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The Influence of Cost Management Practices on Financial Performance of State-Owned Sugar Processing Companies in Nyanza, Kenya

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ABSTRACT

Purpose: This study explores the influence of cost management techniques on financial performance of state-owned sugar processing companies in Nyanza, Kenya. The study investigated the specific objectives; capital structure optimization, liquidity management, working capital optimization, and cost of capital management influence financial performance.

Methodology: The study adopted a descriptive research design and purposive sampling technique to select the best sample for the study. The study population was 44 respondents. Data was collected using structured questionnaires and distributed using the drop-and-collect later method and later cleaned, sorted and coded in ordinal scale using numerical numbers and entered into Statistical Package for the Social Sciences (SPSS) software version 29 and the results presented in form oftables and figures. Quantitative data were analyzed through descriptive statistics, mean, correlation, and regression analysis.

Findings: Correlation coefficient results for all the independent variables had a p-value of 0.000, which was less than 0.05 significant level, indicating a strong relationship with the dependent variable. The findings revealed that capital structure optimization and cost of capital management had strong, statistically significant positive effects on financial performance (p-values< 0.05). Liquidity management and working capital optimization were also positively correlated with financial outcomes, although their regression effects were less significant(p-values> 0.05).

Unique Contribution to Theory, Policy and Practice: This study uniquely contributes to theory by expanding the Resource-Based View through empirical evidence linking cost management practices to financial performance in state-owned enterprises. It informs policy by highlighting the need for structured cost control frameworks in public sugar firms. Practically, it guides managers in adopting effective cost management strategies to enhance profitability, sustainability, and accountability in the sugar sector, fostering improved financial outcomes in Kenya's public manufacturing enterprises. Recommendations include restructuring debt financing, implementing advanced liquidity forecasting models, and adopting innovative working capital tools to bolster profitability and financial stability.

Keywords: *Cost Management, Financial Performance, Sugar Processing*

INTRODUCTION

Background of the Study

The sugar industry plays a critical role in Kenya's economic growth and is a major source of employment, income, and national revenue. State-owned sugar processing firms and most of them operating in Nyanza, where large scale sugarcane farming is the main agricultural activity, majorly dominate the Sugar sector. These firms have faced severe financial and operational challenges over the years ranging from rising production costs, operational inefficiencies, growing debt obligations, and volatile market conditions.

These challenges call for the adoption of rigorous cost management practices to improve sustainability and ensure competitiveness. Capital structure optimization is recognized as a key determinant of financial stability and performance. It involves striking a balance between debt and equity to achieve sustainable financial leverage while minimizing risks associated with over-reliance on debt financing. Odeyo (2023) asserts that state-owned sugar processing firms in Kenya often rely heavily on government-backed loans and subsidies, which contribute to financial strain in the long term. A well-optimized capital structure enables firms to meet their financial obligations, invest in growth opportunities, and maintain operational efficiency.

According to Cokins (2002), companies need to be equipped with accurate cost management procedures so as to manage their costs and ascertain an acceptable profit margin.

Waswa et al. (2018) emphasize that liquidity challenges in state-owned firms are exacerbated by inefficiencies in resource allocation and poor receivables collection practices. Maintaining adequate liquidity can prevent solvency crises, reduce operational disruptions, and stabilize financial performance. This ensures that the firms have sufficient cash flow to meet their short-term obligations and sustain operations. They noted that liquidity management is essential for agricultural processing companies like sugar firms, which often face seasonal revenue cycles and delayed payments from buyers.

Kiprotich (2013) in his study highlights that reducing the receivable collection period, improving inventory turnover, and accelerating payables can significantly impact cash flow stability and overall profitability. Proper working capital optimization allows firms to align their operational needs with financial resources, minimizing wastage and ensuring sustainable production. Working capital optimization enhances operational and financial efficiency by managing current assets and liabilities effectively. State-owned sugar processing companies are particularly vulnerable to inefficiencies in working capital management due to their reliance on seasonal production cycles and fluctuating demand.

