

ADFJ ISSN 2522 - 3186.

# African Development Finance Journal

**VOLUME 7 (IV)**

*Influence of Business Risk on Financial Performance of  
State-Owned Sugar Manufacturing Corporation  
Projects in Western Region, Kenya*

Mathew Elijah Kawuor

Prof. Charles M. Rambo (Ph.D)

Prof. Paul A. Odundo (Ph.D)

Date Received: April, 03, 2024

Date Published: July, 04, 2024

## **Influence of Business Risk on Financial Performance of State-Owned Sugar Manufacturing Corporation Projects in Western Region, Kenya**

By: Mathew Elijah Kawuor<sup>1</sup>, Charles, M. Rambo (Ph.D)<sup>2</sup> and Paul, A. Odundo (Ph.D)<sup>3</sup>

### **Abstract**

*The study examined the level at which business risk as capital structure decision influenced financial performance of State-owned sugar corporation projects in western region, Kenya. The research was guided by Modigliani and Miller's capital structure (1958) model mainly- (Trade-off; Pecking order and Agency cost theories). Pragmatism paradigm approach was applied as a method that enabled the use of mixed research. The study used both descriptive survey and correlational design to analyse data. A target populace of 1145 drawn from employees of State sugar sectors was used. Krejcie and Morgan (1970) model was used to obtain a sample size of 291. The main instrument for data collection was structured questionnaire supported by interview guide. The questionnaire was administered to employees of sugar sector and relevant government agencies while interview guide was administered to opinion leaders in the sugar belts. Analysis of numerical data was done using both descriptive and inferential statistical approach aided by Statistical Package for Social Science version 25. Qualitative data was collected with the help of narrative statements based on themes. In order to determine the relationship between the variables, Simple and Multiple Linear Regression as well Pearson correlation Coefficient were used. Hypothesis (Ho1; There is no relationship between business risk and financial performance of State -owned sugar manufacturing corporations was tested at  $\alpha = 0.05$ . Since  $p = 0.000 < 0.05$  Ho1 was rejected. The results of the study were expected to help stakeholders in State sugar corporations to provide information on how to utilize capital structure decisions that influence financial performance.*

**Keywords:** *Business risk; Capital structure decisions; financial performance; State sugar manufacturing corporation projects*

### **Introduction**

Sugar manufacturing is an activity which by nature of its operation is capital intensive. As a result, it requires large amount of capital to finance its investment. In view of this, it cannot be financed using either equity or debt alone but a mixture of the two (Ong'ombe & Mungai, 2018; 2018; Ndi, 2019; Omondi, 2023). Capital structure as a concept is concerned with how a firm finances its operation with a combination of equity and debt. As a tool capital structure therefore, is considered a major issue in corporate finance theory which can have a significant impact on a corporation's financial performance and strategic decision making (Nassar, 2016; Bhutto, Soomro & Chumro, 2021). It not only helps to maximize the value of a firm, but it is also instrumental in decreasing some risks that may lead to the firm's low performance (Shubita,

---

<sup>1</sup>Department of Management Science and Project Planning, Faculty of Business and Management Science, University of Nairobi, E-mail: [kawour\\_elijahmathew@yahoo.com](mailto:kawour_elijahmathew@yahoo.com); ORCID: 0000-0001-7854-767X

<sup>2</sup>Department of Finance and Accounting, Faculty of Business and Management Science, University of Nairobi

<sup>3</sup>Department of Educational Planning and Administration, Faculty of Education, University of Nairobi

2023). This makes decision of capital structure a critical issue which in its absence, business is likely to face financial distress (Opoku, 2021).

Capital structure and management approach are intertwined thus making capital structure mix largely a management responsibility that cannot be ignored. An accurate financing decision is necessary for the growth of a firm since a false decision on the mix is likely to cause financial difficulty (Nyabakora & Chibora, 2020). A higher capital structure is instrumental in maximizing shareholders' capital while minimizing the overall cost of the capital (Alipour, Mohammadi & Darakhshan, 2015). Ashok (2012) states that global sugar manufacturing corporations play a major role in creating employment opportunities and providing revenue in form of taxes to their governments. However, despite the benefits, these sugar corporations experience myriad financial risks that lead to their minimal financial performance. As such, a careful financial decision is necessary for a firm's growth so as to avoid risks that may lead to bankruptcy. It is, therefore, the responsibility of the management of a firm to organize its capital structure in such a way that maximizes the firm's value (Das & Swain, 2018). Several studies have attempted to identify the optimal capital structure; however, no specific method has been developed to determine the optimal capital structure (Sagara, 2015; Zhang & Yu, 2016).

In Kenya, like any other sugar producing countries, State-owned sugar manufacturing corporations (SOSMCs) create employment opportunities and generate revenue in form of taxes to the government (Kenya Sugar Directorate, 2018). According to a report by the Kenya Sugar Industry (KSI) (2009), the corporations contribute 15% of Kenya's Agricultural Gross Domestic Product (AgGDP). The report by KSI further indicated that State sugar manufacturing corporations enjoy well-branded products, qualified personnel and government patronage. However, despite the benefits and government support by way of sanctioning funds to improve their performance, the manufacturing corporations still continue to perform poorly. Instead, they continue to accumulate huge debts owed to lending institutions such as Sugar Development Fund (SDF) and Kenya Commercial Bank (Kenya Sugar Directorate, 2018; Government of Kenya, 2023).

Business risk refers to that portion of the unsystematic risk that comes about by the operating environment of the business. It is caused by a firm's failure to maintain its growth and stability of the earnings (Pandian, 2008). Miles (2011) defines business risk as uncertainty in profit or danger of loss and events likely to pose

risk due to unforeseen events in future which may result to business failure. Miles argues that a corporation's business risk is a type of risk inherent in the company's operations, which arises from a firm's assets especially when no debt is used. He further argued that business is a basic risk of a firm's operation. However, in spite of the support, he cautioned that in situations when business risk is in the increase, the optimal debt ratio reduces. State sugar corporations in Kenya have for several years been experiencing challenges thus leading to low production of sugar products. This situation has resulted to current financial difficulties. In this study, business risk was measured against operational, financial, reputational, compliance and strategic risks.

Financial performance is a tool used for measuring operations of a firm in money terms. It helps to measure how business firms can use its assets (Alexander, 2018; Busch, Bauer & Olitzky, 2016). A study conducted by Pandey (2010) opines that financial performance plays the role of a general measure to a business. Pandey added that financing performance of a firm originates from its strategic management. This notion is used to describe success of a firm, taking its legal status in consideration.

Webster (2012) concurred with the above views and added that as a concept, financial performance is a controversial issue because of its multi-dimensional meaning. Based on the above, Webster recommended that emphasis was to be made in formulating its adequate description when analyzing performance of a firm. In view of the above, performance can be analogized as a consequence of an organization's assessment in regard to its success in achieving required objectives. In this respect, the study measured performance with the help of; Sales profit; Return on sales; Return on total assets; Return on net worth; Return on invested capital and Primary ratio. The aim of measurement was to ascertain viability of State sugar corporations.

