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EFFECTS OF INVESTMENT DECISIONS ON THE FINANCIAL PERFORMANCE OF PUBLIC SUGAR FIRMS IN WESTERN KENYA

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Abstract

The purpose of this study is to assess the effects of investment decisions on the performance of public sugar firms in western Kenya. The specific objectives were: to establish the effect of production investment decision on the financial performance of public Sugar companies in western Kenya; to find out the effect of investment in financial assets on the financial performance of public Sugar companies in western Kenya; and to assess the effect of investment in the distribution chain decision on the financial performance of public Sugar companies in western Kenya. The study was directed by the following theories: Acceleration Theory of Investment, Behavioral Finance Theory and Tobin's Q theory of Investment. The study adopted a survey design. The study target population was 2,284 employees of the six (6) sugar companies. Sample size of the study was 786 respondents. The study used both primary and secondary data. Data was analyzed using descriptive and inferential statistics. Descriptive statistics involved the use of frequencies, mean, mode, median and standard deviation. Inferential statistics involved the use of regression analysis and ANOVA to estimate the relationships of the variables under study. The study found that investment in production has a strong effect on the financial performance of sugar companies at 4.466 magnitude strength. The investment in the distribution chain decision has a moderate effect on the financial performance of sugar companies while investment in financial assets is least rated at 2.928 mean weights by respondents as having little effect on the financial performance of sugar companies. Explanatory variables influence up to 80.8% of the financial performance of sugar companies (R^2 =0.808) the 19.2% of the unexplained variation in the financial performance can be attributed to other factors not included in this study. The adjusted R square reveal that the suitability of the model is up to 80.8% (adjusted R square= 0.808) and therefore it can be generalized in the industry to predict the financial performance up to 80.8%. The Durbin – Watson value indicate the degree of correlation between a given time series and a lagged version of itself over successive time intervals. The study recommends that sugar firms should maximize the investments in production and distribution chains to improve their financial performance.

Keywords: *Productivity, Financial Performance, Investment decision*

Introduction

Sugar is produced in more than 100 countries around the world. It is one of the most traded commodities with exports accounting for a quarter of global production. But it also has one of the most distorted global markets such that there is no level playing field. Sixty-five percent of world sugar trade comes from four countries, namely Brazil, Australia, Cuba and Thailand while the biggest importer is Russia. All major producer and consumer countries protect their markets from the lower priced sugar available in the world market. Therefore, this market may not represent the benchmark of ascertaining a fair price for sugar. Sugar as a product can be derived economically from two products, sugar beet and sugar cane. The latter is cultivated in the tropics and the former in temperate areas. Seventy percent of world production comes from sugar cane and the three big producers are; Brazil, which produced 20.3 million metric tonnes (MT) in 2003, India 19.9 million MT and the European Union (EU) 15.5 million MT. (Institute of economic Affairs 2015)

Investment decision is simply capital budgeting designed as the company make decision on how to invest its available funds in efficient long term asset anticipating high flow of returns. The effect of investment decision is viewed as the investing approach procedures on discounted cash flow method which is the net present value of cash flow minus the initial cash outflow from the firma (Shantatus, 2015). The analysis of investment decision is done by maintaining cash management in relations to investment decisions of the firms as it seen India. Investment decision has been seen as risk management business, the investment include risk analysis, portfolio management decisions, payment of dividends and earnings and asset liability management. Risk analysis is the investment decisions related to variability which is likely to happen in future returns depending types of the project to be invested. .

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 is not ready for an open trade regime in sugar. Kenya 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 will review the effects of investment decisions on the financial performance of public sugar. According to Zvi, Alex and Allan (2004), the study indicates that 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.