Reducing the cost of capital is another vital strategy for improving financial performance in state-owned sugar firms. High borrowing costs and unfavorable credit terms impose significant financial burdens on these companies, limiting their ability to invest in growth and operational

improvements. Ndiwa (2014) argues that practices such as loan refinancing, accessing concessional financing, and negotiating favorable credit terms can lower the cost of capital, enhancing financial flexibility and overall performance. This approach is particularly relevant for state-owned firms that often operate under financial constraints and face heightened competition from private sector players.

Given the critical role of these cost management practices, this study aims to assess the influence of capital structure optimization, liquidity management, working capital optimization, and cost of capital management and their impact on the financial performance of state-owned sugar processing companies in Nyanza, Kenya. By focusing on these interrelated areas, the research seeks to provide actionable insights for enhancing profitability, sustainability, and competitiveness.

Statement of the problem

State-owned sugar processing companies in the Nyanza region of Kenya are crucial to the local economy, providing jobs and supporting rural livelihoods. Despite their significance, these firms face persistent and rising financial challenges that undermine their competitiveness and sustainability. Key among these challenges is the ineffective implementation of cost management practices, which manifests in four critical areas: capital structure, liquidity, working capital, and cost of capital Nimocks, et al. (2005). Many of these firms rely heavily on debt financing without adequately diversifying equity sources, resulting in heightened financial risk and vulnerability to market volatility. Additionally, poor liquidity management normally characterized by delayed receivables and inefficient cash flow allocation has led to frequent solvency concerns and operational disruptions. Inefficiencies in working capital management, including long receivable periods and sluggish inventory turnover, further weaken cash flow stability and profitability. Moreover, high borrowing costs and limited access to concessional financing continue to burden these firms, restricting investment in growth and innovation (Filatova, et al,2024)

A critical issue is the failure to optimize capital structure, as many companies rely excessively on debt, increasing their financial risks and exposure to interest rate fluctuations. Ongombe and Mungai (2018) highlight that firms with balanced debt-to-equity ratios achieve greater financial stability, while Akombo, Baraza, and Mogwambo (2020) stress the importance of diversifying equity sources to reduce vulnerability.

Liquidity management is another pressing concern. Delayed receivables collections and ineffective cash allocation result in cash flow shortages that disrupt operations and lead to recurring solvency issues. Waswa, Mukras, and Oima (2018) found that inadequate liquidity practices exacerbate these challenges, while Oando, Ombok, and Ndichu (2024) emphasize the need for proactive liquidity forecasting to enhance financial stability.

Working capital optimization presents further difficulties, as inefficiencies in inventory turnover and extended receivable periods negatively impact profitability and cash flow. Kiptoo (2015) and

Kirui et al. (2018) demonstrate that aligning working capital practices with production cycles improves cash flow stability and operational efficiency, benefiting both sugar manufacturers and their supply chain partners.

Lastly, the high cost of capital limits growth opportunities for these firms. Kitili (2012) shows that traditional financing methods impose significant financial burdens due to high borrowing costs, while Oando et al. (2024) advocate for modern refinancing practices and concessional financing to alleviate these pressures.

These interconnected challenges suboptimal capital structure, poor liquidity management, inefficient working capital practices, and prohibitive capital costs create a compounding problem for state-owned sugar processing companies in Nyanza. Addressing these issues is essential to restore their financial health, enhance operational efficiency, and ensure their long-term contribution to regional economic development.

General Objective

To examine the influence of cost management practices on financial performance of state-owned sugar processing companies in Nyanza, Kenya.

Specific Objectives

i. To analyze the effect of capital structure optimization on financial performance of sugar processing companies in Nyanza.
ii. To evaluate the influence of effective liquidity management on financial performance of sugar processing companies in Nyanza.
iii. To assess the impact of working capital optimization on financial performance of sugar processing companies in Nyanza.
iv. To examine the effect of cost of capital management on financial performance of sugar processing companies in Nyanza.