### **Research Problem**

Kenya's State-owned sugar manufacturing corporations play an important role in improving socio-economic development. However, in spite of benefits associated with the sector, it is experiencing myriad challenges because majority of these sugar corporations were in heavy debts due to lending institutions. In view of this, their performance has remained minimal. This situation has led to inadequate supply of sugar products (KSB, 2014; Ong'ombe and Mungai, 2018). Despite the fact that the sugar manufacturing corporations enjoy well branded products, qualified personnel and Government support, they still continue

to record minimal performance (Ikape & Kajirwa, 2017; Waswa, Mukras & Oima, 2018).

Several studies have been conducted by various scholars such as (Omondi, 2023; Kombo & Ndiema, 2020; Fwamba, Namusonge & Sakwa, 2017; Simiyu, 2017; Imbambi, 2018; Mubeen et al., 2016; Nabi et al., 2016; Momanyi & Naibei, 2014; Odek et al., 2003) in regard to performance of State sugar manufacturing firms however, none of these studies have adequately addressed the issue of how capital structure decisions and management approach influence financial performance of State-owned sugar corporation projects in western Kenya.

A review of other studies in Kenya showed that most of the researches on sugar manufacturing are mainly in areas of credit risk, general management of sugar factories and political issues associated with sugar management. Other studies outside Kenya, mainly from global leading sugar producing countries such as Brazil, India, China, Mexico, Britain and United States failed to address capital structure decisions, management approach and financial performance issues. However, the few studies in some of the tier two and three categories of world sugar producers were found to be concerned with working capital management, history of sugarcane growing, procurement, marketing, sugar as a political commodity and environmental challenges faced by sugarcane farmers. Other studies found on capital structure decisions, management approach and financial performance centered on industries such as banking, cement, energy, hotel and food thus creating the gap. It is on this basis therefore that the research was prompted to investigate how capital structure decisions and management approach influence financial performance of State-owned sugar corporation projects in western Kenya.

### **Objective of the Study**

The study examined the level to which business risk as capital structure decision influenced performance of State-owned sugar corporations in western region, Kenya.

### **Research Hypothesis**

H<sub>01</sub>; There is no significant relationship between business risk and financial performance of State-owned sugar manufacturing corporation projects in western region, Kenya.

## **Literature Review**

### **Theoretical Review**

The study was based on Modigliani and Miller (1958) capital structure Irrelevance theory which explains a firm's financing structure. Proponents of the theory argued that a firm's value was irrelevant to capital structure of financial decisions. In this theory, emphasis was made on three dominant theories mainly; Trade-off, Pecking order, and Agency cost theories. Each of the three theories was relevant to the study as follows;

### **Trade-off Theory**

It is the extension work of Franco Modigliani and Merton Miller (1958), and was perfected by Kraus and Litzenberger in 1973. The theory is of the view that a firm is free to choose amount of debt and equity finance it requires to use in financing its investment. The theory boasts of tax shield as a benefit of using debt. However, the theory fails to take into consideration risks associated with debt such as bankruptcy in the event the firm fails to make good of the liability according to terms of agreement. The theory was suitable to the study because it provided explanation to the effect that firms are mostly financed with both equity and debt. It therefore helped to establish that financial strength and performance of sugar firms is influenced by preferred sources of finance. The theory also helped to determine whether managers of State sugar corporations take interest tax shield into consideration while making borrowing decisions. Since the theory involved use of capital structure mix, it therefore helped sugar corporations to adopt policies that reduce costs.

### **Pecking Order Theory**

Theory was denoted by Myers and Majluf in 1984 and is of the view that profit-oriented firms would prefer to exhaust internal sources of funds first, before turning to external funds to finance investments. The theory hypothesized that firm managers should make use of internal sources first, in the event of inadequacy, they are free to go for debt and still if not enough, resort to equity. The theory is relevant to the research since it helped to determine whether State sugar corporations utilize internal funds first before turning to external sources. It also helped to explain factors that influence decisions on financing business operations. Despite the benefits of the theory to the study, it has a limitation that it is applicable to established firms only since less mature firms often lack access to cheaper internal and debt financing.

### **Agency Cost Theory**

The theory was propounded by Berle and Means in 1932. The proponents argued that separation of ownership gives managers opportunities to serve own interests other than those of principals. However, a section of critiques argued that the theory only described the processes of behaviour of people. In this respect, the theory does not reflect the overall motivation behind the behaviour of different people. The theory also fails to consider other stake-holders such as employees and consumers who may have significant impact on organisational performance. The theory was suitable to the study because it helped to establish whether public and owners' interest are considered at the time of taking internal loans. It also assisted to deal with issues related to conflict between principles and agents which is part of this study. It was concluded that the three theories (Trade-off, Pecking Order and Agency cost) were important to the study because they explicitly helped to explain business risk as capital structure decision variable.

### **Review of Empirical Literature**

In India, Shivani and Bodia, (2020) conducted a study on firm characteristics and leverage of sugar companies. The researchers measured impact of different companies' characteristics which included size of company, growth, tax volatility, business risk and ROA of listed sugar firms. In this study, researchers applied panel data method to determine effect of leverage on firms' characteristics and debt equity ratio. The findings reported that interest coverage ratio, business risk, size and tax were negatively related to leverage. Conversely, a significant relationship of debt equity ratio was recorded. A similar study was conducted by Sheoran and Rani, (2023) in India. The study concentrated on performance of sugar mills which operates in Haryana region. The study aimed to establish economic performance of Haryana sugar industries in regard to performance. The research was for ten years (2011-2021). The findings reported that sugar cultivation in Haryana tremendously improved as a result of introduction of new farming methods. On the other hand, it was reported that following introduction of technology, sugar manufacturing in the region realized improved production.

In a study of performance of sugar manufacturing firms in Pakistan, Hussain, Quddus, Tien, Rafiq and Pavelkova, (2020), analysed effect of company size and reported that size of a firm had no relationship with its performance. This study was for a period six years (2013-2018) and covered a total of 29 listed companies which operate in the sugar market. The researchers used both static panel and dynamic panel analysis on linear and non-linear regression approach. In this study, capital structure included; Debt to

capital ratio and current liabilities, which were used as dependent variables. On the other hand, profitability, firm size, tangibility, Prodigy finance, tax shield and liquidity were independent variables. The findings of the study reported that profitability, size of firm and non-debt tax shield had no relationship. On the other hand, tangibility and interest rates positively affected debt to capital ratio. Based on the above, it was concluded that sugar sector has higher financial leverage meaning that the moderators have strong influence on capital structure.

In South Africa, Thibane et al. (2023) investigated factors that impact on sugarcane production. The interest of this study was to find risks that contribute to decline of small-holder sugarcane production in KwaZulu-Natal Province. The researchers used qualitative research design while secondary data was used to collect information. The study therefore, analysed data using descriptive statistics. The findings reported that some of the risks associated with the decline of sugarcane production in small-scale zones of KwaZulu region include labour costs, drought, inadequate funds and high transportation costs.

