THE EFFECT OF INVESTING AND FINANCING DECISIONS ON FINANCIAL PERFORMANCE OF THE SUGAR FACTORIES IN KENYA

BY

MUMIA KOROTI

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DECLARATION

I, the undersigned, hereby declare that this is my original work and has not been presented to any institution or University of Nairobi for academic credit. I further declare that I followed all applicable ethical guidelines in conducting the research.

Sign…… Date……

MUMIA KOROTI

D61/60465/2013

This research project has been submitted for examination with my approval as the University supervisor

Signature …..…… Date……

HERICK ONDIGO

Lecturer,

Department of Finance and Accounting,

School of Business,

University of Nairobi

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DEDICATION

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ABSTRACT

The study was driven by the fact that, sugar cane is one of the most important crops in the in Kenya, yet the current sugar factories cannot produce enough for the country's domestic requirements as they are inefficient. The sugar factories, over time, have over relied on a single product line as source of revenue. The sugar industry in Kenya has been undergoing changes in order to become competitive and diversify into other revenue streams. The objective of this study was to establish the effect of investing and financing decisions on the financial performance of sugar factories in Kenya. These research adopted a non probability sampling method, in which four factories were chosen from a population of eleven factories in existence as at 31st December 2013 in Kenya. These was a descriptive study that examined the effect of investing decision as measured by ln of total assets and financing decision as measured by Debt to equity ratio on financial performance measure of Return on Assets (ROA).Secondary data on statement of comprehensive income and statement of financial position for a period of five financial years was analyzed using regression analysis derived by applying Minitab statistical analysis tool. The study found out that investing decision positively affected financial performance, whereas there was a negative effect of financing decision on financial performance of sugar factories in Kenya. The findings from these study will both advance theory and help in policy formulation by the Government of Kenya. These study is useful as the Government of Kenya can utilize the findings in the formulation of key policy actions, reforms, programs and projects in line with its priorities and help achieve the vision 2030 economic pillars. Sugar factories in Kenya should increase investment in capital assets with aim of diversifying in other product lines, in order to increase sources of revenue streams and remain competitive while achieving higher financial performance in the long-run.

LIST OF ABBREVIATIONS

APT	- Arbitrage Pricing Model
CAP	- Common Agriculture Policy
CAPEX	-Capital Expenditure
CAPM	- Capital Asset Pricing Model
Co.	- Company
Coef	- Coefficient
COMESA	- Common Market of Eastern and Southern Africa
DG	- Deferred Grant
DI	- Development Index
DIT	- Deferred Income Taxation
EAC	- East African Community
EBIT	- Earnings Before Interest and Tax
EPS	- Earnings Per Share
GDP	- Gross Domestic Product
GoK	- Government of Kenya
GSP	- Grand Sugar Plan
EU	- European Union
FTA	- Free Trade Area
IAS 1	- International Accounting Standard no.1
ISO	- International Sugar Organization
KECATRA	- Kenya Cane Transporters Association
KESGA	- Kenya Sugarcane Growers Association

KESMA - Kenya Sugar Millers Association

KESREF - Kenya Sugar Research Foundation

KETS - Kenana Engineering and Technical Services

KM - Kilometers

KSB - Kenya Sugar Board

KSI - Kenya Sugar Industry

LT - Long-Term

MoALFD - Ministry of Agriculture, Livestock and Fisheries development

MSC - Mumias Sugar Company Limited

MT - Metric tons

NCA - Non Current Assets

NCL - Non Current Liabilities

NCR - Non Current Receivables

No. - Number

NPM -Net Profit Margin

NSE - Nairobi Stock Exchange

NSMP - National Sugar Master Plan

NPV - Net Present Value

OG - Out Growers

PESTEL - Political, Economic, Social, Technological, Environmental and Legal

PPE - Plant, Property and Equipment

ROA - Return on Assets

ROE - Return on Equity

ROI	- Return on Investment
R-Sq	- R Squared
R-Sq(adj)	- R Squared Adjusted
S	- Standard Deviation
SE Coef	- Standard Error Coefficient
SG	- Service Gratuity
Sony Sugar	- South Nyanza Sugar Company Limited
SWOT	- Strength, Weaknesses, Opportunities and Threats
TC	- Tons of Cane
TCD	-Tons Crushed per Day
TCH	- Tons Crushed per Hour
TCH	- Total Cane per Hectare
TS	- Tons of Sugar
USA	- United States of America
USD	- United States Dollars

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Sugar as a commodity can be economically derived from two products: Sugar cane and Sugar beet. Sugar cane is cultivated in the tropical countries while beet is a temperate product. Seventy per cent of world sugar is produced from cane. The biggest world producers in year 2003 were, Brazil (20.3 million metric tons), India (19.9 million metric tons) and the European Union (15.5 million metric tons).Sugar as an ingredient can also be found in various fruits, milk and maize stem. The key element of sugar is Sucrose and the aim of sugar cultivation is to derive sucrose. There are various products and by-products that can be derived from sugar cane, these are; Sugar crystals (i.e. white mill or industrial sugar), Sugar syrup, Molasses, Bagasse and Filter scums. This various byproducts are key ingredient in; Beverage, Confectionary, Pharmaceutical, Animal feed, Chemical, Fertilizer, Wines, Spirit and Power alcohol industries. Bagasse can be used in Electricity generation (co-generation), sugar crop is environmentally friendly and biodegradable (Odek, Kegode, and Ochola, 2003).

Sugar firms worldwide have invested in diversification strategies by using sugarcane as raw material in other various projects alongside sugar production (Deepchand, 2001). The global sugar market has registered a 4^{th} consecutive surplus in the year 2013/2014 leading to depressed prices. The reducing prices have had the effect of inducing a slow down on

production. Consumption is, however, growing and may surpass production by the year 2015.Consumption of sugar in Africa is 12 million metric tons per annum exceeding production by 2 million metric tons and still growing at 4% per year, but the continent is a net importer of sugar (Orive, 2014).

According to the market assessment per KSB (2009) strategic plan, the need for sugar will continue to grow outstripping supply by 300,000 MT.Kenya's annual imports of sugar from COMESA, EAC regions and other producing countries will continue to close the gap. Currently the sugar industry in Kenya is protected by COMESA FTA safeguards measures. The safeguards were first granted in 2004 and were to expire in 2008.Despite the remarkable progress made during the safeguard period, the industry was not ready for an open trade regime in sugar. Kenya sort and was granted an additional four years of protection to February 2012,the country was further allowed two more years and now final one year which elapse in February 2015.After lapse of COMESA safeguards, Kenyan sugar market will be open to free access of sugar from other least cost producing countries. Previous studies show that diversification strategies into other sugar products is necessary if current millers are to remain competitive. The study reviewed the diversification strategies put in place by sugar factories in Kenya and which entailed huge investment requirements that could not be financed from their internal sources.