Kenya's annual sugar production ranges from 450,000 to 550,000 metric tons of sugar. This does not meet the country's annual demand and consequently sugar is imported. Domestic demand for sugar is 760,000 tonnes, which leaves a deficit of up to 200,000 tonnes that is met

by imports from regional sugar producers. Increased regional trade and the opening up of borders to allow sugar imports from both the East African Community and the Common Market for Eastern and Southern Africa (COMESA) have hurt Kenyan sugar producers. In July 2008, the Kenyan government cancelled the licenses of all its 55 sugar importers citing miss-use of import licenses, tax evasion and that imports were hurting local farmers. Kenya is a signatory to COMESA economic block. In this trade agreement, Kenya has been allowed to import tax-free sugar up to 200,000 tons annually till March 2012 (MSC, 2008). According to (Cohen & Klepper, 1996) in the past, researchers have documented a significant positive relationship between investment decisions and a firm's productivity through its financial performance. It can be assumed that better investments decisions in capital expenditure result in to improved efficient productivity, growth in sales turnover and profit performance of firms and thus exert a positive contribution in their financial performance(Ericson & Pakes, 1995).In essence good investment decisions result not only in better financial performance progress but also do improves access to external resources for instance through securities for investments in general and for further investments in research and development in particular, this aids in ensuring that a firm has adequate liquidity levels (Donaldson, 1961).

Dindi 2013 carried out research on the Managerial Factors Influencing Sugarcane Production by Farmers of Mayoni Division. The findings revealed that MSC was not honoring their management responsibility of providing food seeds and payment of sugarcane income to farmers within 30 days. Food insecurity was negatively affecting sugarcane management hence production.

Problem of Study and Focus

Crispus (2012) carried research on the relationship between investment decisions and financial performance of small and medium scale enterprises. Everlyn (2013) carried research on The Managerial Factors Influencing Sugarcane Production by Farmers of Mayoni Division, Mumias Sugar Company in Kenya and Machuki (2014)) carried research on the effect of investment decision on the performance of firms listed in the Nairobi securities exchange. While different studies have been conducted in different contexts and industries, in the view of the above, this study seeks to address effects of investment decisions on the financial performance of public sugar firms western Kenya.

General Objective

The general objective was to assess the effects of investment decisions on the financial performance of public sugar firms in western Kenya

Specific Objectives

1. To establish the effect of production investment decision on the financial performance of public Sugar companies in western Kenya
2. To find out the effect of investment in financial assets on the financial performance of public Sugar companies in western Kenya
3. To assess the effect of investment in the distribution chain decision on the financial performance of public Sugar companies in western Kenya

Conceptual framework

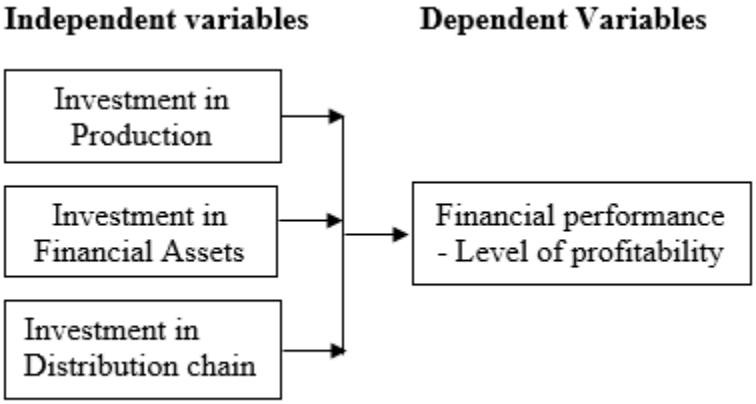

Fig. 1 Conceptual framework

Research Methodology

The study adopted a survey design. The study target population was 2,284 employees of the six (6) sugar companies. Sample size of the study was 786 respondents. The study used both primary and secondary data collected using questionnaires. Data was analyzed using descriptive and inferential statistics. Descriptive statistics involved the use of frequencies, mean, mode, median and standard deviation. Inferential statistics involved the use of regression analysis and ANOVA to estimate the relationships of the variables under study. Analysis of data was done using multiple regressions where the dependent variable Y is defined as:

$$Y= \beta_0+\beta_1 PID+\beta_2 IFA+\beta_3 IDCD+\varepsilon$$

Where:

$\beta 1$, $\beta 2$, and $\beta 3$ = Coefficients of independent variables

$\beta 0$= Constant

Y= Financial performance.