In an analysis of how capital structure decisions affect performance of sugar companies in Western Kenya, Omondi (2023) applied descriptive survey and inferential statistical tools to analyse data. The research was guided by three most commonly used capital structure theories (Trade off, Pecking order and Agency cost). It was reported that effectiveness of a firm depends heavily on capital structure decision. This means that a wrong capital structure choice will negatively affect performance of a firm. The study however, focussed on all sugar firms in western region including privately owned. The results of the study are not likely to give a true picture relevant to current study which is on State-owned sugar manufacturing corporations. In the same area of study, Odundo and Mong'are, (2023) researched on how "Strategy implementation influences performance of sugar corporations". This research was confined in western Kenya which is the hub of sugarcane growing in the country. The researchers used pragmatism paradigm approach and analysed data using inferential statistics. A positive significant relationship between the variables (strategic resources and organisational) performance of sugar firms in western Kenya was reported. It was recommended that advanced technology be put in place so as to ensure effective strategy implementation. Likewise, Orwa et al, (2022) carried out research on "Effect of functional strategies of sugar industry in Kenya". The study sought to explain reasons why sugar factories in Kenya perform minimally in spite of capital structure mix. Cross sectional study design was used while data was analysed with the help of inferential and descriptive statistics. The finding reported that functional strategies significantly influence competitiveness of sugar



industries. It was recommended that top management of sugar industry need to formulate functional strategies and implement such strategies so as to enhance competitiveness.

Omwono and Aloo (2020) conducted a study on how Working Capital Management practices influence performance of sugar companies. The study emphasized on financial performance of Mumias Sugar Company and used correlation research design. The finding revealed that there was a strong correlation between the variables. Similarly, Mati and Thomas, (2019) reported that sugar industry in the Coastal region needed reforms in order to improve profitability. The study recommended timely payments to sugarcane suppliers so as to increase their morale.

Mbithi, Muturi and Rambo (2017) in an investigation of “Strategic choice on performance of sugar companies in Kenya”, found that sugar firms followed product development at different levels. The findings also revealed that moderating effect of macro environment helped to increase explanatory power of strategy variables. It was further reported that sugar firms were in huge debts and therefore were unable to operate normally. On the contrary, Mande et al. (2020) investigated “Influence of financial capacity on competitive advantage of State sugar corporations in western Kenya”. They reported that “availability of financial resources does not result in direct competitive advantage of the firm”. However, they argued that this situation depends on how the funds are strategically utilised. This study further stated that “State sugar firms were heavily indebted and insolvent. Based on this, the researchers recommended a meaningful government intervention to institute an environment for sugar industry to enjoy competitive advantage in the COMESA free trade area. On the other hand, in an effort to assess effect of strategic operation application of sugar companies in Kenya, Maiyo (2020) used descriptive survey design. He analysed data with the use of both inferential and descriptive analysis. It was reported that there was a positive influence between the variables.

Nanjala, Immonje and Wasike (2022) examined challenges experienced by small-scale sugarcane growers in Malava Sub-County in western Kenya. The survey identified factors that lead to inefficiency in sugar production in the region. Descriptive research design was used and data were collected with the help of questionnaires. The researchers further used Focus Group Discussion and observation guides to supplement the questionnaires. It was found that cost of transportation of sugarcane from farms to the factory was high compared to other costs of production.

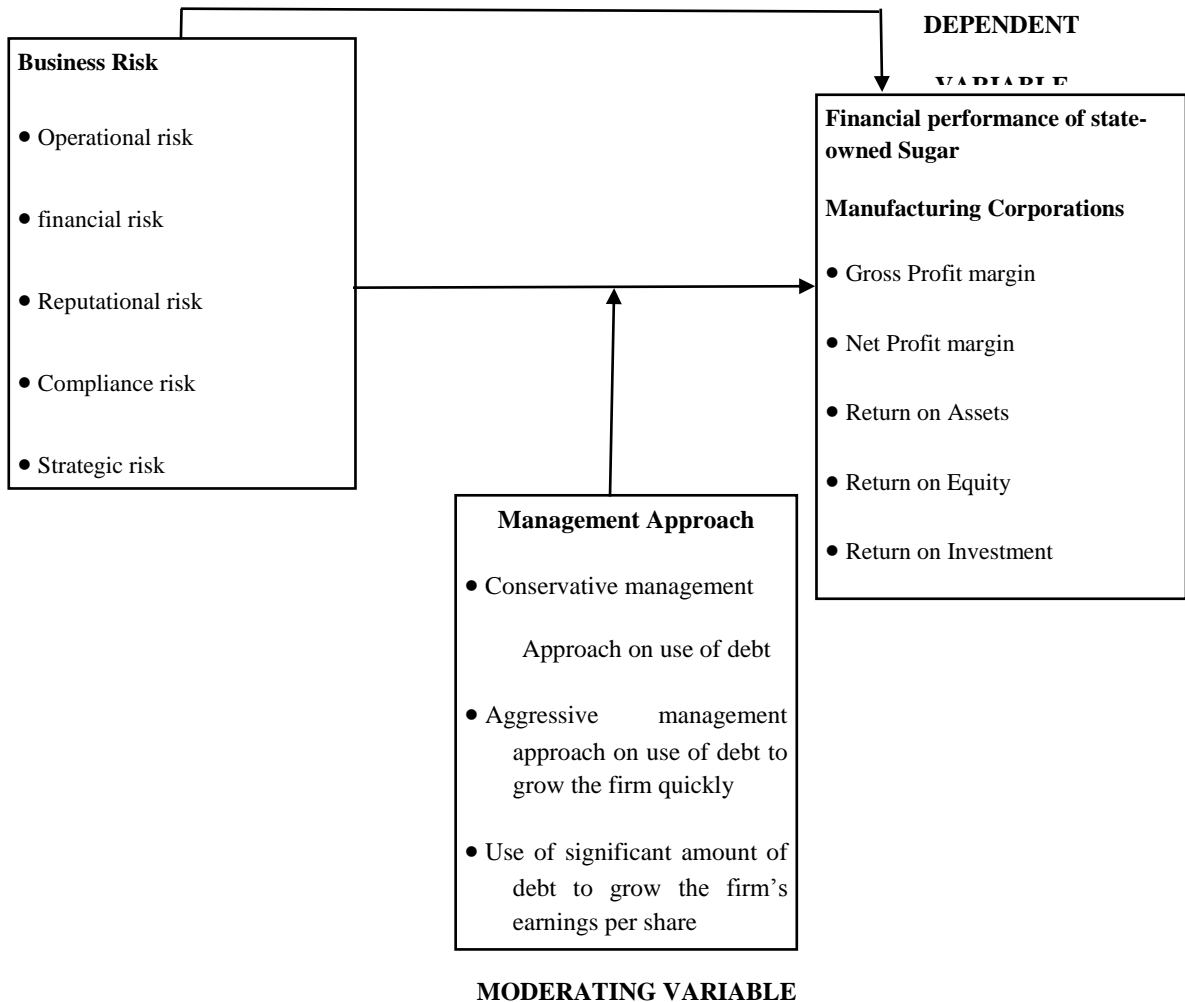
In a study of “Working Capital Management” (WCM), Kiprotich, Wanjare and Oluoch (2020) investigated the effect of WCM practices on financial performance among sugarcane out-grower companies in Kenya. They used descriptive research and analysed data with the help of descriptive and correlation analysis. It was reported that WCM practices in sugarcane out-grower companies were more conservative compared to others. This situation was considered to have weakened performance of sugar firms. The researchers concluded that minimal performance was as a result of weak practices by sugarcane out-growers. In regard to reputation, Akoko and Olala (2016) investigated the influence of corporate social responsibility (CSR) interventions on financial performance of sugar factories in Kenya. The study used cross-sectional survey design and analysed data using descriptive statistics. The findings indicated that CSR activities had positive influence on financial performance on sugar firms hence improved productivity. Additionally, Wekesa and Kimutai (2018) examined “Influence of sustainability management systems of CSR on firm performance of selected sugar companies in Kenya”. Correlation and Multiple Regression were used for comparative analysis between frequencies of Corporate Social Responsibility practices on firm performance. It was found that sustainability management systems of CSR had negative effect on firm performance.

