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INFLUENCE OF CAPITAL STRUCTURE DECISIONS ON FINANCIAL PERFORMANCE OF PUBLIC SUGAR MANUFACTURING FIRMS IN WESTERN KENYA

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Abstract: *Despite the importance of the sector, public sugar manufacturing firms in Western Kenya are faced with a huge debt burden and recurring poor performance. Many studies conducted in the sugar sector points out that the Kenyan sugar industry has been revolving around financial shortages, deprived financial practices and inability to compete with imported sugar, perennial losses and fluctuations in economic conditions which cumulatively have a negative bearing on industry's financial performance. The purpose of the study was to investigate the influence of capital structure decisions on financial performance of public sugar manufacturing firms in western Kenya. Specifically, the study sought to establish the influence of debt financing, equity financing, retained earnings on the financial performance of public sugar manufacturing firm in Western Kenya. Majority of respondents (75%) agreed that the companies issued new shares as equity when funding major projects with a mean weight of 4.09; 78.1% of the respondents agreed that the firms adopted equity financing when retained earnings were insufficient and the response mean weight of 4.22 magnitude. Further, 81.3% of the respondents agreed that the companies used retained earnings as part of their finances with a mean weight of 4.34; a negative correlation between debt financing and financial performance of -0.116 while a positive correlation existed between equity financing and financial performance; also a positive correlation existed between retained earnings and financial performance of public sugar firms in Western Kenya. The R^2 was 0.114 which means 11.4% variation in financial performance of public sugar firms in Western Kenya was due to debt financing, equity financing and retained earnings while the remaining 88.6% of variation in financial performance of public sugar firms was explained by other factors not considered in the current study. Based on the findings the study concludes that debt financing negatively influence financial performance of Public Sugar firms in Western Kenya. For equity financing positively influenced financial performance of public sugar firms in Western Kenya. For retained earnings it negatively influence financial performance of public sugar firms in Western Kenya*

Keywords: *capital structure decisions, equity financing, earnings per share, Return on Equity*

1. Introduction

Capital structure decision relates to the raising of finance from various sources depending on the type of source, period of financing, cost of financing and the returns. It refers to the way a company finances its assets through some combination of equity, debt, or hybrid securities. This involves

the decision with regards to the net profit distribution (dividend payment to shareholders and retained earnings (Fwamba, 2017).

Capital structure is a combination of debt and equity that makes up the sources of corporate assets. Other components of capital structure that add up to the capital structure of a company include: share capital, share premium, revenues reserves, capital reserves and retained earnings amongst others (Abraham & Harrington, 2011). Capital structure decisions play a critical role which enables an organization address the dilemma of whether or not an optimal capital structure can be achieved. Capital structure decisions are considered to be a vital managerial decision as it influences the shareholder risk and return. The managers determine an optimal financing mix or capital structure for firms in order to maximize the value of the firm (Abraham & Harrington, 2011).

Financial performance is defined as a measure of how well a firm utilizes its resources in the generation of revenues. It provides a guideline that gives a way for future decisions relating to business developments, assets acquisitions and managerial control (Tehrani & Rahnama, 2006). It shows what has been achieved by the management in monetary terms over a specific duration and can be used in making comparison of like firms in the industry. According to Ongeri (2014), financial performance provides an avenue for the evaluation of business activities in objective monetary terms. It shows how better a shareholder is at the end of an accounting period than he was at the beginning and this can be ascertained by utilizing financial ratios derived from financial statements or using data on market share prices. The main objective of the firm is to maximize the wealth of the shareholders and therefore performance measurement helps to evaluate how richer the shareholder becomes as a result of the investment decisions over a given period (Berger & Patti, 2006).

The sugar industry in Kenya greatly contributes to social and economic development of the country in addition to enhancing the growth of Gross domestic product (GDP). There are more than 250 000 small scale sugarcane farmers in Kenya who depend on the industry. The Kenya Sugar Board estimates that approximately six million Kenyans rely directly or indirectly on the industry as their main source of livelihood (KSB, 2011). The industry acts as a source of revenue to the government through taxes. The industry has also contributed by a great percentage in the infrastructure development through road construction and maintenance of bridges as well as provision of social amenities such as education, health, sports and recreation facilities around the sugarcane plants. In addition, the by-products of sugar manufacturing are raw materials for other industries like bagasse (cane residue) is used for power co-generation and molasses which is used for industrial production of ethanol. Other by-products include Sugar syrup and Filter scums. This various byproduct is key ingredient in; Beverage, Confectionary, Pharmaceutical, Animal feed, Chemical, Fertilizer, Wines, Spirit and Power alcohol industries. Sugar crop is environmentally friendly and biodegradable (Odek, Kegode, and Ochola, 2003). Sugar is an important food item and also a critical raw material in food and beverage among other industries. The industry has immensely contributed to urbanization through emergence of towns near sugar factories like Awendo, Mumias and Muhoroni towns among others. 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. Globally, 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.

According to Kenya Sugar Board (KSB) 2015, the Sugar sub-sector in Kenya is an important determinant of the country's economy. This sector generates an approximate income of Kshs. 13 billion annually, its source of employment to over 600,000 people and directly and indirectly gives support to over 6 million people. In Kenya, sugarcane Cane growing on large scale started in Miwani and Kibos in Kisumu district between 1902 and 1940. As a result of this commercialization, Miwani Sugar Company was founded in 1922. After independence, the Government commenced large scale sugar projects in Nyanza and western province in an effort to meet the ever-growing local sugar demand. Five more factories were also established as follows, Muhoroni in 1966, Chemelil in 1968, Mumias in 1973, Nzoia in 1978, and South Nyanza in 1979. The latest entrants are West Kenya, Kibos, Soin, Transmara and Sukari Sugar Industries. Currently, there are about eight sugar factories which are in operations in Kenya. The collapse of Miwani sugar factory which was the first ever to be established in Kenya and the placement of Muhoroni factory on receivership coupled with the facts that two of the three factories under study are riddled with a heavy debt burden and continuous poor financial performance posting negative profit over the five-year periods is what prompted the choice of Western Kenya.