PID= Production investment decision.

IFA= Investment in Financial assets decision.

IDCD= Investment in the Distribution chain decision.

e= Error term of the model

The study found that investment in production has a strong effect on the financial performance of sugar companies at 4.466 magnitude strength. The model of the study used.

Findings and Discussions

Production Investment Decision and Financial Performance

The study sought to establish the effect of production investment decision on the financial performance of public Sugar companies in western Kenya. The response rate on the indicators relating to production investment decision is presented as in table 1 below. The scale weights were as: 5= very strong effect, 4.0 = strong effect, 3.0 moderate effect, 2.0 little effect and 1.0 no effect; the Likert scale related to financial performance of the sugar companies.

Table 1: Indicators of Production Investment Decision and Financial Performance

Statement	5	4	3	2	1	$\sum f_i$	Mean weight
Company sugar by-products boost revenues	423	138	98	20	7	786	**3.83**
By-products of sugar sold to other companies yield high returns	288	305	103	74	16	786	**3.986**
Production of by-products revenue contributes more than 50% of profit	107	320	137	126	96	786	**3.275**
The by-products used within the company boosts company revenue	122	13	212	192	124	786	**2.923**
The production process is managed by an experienced skilled staff	78	314	216	132	46	786	**3.313**
The finished product quality boosts revenue	194	219	315	47	11	786	**3.68**
Work in progress influence financial performance	75	293	201	184	33	786	**3.25**

The information in table 1 reveals that by products of the sugar companies which are sold to other companies yield high returns and this influence financial performance of these companies as it is rated at 3.986 mean weight of moderate effect; further company sugar by products boosting revenues was rated at 3.83 moderate effect. The finished products also have a moderate effect on the financial performance of sugar companies.

Kumar (2014) investigated the efficiency of Sugar Manufacturing firms using the Data Envelop Analysis approach. Technical and scale efficiencies are calculated for public and private sugar manufacturing firms in the industry for the period (2006 to 2010). Sales revenue and total profit after tax of a firm during the financial year were taken as the output variables while total cost of sales, total operating expenses and total assets held by the firm during the year were taken as inputs. The empirical results using a five year panel data showed that sugar firms achieved an average technical efficiency of 86-90 per cent. This showed that on the average, firms are operating below the efficient frontier. Nazmul (2015) assessed the production efficiency of sugar factories. In measuring efficiency, the amount of sugar produced was used as the dependent variable (output) while metric tons of sugar cane crushed and crushing days are used as the input variables. The study results reveal that 99.6 per cent of variation in the output variable is explained by the explanatory input variables. This indication on average show that the firms are 3% off the efficient frontier as an indication that output could be increased by 3% using the available inputs. The results of this study show that most of the productivity growth in agriculture particularly sugar firms is determined by production inputs; land, labour and capital, work in-progress and related by products.

Investment in Financial Assets and Financial performance

The study sought to find out the effect of investment in financial assets on the financial performance of Sugar Companies. The response rate on the indicators relating to investment in financial assets and performance of the sugar companies is presented as in table 2 below. The scale weights were as: 5= very strong effect, 4.0 = strong effect, 3.0 = moderate effect, 2.0 = little effect and 1.0 no effect; the Likert scale related to financial performance of the sugar companies.