### **Conceptual Framework**

The section conceptualizes the level at which business risk as capital structure decision influences performance. It was therefore conceptualized that business risk influences financial performance of State-owned sugar corporations negatively. Business risk was measured against operational, financial, reputational, compliance and strategic risks, while dependent variable (Financial performance) was measured against GPM; NPM; ROA; ROE; ROI and ROCE. In this study, the conceptual framework model demonstrates how management approach moderates the connection between capital structure decisions and performance. According to the model, financial performance is the dependent variable with both quantitative and qualitative indicators influenced separately by management approach. Management approach comprises conservative and aggressive styles as indicators. It was conceptualized that business risk as capital structure decision, being independent variable relate with dependent variable.

**INDEPENDENT VARIABLE**

**Capital Structure Decision**



**Fig. 1: Conceptual framework for Business Risk as Capital Structure Decisions.**  
 Source; Self conceptualization.

**Research Methodology**

In this study both descriptive survey research and correlation research designs were used. Descriptive survey research approach was useful for analysing situation as it was without manipulation. Meanwhile, correlational design helped to assess the level of association that exists among the variables. The study targeted five State sugar corporations mainly; Muhoroni, Chemelil, Mumias, Nzoia and Sony (MUCHEMUNSO). These factories are the only State sugar manufacturing corporations located in lowland sugar belt areas of western Kenya. The study was for a period of five years 2015-2019 inclusively.

A target population of 1145 persons was drawn from the management of sugar sector. The population comprised of top-level management of each of the five State sugar corporations, supervisory staff, sugarcane out-growers and Government officials (mainly from Ministry of Agriculture and Sugar Directorate). In order to arrive at a sample size of 291, Krejcie and Morgan (1970) table was used. Purposive sampling technique was used to pick respondents from top level management in each of the State sugar corporations. In the case of government agencies which comprised Ministry of Agriculture and Sugar Directorate officials, a sample of 15 was picked with the help of purposive sampling method. The researcher identified one individual each from MoA and SD using purposive sampling technique. On the other hand, the supervisory level employees of State-owned sugar manufacturing corporations and sugarcane out-growers whose target population was 54 and 1056 respectively, was arrived at using stratified random sampling.

Self-administered structured questionnaire and interview guide were used as tools for data collection. The interview guide was administered to opinion leaders mainly the administration (Chiefs), Members of County Assemblies and Members of Parliament of each of the State sugar manufacturing area. Quantitative data were collected with the help of self-administered structured questionnaires. On the other hand, information of qualitative data was obtained from key informants. The information was subjected to appropriate recording and was then processed according to themes. The study used Pearson correlation coefficient for testing how the variables were associated. This approach enabled rejection or acceptance of the null hypothesis which was tested at 0.05. The null hypothesis ( $H_0$ ; There is no significant relationship between business risk as capital structure decision and financial performance of State-owned sugar manufacturing corporation projects) was rejected since  $P=0.000 < 0.05$ .

## **Results and Discussions**

In this study, Business risk was defined as an uncertainty that arises from weak capital structure decisions. Such poor decisions may result to inadequate business performance. In order to ascertain respondents' views, they were subjected to a ten statement Likert scale question of 1-5 where they were to express their levels of agreement and disagreement. The results obtained from level of opinions were analyzed and presented processed in a computerized system and thereafter presented as shown in Table 1.

**Table 1: Business Risk and Financial Performance of State-Owned Sugar Manufacturing Corporation Projects**

STATEMENTS	SA F(%)	A F(%)	N F(%)	D F(%)	SD F(%)	Mean	Std. Dev
The corporation does not have adequate measures to assess and monitor its business risk	91(34.9)	95(36.4)	28(10.7)	26(10)	21(8.0)	3.80	1.24
The corporation's management takes into consideration financial risks before making capital structure decisions	80(30.7)	107(41)	39(14.9)	16(6.1)	9(7.3)	3.82	1.15
Poor planning and slow response times are part of the corporation's risks	104(39.8)	117(44.8)	27(10.3)	11(4.2)	2(0.8)	4.19	0.84
The corporation does not have qualified business risk assessors	73(28)	98(37.5)	63(24.1)	17(6.5)	10(3.8)	3.79	1.04
The corporation complies with legislative rules and industry regulations to avoid risks	90(34.5)	115(44.1)	35(13.4)	10(3.8)	11(4.2)	4.01	1.01
The corporation does not comply with corporate social responsibility requirements	87(33.3)	87(33.3)	37(14.2)	29(11.1)	21(8.0)	3.73	1.26
The employees are satisfied with the corporation's compliance and practices of inventory system to manage risks	97(37.2)	100(38.3)	21(8.0)	24(9.2)	19(7.3)	3.89	1.21
The corporation does not have reputation with customers because of the high level of risks	113(43.3)	71(27.2)	54(20.7)	9(3.4)	14(5.4)	4.00	1.13
The corporation's management takes demand shortfalls into account while choosing the right strategic capital risk decisions	129(49.4)	66(25.3)	23(8.8)	33(12.6)	10(3.8)	4.04	1.20
The corporation does not have adequate policies to deal with internal operational risks	123(47.1)	61(23.4)	33(12.6)	20(7.7)	24(9.2)	3.92	1.32
<b>Composite standard deviation &amp; Composite Mean</b>						<b>3.93</b>	<b>1.06</b>

The above results, as shown in Table 1 are indications that composite deviation and composite mean for the business risk were 3.93 and 1.06, This implies that a majority of the participants were in agreement (mean=3.93) that business risk influences financial performance of state-owned sugar corporations. In this study, ten statements were developed for purposes of measuring the level to which business risk influenced financial performance of state-owned sugar manufacturing corporation projects.

### Financial Performance of State-Owned Sugar Manufacturing Corporation Projects

In order to measure ten indicators of financial performance of State sugar corporations, data were collected and respondents were asked to express their opinions in a Likert scale of 1-5. Analysis of the results was done and reported accordingly. Item mean, standard deviation and composite mean were computed and presented as shown in Table 2.