LITERATURE REVIEW

Theoretical Review

Trade-Off Theory of Capital Structure

The trade-off theory of capital structure explains how firms balance the benefits and costs of debt and equity financing to achieve an optimal capital structure. According to Kraus and Litzenberger (1973), companies weigh the advantages of debt, such as tax shields, against the potential costs, including financial distress and bankruptcy risks. Debt financing provides a tax shield because interest payments are tax-deductible, effectively reducing the firm's taxable income. However, as firms increase their leverage, the probability of financial distress rises, leading to costs such as higher interest rates, reduced creditworthiness, and potential bankruptcy.

Dynamic versions of the trade-off theory have also been proposed, incorporating real-world complexities such as fluctuating market conditions and firm-specific risks. Shyam-Sunder and Myers (1999) tested the theory against the pecking order model and found that firms tend to adjust their capital structures over time to maintain an optimal mix of financing options, considering industry norms, tax environments, and business risks. Critics, however, argue that the trade-off theory does not fully explain observed capital structure behaviors. For instance, Miller (1977) noted that if the theory were entirely accurate, firms would carry much higher levels of debt than typically observed. Despite such criticisms, the trade-off theory remains a dominant framework in corporate finance, offering valuable insights into how firms balance financing decisions to maximize value.

Liquidity Preference Theory

The Liquidity Preference Theory, introduced by Keynes (1936), posits that individuals prefer holding liquid assets (e.g., cash) due to uncertainty about the future. This preference impacts interest rates, acting as a reward for forgoing liquidity to invest in less liquid assets like bonds.

Key motives behind liquidity preference include: Transaction Motive in which individuals hold money for daily transactions, such as purchasing goods or paying bills (Keynes, 1936); the Precautionary Motive in which money is kept as a safeguard against unforeseen expenses or emergencies (Keynes, 1936) and the Speculative Motive Whereby People hold money to take advantage of future investment opportunities when interest rates change (Keynes, 1936).

According to Keynes (1936), interest rates are determined by the balance between liquidity preference (money demand) and money supply. A higher liquidity preference increases interest rates, as investors demand greater compensation for parting with their liquid assets.

Working Capital Management Theory

The Working Capital Management Theory emphasizes the efficient management of a firm's current assets and liabilities to ensure liquidity and profitability. According to Ganesan (2007), firms must balance liquidity to meet short-term obligations and profitability to maximize returns, as excess liquidity reduces profitability while insufficient liquidity may lead to financial distress.

Key aspects include to the theory include Liquidity vs. Profitability Trade-off in which balancing liquidity and profitability is crucial. Deloof (2003) highlights that effective working capital management can enhance profitability, even as liquidity is maintained.

The other aspect is the Operating Cycle where the time taken to convert raw materials into cash through sales is critical. Gitman (1974) emphasizes minimizing operating cycle duration to improve efficiency. Cash Conversion Cycle is the other aspect which measures the time between cash outflows for purchases and inflows from sales. Richards & Laughlin (1980) suggest that shorter cash conversion cycles indicate better working capital management. Finally Risk and

Return aspect touches on balancing inventory holding risk and investment returns is pivotal in working capital decisions (Sharma & Kumar, 2011).