Table 2: Indicators of Investment in Financial Assets and Financial Performance

Statement	5	4	3	2	1	$\sum f_i$	Mean Weight
The company is trading in financial securities which boost performance.	54	150	148	340	94	786	**2.656**
The national government control more than 50% of shareholding contributing to financial performance	102	198	301	113	72	786	**3.184**
The company's ordinary shareholders influence performance of the company	194	137	178	192	85	786	**3.207**
The company investment in other assets boosts profitability	83	34	317	249	103	786	**2.676**
The company stocks management contributes to profitability.	147	198	116	114	211	786	**2.944**

The information in table 2 indicates that the company's ordinary shareholders influence performance of the sugar companies to moderate extent at 3.207 mean weight. The control of shareholding by the government contributes to financial performance of sugar companies to a moderate extent (3.184 mean weight). The effect of investment in financial assets by the sugar firms is generally having little effect on the financial performance as its indicators are rated lowest. Ferrando and Mulier (2012) argued that firms are vulnerable to financial market imperfections and therefore more likely to be financially constrained if they rely more on the trade credit channel to manage growth. Dunn (2009) in his study found that the accounts receivables (debtors) are one of the largest assets of a business enterprise comprising approximately 15% to 20% of the total assets of a manufacturing firm including the sugar firms. Leland (1998) argues that valuation of corporate debt with credit risk has proven to be very difficult. This is not an exception to sugar processing firms engaged in financial assets.

Investment in the Distribution Chain Decision and Financial Performance

The study sought to assess the effect of investment in the distribution chain decision on the financial performance of Sugar Companies. The response rate on the indicators relating to investment in financial assets and performance of the sugar companies is presented as in table 3 below. The scale weights were as: 5= very strong effect, 4.0 = strong effect, 3.0 = moderate effect, 2.0 = little effect and 1.0 no effect; the Likert scale related to financial performance of the sugar companies.

Table 3: Investment in the Distribution Chain Decision and Financial Performance

Statement	5	4	3	2	1	$\sum f_i$	Mean Weight
The company warehouse improves financial performance.	294	311	103	48	30	786	**4.01**
The company's intermediaries affect company's liquidity	152	413	105	56	60	786	**3.690**
The company's lorries and trucks move the products throughout the country	63	398	168	73	84	786	**3.36**
The company prefers use of lorries and trucks to warehouses.	105	299	187	103	92	786	**3.282**
The company leases the warehouses boosting financial performance	97	133	275	204	77	786	**2.960**

Table 3 reveals that investment in company warehouses improves financial performance as it is rated at 4.01 mean weight which is a strong effect as indicated by the respondents. Further the company intermediaries in the distribution chain affect the company's liquidity up to a mean weight of 3.690 at moderate effect level. The investment on company Lories and trucks in this distribution chain influence financial performance of the sugar companies to moderate effect level. The leasing of warehouses by sugar companies in the distribution chain was the least rated at 2.960 which is having little effect on financial performance. This results concur with the Purchasing portfolio theory by Kraljic (1983) which developed a convenient portfolio approach for the determination of a comprehensive strategy for supply. Kraljic's approach includes the construction of a portfolio matrix that classifies purchased products and services on the basis of two dimensions: profit impact and supply risk (''low'' and ''high''). The study informed by the Manufacturing Strategy Theory (Simangunsong et al., 2011) which incorporates the contingency theory based model, which conceptualizes the relationship between a changing environment, managerial decision making and financial performance. Similarly, corporate performance is positively related to the role of manufacturing manager in strategic decision making. Alignment between business environment characteristics, competitive priorities and Supply Chain structure improve firm performance (Simangunsong et al., 2011).

Distribution chain is a network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer (Christopher, 1998). The network-nature of the supply chain encompasses every effort involved in producing and delivering a final product, from the supplier's supplier to the customer's customer. Five basic processes; plan, source, make, deliver and return broadly define these efforts, which include managing supply and demand, sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, and delivery to the customer (Supply Chain Council, 2005).

Clowes et al., (1998; 238) argued that cane loading and transport account for a high proportion of the capital and running costs. He also argued that if cane harvesting is mechanized then the quality of the cane will be low and the higher the field losses. This means that there is need for farmers to own their own Perry loaders to ferry the cane to the loading zones and if possible transport to carry the cane to the mills

Investment Decisions and Financial Performance of Public Sugar companies

The study sought to determine the extent to which investment decisions adopted by the sugar companies affect the performance of sugar companies in western Kenya. The scale weights were as: 5= very strong effect, 4.0 = strong effect, 3.0 = moderate effect, 2.0 = little effect and 1.0 no effect; the Likert scale related to financial performance of the sugar companies. The information obtained from the field was presented as in table 4 below.