**Table 2: Financial Performance of State-Owned Sugar Manufacturing Corporation Projects**

Statements	SA F(%)	A F(%)	N F(%)	D F(%)	SD F(%)	Mean	Std. dev
Gross profit margin of the corporation is adequate enough to sustain it.	108(41.4)	110(42.2)	25(9.6)	9(3.4)	9(3.4)	4.15	0.920
Gross profit margin of the corporation is adequate enough to cover its fixed operating expenses	83(31.8)	104(39.9)	34(13.0)	18(6.9)	22(8.4)	3.80	1.20
The corporation's gross profit margin leaves some profit at the end of the financing period.	122(46.9)	105(40.1)	24(9.2)	9(3.4)	1(0.4)	4.30	0.81
Net profit margin of the corporation leaves enough revenue after operating expenses and statutory deduction are taken into account.	76(29.1)	94(36.0)	66(25.3)	14(5.4)	11(4.2)	3.80	1.05
The corporation uses net profit margin to project future profit, set goals and bench mark for profitability.	98(37.5)	117(44.9)	30(11.5)	7(2.7)	9(3.4)	4.10	0.95
The corporation's return on assets is not adequate enough to sustain the use of the assets.	88(33.7)	75(28.7)	31(11.9)	37(14.2)	30(11.5)	3.59	1.38

---

The corporation's return on capital employed shows it generates profit from its assets	117(44.9)	91(34.9)	16(6.1)	21(8.0)	16(6.1)	4.04	1.18
The corporation's return on investment does not help to improve its financial performance	124(47.5)	73(28.0)	37(14.2)	11(4.2)	16(6.0)	4.07	1.16
The corporation's return on equity does not motivate shareholders	147(56.3)	73(28.0)	12(4.6)	19(7.3)	10(3.8)	4.26	1.09
The net profit margin of the corporation has not improved for the last ten years.	122(46.7)	56(21.5)	29(11.1)	29(11.1)	25(9.6)	3.85	1.37
<b>Composite mean &amp; Composite standard deviation</b>						<b>3.99</b>	<b>1.17</b>

---

Financial performance is a process that helps to measure results of a firm's policies and operations in money terms. In this research, financial performance of State-owned sugar corporations was the dependent variable. A review of both theoretical and empirical literature showed that Gross Profit Margin, Net Profit Margin, Corporation's Return on Assets, Corporation's Return on Capital Employed, Corporation's Return on Investment, and Corporation's Return on Equity serve as key indicators of financial performance of State sugar corporations.

The statement One; *'The corporations do not have adequate measures to assess and monitor business risk.'* The results were as follows 34.9% SA; 36.4% A; 10.7% N; 10% DA and 8% SD. Mean and standard deviation of 3.80 and 1.24 respectively were realized. Since the mean score 3.80 was less than composite mean (3.93), it implied that majority of the participants agreed that State sugar corporations have inadequate measures in place to curb business risks. The finding is in agreement with study conducted by Ondiek, (2014) on credit risk exposure in which he proposed implementation of risk measures for all sugar manufacturing firms.

**NB; 1= SA Strongly Agree; 2= A Agree; 3= N Neutral; 4- D Disagree and 5- SD Strongly Disagree**  
Statement Two; *'The corporations' management takes into consideration financial risks before making capital structure decisions'* The result showed a mean and standard deviation of 3.82 and 1.15 respectively. From 261 people who responded, 30.7% SA; 41% A; 14.9% N; 6.1% DA and 7.3% SD. In view that line composite mean of 3.93 was more than statement mean score of 3.82, it was agreed that the management of sugar manufacturing corporations have not taken adequate measures while making financial decisions.. Since line standard deviation of 1.15 was higher than composite standard deviation of 1.06, a divergence opinion was realized. The results of the above statement are in agreement with Kioko, Olweny and Ochieng, (2019) who reported a significant negative effect between credit/operational/market risks and performance of State sugar corporations.

Statement Three; *'Poor planning and slow response times are part of the corporations' operational risks'*; The results of the study revealed that there was a mean and standard deviation of 0.84 and 0.61 respectively. From the results, it was reported that out of 261 respondents, 39.8% SA; 44.8% A; 10.3% N; 4.2% DA and 0.8% SD. Based on this it was agreed that poor planning and slow response times are part of corporations' operational risks. The statement is in agreement with Ondiek, (2014) who in a study of sugar firms. Since



line statement mean core of 4.19 was more than composite mean of 3.93, it was assumed that poor planning and slow response times are part of the corporations' operational risks that negatively influence financial performance of state-owned sugar manufacturing corporation projects. In view that line item standard deviation of 0.84 was less than composite standard deviation of 1.06 there were convergence views in opinion of participants. The study results supported those by Muhsin *et al.* (2020) who reported that inadequate planning is one of the major risks that led to poor financial performance of the corporations. Statement Four; *'The corporations do not have qualified business risk assessors'*; According to this statement, a mean and standard deviation of 3.79 and 1.04 were respectively reported. Out of 261 people who were involved in the study, 28% SA; 37.5% A; 24.1% N; 6.5% DA and 3.8% SD. Since line statement mean score (3.79) was less than the composite mean (3.93), it implied that State sugar corporations did not have qualified business risk assessors. This situation therefore negatively influenced financial performance of State sugar corporations. This result led to a divergence of opinion however are in agreement with Chen, (2014) who reported that poor credit control measures exerted a negative and significant effect on business risk hence need for firms to have qualified risk assessors.

Statement Five; *'The corporations comply with legislative rules and industry regulations to avoid risks'*; In this statement a mean and standard deviation of (4.01 and 1.01) respectively were realized. This was an indication that from 261 people who participated; 34.5% SA; 44.1% A; 13.4 % N; 3.8% DA and 4.2% SD. Based on the report that line statement mean score 4.01 was more than composite mean 3.90, it was concluded that corporations do not comply with legislative rules and Industry regulations. Since the lower standard deviation of 1.01 is less than composite standard deviation of 1.06, there was a convergence view in opinion. The findings of this study was found to be in line with Padayache, (2011) who reported that sugar industry in South Africa experiences challenges arising from changes in environmental legislation.

Statement Six; *'The corporations do not comply with corporate social responsibility requirements'* This statement revealed a mean and standard deviation of 3.73 and standard deviation of 1.26 respectively thus indicating that; Out of 261 people who took part in the study, 33.3% SA; 33.3% A; 14.2% N; 11.1% D and 8% SD. The results state that line statement mean score (3.73) was less than composite mean of 3.93. This finding shows that corporations do not comply with CSR requirements leading to negative influence on financial performance of SOSMCs. There was a divergence view and this contradicted Mbithi et al, (2017) who in the same area of study reported that statistical results showed positive performance outcome.

Statement Seven; “The employees are satisfied with the corporations’ compliance and practices of inventory system to manage risk’ A mean and standard deviation of 3.89 and 1.21 were respectively reported. From 261 participants, it was reported that 37.2% SA; 38.3% A; 8% N; 9.2% D; and 7.3% SD. The findings revealed a mean score of 3.89 as lower than composite mean of 3.93 meaning employees were not satisfied with practices of inventory in regard to risk management. There was a divergence in opinion since standard deviation of 1.21 was found to be on a higher side than composite deviation of 1.06. The results of the study were found to be in agreement with Nyaanga, (2018) who in a similar research reported that customers working for distressed firms have low morale because of fear of bankruptcy.

The eighth statement; “*The corporations do not have reputation with customers because of the high level of risks*”. A mean of 4.00 and standard deviation of 1.13 were reported. This result indicated that from 261 study respondents, 43.3% SA, 27.2% A, 20.7% were neutral, 3.4% D and 5.4% SD. A mean score of 4.00 was found to be higher than the composite Mean of 3.93. This implied that the corporations did not have reputation with customers because of the high level of risks. The higher line item standard deviation of 1.13 was higher than the composite standard deviation of 1.06. This indicated existence of a divergence view in opinions of the study participants.