Conceptual Framework

INDEPENDENT VARIABLES **DEPENDENT VARIABLE**

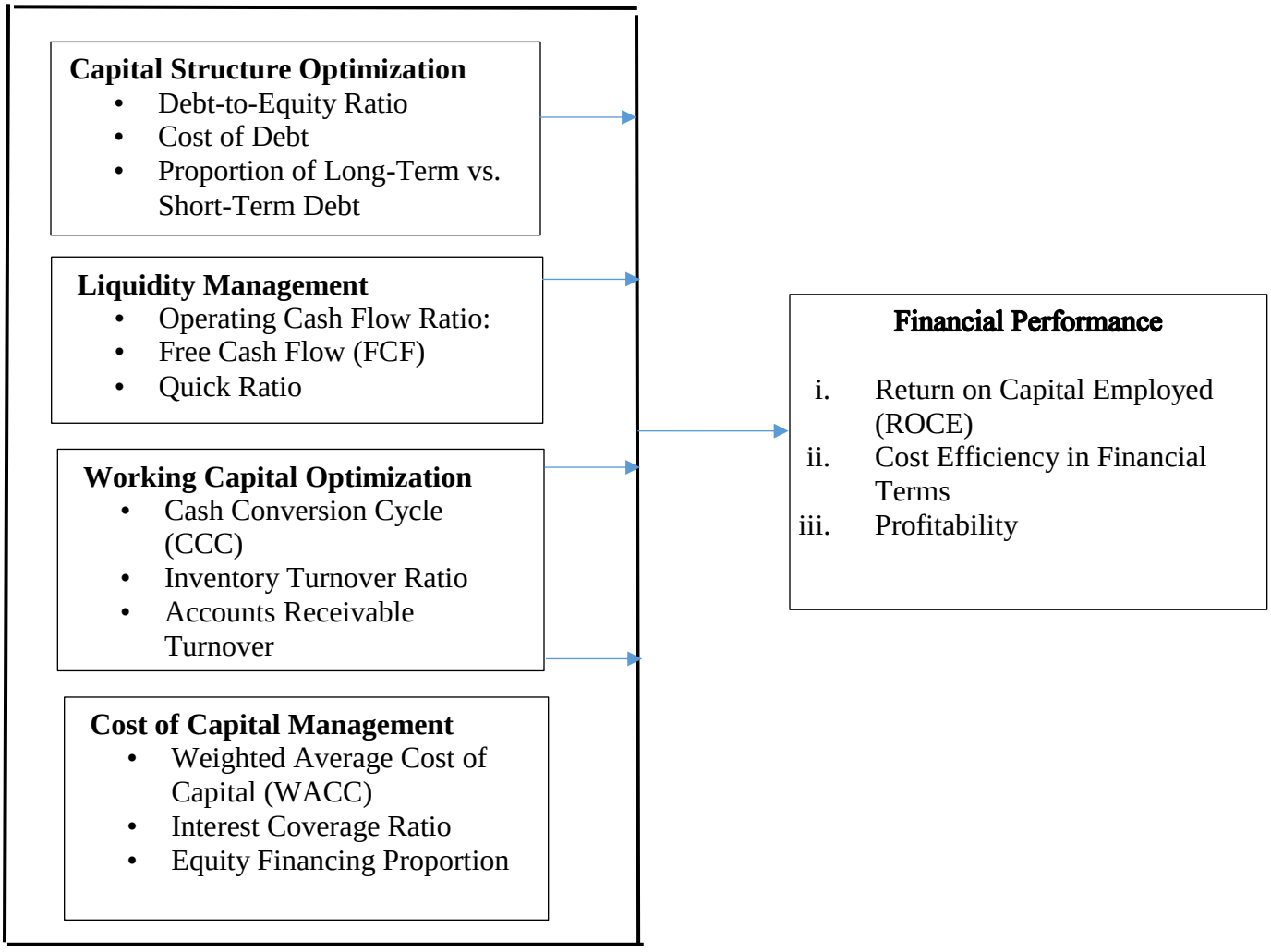

Figure 1: Conceptual Framework

Source: Researcher, 2025

Empirical Review

Mwangi (2023) analyzed the relationship between capital structure optimization and profitability in Kenyan sugar processing firms. The study revealed that firms with a balanced mix of debt and equity financing achieved higher profitability compared to those with skewed capital structures. This finding aligns with the trade-off theory, where the benefits of debt, such as tax shields, are

balanced against the risks of bankruptcy. The study further emphasized the importance of regular reviews of capital structure to respond to changing market conditions effectively.

Abdul, (2012) studied the relationship of capital structure decisions on the financial performance of Pakistan firms measured by Tobin‟s Q. The results showed that a negative and significant relationship exists between short term debt to total assets and total debt to total assets measures of capital structure and the Tobin‟s Q. The relationship between long term debt to total assets and Tobin‟s Q is positive whereas the control variable (firm size) shows a significantly negative relationship with the performance variable measured by Tobin‟s Q, as large size firms shows inefficiency and affects the firm performance negatively.

Kimaiyo and Miroga (2024) focused on liquidity management in sugar firms, demonstrating that practices such as cash flow forecasting and maintaining optimal liquidity ratios significantly enhance financial stability. Their research highlighted that firms with robust liquidity management practices were better equipped to handle operational uncertainties and avoid cash flow crises. This aligns with the liquidity preference theory, which emphasizes the critical role of liquid assets in uncertain environments.