1.1.1 Investing Decisions

Vinci(2010)observes that, the term 'Investing' could be associated with different activities, but the common target in this activities is to 'employ' the money (funds) during the time period seeking to enhance investor's wealth. Funds to be invested come from, assets already owned, borrowed money or savings. Investment is broadly classified into real and financial investments. Real investment generally involve some kind of tangible asset, such as land, machinery factories among others. Whereas, financial investments involve contracts in paper or electronic form, such as stocks, bonds, debts among others. Sears and Trennepohl (1993), observed that, when one decides not to spend all current income, then the person that person is faced with an investment decision.

According to Zvi, Alex and Allan (2004), investment can also be defined as the current commitment of money or other resources in the expectation of reaping future benefits. The expectation for instance, of an investor in stock will be anticipation of future proceeds from the shares and which will justify both the time that the money is tied up as well as the risk of the investment. Financial assets, can be either bonds or stocks, they are paper securities and do not contribute directly to the productive capacity of an entity. The financial assets instead are the means by which entities in well developed economies hold their claims on real assets, they are claims to the income generated by real assets. The wealth of an entity is determined by its production capacity, that is the goods and services it can create. The capacity is a function of the real assets such as land, buildings, machines and knowledge that can be used to produce goods and services.

According to GWM (2013), risk can be measured and managed within an investment portfolio and it is part of investing. The meaning of risk can vary. For some, risk is the possibility of losing a portion of their investment due to market movements or a poor decision. For others, risk may mean, not enough income is produced from investment. Another measure of risk is the variability of returns over time and known as volatility. Generally risk can be viewed as chance of failure in achieving objectives or goals. Risk and return are closely related. In general, the higher the degree of risk associated with an investment, the higher the return required by investors to accept this risk. Low risk investments such as cash offer relatively low returns as a reflection of their greater security. This is called the risk return trade-off that investors always considers depending on their appetite for risk. All investments and asset classes have different levels of risks and expected returns. Data on capital investment and profitability were used to measure ROA as one of the performance indicators of a firm. Expected rate of return and risk of an investment were some of the key measures of an investment decisions.

1.1.2 Financing Decisions

Households, firms, financial intermediaries, and government all play a role in the financial system of every developed economy. Financial intermediaries are institutions such as banks that collect savings of individuals and corporations and funnel them to firms that use money to finance their investments in plant, equipment, research and development. Firms can raise investment capital from many variety of financial instruments. The firm's financial policy describes the mix of financial instruments to finance the firm, this could

take the form of; internal capital, external capital: debt vs. equity (Grinblatt and Titman, 2002).

Formal research on the financing patterns started when Miller and Modigliani (1958) presented the capital structure irrelevance theory.M&M proof that the value of the firm is independent from its capital structure. They proof their hypothesis based on different assumptions. These assumptions are not applicable in the real world, even though, their work is considered best but it cannot be applicable in the practical life.M&M further published the correction for their previous work as "A correction" in (1963).In that study, they described that the value of the firm is independent from its capital structure but the interest expense on the debt create the difference. They further explained that point by sayings that as the interest expense are tax deductible due to income tax law prevailing in different countries so firms working in these countries decrease the tax liability and increase the after tax cash flows. On the other hand, dividend payments are not tax deductible; firms have to pay tax on all their incomes and this makes equity a costly source of financing.

McLaney(2009) pointed out that, businesses operate by raising finance from various sources, which is then invested in assets usually 'real 'assets such as plant and machinery. Some businesses also invest in 'financial' assets, like the shares of another business or loans to businesses and individuals. Investment involves outflows (payments), usually there is some time between cash out flows and inflows. Glance at a business balance sheet would give some idea of the scale of investment and idea of the nature of investment.

Selecting which investment opportunities to pursue and which to avoid is a vital matter to business because: individual projects frequently involve large and irreversible commitment of finance and they involve this commitment often over long periods of time. Financing decisions are measured by the level borrowing (debt to equity ratio), capital structure, operating leverage and financial leverage.

1.1.3 Financial Performance

According to Barringer and Ireland (2006), financial performance is a function of both the choice of a business model and how effectively a firm uses its model. Having a clearly articulated business model is important because: it serves as an ongoing feasibility analysis, focusses attention on how well all the elements of a business fit together and constitute a working whole, describes why the network of participants needed to make a business idea viable works together and articulates a company's core logic to stakeholders.

According to IASB (2012) amendment, IAS 1, is the accounting standard guiding the reporting structure on measurement of financial performance of an entity and presentation of financial statements. These standard sets out the overall requirements for financial statements, including how they should be structured, the minimum requirements. The standard requires a complete set of financial statements to comprise of a statement of financial position, a statement of profit or loss and other comprehensive income, a statement of changes in equity and a statement of cash flows(including comparative information) at least annually. The objective is to provide information that is useful to a wide range of users in making economic decisions.

1.1.4 The Effect of Investing and Financing Decisions on Financial Performance

Keynes (1936) and Fisher (1930), both argued that investments are usually made until when the expected value of expected future revenues is equal to the opportunity cost of capital. This means that investments are made until the NPV is equal to zero. An investment is expected to generate a stream of future cash flows (t).Since investment, I, represents an outlay at time 0, this can be expressed as a negative cash flow,-C0.

The (NPV) can then be written as:

$$\text{NPV} = -C0 + \sum_{0}^{INFINITY} C(t)e^{(g-r)t\,dt}$$

Where

g = denotes growth rate

r = the opportunity cost of capital (discount rate)

Investment would be worthwhile when r=i the NPV=0

Fisher referred to the discount rate as the 'rate of return over costs or the internal rate of return'. Keynes, on the other hand, called it 'the marginal efficiency of capital'. Research by Hodgson, Breban, Ford, Streatfield and Urvin (2000), showed that investment efficiency was a function of risk, return and total cost of investment management structure subject to the fiduciary and other constraints within which investors must operate. It was observed that, institutional investors implemented their investment policies through investment management structures. Modern portfolio theory had a revolutionary effect on portfolio construction.