Statement Nine; “*The corporations’ management takes demand shortfalls into account while choosing the right strategic capital risk decisions*”. The statement showed a mean of 4.04 and standard deviation of 1.20 were reported respectively. This indicated that out of 261 study participants, 49.4% SA, 25.3% A, 8.8% N, 12.6% D and 3.8% SD. The results showed that the line statement mean score of 4.04 was higher than the composite mean of 3.93. The implication of the result was that the corporations’ management took demand shortfalls into account when choosing the right strategic capital risk decisions. Since the higher line item standard deviation of 1.20 was more than the composite standard deviation of 1.06, it means that there was a divergence view in opinions of study participants. The study results agreed with those of Fwamba *et al.* (2017) who found that strategic investment practices have a positive and significant effect on financial performance.

The last statement Ten (10); “*The corporations do not have adequate policies to deal with internal operational risks*”. In this statement a mean of 3.92 and standard deviation of 1.32 were reported. This was

an indication that out of 261 study participants, 47.1% SA, 23.4% A, 12.6% N, 7.7% D and 9.2% SD. The results showed that mean score of 3.92 was lower than the composite mean of 3.93. This implied that the corporations did not have adequate policies to deal with internal operational risks. The standard deviation of 1.32 was more than the composite standard deviation of 1.06. This means that there was a divergence view in opinion. The study result was in agreement with Wanyande, (2001) who reported that inefficiency in the sugar industry is a result of poor management. The study result was also in agreement with Mati and Thomas, (2019) who reported that production of sugarcane in the country declined because of challenges arising from low productivity at the firm level, high cost and delay in payments to farmers, poor maintenance of machineries, corruption, political interference in sugar operations and appointments of chief executives based on loyalty.

A key informant had the following to say in regard to business risk;

“State sugar corporations should have adequate measures to assess and monitor risks and this can only be achieved by training a few staff as risk assessors. The corporations also need to put in place strong credit control measures. Cost of borrowing is too high hence need for the Government to set up a special fund for State sugar firms whose interest rate is as low as 0.2% per annum. The corporations plan well, but fail to implement such activities as a result of external forces and lack of adequate funds. Lower level employees should be compensated well to avoid fraudulent activities. Internal audit control measures are weak leaving too much room for malpractices”.

### **Correlation Analysis Results**

This result was obtained by examining the relationship between independent and dependent variables (business risk and financial performance) of State sugar corporations). The study used Pearson correlation coefficient to test the relationship of the variables at 95% level of confidence. The results obtained were as in Table 3.

**Table 2: Correlation Analysis Results**

<b>Business risks statements</b>		<b>Financial Performance of State-Owned Sugar Manufacturing Corporation Projects</b>
The corporation does not have adequate measures to assess and monitor its business risks	Pearson correlation sig. (2-tailed) n	-0.183* 0.003 261
The corporation’s management takes into consideration financial risks before making capital structure decisions	Pearson correlation sig. (2-tailed) n	-0.190* 0.002 261
Poor planning and slow response times are part of the corporation’s operational risks	Pearson correlation sig. (2-tailed) n	-0.028* 0.658 261
The corporation does not have qualified business risk assessors	Pearson correlation sig. (2-tailed) n	-0.242* 0.000 261
The corporation complies with legislative rules and industry regulations to avoid risk	Pearson correlation sig. (2-tailed) n	-0.289* 0.000 261
The corporation does not comply with corporate social responsibility requirements	Pearson correlation sig. (2-tailed) n	-0.372* 0.000 261
The employees are satisfied with corporation’s compliance and practices of inventory system to manage risk	Pearson correlation sig. (2-tailed) n	-0.258* 0.000 261
The corporation does not have reputation with customers because of the high level of risks	Pearson correlation sig. (2-tailed) n	-0.346* 0.000 261
The corporation’s management takes demand shortfalls into account while choosing the right strategic capital risk decisions	Pearson correlation sig. (2-tailed) n	-0.365* 0.000 261
The corporation does not have adequate policies to deal with internal operational risk	Pearson correlation sig. (2-tailed) n	-0.347* 0.000 261
<b>Business risks (overall correlation).</b>	<b>Pearson correlation Sig.(2-tailed) N</b>	<b>-0.429* 0.000 261</b>

**\*Correlation is Significant at 0.05 Level (2-tailed)**

In order to test relationship between variables, several characteristics of business risks and financial performance of State-owned sugar manufacturing corporation projects were hypothesized; (Ho; No significant relationship between the two variables (business risk and financial performance). In this study, corresponding mathematical model in terms of hypothesis was identified as; financial performance of State sugar corporations= f (business risk).

The results of correlation as shown in Table 3 are indications that nine P-values under significant 2-tailed were significant since the P-values was less than 0.05 (Statement 1; “The corporation does not have adequate measures to assess and monitor its business risks, r equals 0.183, P-value equals 0.000<0.05; Statement 2: “The corporation’s management takes into consideration financial risks before making capital

structure decisions” where  $r$  equals 0.190, P-value equals  $=0.000$  less than 0.05; Statement 3: “Poor planning and slow response times are part of the corporation’s operational risks”, where  $r$  equals 0.028, P-value equals 0.658 more than 0.05; Statement 4: “The corporation does not have qualified business risk assessors”, where  $r$  0.242, P-value equals 0.000 less than 0.05; Statement 5: “The corporation complies with legislative rules and industry regulations to avoid risk”,  $r$  equivalent to 0.289, P-value equals 0.000 less than 0.05; Statement 6: “The corporation does not comply with corporate social responsibility requirements”, where  $r$  equals -0.372, P-value equals 0.000 less than 0.05; Statement 7: “The employees are satisfied with corporation’s compliance and practices of inventory system to manage risk”, where  $r$  equals 0.258, P-value equals 0.000 less than 0.05; Statement 8: “The corporation does not have reputation with customers because of the high level of risks”, where  $r$  equals 0.346, P-value equals 0.000 less than 0.05; Statement 9: “The corporation’s management takes demand shortfalls into account while choosing the right strategic capital risk decisions, where  $r$  equals 0.365, P-value equals 0.000 less than 0.05, and Statement 10: “The corporation does not have adequate policies to deal with internal operational risks”, where  $r$  equals 0.347, P-value equals 0.000 less than 0.05).

Pearson correlation coefficient was run on scores of each scale. The total scores of the scales were computed as a summation of the individual scores on each item by the respondent at 95% level of confidence. The results reported a negative overall correlation ( $r = -0.429$ ), which was statistically significant as  $P < 0.05$  ( $p = 0.000$ ) between business risk and financial performance of state-owned sugar corporation projects. This implied a significant relationship between business risk and financial performance of State-owned sugar corporations. This led to rejection of the null hypothesis ( $H_0$ : There is no significant relationship between business risk and financial performance of State-owned sugar manufacturing corporation projects) and acceptance of the alternative hypothesis. Therefore, it was concluded that there is a significant relationship between business risk and financial performance of State-owned sugar manufacturing corporation projects.

### **Regression Analysis Results**

In order to establish how business risk influences financial performance of State-owned sugar corporations, Simple linear regression was adopted. The purpose of using the simple regression model was to find out how business risk as a predictor significantly or insignificantly predicted financial performance of state-owned sugar corporation projects. The regression model summary results were as presented in Table 4.