2. Statement of the problem

Despite the importance of the sector, sugar firms in Western Kenya are faced with a huge debt burden and recurring dismal performance (KSB 2013). According to Kibet (2013), most factories have accumulated large debts amounting to Kshs. 58 billion as at 31st Dec 2014. Consequently approximately 50% of sugar companies in Kenya each year experience a declining financial performance (profitability) hence going under receivership despite the government and the private sector in Kenya having invested heavily in creating an enabling financial environment for doing business in Kenya (Mugenda & Naibei, 2012). Inadequate capital structure decisions have led to high leveraged ratios, receiverships, improper financial decisions and management, high staff turnover, poor management and layoffs as well as inefficient investment priorities. Past studies demonstrate that Kenya's sugar industry is faced with persistent financial deterioration and it is on this basis that this study seeks to assess the influence of capital structure decisions on financial performance of public sugar manufacturing firms in western Kenya.

3. Objective of the study

The study was guided by the following specific objectives to:

(i) Determine the influence of Debt Financing on financial performance of public sugar manufacturing firms in Western Kenya.

(ii) Establish the influence of Equity Financing on financial performance of public sugar manufacturing firms in Western Kenya.

(iii) Evaluate the influence of Retained Earnings on the financial performance of public sugar manufacturing firm in Western Kenya.

4. Conceptual Framework

The study uses conceptual work instead of theoretical frame work as indicated in the figure 1. The independent variables are capital structure decisions based on debit financing, equity financing, and retained earnings which influences the financial performance (the dependent variable). According to the conceptual framework, debt financing is measured by debt ratio, equity financing is measured by debt equity ratio, and retained earnings is measured by Retained Earnings/Total Assets Ratio. The dependent variable is financial performance measured by Return on Equity and Return on Assets. The conceptual framework depicts the effect-cause relationship between the independent variable and the dependent variable with firm size and corporate governance as the intervening variables.

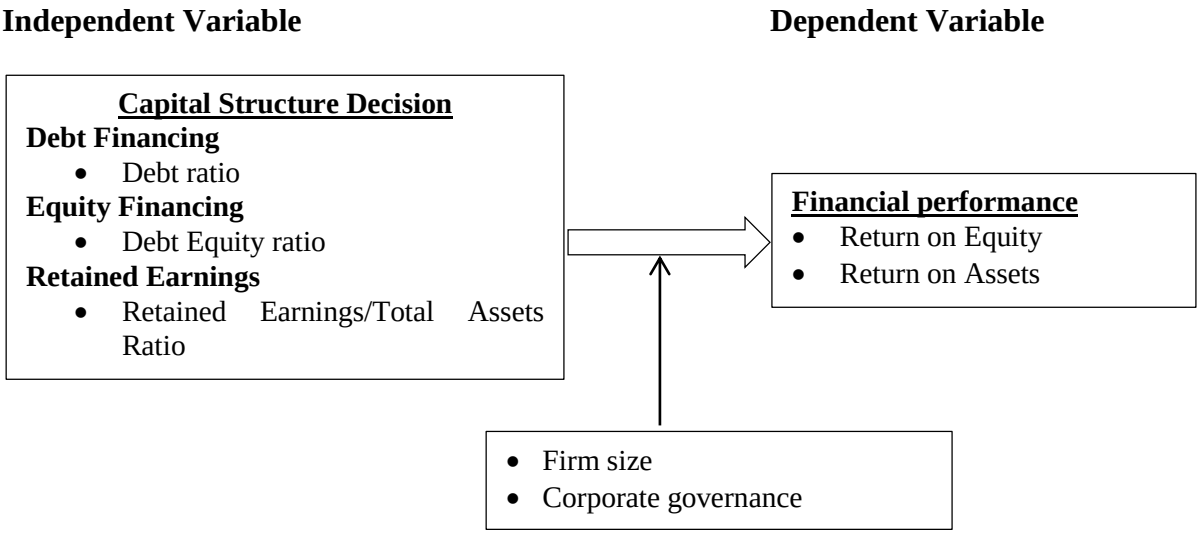

Figure 1: Conceptual framework

5. Research Design

This study adopted mixed research design. The study was conducted on four sugar manufacturing firms in western Kenya which were operational. They included Chemelil Sugar Company, South Nyanza Sugar Company, Mumias and Nzoia Sugar Company. Both census procedure and purposive sampling was used to select the respondents. Both primary and secondary data was used for the study. Most respondents (84.4%) agreed that sugar companies prefers debt financing as 90.7% of the respondents agreed that the company debts are both short term and long term and a response mean weight of 4.25 magnitude.

6. Results Discussion

Debt financing and financial performance

The study sought to establish the respondents' opinion on the statements on the effect of debt financing on the companies' financial performance.

Table 1: Use of debt financing in sugar Companies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	32	100.0	100.0	100.0

From Table 1 all the respondents agreed that their companies have adopted debt financing.

Table 2: Major sources of debt financing that the Sugar companies adopted

Sources of debt financing		Frequency	Percent	Cumulative Percent
Valid	Venture capitalism	5	15.6	15.6
	Debentures	13	40.6	56.3
	Borrowing from banks and financial institutions	12	37.5	93.8
	Others Specify	2	6.3	100.0
	Total	32	100.0	

From Table 2, 5 respondents indicated that the major source of debt financing in their company was venture capitalism, 13 indicated debentures, 12 indicated borrowing from banks and financial institutions while 2 indicated other sources which are government loans.

Table 3: Requirements when borrowing funds for the company

Requirements		Frequency	Percent	Cumulative Percent
Valid	Guarantors	5	15.6	15.6
	Collateral	3	9.4	25.0
	All the above	24	75.0	100.0
	Total	32	100.0	

Findings on Table 3 showed that 5 respondents indicated that their companies were only required to have guarantors when borrowing funds, 3 respondents indicated that their companies was required to provide collateral while 24 respondents indicated that their companies was required to provide guarantors, financial statements and collateral wen borrowing funds. It shows that debt financing required fulfillment of certain requirements by the borrowing entity. This is to ensure creditworthiness of the borrower and security of loan to the institution that lent out funds to the sugar companies. A practice supported by Brealey et al., (2001) that the loan agreement between the financier and the borrower stipulates among other things, the repayment schedule of the borrowed funds.

Table 4: Use of debt financing in the Sugar Company

		Frequency	Percent	Cumulative Percent
Valid	Company operations	5	15.6	15.6
	Buying of raw materials	7	21.9	37.5
	General working capital needs	15	46.9	84.4

	Others, specify	5	15.6	100.0
	Total	32	100.0	

Table 4 shows that 5 respondents indicated that their companies applied for debt financing in order to meet the company operations, 7 respondents indicated that the debt financing is used to buy raw materials, 15 indicated that debt financing was for general working capital needs while 5 indicated other reasons such as for buying of capital equipment and buildings.

