term debt ratio					
Long term loan					
Corporate bond					
Operating lease					
ROA					
ROE					

## APPENDIX 111: FIRMS FINANCIAL STATEMENTS

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<b>NZOIA SUGAR COMPANY LIMITED</b>			
<b>STATEMENT OF COMPREHENSIVE INCOME AS AT 30<sup>TH</sup> JUNE 2012</b>			
	NOTES	2011/12 (Kshs.)	2010/11 (Kshs.)
Turnover	4 a	5,286,654,329	3,961,290,943
Cost of sales	5	3,426,561,904	2,560,564,450
<b>Gross Profit</b>		<b>1,860,092,425</b>	<b>1,400,726,493</b>
Misc Income	4 b	262,509,136	193,858,146
Distribution costs	6 c	(49,084,650)	(26,856,193)
Administrative expenses	6 d	(918,375,166)	(621,800,740)
Operating expenses	6 e	(581,811,352)	(423,175,079)
<b>Operating Profit</b>		<b>573,530,393</b>	<b>517,752,627</b>
Finance income	6 a	61,023,013	32,280,053
Profit/(Loss) on Disposal of Fixed Assets		134,006	164,500
Finance costs	6 b	(408,387,572)	(452,573,433)
<b>Profit / (Loss) before Taxation</b>		<b>226,299,840</b>	<b>97,623,747</b>
Taxation charge			
<b>Profit / (Loss) for the year</b>		<b>226,299,840</b>	<b>97,623,747</b>

Notes on page form an intergral part of of these accounts. The accounts were approved and signed on behalf of board of directors on .....

BY  
NAME ABUD SIMYO WASIKE SIGNATURE S. J. A. K.  
CHAIRMAN

NAME..... SIGNATURE .....

DIRECTOR

NAME CAUL S. WASILWA SIGNATURE CAUL S. WASILWA  
MANAGING DIRECTOR

### 8.6 STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 30TH JUNE 2013

REVENUE	Note	2013 Kshs.	2012 Kshs.
Government Grants (GOK)	11	1,220,000,000	1,292,148,522
Development Partners/ Donor Support	12	14,662,375	13,873,437
Other Income	13	2,807,783	478,015
<b>Total Revenue</b>		<b>1,237,470,158</b>	<b>1,306,499,974</b>
<b>EXPENDITURE</b>			
Administration Expenses	19	840,876,055	965,040,882
Operating and Maintenance	24	404,773,605	342,067,668
<b>Total Expenditure</b>		<b>1,245,649,659</b>	<b>1,307,108,550</b>
Operation Loss for the Year		(8,179,501)	(608,576)
Profit on disposal of assets	14	2,250,027	1,406,536
<b>Surplus/ (Loss) for the Year</b>		<b>(5,929,474)</b>	<b>797,960</b>

**8.5 STATEMENT OF FINANCIAL POSITION AS AT 30TH JUNE 2013**

<b>ASSETS</b>	<b>Note</b>	<b>2013 Kshs.</b>	<b>2012 Kshs.</b>
<b>Non Current Assets</b>			
Property, plant and Equipment	2	301,696,457	256,038,862
Intangible Assets	3	9,376,315	14,063,769
Gratuity Fund Investment	4	131,965,661	177,779,913
Asset Recovery Account	5	94,096,958	87,813,831
		<b>537,135,391</b>	<b>535,696,374</b>
<b>Current Assets</b>			
Inventories	6	15,204,367	13,168,013
Receivables and Prepayments	7	10,769,595	5,462,462
Cash and Cash Equivalents	8	127,224,342	169,136,061
		<b>153,198,304</b>	<b>187,766,536</b>
<b>Total Assets</b>		<b>690,333,695</b>	<b>723,462,911</b>
<b>EQUITY AND LIABILITIES</b>			
Accumulated Fund	14	192,330,372	192,330,372
Revenue Reserves	15	258,656,292	264,585,766
		<b>450,986,664</b>	<b>456,916,138</b>
<b>Non Current Liabilities</b>			
Gratuity Fund	4	128,035,752	177,779,913
Asset Recovery Account	5	94,096,958	87,813,831
		<b>222,132,710</b>	<b>265,593,743</b>
<b>Current Liabilities</b>			
Trade and Other Payables	9	16,614,321	253,030
Accrued Liabilities and Charges	10	600,000	700,000
		<b>17,214,321</b>	<b>953,030</b>
<b>Total Equity and Liabilities</b>		<b>690,333,695</b>	<b>723,462,911</b>