Table 4: Investment Decisions and Financial Performance

Investment Decisions	5	4	3	2	1	$\sum f_i$	Mean Weight
Investment in production	503	184	70	20	9	786	**4.466**
Investment in financial assets	84	142	288	178	94	786	**2.928**
Investment in the Distribution Chain	196	318	219	36	17	786	**3.814**

Table 4 shows that investment in production has a strong effect on the financial performance of sugar companies at 4.466 magnitude strength. The investment in the distribution chain decision has a moderate effect on the financial performance of sugar companies while investment in financial assets is least rated at 2.928 mean weights by respondents as having little effect on the financial performance of sugar companies. These findings concur with past studies; where the distribution chain management practices have been defined as a set of activities undertaken in an organization to promote effective management of its supply chain (Tomi Solakivi, 2014). The main supply chain practices that influence firm performance include: logistics outsourcing; supply chain collaboration; information systems support; and design for postponement. Donlon (2012) describes the latest evolution of distribution chain management practices which include supplier partnership, outsourcing, cycle time compression, continuous process flow, and information technology sharing. Sugar firms worldwide have invested in diversification strategies by using sugarcane as raw material in other various projects alongside sugar production (Deepchand, 2001). 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 involves some kind of tangible asset, such as land, machinery factories 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.

Table 5: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Investment In Financial Assets	10	337.00	2049.00	1081.8000	678.54825
Investment in Distribution Chain	10	3480.00	15220.00	7265.2000	3984.17087
Production Investment Decision	10	3454.00	27728.00	13883.0000	8143.63281
Financial Performance	10	5313.00	37975.00	19888.0000	11158.16809
Valid N (listwise)	10				

Table 5 indicate that investment in financial assets has a maximum investment amount of 2049.00 million in financial assets by sugar companies with a standard deviation of 678.54825; investment in the distribution chain has a maximum of 15220.00 million by the sugar companies in the distribution chain with a standard deviation of 3984.17087. Production investment decision by the sugar companies amounted to 27728.00 million with standard deviation of 8143.63281; for financial performance the minimum amount was 53313 million and maximum amount of 37975.00 million with the standard deviation of 11158.16809.

Table 6: Correlations of Variables

		Financial Performance	Production Investment Decision	Investment In Financial Assets	Investment In Distribution Chain
Financial Performance	Pearson Correlation	1			
	Sig. (2-tailed)				
Production Investment Decision	Pearson Correlation	.997**	1		
	Sig. (2-tailed)	.000			
Investment In Financial Assets	Pearson Correlation	.927**	.923**	1	
	Sig. (2-tailed)	.000	.000		
Investment In Distribution Chain	Pearson Correlation	.952**	.967**	.927**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	10	10	10	10

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

The information in table 6 reveals a high association and relationship between the variables in this study. The explanatory variables have strong correlation with financial performance of sugar companies all the Pearson's correlation coefficients are greater than .900 and significant. This correlation's indicate the existence of multicollinearity indicating that the independent variables influence each other despite them influencing financial performance of sugar firms.

Multicollinearity Diagnostics

The table 7 shows high correlation coefficients, therefore the severity of multicollinearity was established. The results are as in table 7 below.

Table 7: Multicollinearity Diagnostics

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Production Investment Decision	.060	16.771
	Investment In Financial Assets	.130	7.666
	Investment In Distribution Chain	.057	17.612

Table 7 show that only production investment decision and investment in the distribution chain have the weak multicollinearity effect on each other but their severity is weak as the tolerance values are all less than 1.0 and the VIF values are within the range VIF< 20 for and investment in financial assets at VIF < 10; this values indicate less severity effect of multicollinearity and therefore the variables can be relied on in this study. This result concurs with other scholars findings on multicollinearity effect on the dependent variable (Murphy, 2011).