Table 5: Company preference of debt financing

Reasons for Preference of Debt Finance		Frequency	Percent	Cumulative Percent
Valid	The interest paid is negotiable	3	9.4	9.4
	It is the cheapest source of financing	1	3.1	12.5
	It is easily accessible	11	34.4	46.9
	Others, specify	17	53.1	100.0
	Total	32	100.0	

Table 5 showed that 3 respondents indicated that their company preferred debt financing to other sources of finance because the interest paid is negotiable, 1 indicated that debt financing is cheapest source of financing, 11 indicated that debt finance is easily accessible while 17 respondents indicated other reasons which included the fact that long term debt financing is not affected by short term shocks that may hit the company and it is also appropriate for funding projects with long payback period. The assertions are supported by Lancett (2008).

Table 6: Effect of debt financing on financial performance of your company

		Frequency	Percent	Cumulative Percent
Valid	Retarded the business	13	40.6	40.6
	No effect	19	59.4	100.0
	Total	32	100.0	

Table 6 shows that 13 respondents indicated that debt financing has retarded their business, 19 indicated no effect while none of the respondent indicated increase in their business. It can be interpreted that those who felt that debt financing had no effect was because the borrowed funds were used mainly for general working capital like paying suppliers, general administrative costs, and paying bank interests to the huge debts that some of the companies had. Seemingly very little funds went to production. This is supported by the findings of Langat et al., (2014) that providing the finance through debts that are short term does not lead to profitability.

Table 7: Circumstances when Equity financing is ideal for the company

		Frequency	Percent	Cumulative Percent
Valid	For start-up business	3	9.4	9.4
	For expansion and growth needs	19	59.4	68.8
	For working capital requirement	7	21.9	90.6
	others, specify	3	9.4	100.0
	Total	32	100.0	

From Table 7, 3 respondents indicated that their company consider equity financing ideal for start-up business, 19 (59.4%) indicated that it is ideal for expansion and growth needs, 7 indicated that it is ideal for working capital requirements while 3 respondents indicated other reasons. The findings are supported by Jensen, 1976 who viewed that managers often view the equity offers as an effective way of increasing firm size and offers incentives to grow their firm beyond optimal size since their compensation is dependent on asset size rather than profitability.

Table 8: Does Equity financing necessary for your company?

		Frequency	Percent	Cumulative Percent
Valid	Yes	32	100.0	100.0

Table 8 above indicates that all the respondents indicated that equity financing was necessary for their companies.

Table 9: Major sources of equity financing

Sources of Equity Financing		Frequency	Percent	Cumulative Percent
Valid	Initial public offer	12	37.5	37.5
	Trading in shares	7	21.9	59.4
	Others, specify	13	40.6	100.0
	Total	32	100.0	

Table 9 indicated that 12 respondents indicated that their major source of equity financing was through issuing of initial public offering, 7 indicated that their main source is trading in shares while 13 of the respondents indicated other sources such government loans and grants. The finding is supported by Abraham and Harrington (2011), who indicated that equity financing comprise of initial public offering and seasoned equity offerings issues of stock by a firm as means to raise funds through the sale of stock rather than the issuance of additional debt.

Table 10: Any other methods adopted by company to raise capital apart from debt and equity

Other methods to raise capital		Frequency	Percent	Cumulative Percent
Valid	Floating of preference shares	7	21.9	21.9
	Floating of debentures	17	53.1	75.0
	Angel capital	1	3.1	78.1
	Venture capital	6	18.8	96.9
	Others, specify	1	3.1	100.0
	Total	32	100.0	

Table 10 showed that 7 respondents identified floating of preference shares as another avenue for raising capital, 17 respondents identified floating of debentures as another source of capital for their company, 1 respondent identified angel capital as another source of capital, 6 respondents identified venture capital as another source of capital while 1 respondent indicated other source of capital.

Table 11: Significance of Equity financing on financial performance of our company

Significance of equity financing		Frequency	Percent	Cumulative Percent
Valid	Increased business	18	56.3	56.3
	Decreased Business	8	25.0	81.3
	No effect	6	18.8	100.0
	Total	32	100.0	

Findings on Table 11 showed that 18 respondents indicated that equity financing increased business for their company, 8 respondents indicated that equity financing decreased business for their company while 6 respondents indicated that equity finance had no effect on their business.

The finding is supported by Booth (2002) who argued that the firm that uses equity finance is able to make its performance better since there is direct control and because all the equity holders are the residual claimants they have to ensure that resources are allocated efficiently to be able to maximize shareholders wealth.

Table 12: Has your company ever retained earnings in a financial year?

		Frequency	Percent	Cumulative Percent
Valid	Yes	32	100.0	100.0

Table 12 showed that all the respondents indicated that their companies have retained earnings in a financial year.

Table 13: Under what circumstance would your company plough back retained earnings into business

Circumstances for ploughing back retained earnings		Frequency	Percent	Cumulative Percent
Valid	Towards working capital	6	18.8	18.8
	When starting a new project	10	31.3	50.0
	Towards business expansion and growth	5	15.6	65.6
	In hard times when the business is at its lowest	8	25.0	90.6
	Others, specify	3	9.4	100.0
	Total	32	100.0	

Findings on Table 13 shows that 6 respondents indicated that their company plough back retained earnings for use as a working capital, 10 respondents indicated that retained earnings are ploughed back when starting a new project, 5 respondents indicated that retained earnings are ploughed back towards business expansion and growth, 8 respondents indicated that they plough back retained

earnings during hard times when the business is at its lowest, 3 respondents indicated other circumstances.

Table 14: Why use retained earnings other than other key sources of finance for your company?