The Financial Statements on Pages 63 to 83 were approved on 23<sup>rd</sup> September 2013 and signed on behalf of the Commission by:



Mr. Halakhe D. Waqo  
Secretary/Chief Executive Officer



Mumo Matemu  
Chairperson

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**NZOIA SUGAR COMPANY LIMITED**  
**STATEMENT OF FINANCIAL POSITION AS AT 30.06.2012**

	Note	30.06.12 (Kshs.)	30.06.11 Restated (Kshs.)	30.06.11 (Kshs.)
<b>NON CURRENT ASSETS</b>				
Property, Plant & Equipment	44	6,240,748,738	5,942,413,034	5,942,413,034
Biological Assets	11	438,719,249	269,859,144	269,859,144
		<b>6,679,467,987</b>	<b>6,212,272,178</b>	<b>6,212,272,178</b>
<b>CURRENT ASSETS</b>				
Inventories	10	3,293,847,287	3,410,971,255	3,410,971,255
Prepayments and Other receivables	9	553,785,106	466,968,899	466,968,899
Cash in Hand and at Bank	11 a	777,743,459	213,835,851	213,835,851
<b>SHORT TERM INVESTMENT</b>				
Commercial Bank Fixed Deposits	11 b	226,284,796	458,366,578	458,366,578
		<b>4,851,660,647</b>	<b>4,550,142,383</b>	<b>4,550,142,383</b>
<b>TOTAL ASSETS</b>		<b>11,531,128,634</b>	<b>10,762,414,561</b>	<b>10,762,414,561</b>
<b>CURRENT LIABILITIES</b>				
Accruals and Other payables	14	10,601,676,494	10,002,719,047	10,077,374,047
Contingent liabilities		76,000,000		
Current Maturity of Long term Loans	15 a-c	10,418,016,012	10,550,559,126	10,629,559,126
<b>NON CURRENT LIABILITIES</b>				
Non Current Term Loan				
		<b>21,095,692,406</b>	<b>20,553,278,173</b>	<b>20,706,933,173</b>
<b>NET CURRENT LIABILITIES</b>		<b>(16,244,031,758)</b>	<b>(16,003,135,790)</b>	<b>(16,156,790,790)</b>
		<b>(9,564,563,772)</b>	<b>(9,790,863,612)</b>	<b>(9,944,518,612)</b>
<b>FINANCED BY:</b>				
<b>Capital employed</b>				
Share capital	13	611,000,000	611,000,000	532,000,000
Kshs 20/- ordinary shares fully paid (authorised Kshs. 800,000,000)				
Accumulated Profit / (Loss)		(16,885,153,918)	(17,111,453,788)	(17,156,108,758)
Capital reserve (revaluation)		6,709,590,146	6,709,590,146	6,709,590,146
<b>SHAREHOLDERS' INTEREST</b>		<b>(9,564,563,772)</b>	<b>(9,790,863,612)</b>	<b>(9,944,518,612)</b>
The notes on pages form an intergral part of these accounts. The accounts were Approved by the Board of Directors on .....				
BY NAME <u>Abud Simiyu Wasike</u> SIGNATURE <u>[Signature]</u> CHAIRMAN				
NAME ..... SIGNATURE .....				
DIRECTOR				
NAME <u>SAUL S. Wasilwa</u> SIGNATURE <u>[Signature]</u> MANAGING DIRECTOR				



MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
 STATEMENT OF FINANCIAL POSITION  
 AS AT 30 JUNE 2010

	Note	2010 KSh'000	2009 KSh'000
<b>ASSETS</b>			
Non current assets			
Property, plant and equipment	8	450,790	392,937
Current assets			
Inventories	12	157,557	215,566
Biological assets	13	48,213	72,958
Trade and other receivables	14	72,725	9,096
Due from related parties	9(a)	1,436	4,039
Deferred farmers' loans and debts	15	22,232	12,359
Short term deposits	16	22,153	123,484
Cash and bank balances		39,518	88,582
		<u>363,834</u>	<u>526,084</u>
<b>TOTAL ASSETS</b>		<u>814,624</u>	<u>919,021</u>
<b>EQUITY AND LIABILITIES</b>			
Capital and reserves			
Share capital	17	55,742	55,742
Accumulated loss		(18,594,080)	(15,932,213)
Shareholders' deficit		<u>(18,538,338)</u>	<u>(15,876,471)</u>
Non-current liabilities			
Borrowings	18	50,633	86,607
Current liabilities			
Borrowings	18	8,592,124	8,184,776
Trade and other payables	19	10,667,162	8,504,775
Due to related parties	9(b)	43,043	19,334
		<u>19,302,329</u>	<u>16,708,885</u>
<b>TOTAL EQUITY AND LIABILITIES</b>		<u>814,624</u>	<u>919,021</u>

The financial statements on page 9 to 26 were approved by the Joint Receivers Managers on 25 June 2012 and were signed on its behalf by:

  
 Joint Receiver Manager

  
 Joint Receiver Manager

MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
 INCOME STATEMENT  
 FOR THE YEAR ENDED 30 JUNE 2010

	Note	2010 KSh'000	2009 KSh'000
REVENUE (APPENDIX I)		1,499,698	1,808,880
FAIR VALUE GAIN/(LOSS) ON BIOLOGICAL ASSETS	13	<u>(9,015)</u>	<u>20,977</u>
OPERATING INCOME		1,490,683	1,829,857
COST OF SALES		<u>(1,678,213)</u>	<u>(1,624,556)</u>
GROSS PROFIT		(187,530)	205,301
OTHER OPERATING INCOME		201,157	61,185
ADMINISTRATIVE EXPENSES (APPENDIX I)		<u>(266,769)</u>	<u>(451,675)</u>
OPERATING PROFIT BEFORE FINANCE COSTS AND PENALTIES FOR UNPAID TAXES		(253,142)	(185,189)
FINANCE (COSTS)/INCOME	4	<u>(374,822)</u>	<u>(372,823)</u>
LOSS FROM CONTINUING OPERATING ACTIVITIES	5	(627,964)	(558,012)
PENALTIES FOR NON-PAYMENT OF TAXES (APPENDIX III)		<u>(2,033,903)</u>	<u>(674,106)</u>
LOSS BEFORE TAXATION		<u>(2,661,867)</u>	<u>(1,232,118)</u>
TAXATION	7	-	-
LOSS FOR THE YEAR		<u>(2,661,867)</u>	<u>(1,232,118)</u>

MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
STATEMENT OF FINANCIAL POSITION  
AS AT 30 JUNE 2011

ASSETS	Note	2011 KSh'000	2010 KSh'000
Non current assets			
Property, plant and equipment	8	443,959	450,790
Current assets			
Inventories			
Biological assets	12	364,663	157,557
Trade and other receivables	13	97,892	48,213
Due from related parties	14	78,001	72,725
Deferred farmers' loans and debts	9(a)	630	1,436
Short term deposits	15	7,937	22,232
Cash and bank balances	16	42,979	22,153
		12,216	39,518
		604,318	363,834
<b>TOTAL ASSETS</b>		<b>1,048,277</b>	<b>814,624</b>
<b>EQUITY AND LIABILITIES</b>			
Capital and reserves			
Share capital			
Accumulated loss	17	55,742	55,742
Shareholders' deficit		(21,315,026)	(18,594,080)
		(21,259,284)	(18,538,338)
Non current liabilities			
Borrowings	18	53,306	50,633
Current liabilities			
Borrowings			
Trade and other payables	18	9,045,649	8,592,124
Due to related parties	19	13,165,522	10,667,162
	9(h)	43,084	43,043
		22,254,255	19,302,329
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>1,048,277</b>	<b>814,624</b>

The financial statements on page 9 to 26 were approved by the Joint Receivers Managers on 25th June 2012 and were signed on its behalf by:

  
Joint Receiver Manager

  
Joint Receiver Manager

MUJIBORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
 INCOME STATEMENT  
 FOR THE YEAR ENDED 30 JUNE 2011

	Note	2011 KSh'000	2010 KSh'000
REVENUE (APPENDIX I)		2,790,658	1,499,698
FAIR VALUE GAIN/(LOSS) ON BIOLOGICAL ASSETS	13	<u>32,748</u>	<u>(9,015)</u>
OPERATING INCOME		2,823,406	1,490,683
COST OF SALES (APPENDIX I)		<u>(2,283,322)</u>	<u>(1,678,213)</u>
GROSS PROFIT		540,084	(187,530)
OTHER OPERATING INCOME (APPENDIX I)		178,744	201,157
ADMINISTRATIVE EXPENSES (APPENDIX I)		<u>(345,334)</u>	<u>(266,769)</u>
OPERATING PROFIT BEFORE FINANCE COSTS AND PENALTIES FOR UNPAID TAXES		373,493	(253,142)
FINANCE (COSTS)/INCOME	4	<u>(469,439)</u>	<u>(374,822)</u>
LOSS FROM CONTINUING OPERATING ACTIVITIES		(95,946)	(627,964)
PENALTIES FOR NON-PAYMENT OF TAXES (APPENDIX II)		<u>(2,621,999)</u>	<u>(2,033,903)</u>
LOSS BEFORE TAXATION	5	(2,720,945)	(2,661,867)
TAXATION	7	<u>-</u>	<u>-</u>
LOSS FOR THE YEAR		<u>(2,720,945)</u>	<u>(2,661,867)</u>

MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
 INCOME STATEMENT  
 FOR THE YEAR ENDED 30 JUNE 2012

	Note	2012 KSh'000	2011 KSh'000
REVENUE (APPENDIX I)		2,265,124	2,790,658
FAIR VALUE GAIN/(LOSS) ON BIOLOGICAL ASSETS	13	<u>(10,965)</u>	<u>32,748</u>
OPERATING INCOME		2,254,159	2,823,406
COST OF SALES (APPENDIX I)		<u>(2,145,462)</u>	<u>(2,283,322)</u>
GROSS PROFIT		108,697	540,084
OTHER OPERATING INCOME (APPENDIX I)		150,130	178,744
ADMINISTRATIVE EXPENSES (APPENDIX I)		<u>(250,114)</u>	<u>(343,411)</u>
OPERATING PROFIT BEFORE FINANCE COSTS AND PENALTIES FOR UNPAID TAXES		8,713	375,416
FINANCE COSTS	4	<u>(390,886)</u>	<u>(471,362)</u>
LOSS FROM CONTINUING OPERATING ACTIVITIES		(382,173)	(95,946)
PENALTIES FOR NON-PAYMENT OF TAXES (APPENDIX III)		<u>(3,545,051)</u>	<u>(2,624,999)</u>
LOSS BEFORE TAXATION	5	(3,927,234)	(2,720,945)
TAXATION	7	<u>-</u>	<u>-</u>
LOSS FOR THE YEAR		<u>(3,927,234)</u>	<u>(2,720,945)</u>

MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
 STATEMENT OF FINANCIAL POSITION  
 AS AT 30 JUNE 2012

	Note	2012 KSh'000	2011 KSh'000
<b>ASSETS</b>			
Non current assets			
Property, plant and equipment	8	<u>375,888</u>	<u>443,959</u>
Current assets			
Inventories	12	360,611	364,663
Biological assets	13	89,596	97,892
Trade and other receivables	14	28,442	78,001
Due from related parties	9(a)	1,487	630
Deferred farmers' loans and debts	15	7,937	7,937
Short term deposits	16	50,100	42,979
Cash and bank balances		<u>175</u>	<u>12,216</u>
		<u>538,348</u>	<u>604,318</u>
<b>TOTAL ASSETS</b>		<u>914,236</u>	<u>1,048,277</u>
<b>EQUITY AND LIABILITIES</b>			
Capital and reserves			
Share capital	17	55,742	55,742
Accumulated loss		<u>(25,242,260)</u>	<u>(21,315,026)</u>
Shareholders' deficit		<u>(25,186,518)</u>	<u>(21,259,284)</u>
Non-current liabilities			
Borrowings	18	<u>-</u>	<u>53,306</u>
Current liabilities			
Borrowings	18	9,474,841	9,045,549
Trade and other payables	19	16,596,695	13,165,522
Due to related parties	9(b)	29,218	43,084
		<u>26,100,754</u>	<u>22,254,255</u>
<b>TOTAL EQUITY AND LIABILITIES</b>		<u>914,236</u>	<u>1,048,277</u>

The financial statements on page 8 to 23 were approved by the Joint Receivers Managers on 08/02/2013 and were signed on its behalf by:

  
 Joint Receiver Manager

  
 Joint Receiver Manager

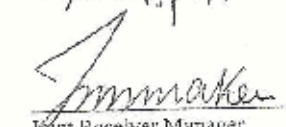
MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
 STATEMENT OF COMPREHENSIVE INCOME  
 FOR THE YEAR ENDED 30 JUNE 2013

	Note	2013 KSh'000	2012 (RESTATED) KSh'000
REVENUE (APPENDIX I)		2,540,769	2,265,124
FAIR VALUE LOSS ON BIOLOGICAL ASSETS	13	(19,541)	(10,965)
OPERATING INCOME		2,521,228	2,254,159
COST OF SALES (APPENDIX I)		(2,337,455)	(2,145,462)
GROSS PROFIT		183,773	108,697
OTHER OPERATING INCOME (APPENDIX I)		178,097	150,130
ADMINISTRATIVE EXPENSES (APPENDIX I)		(3,9910)	(250,114)
FINANCIAL EXPENSE BEFORE FINANCE COSTS AND PENALTIES		41,960	8,713
FINANCE COSTS	4	(71,374)	(23,125)
DEPRECIATION ON THE OPERATING ACTIVITIES		(29,414)	(14,412)
PENALTIES FOR NON-PAYMENT OF TAXES (APPENDIX III)		(4,173,535)	(3,545,061)
LOSS BEFORE TAXATION	5	(4,202,949)	(3,559,473)
TAXATION	7	-	-
LOSS FOR THE YEAR		(4,202,949)	(3,559,473)

MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
 STATEMENT OF FINANCIAL POSITION  
 AS AT 30 JUNE 2013

	Note	2013 KSh'000	2012 (RESTATEd) KSh'000
<b>ASSETS</b>			
Non current assets	8	314,582	375,888
Property, plant and equipment			
Current assets	12	407,184	300,611
Inventories	13	103,438	89,596
Biological assets	14	77,599	28,445
Trade and other receivables	9(a)	8,713	1,487
Due from related parties	15	7,967	7,937
Deferred farmers' loans and debts	16	110,000	50,100
Short term deposits		5,523	175
Cash and bank balances		720,524	538,349
		<u>1,035,106</u>	<u>914,237</u>
<b>EQUITY AND LIABILITIES</b>			
Share capital			
Reserves			
Provision for contingencies			
Provision for doubtful debts			
Provision for depreciation			
Provision for amortisation			
Bank borrowings	17	55,742	55,742
Loans		(28,273,058)	(24,079,169)
Trade and other payables		(28,217,316)	(24,014,367)
Due to related parties			
Bank overdraft	18	10,714	-
Provision for contingencies	19	8,329,065	8,302,691
Trade and other payables	9(b)	20,907,363	16,596,695
Due to related parties		5,580	29,218
		<u>29,252,422</u>	<u>24,928,604</u>
		<u>1,035,106</u>	<u>914,237</u>
<b>TOTAL EQUITY AND LIABILITIES</b>			

The financial statements on page 8 to 23 were approved by the Joint Receivers Managers on 7th July 2014 and were signed on its behalf by:

  
 Joint Receiver Manager

  
 Joint Receiver Manager



MUHORONI SUGAR COMPANY LIMITED (IN RECEIVERSHIP)  
STATEMENT OF COMPREHENSIVE INCOME  
FOR THE YEAR ENDED 30 JUNE 2014

	Note	2014	2013
		KSh'000	KSh'000
REVENUE (APPENDIX I)		1,914,389	2,530,769
FAIR VALUE LOSS ON BIOLOGICAL ASSETS	13	-	(19,541)
OPERATING INCOME		1,914,389	2,521,228
COST OF SALES (APPENDIX I)		(1,698,256)	(2,337,455)
GROSS PROFIT		216,133	183,773
OTHER OPERATING INCOME (APPENDIX I)		56,258	178,097
ADMINISTRATIVE EXPENSES (APPENDIX I)		(250,722)	(319,910)
OPERATING PROFIT BEFORE FINANCE COSTS AND PENALTIES FOR UNPAID TAXES		21,668	41,960
NET FINANCE COSTS	4	(22,042)	(71,374)
LOSS FROM CONTINUING OPERATING ACTIVITIES		(374)	(29,414)
PENALTIES FOR NON-PAYMENT OF TAXES (APPENDIX III)		(4,500,030)	(4,173,536)
LOSS BEFORE TAXATION	5	(4,500,404)	(4,202,949)
TAXATION	7	-	-
LOSS FOR THE YEAR		(4,500,404)	(4,202,949)