Jensen and Meckling (1976), in their agency theory, asserted that managers do not always run the firm they work for to maximize shareholders' wealth but may instead pursue their own self-interest. According to agency theory, debt finance acts as a controlling tool to restrict the tendency towards opportunistic behavior for personal gain by managers. Debt finance reduces the free cash flows within the firm paying fixed interest payments and in the process forces managers to avoid negative investments and work in the interest of shareholders. If the firm takes loans then managers have to act as the agent of owners as well as of the debt providers. Therefore, agency cost theory of capital structure states that the optimal capital structure is that point where the agency cost of all the interested parties is at the minimum level. The static trade-off theory state that the value of the leveraged and un-leveraged firm is not same. In the case of debt financing the firm can save the amount of interest payments on the debts from tax purposes. However, at the same time due to debt finance the cost of financial distress and the agency cost of the debt financing of the firm increases. This theory further states that the optimal capital structure is that where the tax benefit on the interest payments for the firm and the financial distress and the agency cost of the debt financing balanced each other (Baxter,1967 and Altman 1984,2002).This theory focus on three points these are tax advantage, financial distress costs and the agency cost.

McGuigan, Kretlow and Moyer (2000) observed that, to understand the effect of financial decision on firm's performance, one requires to understand financial risk and financial leverage.).Financial risk is variability in earnings per share and the increased probability of insolvency that arises when a firm uses fixed-cost sources of funds, such as debt and preferred stock in its capital structure. A company with higher proportion of fixed costs to

variable cost is said to have a higher operating leverage. When a company has a higher operating leverage then, that company is sensitive to changes in level of sales, a small negative variation in sales will usually have an adverse effect on financial performance of the company. Operating leverage measures the sensitivity or vulnerability of operating profit to changes in sales. Fixed capital costs represent contractual obligations a company must meet regardless of the EBIT level. The use of fixed-cost financing is referred to as the use of financial leverage. Financial leverage causes EPS to change at a rate greater than the change in operating income (EBIT). Sugar factories in Kenya are faced with many challenges, which include; Low production capacities, poor technology, poor infrastructure, inadequate research, high input costs, indebtedness, lack of funding and reliance on a single product (Obado, 2006).These problems have caused the sector to underperform and is riddled with losses and heavy debt burdens to extend of being in huge arrears on payments for cane delivered by farmers. An analysis of Sugar factories shows that they rely on KSB soft loans and commercial banks for financing and investment decisions.

1.1.5 The Sugar Factories in Kenya

According to KSB website, industrial sugarcane farming was introduced in Kenya in 1902.The first sugarcane factory was set-up at Miwani, Kisumu county in 1922 and later at Ramisi in the coast region province in 1927.After independence, the Government of Kenya explicitly expanded its vision of the role and importance of sugar industry as set out in sessional paper no. 10 of 1965.The Sessional paper sought, inter alia to: Accelerate socio-economic development, redress regional economic imbalances, promote indigenous entrepreneurships and promote foreign investment through joint ventures .In pursuit of the above goals, the Government established the following additional sugar factories and

which started operations in the 1960's and 1970's: Muhoroni (1966), Chemelil (1968), Mumias (1973), Nzoia (1978), Sony Sugar (1979). The two older factories established in the 1920's ceased operations due to mismanagement, Ramisi sugar factory collapsed in 1988 and Miwani factory was leader put under receivership.

The establishment of the publicly owned factories was predicated on the need to: Achieve self-sufficiency in sugar with surplus for export in a globally competitive market, generate gainful employment and create wealth, supply raw material for sugar related industries, such as molasses for ethanol plants, promote economic development in the rural economy and beyond through activities linked to the sugar industry. In support of these goals, the Government of Kenya invested heavily in sugar factories. Due to inability to satisfy the domestic sugar demand, several private investors have set up the following sugar factories: West Kenya (1981), Soin (2006), Kibos sugar and allied industries (2007), Butali, Transmara, and Sukari factories have also been set up in the 2010's KSB (2008-2014).

The Kenyan sugar industry has a wide range of stakeholder, each with a role to play. The stakeholder are; GoK through the ministry of MoALFD, with the overall responsibility for industry's development, these support is offered through regulation, enhancement of competition and fair play and provision of enabling environment for all stakeholders. The KSB, is a public body set up by the Sugar Act 2001, under the MoA, the board is mandated to: regulate and promote the sugar industry, Co-ordinate the activities of individuals and organizations in the industry and facilitate equitable access to the benefits and resources of the industry by all interested parties.KESREF established in 2001, is the scientific wing of

the industry mandated to develop and appropriate technology in the sugar industry. KESGA, association of out grower's institutions and cane growers, to represent farmers' interests. KECATRA, responsible for facilitating cane transport. KESMA, an association of millers and jaggeries to represent their interests according to KSB (2009).

The combined installed capacity of the operational sugar companies is 30,000 TCD which is not sufficient to produce enough sugar for domestic consumption, currently estimated at 800,000 MT.With the current TC/TS ratio and average actual milling time, the country managed to produce almost 500,000 MT of sugar in year 2008. This was largely owed to the technical limitations and capacity underutilization with an industry average of 56.63%.However,by improving the capacity utilization to 85% the country will be able to add additional 140,000MT to its production; almost halving the current sugar deficit, KSB (2009).

1.2 Research Problem

Sugar is a product consumed in its various forms by almost every household in Kenya, the product was also used in following industries; beverage, pharmaceutical, confectionary and distilling. There were other strategic uses of sugar which had not been fully explored in Kenya. A firm needs to have its business model in place before it can make additional substantive decisions. Failure to develop a well-designed business model stems from a rush to get a new product or service idea to the market (Barringer, Ireland, 2006).Matt Ragas, a marketing expert, said this about neglecting to design a thorough business model: "A killer new product or service without a well-thought business model is a lot like a sailor without

navigational charts". Companies that create innovative products or services without well-crafted business models act the same way. The study attempted to investigate whether Sugar Factories in Kenya could achieve long term competitive sustainability by exploring a wider range of new product base or not.

The KSB (2009) strategic plan provided a road map of how the industry intended to be 'a world class multi-product sugar industry' through diversification into other sugar by products. Mumias Sugar Company had already ventured in co-generation of power, ethanol and water bottling in the addition to her main sugar products. Review of other factories current strategic plans, revealed that they were also pursuing diversification strategies for them to remain competitive and in light of elapse of COMESA safeguards in February 2015. More research was necessary in this sector which had been given little attention in the past. Its unique characteristics and challenges needed to be highlighted in light of the environment turbulence a rising from liberalization. There was need to know the investment and financial strategies that were being employed by the Factories and the challenges facing the attainment of those strategies.