Reasons for use of Retained Earnings		Frequency	Percent	Cumulative Percent
Valid	To contain the level of its leverage ratio	7	21.9	21.9
	To avoid further loss of ownership through addition IPOs	7	21.9	43.8
	To encourage the use of own reserve	6	18.8	62.5
	All of the above	11	34.4	96.9
	Others, specify	1	3.1	100.0
	Total	32	100.0	

Table 14 findings showed that 7 respondents indicated that their company used retained earnings so as to contain the level of its leverage ratio, 7 respondents indicated that their company used retained earnings to avoid further loss of ownership through addition IPOs, 6 respondents indicated that their company used retained earnings to encourage the use of own reserve, 11 respondents indicated that they used retained earnings to contain the level of its leverage ratio; to avoid further loss of ownership through addition IPOs; and to encourage the use of own reserve while 1 respondent indicated other reasons. However, they have demerits in that retained earnings are a limited source of financing, and the fact that they have a high opportunity cost since they are a foregone dividend by equity holders (Chasan, 2012).

Table 15: Why would a company prefer to use retained earnings?

Reason for retained earnings		Frequency	Percent	Cumulative Percent
Valid	No interest paid	4	12.5	12.5
	It's cheap	5	15.6	28.1
	No legal requirement	4	12.5	40.6
	Others, specify	19	59.4	100.0
	Total	32	100.0	

Table 15 showed that 4 respondents their company preferred retained earnings to other sources of capital because it has no interest paid, 5 respondents indicated that it is cheap, 4 respondents indicated that retained earnings has no legal requirement attached to it while 19 respondents indicated other reasons not mentioned.

Table 16: The effect of retained earnings as a source of finance on financial performance of your company

		Frequency	Percent	Cumulative Percent
Valid	Minimized business cost	6	18.8	18.8
	Increased business growth and expansion	14	43.8	62.5
	Increased surplus	8	25.0	87.5
	No effect	4	12.5	100.0
	Total	32	100.0	

Table 16 shows that 6 respondents indicated that retained earnings minimized business cost, 14 respondents indicated that retained earnings increased business growth and expansion, 8 respondents indicated that retained earnings increased surplus while 4 respondents indicated that retained earnings had no effect on companies' financial performance.

7. Descriptive Statistics

To determine the influence of debt financing on financial performance of public sugar manufacturing firms in Western Kenya

The first objective of the study sought to determine the influence of debt financing on financial performance of public sugar manufacturing firms in Western Kenya. The study evaluated the respondents' level of agreement with various statements on debt financing using a 5 point scale where a mean of 1 indicate that respondents strongly disagree with the statement, a mean of 2 indicate that respondents disagreed with the statement, a mean of 3 indicate that the respondents are undecided about the statement, a mean of 4 indicate that respondents agreed with the statement and a mean of 5 indicate that the respondents strongly agreed with the statement. The standard deviation gives the variation of the response from the mean. The smaller the standard deviation the better the results as it indicates that the response were not far from the mean response. The study findings were as illustrated in Table 17.

Table 17: Debt financing and Financial Performance of Sugar Firms

Statements	S. D	D	U	A	S. A	Mean	Std. Deviation
The company prefers debt financing because the increased profit becomes available to shareholders	0	6.3%	9.4%	31.3%	53.1%	4.31	.896
At the moment the company is under financial distress because of debt financing	0%	6.3%	15.6%	21.9%	56.3%	4.28	.958
Debt position of the firm at the moment makes it difficult to obtain funds	3.1%	3.1%	9.4%	21.9%	62.5%	4.38	1.008
The company debts are both short term and long term	3.1%	3.1%	3.1%	46.9%	43.8%	4.25	.916
The firm is able to comfortably fulfil its debt obligations	65.6%	9.4%	18.8%	0%	6.3%	1.72	1.170
Average Mean						3.788	

The findings on Table 17 indicated that most respondents, 84.4%, agreed that company prefers debt financing because the increased profit becomes available to shareholders and the response mean was 4.31; 78.2% of the respondents agreed that at the moment the company was under financial distress because of debt financing and the response mean was 4.28; 84.4% of the respondents agreed that debt position of the firms at the moment made it difficult to obtain funds and a response mean was 4.38; 90.7% of the respondents agreed that the company debts are both short term and long term and a response mean was 4.25; and 75% disagreed that the firms were able to comfortably fulfil their debt obligation and the response mean was 1.72. The average mean

response was 3.788 implying that respondents agreed that debt financing influenced the sugar firms' financial performance.

The study findings concurred with Koskei (2013) whose study concluded that there exist association linking between Debt ratio and financial performance of sugar manufacturing companies in Kenya.

To establish the influence of equity financing on financial performance of public sugar manufacturing firms in Western Kenya

The second objective of the study sought to establish the influence of equity financing on financial performance of public sugar manufacturing firms in Western Kenya. The study evaluated the respondents' level of agreement with various statements on equity financing using a 5 point scale where a mean of 1 indicate that respondents strongly disagree with the statement, a mean of 2 indicate that respondents disagreed with the statement, a mean of 3 indicate that the respondents are undecided about the statement, a mean of 4 indicate that respondents agreed with the statement and a mean of 5 indicate that the respondents strongly agreed with the statement. The standard deviation gives the variation of the response from the mean. The smaller the standard deviation the better the results as it indicates that the response were not far from the mean response. The study findings were as illustrated; the study findings were as illustrated in Table 18;

Table 18: Equity financing and financial performance of public sugar manufacturing firms

Statements	S. D	D	U	A	S. A	Mean	Std. Deviation
The company prefers equity financing to debt finance	0%	56.3%	9.4%	25.0%	9.4%	2.88	1.100
The company issues new shares whenever it wants to fund major projects	0%	3.1%	21.9%	37.5%	37.5%	4.09	.856
The firm adopts equity financing when retained earnings are insufficient	0%	6.3%	15.6%	28.1%	50.0%	4.22	.941
Company's dependence on equity financing has decreased over the years	0%	9.4%	6.3%	40.6%	43.8%	4.19	.931
The company had not called for share increase in the year 2012 – 2017	9.4%	15.6%	18.8%	25.0%	31.3%	3.53	1.344
Average Mean						3.782	

The findings on 18 showed that 56.3% disagreed that the companies preferred equity financing to debt finance and the response mean was 2.88; 75% of the respondents agreed that the companies issued new shares whenever they wanted to fund major projects and the response mean was 4.09; 78.1% of the respondents agreed that the firms adopted equity financing when retained earnings were insufficient and the response mean was 4.22; 84.4% of the respondents agreed that companies' dependence on equity financing had decreased over the years at a response mean of 4.19; and 56.3% of the respondents agreed that the companies had not called for share increase in the year 2012 - 2017 at a response mean of 3.53. The average mean was 3.782 implying that equity financing influenced the companies' financial performance.