Wanyama and Gichure (2023) examined the impact of working capital management on ROI in Kenyan sugar processing companies. Their findings showed that the adoption of advanced inventory management systems positively influenced ROI by reducing holding costs and improving inventory turnover. The research stressed that efficient management of receivables and payables was equally critical in optimizing working capital and achieving higher financial returns.

Padachi, (2006) examined the trends in working capital management and its effect on firms' profitability. The results indicated that a high investment in inventories and receivables is associated with lower profitability while inventory days and cash conversion cycle had a positive relationship with profitability.

Kamemba (2014) conducted a case study on Chemelil Sugar Factory to assess the impact of cost of capital management on investment performance. The findings indicated that practices aimed at lowering financing costs, such as renegotiating loan terms and improving credit ratings, significantly enhanced investment performance. The study suggested that reducing the weighted average cost of capital (WACC) enabled the factory to channel more resources into productive investments, thereby improving overall performance

Research Gaps

Whilst this study wishes to fill the gaps identified, the scope and context of this study may not as well address all gaps. This is due to the wide-ranging gaps that cut across different industries and geographical scopes.

The review by Mwangi (2023) does not extensively explore how industry-specific factors such as government policies, taxation, and subsidies influence capital structure optimization, especially in

state-owned enterprises within the sugar industry. Limited research examines how external shocks, like global market volatility or economic crises, impact the capital structure decisions of sugar firms. There is a lack of long-term studies analyzing how adjustments in capital structure over time affect financial performance, particularly in industries with fluctuating profitability such as sugar processing.

Although Kimaiyo & Miroga (2024) discuss liquidity management practices like cash flow forecasting, there is insufficient research on the impact of integrating advanced technologies (e.g., AI, blockchain) into liquidity practices. The influence of macroeconomic factors, such as inflation and exchange rate fluctuations, on liquidity stability in state-owned sugar firms remains underexplored.

Few studies compare the liquidity management practices of state-owned versus private firms in the sugar industry, which could offer useful insights into varying techniques.

Wanyama & Gichure (2023) emphasize inventory management systems but do not address the role of sustainable working capital practices in sugar firms, such as green supply chain management. There is limited research comparing working capital optimization practices in sugar firms with those in other industries to identify transferable best practices. Little attention is paid to how managerial behavior and decision-making influence working capital optimization outcomes, which could have a significant impact on ROI.

Kamemba (2014) highlights traditional methods for reducing financing costs but does not explore the use of innovative financing options like green bonds or sustainability-linked loans. The study focuses on a single firm (Chemelil Sugar Factory), and there is a need for more comprehensive, multi-firm research to generalize findings. Insufficient attention is given to how regulatory frameworks and government policies impact cost of capital management efforts in state-owned sugar firms.

RESEARCH METHODOLOGY

This study employed a descriptive research design. The population for the study included 44 individuals directly involved in cost-management related processes and financial decision-making of the state-owned sugar processing companies. Purposive sampling was adopted. A structured questionnaire designed based on the objectives of the study was used to collect primary data. Data was analyzed using descriptive statistics and spreadsheets and the results reported as percentages, means, standard deviations, and coefficients of variation. The results were displayed using tables and charts. Statistical Program for Social Sciences (SPSS) version 29 was used for complex analysis.Regression and correlation analysis was the primary statistical tools.

DATA PRESENTATION ANALYSIS AND INTERPRETATION

Response Rate

There was a response on 33 out of the targeted 44 questionnaires distributed to the three sugar processing firms. According to Mugenda and Mugenda (2006), above 50 percent response rate is considered adequate for analysis. The response rate is therefore reliable as shown in Table 1 as it represented a response rate of 75% which was acceptable for the study.

Table 1: Response rate analysis

Gender	Frequency	Percentage	Valid	Response rate
Male	21	63.6	63.6	
Female	13	36.4	36.4	
Total	33	100	100	75%

Source: survey data (2025)

Descriptive Statistics

Performance of state-owned Sugar firms

To establish the performance of the firms, a Likert-type scale was used. Respondents were asked to indicate the extent to which they agree on the indicated performance parameters in a scale ranging from strongly agree to strongly disagree.