According to data on financial performance of sugar factories in Kenya and information published from time to time by the regulator (KSB), currently, the public sugar factories are technically insolvent but at the same time, they were pursuing the multi-billion diversification projects in order for them to remain in business, the research sought to confirm whether available financing arrangements were viable given the current balance sheet positions. Their main source of financing for sugar factories have been funds from

KSB.Various researchers carried out in the past concentrated on formulation of competitive strategies by sugar factories, these study examined the effect of investing and financing decisions on financial performance of Sugar Factories in Kenya, with aim of addressing the question: What is the effect of investing and financing decisions on future financial performance of the sugar factories in Kenya?

1.3 Research Objective

To establish the effect investing and financial decisions on the financial performance of the sugar factories in Kenya.

1.4 Value of the Study

According to KSB (2009), the Kenyan sugarcane is a major employer and contributor to the national economy. Farm households and rural businesses depend on the injection of cash derived from the industry. Besides the socio-economic contributions, the industry also provided raw materials for other industries such as bagasse for power co-generation and molasses for a wide range of industrial products including ethanol. The study was of immense benefit to a significant proportion of population in Kenya who rely on sugarcane growing as a source of livelihood. The study was to benefit the Government of Kenya in her planning and poverty eradication effort. Private potential investors in the sugar cane sector, farmers, service providers and consumers were also to benefit from the recommendations of the study. These study contributes to academia, as a stimuli for more study on other significant variables that have an effect of the sugar factories in Kenya. These study advances knowledge on how the previous investment and financing decisions

have impacted on the financial performance within sugar factories in Kenya. Most studies reviewed in previous projects have focused mostly on the effect capital structure and financial leverage on financial performance. These study advanced knowledge and new theory on impact of investment and financing on financial performance. The results of this study have significant policy implications at the firm, industry, and macro levels.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature under the following thematic topics and subtopics: review of theories, review of empirical studies. The study incorporated previous literature on investment, financing and financial performance of the sugar industry in Kenya.

2.2 Theoretical Review

Theoretical definition also referred to us conceptual, gives the meaning of words in terms of the theories of a specific discipline. For the purpose of these study, various theories in the past had been formulated and are relevant for the purpose of these study are examined in these chapter.

2.2.1 Portfolio Theory

Markowitz (1952), derived the expected rate of return for a portfolio of assets and an expected risk measure. Markowitz showed that the variance of the rate of return was a meaningful measure of portfolio risk under a reasonable set of assumptions. More importantly he derived a formula of for computing the variance of a portfolio, which can be computed from expected rate of security return given as:

$E(Ri) = \sum_{i=1}^{n} Wi\ Ri$

Where:

E(Ri) = expected rate of security return

Wi = the weight of an individual asset in the portfolio or the percentage of the portfolio in Asset i

Ri = the expected rate of return for Asset i

Variance (standard deviation) of returns for an individual investment is a measure of variation of possible rates of returns Ri from the expected rate of return E(Ri),as follows:

Variance = $\sum_{i=0}^{n}(Ri - E(Ri)^2 Pi$

Where:

Pi = probability of the possible rate of return Ri

Standard deviation is a square root of the variance

Markowitz observed that the construction of an asset portfolio is based on maximizing return with a given level of risk. The portfolio theory provides a frame work to generate the optimal portfolio for its investor. The return of a portfolio is equal to weighted average of the included assets.

To analyze investment in the sugar factories in Kenya, a thorough understanding of portfolio theory was necessary in order to determine the optimal portfolio of investments that can result in higher expected return and minimum risk.

2.2.2 Capital Asset Pricing Model

Sharpe (1964), Lintner (1965) and Mossin (1966), developed CAPM independently, the model is based on very simplified assumptions and allows one to determine the required rate of return for any risky asset. Capital market theory extends portfolio theory by developing a model of pricing all risky assets.

The covariance between two sets of returns is:

COVij = $\sum_{i=0}^{n}$ $(Ri - E(Ri)][(Rj - E(Rj)]/n$

Like the expected rate of return for a portfolio of two risky assets, the expected rate of a portfolio that includes a risk-free asset with a collection of risky assets (portfolio M) is the weighted average of the two returns, computed as:

E(R) = w RF(RFR) + 1- w RF)E(Rm)

Where:

w RF= the proportion of the portfolio invested in risk-free asset

E(Rm) = the expected rate of return on risky portfolio M

In investment and financing process, there is usually a combination of risky and less risk assets, the sugar factories in Kenya, needed to clearly appreciate the importance of CAPM in formulating investment decisions.

2.2.3 Arbitrage Pricing Theory

Ross (1976), developed APT, he derived the relations among expected rates of return that would rule out riskless profits by any investor in a well-functioning capital markets. . An arbitrage opportunity is an investment that requires no net outflow of cash and carries no change of losing money, yet has some probability of yielding a positive return (Levy, Post, 2005). Arbitrage opportunity occurs when two assets offer the same return, but trade at different prices. Faced with this situation, an arbitrageur will buy the cheaper asset and short sell more expensive one the two key concepts of APT are arbitrage and factor models. The model is used to identify what many call ‘’mispriced assets’’. This assets are valued higher than they are, presenting an opportunity for capital appreciation.

APT states, that the expected rate of return of security j is the linear function from the complex economic factors common to all securities. It is important to note that the arbitrage in the APT is only approximate, relating diversified portfolios, on assumption that the asset unsystematic (specific) risks are negligible compared with the factor risks. The Kenyan investment market was at infancy state, thus the market could not reflect the fundamental security information, it was possible that arbitrage opportunities existed and which sugar factories needed to take advantage off.

2.3 Determinants of Financial Performance of Sugar Factories

Branch and Gale (1983), observed that, the analysis of corporate financial performance has a special significance for the management, in their attempt to maintain the company's stability and to increase its market share. Brief and Lawson (1992), argue the opposite, that financial indicators based on accounting information are sufficient in order to determine the value of shareholders. Investment and financing decision, size, corporate governance and capacity utilization effect on financial performance are analyzed under determinants of financial performance.

2.3.1 Investment Decision

Zvi, Alex and Allan (2004), investment is that activity in which a manufacturer buys a physical asset like stock or production equipment, in expectation that this will help the business prosper. The sugar factories in Kenya were pursuing diversification strategies in order to remain competitive in the global sugar market, an understanding of investment process was key to their future survival.