The findings of the study concurred with those of Kiama (2013) who established seasoned equity offers are important especially as far as raising capital for growth, expansions or acquisitions is concerned.

To evaluate the influence of retained earnings on financial performance of public sugar manufacturing firms in Western Kenya

The third objective of the study sought to establish the influence of retained earnings on financial performance of public sugar manufacturing firms in Western Kenya. The study evaluated the respondents' level of agreement with various statements on retained earnings financing using a 5 point scale where a mean of 1 indicate that respondents strongly disagree with the statement, a mean of 2 indicate that respondents disagreed with the statement, a mean of 3 indicate that the respondents are undecided about the statement, a mean of 4 indicate that respondents agreed with the statement and a mean of 5 indicate that the respondents strongly agreed with the statement. The standard deviation gives the variation of the response from the mean. The smaller the standard deviation the better the results as it indicates that the response were not far from the mean response. The study findings were as illustrated; the study findings were as illustrated in Table 19;

Table 19: Retained earnings and financial performance of public sugar firms

Statement	S. D	D	U	A	S. A	Mean	Std. Deviation
The company retains profits as part of its finance	0%	9.4%	9.4%	18.8%	62.5%	4.34	1.004
Retained earnings are considered first whenever the company wants to invest in major projects	9.4%	6.3%	6.3%	21.9%	56.3%	4.09	1.329
In most cases retained earnings are never enough	3.1%	3.1%	15.6%	28.1%	50.0%	4.19	1.030
The management increases reserves as finance after reporting net profit	6.3%	6.3%	12.5%	37.5%	37.5%	3.94	1.162
Retained earnings have decreased over the years	9.4%	6.3%	18.8%	37.5%	28.1%	3.69	1.230
Average Mean						4.05	

Results on Table 19 showed that 81.3% of the respondents agreed that the companies retained profits as part of their finances and a response mean for the statement was 4.34; 78.2% of the respondents agreed that retained earnings were considered first whenever the company wanted to invest in major projects at a response mean of 4.09; 78.1% of the respondents agreed that in most cases retained earnings were never enough and the response mean was 4.19; 75% of the respondents agreed that the management increased reserves as finances after reporting net profits and their response mean was 3.94; and 65.6% of the respondents agreed that retained earnings had decreased over the years at a response mean of 3.69. The average mean response was 4.05 implying that majority of respondents agreed that retained earnings influenced their firms' financial performance.

The study findings are supported by Weygandt et al., (2007) who contended that companies that perform better are those that have a high capital base much of which comes from contributions by retained profits, in his view, those companies are obliged to perform better because profits retained

in a business helps to reduce the spectrum of interested parties. As such, this profit will be ploughed back into the activities of the corporation and used to diversity the portfolio of the company without any bureaucratic consideration of third parties who hitherto would have risen if the funds were raised externally.

Financial performance of public sugar manufacturing firms in Western Kenya

The study evaluated the respondents' level of agreement with various statements on financial performance of public sugar firms in Western Kenya using a 5 point scale where a mean of 1 indicate that respondents strongly disagree with the statement, a mean of 2 indicate that respondents disagreed with the statement, a mean of 3 indicate that the respondents are undecided about the statement, a mean of 4 indicate that respondents agreed with the statement and a mean of 5 indicate that the respondents strongly agreed with the statement. The standard deviation gives the variation of the response from the mean. The smaller the standard deviation the better the results as it indicates that the response were not far from the mean response. The study findings were as illustrated; the study findings were as illustrated in Table 20;

Table 20: Respondents' level of agreement with statements on financial performance

Statements	S. D	D	U	A	S. A	Mean	Std. Deviation
Your company's long-term assets have grown between 2012 -2017 because of equity financing	3.1%	18.8%	28.1%	31.3%	18.8%	3.44	1.105
Your company's current liabilities have grown between 2012-2017 because of debt financing	6.3%	15.6%	25.0%	28.1%	25.0%	3.50	1.218
Your company's current assets have grown between 2012-2017 because of ploughing back of retained earnings into the business	3.1%	9.4%	18.8%	37.5%	31.3%	3.84	1.081
The company's total cash, accounts receivables and short-term investments have grown between 2012-2017	6.3%	15.6%	34.4%	21.9%	18.8%	3.32	1.166
The company's net income is greater than total assets	12.5%	21.9%	18.8%	15.6%	31.3%	3.31	1.447
The company's long-term investment plans have been followed hence improved profitability	9.4%	12.5%	28.1%	34.4%	15.6%	3.34	1.181
Retained earnings that have been ploughed back into the company has contributed to reduced cost of doing business hence increased profit level	6.3%	9.4%	31.3%	25.0%	28.1%	3.59	1.188

Total liabilities in the company has since reduced because the management is now relying on retained earnings to fund its operations	9.4%	3.1%	18.8%	46.9%	21.9%	3.69	1.148
Average Mean						3.504	

Findings on Table 20 showed that 50.1% of the respondents agreed that their company's long term assets had grown between 2012 -2017 because of equity financing at a response mean of 3.44; 53.1% of respondents agreed that their company's current liabilities had grown between 2012-2017 because of debt financing and a response mean for the statement was 3.50; 68.8% of the respondents agreed that their company's current assets had grown between 2012-2017 because of ploughing back of retained earnings into the business at a response mean of 3.84; 40.7% of the respondents agreed that their company's total cash, accounts receivables and short term investments had grown between 2012-2017 and the response mean was 3.32; 46.9% of the respondents agreed that their company's net income was greater than total assets at a response mean of 3.31; 50% of respondents agreed that their company's long term investment plans had been followed hence improved profitability and the response mean was 3.34; 53.1% of the respondents agreed that retained earnings that had been ploughed back into the company had contributed to reduced cost of doing business hence increased profit level at a response mean of 3.59; and 68.8% of the respondents agreed that the total liabilities in the company had since reduced because the management is now relying on retained earnings to fund its operations and the response mean was 3.69. The average mean was 3.504 implying that financial performance has improved. The findings are supported by (Brealey, Myers, & Marcus, 2001) who recommended that shareholder's wealth increases when a firm they have invested in earns higher returns for its shareholders.