Table 8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.899[a]	.808	.808	543.68553	2.142

a. Predictors: (Constant), Investment In Distribution Chain Decision, Investment in Financial Assets, Production Investment Decision
b. Dependent Variable: Financial Performance

The results in table 8 indicate that the explanatory variables influence up to 80.8% of the financial performance of the sugar companies (R^2 =0.808) the 19.2% of the unexplained variation in financial performance can be attributed to other factors not included in this study.

The adjusted R square reveal that the suitability of the model is up to 80.8% (adjusted R square = 0.808) and therefore it can be generalized in the industry to predict the financial performance up to 80.8%. The Durbin-Watson value indicate the degree of correlation between a given time series and a lagged version of itself over successive time intervals. The Durbin-Watson statistic is always between 0 and 4. Therefore a value of 2.142 means that there is no autocorrelation in the sample.

Table 9 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1118768872.260	3	372922957.420	1261.605	.000[b]
	Residual	1773563.740	6	295593.957		
	Total	1120542436.000	9			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Investment In Distribution Chain Decision, Investment In Financial Assets, Production Investment Decision

The results in table 9 reveal that the model used in this study is reliable and can be generalized in the industry as F-statistic value is high and significant(F= 1261.605; P= 0.000<0.005). Financial performance therefore is a function of investment decisions in the distribution chain, financial assets and in the production line in affirm.

This result concur with Keynes (1936) and Fisher (1930) who 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; which finally influence the financial performance of the firms in this study. Brigham and Daves (2007) argued that a firm generates sales, pays its costs and taxes, and makes the necessary investments in assets to support its growth. All investments activities are reported to the investors in the form of financial report. The firm's capital structure and the risk of its operations indicate as a risk of the free cash flows to the investors. This risk is combined with the level of interest rates in the economy and investors' overall behavior toward risk. Innovative companies will face different risks compare to other companies. Innovation related to the ability of the company to take advantage of the changes that occur in their environment. Most investors prefer companies that have consistent innovation attitudes. Investors usually responded positively to the firm which shown innovative actions which to some extent influence the profitability of the firm. Therefore, we argued that innovation has a positive and significant effect on company value. These findings support the research conducted by Belenzon and Patacconi (2013) and Berzkalne and Zelgalve (2014).

Table 10 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1367.271	376.571		3.631	.011
	Production Investment Decision	1.562	.091	1.140	17.144	.000
	Investment In Financial Assets	.652	.739	.100	2.235	.067
	Investment In Distribution Chain.	682	.191	.244	3.575	.012

$Y= \beta_0+\beta_1PID+\beta_2IFA+\beta_3IDCD+\varepsilon$

Substituting the unstandardized coefficients in the model it results to;

Y= 1367.271+1.562PID+0.652IFA + 0.682 IDCD

The model reveal that production investment has the highest effect on the financial performance of the sugar companies, 1.562 unit change in the production investments causes a unit change in financial performance of the sugar firms; further the effect size of the production investments on financial performance is 114% (standardized beta is = 1.140) and this effect is statistically significant ($p<0.05$). The investment in financial assets has an effect on financial performance of sugar firms and is statistically insignificant ($p=0.067>0.05$). The investment in distribution chain of sugar firms has positive and statistically significant effect on the financial performance of sugar firms ($p=0.012< 0.05$). 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. McGuigan, Kretlow and Moyer (2000) observed that, to understand the effect of financial decision on firm's performance, one requires understanding financial risk and financial including the sugar processing leverage which affect all firms. This is in line with (Mursalim, 2015) who concluded that Indirect effect between investment decisions on the value of the company, through the intermediary of profitability obtained a coefficient of 0.062. Both the direct effect that the investment decision to profitability significant, and the profitability of the company value significantly, then the indirect effect of investment decisions on the value of the company through an intermediary profitability is significant. Thus, the higher the investment decisions that will push deficits improve profitability, the higher the company value.