Table 2 Performance analysis of state-owned Sugar firms

	N	Min	Max	Mean	Std. Dev
Financial practices implemented by the sugar firms have led to an improvement in profitability.	33	1	5	4.06	1.088
Effective financial management practices positively impact ROI and overall performance.	33	1	5	4.39	.899
The sugar firms regularly tracks and evaluates financial metrics, such as profitability, cash flow, and efficiency ratios.	33	1	5	4.36	.929
Financial performance is a key driver in decision-making for cost management and investments.	33	2	5	4.45	.794
External financial audits have significantly contributed to improving our financial performance.	33	1	5	4.24	1.001

Source: survey data (2025)

Table 2 on organizational performance, respondents were asked to indicate whether Financial practices implemented by the sugar firms have led to an improvement in profitability, there was general agreement by the respondents that it greatly improved profitability (mean = 4.06), however

the standard deviation of 1.088 indicates more variability in responses implying that there is some diversity in opinions among respondents or there may be different results among the firms. They were further asked whether the firm financial performance has improved due to; effective financial management practices, regular tracking and evaluation of financial metrics and if financial performance is a key driver in decision-making for cost management and investments. There was significant agreement by the respondents on the three parameters with means of 4.39, 4.36 and 4.45 respectively though on regular tracking and evaluation of financial metrics, there was variation in responses (Sd=.929) and this may be due to the different tracking and evaluation models applied by the three firms. On whether external financial audits have significantly contributed to improving financial performance, there was general agreement by the respondents (mean 4.24) but the standard deviation of 1.001 suggests variation in how external financial audits are perceived to impact performance across the firms.

Capital structure optimization and financial performance

Table 3: Analysis of capital structure optimization on financial performance

Statements	N	Min	Max	Mean	Std. Dev
Sugar firms regularly reviews its mix of debt and equity to optimize profitability.	33	1	5	4.36	.895
Decisions regarding capital structure are influenced by long-term financial performance goals.	33	1	5	4.12	1.083
A balanced mix of debt and equity financing has reduced the cost of capital in our organization.	33	1	5	4.55	.617
The organization's capital structure strategy effectively mitigates risks associated with high debt levels	33	1	5	4.21	1.053
External factors, such as government policies and market conditions, are considered when optimizing capital structure.	33	1	5	4.21	1.023

Source: survey data (2025)

The findings indicate majority of the respondents agreed that Sugar firms regularly review their mix of debt and equity with a mean of 4.36, this is an indication that optimal debt equity ratio contribute positively to the firms performance and this is confirmed by the fair unanimity by the respondents across the firms.

Whether decisions regarding capital structure are influenced by long-term financial performance goals, there was general agreement on this with a mean of 4.12 but the Standard deviation of 1.083 indicating a high variation in the responses as compared to the first statement with SD of 0.895.

Whether capital structure strategy effectively mitigates risks associated with high debt levels and external factors, such as government policies and market conditions, are considered when optimizing capital structure, the respondents consensually agreed with a mean of 4.21 with high

variability as indicated by the SD of 1.053 and 1.023 respectively. This means there is no uniformity in application of risk controls related to debt levels in different firms with different firms incorporating other external factors into their practices due to various reasons.

Effective liquidity management on financial performance

Table 4: Liquidity management and financial performance

Statements	N	Min	Max	Mean	Std. Dev
The sugar firms maintains a sufficient level of liquid assets to meet short-term financial obligations.	33	1	5	4.09	1.128
Cash flow forecasting is regularly conducted to ensure operational stability.	33	1	5	4.30	.984
Liquidity management practices positively impact overall financial performance.	33		5	4.45	.794
The organization uses advanced technologies (e.g., AI, software tools) to improve liquidity management practices.	33	1	5	3.91	1.259
Liquidity management policies are adaptive to macroeconomic changes, such as inflation or interest rate fluctuations.	33	1	5	4.39	.899

Source: Survey data (2025)

With a mean of 4.09 and a standard deviation of 1.128, the majority of respondents agreed that the sugar firms maintains a sufficient level of liquid assets to meet short-term financial obligations, though the responses indicate high variability across the firms, this means that each of the firms may be struggling with its unique liquidity challenges.