The figures of the financial records indicate that from 2007 to 2016 financial performances for all the sugar companies were getting worse every successive year. All the sugar companies ventured much in debt financing which continued to grow as can be seen in the table for each company. The company with the highest debt was Nzoia Sugar Company, followed by SONY, Mumias Sugar Company then Chemelil. Nzoia Sugar Company had the highest equity, followed by Mumias Sugar Company, SONY, and Chemelil. Fixed assets for all the four companies were also increasing. The data were supported by (Kibet, 2011) who established that majority of the sugar companies engaged in debts to fund long term investments like fixed assets hence increase in total debts with total assets.

Table 21: Chemelil Sugar Company financial information (2007-2016) in Million Ksh.

	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**Average**
Debt	4.05	3.74	3.82	3.90	4.11	4.26	4.50	4.86	5.34	6.18	4.48
Equity	0.36	0.21	0.94	0.96	1.20	1.28	0.74	0.38	-0.26	-0.29	0.55
Cost of operations	2.98	3.49	3.53	3.87	4.21	4.48	5.10	5.23	6.65	6.81	4.64
EBIT	1.29	1.46	1.58	1.23	1.08	-0.69	-0.94	-0.36	-.064	-0.77	0.38
Profit after tax	0.86	1.21	1.32	0.16	0.19	-0.69	-0.94	-0.36	-0.64	-0.77	0.03
Retained earnings	1.52	1.20	1.17	1.87	1.03	-1.70	-2.61	-2.97	-3.61	-3.61	-.10
Current assets	1.05	1.30	1.26	1.23	1.01	0.62	0.68	0.75	0.84	0.61	0.94

Fixed assets	2.82	3.28	3.24	4.32	4.21	4.32	4.56	4.48	4.47	4.31	4.00
Current liabilities	2.10	1.85	1.64	1.56	1.69	1.74	1.94	2.00	2.05	2.58	1.94
Long term liabilities	1.95	1.89	2.18	2.34	2.42	2.52	2.56	2.86	3.29	3.60	2.56

The financial statement of Chemelil Sugar Company indicates that company debt could not be paid off by equity since debt figure was more than equity. EBIT, profit after tax, and retained earnings posted negative figures indicating that the company was not making profits. Total liability figures were more that asset figures combined which meant that from the assets the company could not pay off the liabilities. Ideally, the ratio should be 1:1. Table 21 show increasing trends the financial figures of the company. This implies that the company was geared for more problems every successive year. For example, company debt had gone up by Ksh. 2.13 Million between 2007-2016. The same to cost of operations and total liabilities. Figures of profit after tax, EBIT, and retained earnings had turned negative. This implies that the company was making losses and was not able to pay off debts and dividends.

Table 22 presents the financial information about SONY for the years 2007 to 2016.

Table 22: SONY financial information (2007-2016) in Millions

	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**Average**
Debt	3.35	3.31	3.07	3.38	3.71	3.58	3.81	3.43	4.04	4.23	3.59
Equity	2.82	2.89	3.01	4.24	4.30	4.09	3.72	3.29	2.56	0.74	3.17
Cost of operations	1.24	1.08	1.20	1.27	1.14	1.21	1.26	1.20	1.39	1.60	1.26
EBIT	1.04	1.86	2.02	2.18	2.03	-1.04	-1.10	-1.2	-1.05	-0.77	0.40
Profit after tax	0.10	0.15	1.52	1.64	2.00	2.01	-1.66	-2.71	-0.75	-0.76	0.15
Retained earnings	1.41	1.62	1.35	1.18	1.09	1.20	0.91	0.62	-0.30	-0.97	0.81
Current assets	1.04	1.67	1.05	1.09	1.18	1.20	1.32	1.52	1.62	1.45	1.31
Fixed assets	1.89	2.01	2.54	2.96	3.20	3.23	3.65	3.84	3.93	3.52	3.08
Current liabilities	2.03	2.11	2.01	2.32	2.48	2.56	2.25	2.19	2.99	3.69	2.46
Long term liabilities	1.32	1.20	1.06	1.06	1.23	1.02	1.56	1.24	1.05	0.54	1.13

The case of SONY is similar to that of Chemelil. EBIT, profit after tax, and retained earnings posted negative figures, indicating that the company was not making profit and could not comfortably pay the debtors and give out divided to shareholders. Debt and total liability figures are huge compared to total assets meaning that the company financial structure was geared more towards debt financing and hence the company was too much in debt to comfortably pay off the liabilities. In the period 2007 -2017, debt had gone up by Million Ksh. 0.88, net profit dropped from a positive of Ksh. 0.10 Million in 2007 to negative of -0.76 Million. Implying that the financial position of the company was bad.

Table 23: Nzoia Sugar Company financial information (2007-2016) in Million (Ksh.)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Av.
Debt	30.44	32.54	34.34	35.75	38.29	38.66	39.7	41.38	43.07	45.73	38.00
Equity	12.82	13.28	14.28	15.02	15.24	-26.56	-28.07	-30.12	-28.53	-31.76	-7.44
Cost of opera.	2.12	2.14	2.86	3.04	3.12	2.10	2.25	2.93	3.27	3.41	2.72
EBIT	2.32	2.08	2.74	2.53	3.01	2.10	0.92	0.98	2.01	2.89	2.16
Profit after tax	1.24	1.29	1.08	1.96	1.84	2.01	-1.67	-3.41	-4.64	-4.76	-0.51
Retained Earn.	-13.04	-14.23	-15.90	-18.20	-24.23	-30.6	-31.9	-33.7	-35.7	-38.6	-25.61
Current assets	2.65	2.57	2.89	3.24	3.45	2.91	2.64	2.10	1.37	0.98	2.48
Fixed assets	9.24	9.74	9.58	10.05	10.13	11.02	11.23	12.09	13.1	13.0	10.92
Current Lability.	28.20	30.23	31.45	32.74	35.21	35.46	36.46	37.86	39.4	41.9	34.90
Long term Lability.	2.24	2.31	2.89	3.01	3.08	3.20	3.24	3.52	3.67	3.83	3.10

Table 23 presents the financial performance of Nzoia Sugar Company which is similar to the other companies. Negative figures of EBIT and profit after tax indicate that the company was not making profit towards 2016. The financial structure was not optimal as it was geared more towards debt financing. Debt had gone up by Ksh. 15 Million between 2007-2016. The same to cost of operations (Ksh. 1.29 Million) and total liabilities (Ksh. 15 Million). Figures of profit after tax, EBIT, and retained earnings had turned negative. This implies that the company was making losses and was not able to pay off debts and dividends.