Summary, Conclusions and Recommendation

The study established that majority of the respondents are of male gender 59% while 41% formed the male gender. The study established that 38% of the respondents had over 45 years. Those aged between 36 to 45 years formed 34% of the total respondents; 19% of the respondents formed between 26 years and 35 years of age. The age structure between 18 to 25 years formed 9% of the total respondents. The study found out that majority of the respondents 33% had university degree level of education; 32% of the respondents had secondary level while those with diploma level formed 28% of the total respondents. Primary level of education formed 7% of the respondents in this study. The study established that majority of employees who are respondents in this study have worked in the sugar companies form duration of over 15 years at (41%) while those between 11 to 15 years form 32% of the total respondents, for the period between 6 years to 10 years the response rate is 17% and those between 1 year to 5 years formed 10% of the total respondents.

The study found that by products of the sugar companies which are sold to other companies yield high returns and this influence financial performance of these companies as it is rated at 3.986 mean weight which is moderate effect; further company sugar by products boosting revenues was rated at 3.83 moderate effects. The finished products also have a moderate effect on the financial performance of sugar companies.

The study found out that the company's ordinary shareholders influence performance of the sugar companies to moderate extent at 3.207 mean weight. The control of shareholding by the government contributes to financial performance of sugar companies to a moderate extent (3.184 mean weight). The effect of investment in financial assets by the sugar firms is generally having little effect on the financial performance as its indicators are rated lowest.

The study assessed the effect of investment in the distribution chain decision on the financial performance of Sugar Companies. The results reveals that investment in company warehouses improves financial performance as it is rated at 4.01 mean weight which is a strong effect as indicated by the respondents. Further the company intermediaries in the distribution chain affect the company's liquidity up to a mean weight of 3.690 at moderate effect level. The investment on company Lories and trucks in this distribution chain influence financial performance of the sugar companies to moderate effect level. The leasing of warehouses by sugar companies in the distribution chain was the least rated at 2.960 which is having little effect on financial performance.

The study determined the extent to which investment decisions adopted by the sugar companies affect the performance of sugar companies in western Kenya. The results show that investment in production has a strong effect on the financial performance of sugar companies at 4.466 magnitude strength. The investment in the distribution chain decision has a moderate effect on the financial performance of sugar companies while investment in financial assets is least rated at 2.928 mean weight by respondents as having little effect on the financial performance of sugar companies. Analysis of sugar firms' internal reports indicated that investment in financial assets has a maximum investment amount of 2049.00 million in financial assets with a standard deviation of 678.54825; investment in the distribution chain had a maximum of 15220.00 million by the sugar companies in the distribution chain with a standard deviation of 3984.17087. Production investment decision by the sugar companies amounted to 27728.00 million with standard deviation of 8143.63281; for financial performance the minimum amount was 53313 million and maximum amount of 37975.00 million with the standard deviation of 11158.16809.

The regression result reveals a high association and relationship between the variables in this study. The explanatory variables have strong correlation with financial performance of sugar companies all the Pearson's correlation coefficients are greater than .900 and significant.

The model summary results indicate that the explanatory variables influence up to 80.8% of the financial performance of the sugar companies (R^2 =0.808) the 19.2% of the unexplained variation in financial performance can be attributed to other factors not included in this study.

The adjusted R square reveal that the suitability of the model is up to 80.8% (adjusted R square = 0.808) and therefore it can be generalized in the industry to predict the financial performance up to 80.8%. The Durbin-Watson value indicate the degree of correlation between a given time series and a lagged version of itself over successive time intervals. The Durbin-Watson statistic is always between 0 and 4. Therefore a value of 2.142 means that there is no autocorrelation in the sample. Further the ANOVA results reveal that the model used in this study is reliable and can be generalized in the industry as F-statistic value is high and significant(F= 1261.605; P= 0.000<0.005) as the unstandardized coefficients substituted in the model results to Y= 1367.271+1.562PID+0.652IFA + 0.682 IDCD. Therefore the model reveal that production investment has the highest effect on the financial performance of the sugar companies, 1.562 unit change in the production investments causes a unit change in financial performance of the sugar firms; further the effect size of the production investments on financial performance is 114% (standardized beta is = 1.140) and this effect is statistically significant ($p<0.05$). The investment in financial assets has an effect on financial performance of sugar firms and is statistically insignificant ($p=0.067>0.05$). The investment in distribution chain of sugar firms has positive and statistically significant effect on the financial performance of sugar firms ($p=0.012< 0.05$).