STATEMENT OF COMPREHENSIVE INCOME  
FOR THE YEAR ENDED 30 JUNE 2010

	Note	2010 Shs'000	2009 Shs'000
REVENUE	4	15,617,738	11,803,272
FAIR VALUE LOSS ON BIOLOGICAL ASSETS	17	(50,137)	(33,487)
OPERATING INCOME		15,567,601	11,749,792
COST OF SALES		(10,683,063)	(8,427,253)
GROSS PROFIT		4,884,538	3,322,539
OTHER OPERATING INCOME		80,214	91,741
MARKETING AND DISTRIBUTION COSTS		(909,818)	(827,382)
ADMINISTRATIVE EXPENSES		(1,445,322)	(1,030,264)
OTHER OPERATING EXPENSES		(465,073)	(462,608)
FINANCE INCOME	5(a)	404,226	299,892
FINANCE COSTS	5(b)	(368,891)	(191,157)
PROFIT BEFORE TAXATION	6	2,179,874	1,193,161
TAXATION (CHARGE)/ CREDIT	8	(602,491)	416,811
PROFIT FOR THE YEAR		1,572,383	1,609,972
OTHER COMPREHENSIVE INCOME		-	-
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		1,572,383	1,609,972
EARNINGS PER SHARE - BASIC & DILUTED	9	Shs 1.03	Shs 1.05

FOR THE YEAR ENDED 30 JUNE 2012

## Statement of Comprehensive Income

For the Year Ended 30 June 2012

	Note	2012 Shs'000	2011 Shs'000
Revenue	4	15,542,686	15,795,300
Fair value gain/(loss) on biological assets	16	5,678	(6,445)
Operating income		15,548,364	15,788,855
Cost of sales		(11,060,657)	(10,312,125)
Gross profit		4,487,707	5,446,730
Other operating income		133,031	106,233
Marketing and distribution costs		(733,345)	(1,164,570)
Administrative expenses		(1,557,202)	(1,148,041)
Other operating expenses		(825,547)	(443,073)
Finance income	5(a)	411,023	144,831
Finance costs	5(b)	(14,638)	(295,535)
Profit before tax on	6	1,764,029	2,646,575
Taxation credit/(charge)	8	248,658	(713,350)
Profit for the year		2,012,679	1,933,225
<b>OTHER COMPREHENSIVE INCOME</b>			
Gain on revaluation of property, plant and equipment			3,078,472
Deferred taxation on revaluation of property, plant and equipment			(923,542)
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>		<b>2,012,679</b>	<b>4,088,155</b>
		Shs	Shs
Earnings per share - basic & diluted	9	32	126

MUMIAS SUGAR COMPANY LIMITED

STATEMENT OF COMPREHENSIVE INCOME  
FOR THE YEAR ENDED 30 JUNE 2014

	2014 Shs'000	2013 (Restated) Shs'000
Revenue	13,075,912	11,957,823
Cost of sales	(12,227,703)	(10,395,794)
Gross profit	848,204	1,562,029
Fair value loss on Biological Assets	(91,547)	(13,781)
Other operating income	376,074	237,286
Marketing and distribution costs	(929,128)	(870,920)
Administrative expenses	(3,271,272)	(2,806,661)
Finance income	264,020	394,336
Finance costs	(601,397)	(724,988)
Loss before taxation	(3,405,046)	(2,222,699)
Taxation credit	698,451	562,293
Loss for the year	(2,706,595)	(1,660,406)
<b>OTHER COMPREHENSIVE INCOME</b>		
<i>items that will not be reclassified subsequently to profit or loss-</i>		
Remeasurement of defined benefit obligations	(48,700)	293,300
Deferred tax relating to remeasurement of defined benefit obligation	14,610	(87,990)
	(34,090)	205,310
<b>TOTAL COMPREHENSIVE (LOSS)/INCOME FOR THE YEAR</b>	<b>(2,740,685)</b>	<b>(1,455,096)</b>
	Shs	Shs
(Loss)/earnings per share - basic & diluted	(1.77)	(1.09)