Table 24: Mumias Sugar financial information (2007-2016) in Million Ksh.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Av.
Debt	3.58	5.11	7.44	7.33	8.70	11.67	13.9	12.93	-4.20	8.31	7.48
Equity	8.34	9.04	10.04	11.00	14.48	15.72	13.38	10.64	6.07	7.56	10.63
Cost of operations	2.07	2.24	2.53	3.21	3.85	3.92	4.40	4.81	4.91	5.06	3.70
EBIT	1.91	1.59	1.19	2.18	2.65	1.76	-2.22	-3.41	-4.64	-6.07	-0.51
Profit after tax (PA)	1.39	1.21	1.61	1.57	1.93	2.01	-1.66	-2.71	-2.01	-3.20	0.01
Retained earnings	5.25	4.15	5.29	6.40	7.86	9.19	7.15	4.51	1.06	-2.35	4.85
Current assets	5.23	5.98	6.72	6.81	7.01	7.23	7.06	4.35	2.57	1.96	5.49
Fixed assets	16.92	17.02	18.46	18.04	20.11	20.17	20.22	19.21	18.21	24.80	19.32
Current liabilities	1.61	3.40	3.76	3.25	2.96	5.72	8.41	10.64	-11.10	-8.87	1.98
Long term liabilities	1.97	1.71	3.68	4.08	5.74	6.08	5.49	2.29	6.90	15.98	5.39

Table 24 presents the financial performance of Mumias Sugar Company which is similar to the other companies. Negative figures of EBIT and profit after tax indicate that the company was not making profit towards 2016. The financial structure was not optimal as it was geared more towards debt financing. Debt had gone up by Ksh. 5 Million between 2007-2016. The same to cost of operations (Ksh. 3 Million) and total liabilities (Ksh. 3.53 Million). Figures of profit after tax, EBIT, and retained earnings had turned negative. This implies that the company was making losses and was not able to pay off debts and dividends.

8. Inferential Statistics

Correlation Analysis

The study conducted the spearman's correlation analysis to measure the relationship between the study variables. The results are as shown in Table 25;

Table 25: Pearson Correlation

Correlations

		Performance	Debt Financing	Equity Financing	Retained Earnings
Pearson Correlation	Performance	1.000			
	Debt Financing	-.116	1.000		
	Equity Financing	.096	.014	1.000	
	Retained Earnings	-.294	.673	.077	1.000
Sig. (1-tailed)	Performance	.	.263	.301	.051
	Debt Financing	.263	.	.469	.000
	Equity Financing	.301	.469	.	.337
	Retained Earnings	.051	.000	.337	.
	N	32	32	32	32

Correlation between variables is a measure of how well the variables are related which is represented by *r* values. Results are between -1 and 1 where $r = -1$ means that there is a perfect negative correlation, $r = 0$ means no correlation between variables while $r = 1$ means a perfect positive correlation. Table 26 shows that there is *r* value of -0.116 which is a weak negative correlation between debt financing and financial performance of public sugar firms in Western Kenya as it tends to be closer to $r = 0$. This therefore means that an increase in debt financing will result in negative influence on financial performance of public sugar firms in Western Kenya. The results also indicate that there is an *r* value of 0.096 which is a weak positive correlation between equity financing and financial performance of public sugar firms in Western Kenya since the value tends to be closer to 0 than 1, however an increase in equity financing results into a positive influence on financial performance of sugar firms. The results further reveal that there is an *r* value of -0.294 which represents a weak correlation between retained earnings and financial performance since the value is closer to 0 than 1. The result indicates that an increase in strategic compensation has a positive influence on the teacher performance.

The results obtained from the Pearson Correlation on Table 26 indicate that there is a negative correlation between debt financing and financial performance with a correlation coefficient of -0.116 and P value $p > 0.05$; there is a positive correlation between equity financing and financial performance of public sugar firms in Western Kenya with a correlation coefficient of 0.096 and P value $p > 0.05$; and there is a positive correlation between retained earnings and financial performance of public sugar firms in Western Kenya with a correlation coefficient of -0.294 and P value $p < 0.05$. The findings therefore indicate that there is a weaker negative correlation between debt financing and financial performance of public sugar firms in Western Kenya; there is a weaker positive correlation between equity financing and financial performance of public sugar firms in Western Kenya; and there is a strong negative correlation between retained earnings and financial performance of public sugar firms in Western Kenya.

9. Regression Analysis

The study conducted regression analysis to establish the relationship between the study variable. Independent variables (debt financing, equity financing and retained earnings) were regressed against dependent variables (financial performance of public sugar firms).

The study conducted regression analysis to establish the relationship between the study variable. Independent variables (debt financing, equity financing and retained earnings) were regressed against dependent variables (financial performance of public sugar firms). Table 26 shows the model summary.

Table 26: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.338[a]	.114	.019	3.94091

According to the Table 26, R-square was 0.114 which means 11.4% variation in financial performance of public sugar firms in Western Kenya was due to debt financing, equity financing and retained earnings while the remaining 88.6% of variation in financial performance of public sugar firms was explained by other factors not considered in the current study.

Table 27: Analysis of Variance (ANOVA)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	56.107	3	18.702	1.204	.0326[b]
	Residual	434.862	28	15.531		
	Total	490.969	31			

a. Dependent Variable: Performance
b. Predictors: (Constant), Retained Earnings, Equity Financing, Debt Financing

The F test was significant with a p value = 0.0326 and therefore less than the standard p of 0.05 and this meant that the model was significant in establishing the relationship between variables. From ANOVA, since p value was 0.326 (0.326 < 0.05) then the influence of equity financing, debt financing and retained earnings had impact on the financial performance of public sugar firms.

Table 28: Regression Analysis Results

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1(Constant)	27.725	7.511		3.692	.001
Debt Financing	.250	.383	.157	.654	.518
Equity Financing	.196	.279	.125	.702	.0489
Retained Earnings	-.402	.237	-.410	-1.698	.101

Based on the regression results shown on Table 28 the regression model is as shown.

$$Y = 27.725 + .0250\chi_1 + 0.196\chi_2 - 0.402\chi_3$$ …….. Equation (1)

Form the regression equation shown, taking all predictor (independent) variables (debt financing, equity financing and retained earnings) constants at zero then the financial performance of public

sugar firms in Western Kenya is 27.725. From the results, a unit increase in debt financing there would be 0.250 increase in the financial performance of public sugar firms in Western Kenya; a unit increase in equity financing there would be 0.196 increase in financial performance of public sugar firms in Western Kenya while a unit increase in retained earnings would lead to -0.402 increases in the financial performance of public sugar firms in Western Kenya.