Conclusion

The first objective sought to establish the effect of production investment decision on the financial performance of Sugar companies. Based on the findings the study concludes that production investments have a positive and significant effect on the financial performance of sugar firms.

The second objective sought to find out the effect of investment in financial assets on the financial performance of Sugar Companies. Based on the findings this study concludes that investment in financial assets has appositive but insignificant effect on the financial performance of sugar companies.

The third objective sought to find out the effect of investment in the distribution chain on the financial performance of Sugar Companies. Based on the results the study concludes that there exist a positive and significant effect of investment in the distribution chain and financial performance of sugar companies.

Recommendation

Based on the results of the explanatory variables and conclusions the study recommends that sugar firms should maximize the investments in production and distribution chains to improve their financial performance.

Areas of Further Research

The findings revealed that investments decisions affect the financial performance of public sugar firms in western Kenya. Therefore other areas could be studied in relation to performance variables and further other industry contexts other than sugar industry.

REFERENCES

Belenzon, S. & Patacconi, A. (2013). Innovation and company value: An investigation of the changing role of patents, 1985–2007. Research Policy, 42(8). Berzkalne, I. & Zelgalve, E. (2014). Innovation and company value: Evidence from the baltic countries. Regional Formation and Development Studies, 11(3)

Brigham, E. F. & Daves, P. R. (2007). Intermediate Financial Management. Ninth Edition. Thomson/South Western

Christopher (1998), M., logistics: The Strategic Issues, Chapman & Hall, 1992

Donald (2006), De Angelo, L. (1981), 'Auditor size and audit quality', Journal of Accounting

Ferrando, and C. Mulier (2012). Financing obstacles and growth: an analysis for euro area non-financial corporations. European Journal of Finance

Fisher, G. H. (1952). A Survey of the Theory of Induced Investment, 1900-1940. Southern Economic Journal, Vol. 18, (No. 4 (Apr., 1952)), 474-494

KESREF (2009) .Kenya Sugar Research Foundation Strategic Plan 2009-2014.

Kraljic, P., 1983. Purchasing must become supply management. Harvard Business Review 61 (5), 109–117.

Kumar, V., Batista, L. C. and Maull, R.S. (2014), "The Impact of operations performance on customer loyalty", Service Science, Vol. 3, No. 2, pp. 158-171

Mursalim, H., Nur, A. & Sanusi, A. (2015). Financial Decision, Innovation, Profitability and Company Value: Study on Manufacturing Company Listed in Indonesian Stock Exchange Information Management and Business Review, 7(2), 72-78.

Theordorson, G. and Theordorson, A (1969); A Modern Dictionary Of Sociology: Thomas Y. Crowell, New York

Tomi Solakivi, (2014) Logistics outsourcing, its motives and the level of logistics costs in manufacturing and trading companies operating in Finland, Production Planning & Control: The Management of Operations, Vol. 24, No. 4-5, 388–398.

Simangunsong, E, Hendry, LC and Stevenson, M (2012), Supply-Chain Uncertainty: A Review and Theoretical Foundation for Future Research, International Journal of Production Research 50(16), pp. 4493-4523

Wawire, N.W, Kahora, F, Shiundu,S.M, Kipruto, K.B & Omolo, G (2006). Cost reduction strategies in sugar cane production in Kenya. KESREF Technical Bulletin.

Zucker D.M. (2001); The Use of Case Study Methodology in Nursing Research: The Qualitative Report (Volume 6). www.nova.edu/ssss/QR/QR6-2/zucker.html (Accessed: 23rd November, 2009)