**Table 4: Regression Model Results**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	0.429 <sup>a</sup>	0.184	0.181	0.562

a. Predictors: (Constant), Business risk

The above model summary table shows existence of a positive correlation (R=0.429) between the variables and those predicted by regression model. In addition, 18.4% of the variation in the financial performance of state-owned sugar manufacturing corporation projects is explained by business risk.

Additionally, the study also sought to establish if the regression model was best fit for predicting financial performance of State-owned sugar corporations. Table 5 presents the ANOVA results.

**Table 5: ANOVA Results**

<b>Model</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	18.404	1	18.404	59.353	0.000 <sup>b</sup>
	Residual	81.688	259	0.315		
	Total	100.092	260			

a. Dependent Variable Financial performance of state-owned sugar manufacturing corporation projects  
 b. Predictors: (Constant), Business risk

From the ANOVA results presented in Table 5, it is indicated that statistics (1,259 =59.353) is significant since P -value 0.000< 0.05. This implies that predictor co-efficient is at least not equal to zero. In this respect, the regression model result is significantly better prediction of financial performance of state-owned sugar manufacturing corporation projects.

At the same time, the study sought to establish whether business risk influenced financial performance of State-owned sugar manufacturing corporations. The regression coefficients results were as presented in Table 6.

**Table 6: Coefficients for Regression Results**

Coefficients		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	5.447	0.193		28.177	0.000
	Business risk	-0.371	0.049	-0.429	- 7.639	0.000
a. Dependent Variable financial performance of state-owned sugar manufacturing corporation projects						

The simple linear regression coefficients result from Table 6 indicated that there was significant influence of business risk and financial performance of state-owned sugar manufacturing corporation projects. The coefficient of the constant term ( $\beta_0 = 5.447$ ; P-value=0.000 < 0.05) and business risk ( $\beta_1 = -0.371$ ; P-value=0.000 < 0.05) were statistically significant. The regression model for business risk was  $y=5.447-0.371X_1$ , implying that for each unit of business risk, financial performance of state-owned sugar manufacturing corporation projects inversely changed by -0.371-unit other predictors held constant. It was, therefore, concluded that business risk and financial performance of state-owned sugar manufacturing corporation projects were negatively and linearly related.

### Conclusions and Recommendations

The Correlation coefficient for business risk and financial performance of state sugar corporations was - 0.429 and had a p-value of 0.000<0.05. Simple linear regression coefficients and Pearson correlation results revealed a significant influence of business risk on financial performance of State-owned sugar corporations. This implied that there was a significant relationship between business risk and financial performance. Based on the above, null hypothesis was rejected and alternative accepted.

### Contribution to Theory

The study helped to answer the extent to which business risk as capital structure decision influences financial performance of State-owned sugar manufacturing corporation projects in western region, Kenya. The findings of the study helped to disapprove Null hypothesis (Ho1; There is no significant relationship between business risk and financial performance of State sugar corporation projects in western region, Kenya). This led to acceptance of the alternative

### **Contribution to Body of Knowledge**

The findings of the study will provide extra knowledge on capital structure decision-making and management approach. It is also expected to provide practical guidelines to those interested in having insight of capital structure decision and management approach in sugar manufacturing activities. The findings will benefit the Government of Kenya through its agent Sugar Directorate who are expected to learn new procedures of capital structure mix which are relevant in improving performance. Project Management Body of Knowledge is expected to benefit from the study because they will use its findings for academic teachings at Universities, especially in areas of project finance. Government of Kenya and other sugar manufacturing countries will benefit from the study since they can utilize its findings in the formation of key policy actions- the case of reforms for vision 2030 economic pillars in Kenya's sugar sector vision 2030 economic pillars in Kenya's sugar sector.

### **Recommendation for Policy Issues and Practice**

From policy issues perspective, Kenyan Government should put in place mechanisms that support sugarcane farmers. Management of State sugar corporations in collaboration with the government should ensure transparency and accountability. The government should help management of these State sugar firms to ensure that their interests are protected against political interference. In areas of practice, there is need for the management to ensure compliance with accounting and financial principles so as to reduce fraudulent activities. Leadership direction and timely decisions are necessary for positive performance of State sugar corporations. Ethical practices related to corporate social responsibility should be observed. In order to ensure competitiveness in the COMESA market, the management in collaboration with the government need to have technology overhaul. Management of State-owned sugar manufacturing corporations and other relevant stakeholders in the sugar industry need to encourage effective capital structure decision-making approach. Finally, operations of state sugar corporations' activities should be free from political interferences and it is important to put in place proper and meaningful control measures to prevent mismanagement of corporations' assets.



## References

- Akoko, A. A., & Olala, G. O. (2016). Influence of Corporate Social Responsibility Interventions (CSRIs) on Financial Performance of Sugar Companies in Kenya. *IOSR Journal of Business and Management*, 18(7), 118-125.
- Alexander, N. (2019). The effect of Ownership Structure. Cash Holding and Tax Avoidance on Income Smoothing. *Nico Alexander*, 4(3), 128-134.
- Alipour, M., Mohammadi, F., & Derakhshan, H. (2015). Determinants of Capital structure; An Empirical study of firms in Iran. *International Journal of Law and Management*, 57(1), 53-83.
- Antwi, S., Mills., & Zhao, X. (2012). Capital structure and firm value: Empirical evidence from Ghana. *International Journal of Business and Social Science*, 3(22), 103-111.
- Ashok, K. (2012). Financial Performance of Select Sugar Companies in Tamil Nadu. *International Journal of Advance Research in Computer Science and Management Studies*, 3(22), 210-220.
- Bhutto, S. A., Soomro, H. J., & Chumro, I. A. (2021). Intervening Analysis of Dividend Policy Decisions Among Listed Manufacturing Firms of Pakistan. *Indian Journal of Economics and Business*, 20(3), 933-963.
- Busch, T., Bauer, R., & Orlitzky, M. (2016). Sustainable Development and Financial Market. Old paths and New Avenues. *Business and Society*, 55(5), 303-329.
- Das, P., & Swain, R. (2018). Influence of Capital Structure on Financial Performance. *Journal of Management*, 14(1), 161-171.
- Fwamba, R. S., Namusonge, G. & Sakwa, M. (2017). Influence of Strategic Investment Management Practices on Financial Performance of Sugar Manufacturing Companies in Kenya. *IOSR Journal of Business and Management*, 19(1), 5-14.
- Government of Kenya (2023). *Policy on Revitalisation of the Sugar Industry*. Nairobi: Government Printers.
- Hussain, S., Qaladus, A., Tien, T., Rafiq, M., & Pavelkora, D. (2020). The Moderating Role of Firm Size and Interest Rate in Capital Structure of the Firm: Selected Sugar Sector of Pakistan. *Investment Management and Financial Innovation*, 17(4), 341-355.
- Ikape, F. O., & Kajirwa, I. H. (2017). Analysis of Long-Term Debt and Financial Performance of State-owned sugar firms in Kenya. *International Journal of Commerce and Management Research*, 3(2), 188-111.
- Imbambi, R. M. (2018). *Influence of strategic capabilities on competitive advantage of sugar companies in western Kenya* (Doctoral dissertation, JKUAT COHRED).