At significance level of 0.05, debt financing had a significance level of 0.518 hence it was statistically insignificant to financial performance; equity financing had a significance level of 0.0489< hence it was statistically significant to financial performance whereas retained earnings had a significance level of 0.101. All the variables had significance level of more than 0.05 hence they did not make unique significance contribution in predicting the outcome (financial performance of public sugar firms in Western Kenya).

On the influence of debt financing on financial performance of public sugar firms in Western Kenya the respondents agreed that company preferred debt financing because the increased profit becomes available to shareholders; that at the moment the company was under financial distress because of debt financing; that debt position of the firms at the moment made it difficult to obtain funds; that the company debts are both short term and long term; and that the firms were able to comfortably fulfil their debt obligation. The correlation analysis shows that there is *r* value of -0.116 which is a weak negative correlation between debt financing and financial performance of public sugar firms in Western Kenya as it tends to be closer to $r = 0$. This therefore meant that an increase in debt financing will result in negative influence on financial performance of sugar firms in Western Kenya. The result further indicates that there is a negative relationship between debt financing and financial performance of sugar firms in Western Kenya with a correlation coefficient of 0.116 and P value $p > 0.05$.

The study findings concurred with Ong'ombe (2017) who observed that debt ratio has a negative and insignificant relationship with financial performance and therefore debt ratio is not very important when determining the financial performance of sugar manufacturing industries.

On the influence of equity financing on financial performance of public sugar firms in Western Kenya respondents agreed that the companies did not prefer equity financing to debt finance; that the companies issued new shares whenever they wanted to fund major projects; that the firms adopted equity financing when retained earnings were insufficient; that companies' dependence on equity financing had decreased over the years; and that the companies had not called for share increase in the year 2012 - 2017. The correlation analysis result indicates that there is an *r* value of 0.096 which is a weak positive correlation between equity financing and financial performance of public sugar firms in Western Kenya since the value tends to be closer to 0 than 1; however, an increase in equity financing results into positive influence on financial performance of public sugar firms in Western Kenya. Result further indicates that there is a statistically positive relationship between equity financing and financial performance of public sugar firms in Western Kenya with a correlation coefficient of 0.096 and P value $p > 0.05$.

The study findings differed with the findings of Omete & Kajirwa (2017) which affirmed that equity financing negatively affects firms' financial performance as measured by ROA although not statistically significant. From their findings equity financing also strongly negatively related

to firm performance as measured by ROA. This implies that there is an inverse relationship between long term debt and firms' financial Performance.

On the influence of retained earnings on financial performance of public sugar firms in Western Kenya respondents agreed that the companies retained profits as part of their finances; that retained earnings were considered first whenever the company wanted to invest in major projects; that in most cases retained earnings were never enough; that the management increased reserves as finances after reporting net profits; and that retained earnings had decreased over the years. The correlation analysis result shows that there is an *r* value of -0.294 which represents a strong correlation between retained earnings and financial performance of sugar firms in Western Kenya since the value is closer to 0 than 1. The result indicates that an increase in retained earnings has a negative influence on the financial performance of sugar firms in Western Kenya. The results further indicate that there is a strong negative correlation between retained earnings and financial performance of sugar firms in Western Kenya with a correlation coefficient of -0.294 and P value $p < 0.05$.

The study findings concurred with the findings of Thuranira (2014) who established that there is a week significant negative relationship between earnings retentions and the financial performance of public sugar firms.

10. Summary of major findings

To determine the influence of debt financing on financial performance of public sugar manufacturing firms in Western Kenya.

On the influence of debt financing on financial performance of public sugar firms in Western Kenya the respondents agreed that debt financing negatively influenced the performance of public sugar firms in Western Kenya. The correlation analysis shows that there is a weak negative correlation between debt financing and financial performance of public sugar firms in Western Kenya. This therefore meant that an increase in debt financing will result in negative influence on financial performance of sugar firms in Western Kenya. The result further indicates that there is a negative relationship between debt financing and financial performance of sugar firms in Western Kenya.

To establish the influence of equity financing on financial performance of public sugar manufacturing firms in Western Kenya.

On the influence of equity financing on financial performance of public sugar firms in Western Kenya respondents agreed that equity financing positively influenced financial performance of public sugar firms in Western Kenya. The correlation analysis result indicates that there is a weak positive correlation between equity financing and financial performance of public sugar firms in Western Kenya. Result further indicates that there is a statistically positive relationship between equity financing and financial performance of public sugar firms in Western Kenya.

To evaluate the influence of retained earnings on the financial performance of public sugar manufacturing firm in Western Kenya.

On the influence of retained earnings on financial performance of public sugar firms in Western Kenya respondents agreed that retained earnings negatively influence financial performance of public sugar firms in

Western Kenya. The correlation analysis result shows that there is a strong correlation between retained earnings and financial performance of sugar firms in Western Kenya. The result indicates that an increase in retained earnings has a negative influence on the financial performance of sugar firms in Western Kenya. The results further indicate that there is a strong negative correlation between retained earnings and financial performance of sugar firms in Western Kenya.

11. Conclusions

Based on the findings the study concludes that debt financing negatively influence financial performance of Public Sugar firms in Western Kenya. For equity financing positively influenced financial performance of public sugar firms in Western Kenya. For retained earnings it negatively influence financial performance of public sugar firms in Western Kenya.

12. Recommendations

From the findings of the study, it is recommended that the management of sugar companies do the following: There is need for the management to review capital structure so as to identify areas that need to be improved on like reducing dependence on debt financing unless for capital assets meant for increased production, set an optimum Debt Equity and Debt Ratio that suit the firm in the long run, and priorities their sources of financing; preferably consider internal funds, followed by debt, and finally equity issues, as sources of finance.

Suggestions for further research

Further research should be done on the influence of capital structure on financial performance of companies in other sectors. There is need carry out a study using data from 2017 to 2019, the research could include other financial measures not included in the study, i.e. profitability, Earning per share, liquidity.

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