2.3.2 Financing Decision

Different studies have found out that, financial leverage has a relationship with financial performance. According to Rehman (2013), financial leverage is the extent to which a business or investor uses borrowed money, it is a measure of how much a firm uses equity and debt to finance its assets. As debt increases, financial leverage increases.KSB charged with regulation of the sugar factories charges SDL at a rate 4% per ton of sugar delivered to factories, the study found out that, these recoveries were being pooled together and

advanced back factories at a cheaper rate of 5% to finance investments in factory rehabilitation, cane development, roads, bridges and infrastructure developments within sugar cane catchment. The factories also used their assets as securities to secure loans for investments from commercial banks and financial institutions in Kenya. The study found out that, Kenyan sugar factories were heavily indebted, resulting in instability in financial performance as a small change in sales volumes resulted in huge adverse financial performance.

2.3.3 Size

According to Elsas, Flannery and Garfinkel (2006), financing proportions varied with firm size: smaller firms rely more on externally equity funds, which seems inconsistent with the pecking order theory of capital structure by Frank and Goyal (2003),Fama and French(2003).There sugar factories in Kenyan have excess capacity that is utilized leading higher per cost of sugar and these makes the factories to be in inefficient and noncompetitive.

2.3.4 Corporate Governance

Mugenda, Momanyi and Naibei (2012), observed that, risk management undertaken at firm level is now considered a key governance and management tool within the public and private sectors. Managing risk well requires a careful consideration of the key concepts of minimizing loss and maximizing opportunity (Australia government, 2008). Political interference in sugar factories in Kenya leads to poor corporate governance causing the factories experience high risk and danger of failure.

2.3.5 Capacity Utilization

Riley (2009) explains that, a firm's productive capacity is the total level of output or production that it could produce in a given time period. Capacity utilization is the percentage of a firm's total possible production capacity that is actually used. A firm's level of capacity utilization determines how much fixed costs should be allocated per unit, so as a firm's capacity utilization increases, the fixed costs (and therefore also, total costs) per unit will decrease. A firm that has just invested in major new facilities in anticipation of major growth could take some time before reaching a good level of utilization, so it is important to consider sales trends when discussing capacity utilization.

2.4 Empirical Review

Orodho (2004), observes that during proposal writing, one must be conversant with appropriate techniques of reviewing and abstracting relevant literature. Six studies with three from each, international and local will be considered under empirical review.

2.4.1 International Evidence

Rehman (2013), investigation on: relationship between financial leverage and financial performance: empirical evidence of listed companies of Pakistan. The study sample size was thirty five food companies listed at Karachi stock exchange. Financial performance was the dependent variable measured using five indicators of: ROA (%), ROE (%), EPS after tax (%), NPM (%) and sales growth. Financial leverage was the independent variable measured using debt to equity ratio. Descriptive and correlation analysis were used in data analyzing. The results of these study showed a positive relationship of debt equity ratio

with ROA and sales growth, and negative relationship of debt equity ratio with EPS, NPM and ROE. The variation from mean was quite high in debt equity ratio which means there was massive fluctuations in data during the study period (2006-2011).The researcher identified gaps that would require further studies in following areas: by extension period and take all food companies on Karachi stock exchange, consider comparative studies by taking data from different sectors to check the relationship between the studied variables.

Elsas, Flannery and Garfinkel (2006) study carried out at University of Florida, in USA, identified firms and studied on their financing decisions and long-run stock-market performance, the study covered the period 1989-1999.Separate major 128 internal or 'built' investments and 129 acquisitions were examined.Compustat flow-of –funds data to infer how these major investments were financed was used in determining the combination of equity and debt securities issued to finance large investments, and how various combinations of investment types and financing sources affected a firm's long-run equity performance. The study found out that, major investments were mostly externally financed with new debt providing at least half the required funds in the year of the investment. Only about 15-20% of the typical investment were financed by sale of equity, with internal funds supplying most of the remainder. In the event year, firm financing choices reflected some pecking order and market timing effects, but they systematically revised their initial financing decisions in subsequent years.

Ebaid (2009) carried out a study to investigate the impact of choice of capital structure and financial performance of the listed firms in the Tehran Stock Exchange. Financial

performance was measured using ROE, ROA and gross profit margin. Capital structure was measured by short-term debt to asset ratio, long-term debt to asset ratio, and total debt to total assets. Multiple regression analysis was applied to estimate the relationship between leverage level and financial performance. The study indicated that capital structure had little to no impact on a firm's financial performance.

2.4.2 Local Evidence

Nyoike (2002), study on, financing capital investments by quoted companies in Kenya, analyzed data using, correlation between capital investments and new equity, long-term debt and short-term debt, these revealed varied correlations among the industry sectors in the study. The study found that many factors influence managers in their financing capital investment decisions. Among the most important factors were stability of future cash flows, profitability of the business, level of competition in the industry, stability of future sales and level of interest rates in the economy. Nyoike concluded that, management of corporate firms are confronted with many decisions affecting growth, profitability and survival of their organizations. Inevitably financing capital investments decisions constitute such important decisions corporate Managers have to make on behalf of their companies. Managers have to decide how much to finance capital investments and they usually consider various factors in making financing decisions. Managers have to establish the relationship between capital investments and financing variables namely, internally generated funds, new equity capital, long-term debt and short-term debt. Correlation analysis was used and results revealed that capital investments were significantly positively collated with internally generated funds within the company.

Kemboi (2010), carried out an investigation on, how listed firms in Kenya financed their investment in capital market. The objective of the study was establish sources of funds for the firm and find out whether cash flows and debt influence the firm's investment decisions. Tests were based on fundamentals q investment equations in which cash flow and debt were added as explanatory variables. All these variables were normalized by beginning capital stock .The study showed a significant positive relationship between debt and investment levels in the firm. It was concluded that corporate investments in firms did not respond to market fundamentals and liquidity position. The findings support corporate life cycle hypothesis whereas firms become mature, past investments generate higher cash flows, making present investment rates to slow down and become less attractive, hence the negative empirical relationship between investment and cash flows.

According to Nyale (2010), a study on the relationship between leverage investment decisions for companies quoted at the NSE.The study methodology was designed with the objective of establishing relationship between leverage and investment decisions by use of multi linear regression analysis method. The study considered, diversification that involved investments in new products, investments in totally new service lines and venture into new geographical with different political and economic environments. Findings indicated that 36% of listed companies at the NSE engaged in diversification investment decisions. The study further found out that, there was a weak relationship between the levels of leverage of a company and how much money the company can commit to a diversification investment decision. This insinuates that companies view each diversification investment

decision on their own merit and how much money is committed to an investment decision is not entirely dependent on the level of leverage of the company.