- Kenya Sugar Directorate (2018). *Year Book of Sugar Statistics 2014-2018*. Nairobi, Kenya: Kenya Sugar Directorate.
- Kiprotich, G. K., Wanjare, J. O., & Oluoch, M. F. (2020). Working Capital Management Practices and Financial performance of sugarcane Out-Grower Companies in Kenya. *International Journal of Social Science and Economic Research*, 2(4),
- Kioko, C. M., Olweny, T., & Ochieng, L. (2019). Effects of Financial risk on the financial performance of Commercial Banks in Kenya Listed on the Nairobi Securities Exchange. *Strategic Journal of Business and Change Management*, 6(2), 1936-1952.
- Kombo, J., & Ndiema, A. (2020). A review of the State Sugarcane Crisis in Kenya. *International Journal of Agricultural Policy and Research*, 11(1), 27-34.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Journal of educational and Psychological Measurement*, 30(3), 607-610.
- Maiyo, G. (2020). *Strategic operations and organizational performance of sugar companies in western Kenya* (Doctoral dissertation, University of Nairobi).
- Mande, W., Imbambi, R. M., Ng'ong'a, E. A., Awiti, L., Machuki, V. N., Okumu, M., & Rambo, C. M. (2020). Relationship between Ethnic Diversity and Employee Performance in Public Universities in Western Kenya. *International Journal of Business Management and Economic Review*, 3(3), 68-82.
- Mati, B. M., & Thomas, M. K. (2019). Overview of sugar industry in Kenya and prospects for production at the coast. *Agricultural Sciences*, 10(11), 1477-1485.
- Mbithi, B., Muturi, W., & Rambo, C. (2017). Does Corporate Social Responsibility contribute to Performance in Sugar Manufacturing Firms? *Saudi Journal of Business and Management Studies*, 2(9), 854-866.
- Miles, A. (2011). Effect of Business Risk in Corporate Capital Structure: Theory and Evidence. *The Journal of Finance*, 36(5), 1673-715.
- Momanyi, G., & Naibei, K. I. (2014). Implication of Risk Management Practices on Financial Performance of Sugar Manufacturing Firms in Kenya. *An International Journal of Arts and Humanities*, 1(1), 14-29.
- Mubeen, R., Muhammad, N., Batool, A., & Riaz, M. (2016). Determinants of Capital Structure; A case of Sugar Industry in Pakistan. *International Journal of Management Sciences and Business Research*, 5(11), 191-199.

- Muhsin, H. H., Mandere, E. N., & Onyango, R. O. (2020). Effect of strategic planning practices on performance of state corporations in Kenya: A case of Agricultural Finance Corporation. *The Strategic Journal of Business & Change Management*, 7(3), 789-808.
- Nanjala, J. N. O., Immonje, M. M., & Wasike, N. (2022). The Economic Challenges Facing Small Scale Sugarcane Farmers in Malava Sub-County, Kakamega County, Kenya. *East African Journal of Interdisciplinary Studies*, 5(1), 212-230.
- Ndii, D. (2019). *Stakeholders Vs Smallholders: The Political Economy of Kenyan Sugar Industry*. New Delhi: New Age Catamatual Publisher Limited.
- Nyaanga, M. (2018). *An Evaluation of Financial Distress and its Antecedents in Public Sugar Companies in Kenya* (Doctoral Dissertation, Kenyatta University).
- Nyabakora, J., & Chibora, M. (2020). Effect of Financing Decisions on Firm Performance in Tanzania. *International Journal of African and Asian studies*, 60, 35-42
- Odundo, V., & Mong'ara, M. W. (2023). Strategic Research, Organisational Environment and Performance of Sugar Manufacturing Firms in Western Kenya. *European Journal of Management and Marketing Studies*, 8(2), 83-103.
- Omondi, B. O. (2023). *Analysis of Capital Structure Decision and Financial Performance of Sugar Firms* (PhD Thesis, Jaramogi Oginga Odinga University of Science and Technology).
- Omwono, G. A., & Aloo, E. A. (2020). Effects of Working Capital Management Practices and Liquidity Risk of Insurance firms Listed at Nairobi Securities Exchange (NSE), Kenya. *Journal of Business Management and Marketing* 3(10), 156-166.
- Ondiek, O. M. (2014). *Effects of credit risks on the financial performance of sugar firms in Kenya* (Unpublished MBA Thesis, University of Nairobi).
- Ong'ombe, K. O., & Mungai, J. (2018). Capital structure decisions and financial performance of sugar manufacturing firms in Kisumu County, Kenya. *International Academic Journal of Economics and Finance*, 3(2), 336-356.
- Opoku, K. (2021). *The Relationship between Capital Structure Practices and Financial Decisions in West Africa* (Doctoral dissertation, Weldon University).
- Orwa, R., Akuku, C., Kimutai, G., & Onyango, R. (2022). Effect of Functional Strategies on Competitiveness of Sugar Industry in Western Kenya. *Journal of Business Management and Economic Research*, 6(3), 66-90.

- Padayache, V. (2011). Global economic recession; Effects and Implications for South Africa at a time of Political Challenge. *Claves de la Economia Mundial*, 2(4), 3-9.
- Pandey, I. M. (2010). *Capital structure and the firm characteristics: Evidence from an emerging market*. Working paper 2001-10-04. Ahmedabad, India: Indian Institute of Management.
- Pandian, R. J. (2008). *Performance differences across strategic groups; An examination of financial market-based performance measure*. Willey and Sons.
- Sagara, S. (2015). The Analysis of Capital Structure on Financial Performance. Using Capital Assets Earnings and Liquidity Ratios in Islamic Banks Listed on the Indonesian Stock Exchange (IDX) in 2014. *International Journal of Business, Economics and Law*, 8(1), 53-60.
- Shivani, B. S. (2020). Firm Characteristics and Leverage: A study of Sugar Companies in India. *Punjab Institute of Management Technology Journal of Research*, 12(3), 19-22.
- Shubita, F. D. (2023). *The impact of Ownership Structure and Investment Decisions on Capital Structure; Evidence from Jordan* (PhD (Finance) Dissertation, University of Bedfordshire).
- Simiyu, R. F. (2017). *Influence of financial management practices on financial performance of sugar manufacturing companies in Kenya* (Unpublished Doctor of Philosophy, Jomo Kenyatta University of Agriculture and Technology).
- Thibane, Z., Soni, S., Phali, L., & Mdoda, L. (2023). Factors Impacting Sugarcane Production by Small-scale Farmers in Kwa-Zulu-Natal Province, South Africa. *Heliyon*, 9(1), 1-8.
- Wanyande, P. (2001). Towards effective policy framework: a case of Kenyan Sugar Industry. *African Journal of Political Science*, 6(1), 123-141.
- Waswa, C. W., Mukras, M. S., & Oima, D. (2018). Effect of liquidity on financial performance of the Sugar Industry in Kenya. *International Journal of Education and Research*, 6(6), 29-44.
- Webster, J. (2012). *Introduction of Financial Management*. New York: McGraw-Hill.
- Wekesa, M. K., & Kimutai, G. (2018). Corporate Social Responsibility and Firm Performance; Effect of Sustainability Management Systems in Selected Kenyan Sugar Companies. *International Journal of Research in Education and Social Sciences*, 1(2), 67-82.
- Zhang, L., & Yu, S. (2016). Research on Capital Structure Decisions of China Logistics Industry. Using the unbalanced Panel Data Analysis. *International Journal of Smart Homes*, 10(1), 169-186.