2.5 Summary of Literature Review

Previously, there have been many studies both internationally and locally on the variables in the current study and their relationships. Some of these studies, have tried to explain the relationship between financial leverage and financial performance, focusing on sampled firms within the various economies. Debit Equity ratio has been used as a measure financial leverage while ROA was used to measure financial performance. Other studies have sought to establish the effect of financing and capital structure decisions on the long-run market performance of Companies. There have no concrete conclusions on the same within the sugar industry in Kenya. This study seeks to bridge any gaps by specifically addressing the effect of investing and financing decisions on the financial performance of sugar factories in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explained the methods used in the study. It commenced with an overview of the research design, target population, sample size, data collection, data analysis, analytical model and test of significance.

3.2 Research Design

Research design is the ‘blueprint ‘that enables the investigator to come up with solutions to problems and guides in various stages of the research. The research design helps one to structure collection, analysis and interpretation of data (Nachmias and David, 1996).Kerlinger (1969) states that descriptive studies are not only restricted in finding, but may often result in the formulation of important principals of knowledge and solutions to significant problems. The study that sort to explain the effect of investing and financial decisions on the financial performance of the sugar industry in Kenya. It was a descriptive study that examined the both variables of ln of Total assets and Debt to Equity as measures of investing and financing decisions on the financial performance as measured by ROA of the sugar factories in Kenya.

3.3 Target Population

The target population of this study was all the operational sugar factories in Kenya as at 31st December 2013. There were, eleven sugar factories in Kenya (Appendix 1).

3.4 Sample

Non probability or random sampling method was used, the population elements had no probabilities attached. The main consideration was to choose a quarter from the target population with two millers each from the two main areas of sugar producing formerly western and Nyanza provinces.

The Companies in the study were: Sony, Mumias, Chemelil and Nzioa sugar factories. All the sampled firms are state corporations with the exception of Mumias which is under private ownership. It was not possible for the other private millers to share information to third party and specifically for these study.

3.5 Data Collection

This was a quantitative research in which secondary data was used. Secondary data is data that have previously been prepared for other purposes. The financial statements for period of five years (July2008 to June 2013) of sampled sugar factories captured data on Statement of comprehensive income and Statement of financial position and computed ROA, Log_{10} of Total assets and Debt/Equity ratio.

3.6 Data Analysis

Data on capital expenditure, maintenance costs, level of debt, shareholders value in the firm and profitability was derived from published financial statements over the period of the study. Brown and Reilly (2009) observed that, financial statement analysis seeks to evaluate management performance in several important areas, including profitability, efficiency and risk. Although historical data is analyzed, the ultimate goal of this analysis was to provide insights that help project future management performance, including Statement of comprehensive income and Statement of financial position, were reviewed to assist in drawing conclusion on future outlook of the sugar industry in Kenya.

3.6.1 Analytical Model

Financial series do not usually follow a normal distribution. Series are usually leptokurtic (extreme values have a large deviation from the average).Kurtosis normal value index is 3.Multiple linear regression model is used to describe the relationship between a dependent variable (explained) and several independent variables (explanatory).

$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_t$,

Where

Y = Financial Performance measured by: ROA (%)

β_0 = Constant term

β_i = Beta coefficient of variable i that shows the sensitivity of Y to changes in i

X_1 = Investing as measured by ln of Total Assets

X_2 = Financing as measured by D/E ratio (%)

ε_t = Error term

Mbatha (2012), study on, the effect of ownership structure on the financial performance of sugar Companies in Kenya, also used regression analysis to establish the relationship. The hypothesis tested was to establish whether investing or financing decisions had an effect on financial performance of sugar factories in Kenya.

Fundamental analysis using audited financial statements of the sampled firms for period 2008-2013 provided data for the study. ROA was one of the profitability measures that were derived from Income statement and Statement of financial position, using formula:

ROA = Net Income before Tax/ Total Assets

Total assets is one of the market value ratios calculated as:

ln of Total Assets

Debt/Equity ratio one of the debt ratios, measured using information from balance sheet on long-term debt and short-term debt as a proportion of shareholders value in an entity and is computed by formula:

D/E = Total Debt / Equity

3.6.2 Test of Significance

A t-distribution looks similar to the Normal, but its shape depends on the degrees of freedom, when we take a sample size of n, the degrees of freedom are simply defined as N-1.When the sample size is 30, the t-distribution is virtually the same as a Normal distribution (Waters, 2008).Since the sample size is less than 30, and these study used t-distribution or student t-distribution.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This focus in this chapter is on the presentation of data, analysis, results and discussion of the findings. Secondary data on the Statement of Profit or Loss and Statement of financial for the period July 2008-June 2013 was used; regression analysis was used to analyze data. The study targeted data from four sugar factories, out of these sample, it was not possible to get information on performance of Nzoia sugar factory despite making several follow ups,making a response rate of 75% which is an adequate response rate for statistical reporting. According to Mugenda and Mugenda (1999), a response rate of 50% and above is good for statistical analysis.

4.2 Findings

Appendices 2 and 3 on Statement of comprehensive income and Statement of financial position were extracted from the audited five years financial statements of the target sugar factories, these information was consolidated for the purpose of computing the key variables of the study. The information was summarized from the financial statements of the three sugar factories for purpose of establishing the objective of the study.

Table 4.1: Summary Data on Key Financial Values

Year ended/ Values	**June 2009**	**June 2010**	**June 2011**	**June 2012**	**June2013**
Revenue	16,613,055	20,758,981	23,067,841	22,838,396	16,672,924
Profit/(Loss) before Tax	250,620	1,789,335	3,138,077	2,010,522	(3,570,438)
Total debt	12,699,775	13,207,806	14,782,358	18,719,226	21,570,227
Total Equity net of Revaluation Reserve	8,321,478	9,230,716	11,166,703	12,409,288	8,970,371
Total Equity	12,089,157	12,761,884	17,684,712	18,559.198	16,926,491
Total Assets	24,788,882	25,969,689	32,467,070	37,278,433	38,496,718

Source: Research Findings

The information on key financial values in table 4.1 was used to calculate the financial ratios in table 4.2 below, that was to derive the analytical model of the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_t,$$

The above data in table 4.1 was analyzed using Minitab analysis tool resulting in table 4.2, for establishing a regression analysis explaining the relationship of:

Regression Analysis: ROA versus Logarithm to base ten of Total assets, D/E.

Table 4.2: Summary Statistics

Predictor	**Coef**	**SE Coef**	**t-Stat**	**p-Value**
Constant	-1.079	1.060	-1.02	0.416
Log_{10} Total assets	0.1878	0.1448	1.30	0.324
D/E	-0.18376	0.02923	-6.29	0.024
S = 0.0214807 R^2 = 95.8% R^2(adj) = 91.6%				

Source: Research Findings

Where

T-Statistics : It measures the difference between an observed statistic and its hypothesized population parameter in units of standard error.

P-Value : It determines the appropriateness of rejecting the null hypothesis in a hypothesis test. P-values range from 0 to 1.

Coef : The numbers by which the variables in an equation are multiplied.

SE Coef : It measures how precisely your data can estimate the coefficient's unknown value. Its value is always positive, and smaller values indicate a more precise estimate.

S : Standard deviation

R^2 = SSR/SST

Where:

Sum of Squares Total (SST) = Sum of Squares of Regression (SSR) + Sum of Squares of Error (SSE).

SSR = SST – SSE, which is why we want SSE to be low

The regression equation derived is:

ROA = - 1.08 + 0.188 Log_{10} Total assets - 0.184 D/E + 0

Table 4.3: Analysis of Variance (ANOVA)

Source	**DF**	**SS**	**MS**	**F**	**P**
Regression	2	0.021034	0.010517	22.79	0.042
Residual error	2	0.000923	0.000461		
Total	4	0.021957			

Source: Research Findings

Where

DF : Degrees of freedom are also used to characterize a particular distribution. For example, many families of distributions – the t, F

4.3 Interpretations of Findings

The above table 4.2 shows the results of summary statistics of all the variables in the regression analysis:

Thus, the regress model was

$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_t$

$Y= - 1.08 + 0.188\ X_1 - 0.184\ X_2 + 0$

Whereby

Y = Financial performance as measured by ROA

X_1 = Investing decisions as measured by ln of Total Assets

X_2 = Financing decisions as measured by D/E

E_t = Error term

According to this model, it can be seen that taking all other independent variables value at zero, the financial performance of sugar factories in Kenya as a result of these independent these independent variables will be -1.08.A unit increase in investment will lead to a 18.8 % increase in financial performance of sugar factories in Kenya. There is a direct relationship of 18.8% between investment decisions as measured by ln of Total assets and financial performance of sugar factories in Kenya as measured by ROA, these relationship is further supported by the fact that, the p-value for ln of Total assets is 32.4%, indicating that ln of Total assets is positively but not closely related to ROA.

There is an indirect relation of - 18.4%, between financing decisions as measured by D/E and financial performance of sugar factories in Kenya, these is further supported the fact that, a D/E p-value is 2.4% which shows D/E is indirectly related to ROA.A unit increase

in financing will lead to - 18.4% in financial performance of sugar factories in Kenya. Further, the sequential sum of squares indicates that the predictor D/E doesn't explain a substantial amount of unique variance. This suggests that a model with ln of Total assets may be more appropriate. The R^2 value indicates that the predictors explain 95.8% of the variance in ROA. The adjusted R^2 is 91.6%, which accounts for the number of predictors in the model. Both values indicate that the model fits the data well.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings of the study. The first section provides a summary of the findings. The other sections provide, conclusions of the study, recommendations for policy, limitations of the study and suggestions for further research in that order.

5.2 Summary

In determining the effects of investing and financing decisions on the financial performance of the sugar factories in Kenya, the study first found it necessary to evaluate the financial performance of the target sugar factories in Kenya. Financial performance variable under consideration was ROA as the target or dependent variable, investing decision as measured by ln of Total assets and Financing decision as measured by D/E, as the two predictors or independent variables.

Their S, SE Coef, Coef, t-Stat, p-Value, R-Sq and R-Sq (adj) were determined. From the findings, the positive value of the variance indicate they are statistical significant in influencing financial performance as measured by ROA.

5.3 Conclusion

From the findings, the study concludes that sugar factories in Kenya need to adopt sound investment decisions for their long-term survival. Right investment decisions have the potential of positively affecting financial performance of sugar factories in Kenya by at least 18.8%.The shareholders' value in the sugar factories will be maximized resulting in high stock values.

From data collected on financial position of sugar factories in Kenya, the factories debt level has been increasing over time. Debt is more than double the level of equity, these implies that the sugar factories have service these debts while at same incurring the huge cost of debt in terms interest rates. The study found out that, the level of financing has an effect of -18.4% on the financial performance of sugar factories in Kenya.

5.4 Recommendations for Policy

Given the findings from this study there are a number of policy recommendations that can be adopted by sugar factories in Kenya in order to increase their financial performance. Sugar factories in Kenya over rely on single product line of milled sugar as a source of revenue. The expiry of COMESA safeguards if February 2015 will result in the domestic sugar market being opened to sugar from other cheaper countries. The study recommends that sugar factories in Kenya, should pursue product diversification investment strategies in order to broaden their revenue base. Since investment decisions directly affects financial performance of sugar factories in Kenya.

The sugar factories in Kenya have been incurring financial loses as a result of higher cost of production. Policy on modernization of the sugar factories will result in increased production efficiency. Government of Kenya should consider subsidizing farm inputs, agricultural equipment and spares as a policy consideration through the annual budget proclamations. Regulations governing licensing of new sugar factories should be strictly enforced to ensure that they have adequate sugar cane raw material base before they are licensed, to cane poaching of already established factories by new ones.

5.5 Limitation of the Study

According to Mkok (2014), investment in sugar sector in Kenya has broadly been through GOK and Private investors with a 30% and 70% share respectively as at 31st December 2013.Among the private sugar factories, it was only possible to get information from Mumias sugar factory with a market share of 28%, other private sugar factories with a total market share of 42% cannot avail data due confidentiality considerations. These was a limitation as the study findings cannot accurately be relied upon to establish the intended objectives.

The other main limitation of this study was the inability to include all sugar factories in Kenya, a sample of four factories was selected, further it was impossible to obtain data from Nzoia sugar one the four sampled factories despite various follow ups .A limitation for the purposes of the study is regarded as a factor that present and contribute to the researcher either getting inadequate data for the purposes of effectively establishing the relationships between the study variables.

The study focused on fundamental analysis of the Statement of comprehensive and Statement of position to draw conclusion on the financial performance of sugar factories in Kenya. These was a major limitation of overlying only on quantitative data to draw conclusion on financial performance of sugar factories in Kenya, the study would have been more meaningful if the quantitative data was analyzed together with qualitative data from the strategic plans of the sugar factories. Strategic plan process would have involved situational analysis by adopting PESTEL and SWOT to supplement fundamental analysis, in order give a more conclusive outcome of the study.

5.6 Suggestions for Further Research

The present study should be replicated to include the private sugar factories in Kenya that were not covered in these study. From information in the media, most of the private factories were established as integrated millers and are therefore able to diversify into other sugar byproducts such as cogeneration and ethanol, it would therefore be important to understand their investment and financing models and effect of financial performance.

The same study could also be replicated using the total population of established sugar factories in Kenya. These could bring wide variations as a result of a mix of both GOK and private factories in terms of the business models unique to each sub-sector with the country, correlation analysis could adopted in order to establish whether findings are in line or not with current study findings.

The GOK of Kenya is currently pursuing vision 2030 economic goals. There is need to develop, promote and facilitate the implementation of strategic objectives that results in increase of sugar production and productivity, expand the product base and reduce cost of production. There is need to carry out a study of the strategic plans that have adopted by the sugar factories in Kenya and evaluate their success in light of the vision 2030 economic goals.

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APPENDICES

Appendix 1: Sugar Factories in Kenya

1. Butali
2. Chemelil,
3. Kibos
4. Muhoroni
5. Mumias
6. Nzoia,
7. Soin
8. Sony
9. Sukari
10. Transmara,
11. West Kenya

Source: Year Book of Sugar Statistics, KSB, 2013.

Appendix 2: Total Sugar Factories Statement of comprehensive income for the Period to

	June 2009 Ksh'000	**June 2010 Ksh'000**	**June 2011 Ksh'000**	**June 2012 Ksh'000**	**June 2013 Ksh'000**
Revenue	16,596,883	20,667,523	23,147,134	22,941,226	16,676,440
Fair value	16,172	91,458	(79,293)	(102,830)	(3,516)
Operating Income	**16,613,055**	**20,758,981**	**23,067,841**	**22,838,396**	**16,672,924**
Cost of Sales	(13,149,186)	(15,231,641)	(15,807,998)	(16,803,909)	(15,088,963)
Gross Profit	**3,463,869**	**5,527,339**	**7,259,842**	**6,034,487**	**1,583,962**
Other Operating Income	138,290	146,635	187,972	233,715	334,069
Marketing &Distribution Costs	(883,001)	(965,437)	(1,227,370)	(798,992)	(937,978)
Administrative Expenses	(1,853,186)	(2,364,711)	(2,358,174)	(2,845,168)	(3,194,365)
Other charges &expenses	(664,217)	(467,643)	(443,073)	(825,547)	(882,239)
Operating(loss)/profit	**201,756**	**1,876,183**	**3,419,198**	**1,798,495**	**(3,096,551)**
Finance Income	299,892	404,226	147,323	502,300	425,312
Finance Costs	(251,028)	(491,074)	(428,443)	(290,273)	(899,199)
Profit/(loss) before Tax	**250,620**	**1,789,335**	**3,138,077**	**2,010,522**	**(3,570,438)**

Source: Research Findings

Appendix 3: Consolidated Statement of Financial Position as at

	June 2009 Ksh'000	**June 2010 Ksh'000**	**June 2011 Ksh'000**	**June 2012 Ksh'000**	**June 2013 Ksh'000**
ASSETS					
Non current assets					
PPE	16,831,934	16,325,463	22,572,150	25,952,715	28,288,480
Deferred tax	-	32,844	22,351	-	-
Intangible assets	186,203	142,879	156,732	206,603	315,676
Biological assets	40,703	195,287	116,903	84,274	12,002
NCR	79,128	98,393	92,385	150,090	157,695
NCA held for sale	12,095	11,051	-	61,500	11,576
	17,150,063	**16,805,917**	**22,960,521**	**26,455,183**	**28,785,430**
Current assets					
Inventories	1,717,155	1,932,262	2,147,092	2,692,082	3,317,670
Biological assets	845,012	864,768	920,002	868,117	1,008,747
Trade receivables	3,508,805	3,655,462	4,126,907	4,836,416	4,019,107
Receivables from out growers	578,104	596,320	672,908	595,503	614,324
Current income tax	495,418	419,841	265,597	215,911	209,541
Collateral deposit	272,892	286,709	314,524	294,817	301,925
Short-term deposits	-	820,376	14,345	51,797	-
Quoted investments	-	-	25,267	35,240	44,106

	June 2009 Ksh'000	**June 2010 Ksh'000**	**June 2011 Ksh'000**	**June 2012 Ksh'000**	**June 2013 Ksh'000**
Cash and bank	221,433	588,033	1,019,906	1,233,369	195,867
	7,638,818	**9,163,772**	**9,506,549**	**10,823,251**	**9,711,288**
Total assets	**24,788,882**	**25,969,689**	**32,467,070**	**37,278,433**	**38,496,718**
EQUITY AND LIABILITIES					
Equity					
Share capital	3,625,562	3,625,562	3,625,562	3,625,562	3,625,562
Revaluation surplus	3,767,679	3,531,167	6,518,009	6,149,910	7,956,120
Retained earnings	4,695,917	5,605,155	7,541,142	8,783,726	5,344,809
S/holder equity	**12,089,157**	**12,761,884**	**17,684,712**	**18,559,198**	**16,926,491**
LIABILITIES					
NCL					
Borrowings	4,017,913	3,760,143	4,828,181	5,464,232	6,304,279
Grants	170,774	140,986	109,263	94,972	120,620
Provision for SG	16,597	19,800	3,735	2,747	10,646
Deferred income tax	1,549,161	2,086,614	4,200,272	3,801,875	3,181,986
Other accrued liabilities	258,943	280,354	-	-	334,212
	6,013,389	**6,287,897**	**9,141,452**	**9,363,826**	**9,951,561**

	June 2009 Ksh'000	June 2010 Ksh'000	June 2011 Ksh'000	June 2012 Ksh'000	June 2013 Ksh'000
Current liabilities					
Trade payables	4,498,473	4,924,539	4,267,529	5,693,786	7,970,760
Directors current account	1,313	1,100	20,600	4,100	-
Current income tax	-	-	40,268	322,978	-
Other accrued liabilities	-	-	279,450	314,189	314,189
Borrowings	1,811,655	1,627,983	610,028	2,463,448	3,121,190
Dividend payable	330,921	318,973	292,660	309,137	466,075
Government grant	11,362	11,362	11,362	11,362	11,362
Provision for SG	4,454	6,474	10,482	1,201	5,652
DG income	28,157	29,478	33,822	28,552	43,626
Bank overdraft	-	-	74,705	206,646	-
	6,686,336	**6,919,909**	**5,640,906**	**9,355,400**	**11,618,666**
Total equity and liabilities	**24,788,882**	**25,969,689**	**32,467,070**	**37,278,423**	**38,496,718**

Source: Research Findings