On whether the firms conduct frequent cashflow forecasting, there was general agreement with a mean of 4.3 and despite the response variability, there is a positive assessment of this relationship. Similarly, there was a strong agreement on whether liquidity management practices positively impact overall financial performance (mean 4.45) with a SD of 7.94 indicating a moderately high consensus among the respondents. On the firms use of advanced technologies to improve liquidity, there was relatively low agreement to this variable with high variability (SD 1.259) across the respondents, this may mean that some of the firms still lag behind while others may have adopted moderate technologies that improve their liquidity. Liquidity management policies are adaptive to macroeconomic changes, such as inflation or interest rate fluctuations, this was indicated by the strong agreement from the respondents (mean 4.39) a standard deviation of 0.899.

Working capital optimization on financial performance

Table 5: Analysis on working capital optimization

	N	Min	Max	Mean	Std. Dev
The inventory management systems effectively reduce holding costs and improve turnover rates.	33	1	5	4.39	.788
Efficient management of receivables and payables contributes to improved ROI.	33	1	5	4.48	.755
Working capital optimization practices positively impact operational efficiency and profitability	33	1	5	4.45	.833
The organization benchmarks its working capital practices against industry best practices.	33	1	5	4.27	1.008
Sustainable practices (e.g., green supply chain management) are integrated into working capital management.	33	1	5	4.00	.866

Source: survey data (2025)

The respondents strongly agreed (mean 4.39, SD 0.788) with a medium low standard deviation indicating a favourable consensus that inventory management systems effectively reduce holding costs and improve turnover rates. Similarly, on the other hand, there was a strong agreement (mean 4.48) with low variability (SD 0.755) on whether efficient management of receivables and payables contributes to improved ROI and the same is extended to whether working capital optimization practices positively impact operational efficiency and profitability (mean 4.45, SD 8.33). Whether the firms benchmark its working capital practices against industry best practices, the agreement is relatively high with a high variability of 1.008, this indicates a wide range of different opinions that may be attributed to each firm's operational practices.

Lastly, there was relatively strong agreement on whether Sustainable practices (e.g., green supply chain management) are integrated into working capital management. With a standard deviation of 0.866 , this indicates a moderate variability among the opinions of the respondents and the firms need to develop suitable models that integrate sustainable practices.

Cost of capital management on financial performance

Table 6: Analysis of Cost of capital management on financial performance

	N	Min	Max	Mean	Std. Dev
Practices to reduce financing costs have improved the organization's investment performance.	33	1	5	4.32	.688
The sugar firms actively seeks innovative financing mechanisms (e.g., green bonds, sustainability-linked loans).	33	1	5	4.30	.857
Lowering the Weighted Average Cost of Capital (WACC) has enhanced overall financial sustainability.	33	1	5	4.46	.813
Strong governance mechanisms are in place to reduce agency costs and improve credit ratings.	33	1	5	4.23	.808
Policy incentives, such as government subsidies, positively impact efforts to reduce the cost of capital	33	1	5	4.10	1.066

Source: survey data (2025)

Whether the practices to reduce financing costs have improved the organization's investment performance, there was strong agreement (mean 4.32) that reducing financial costs have led to improved investment outcomes with a low standard deviation of 0.688 implying a high level of consensus. A strong agreement is also indicated (mean 4.30) that the sugar firms are adopting innovative financing options with variability (SD 0.857) meaning the adoption of these mechanisms may vary between the firms. Similarly, the respondents strongly agreed that lowering the Weighted Average Cost of Capital (WACC) positively impact financial sustainability and strong governance structures enhance financial viability by reducing agency costs and improving financial performance. There is strong agreement that policy incentives reduce cost of capital but the variability (SD 1.066) indicate that the effectiveness of policy incentives are more mixed and this could be due to different application methods across the firms.

Correlation analysis

A correlation analysis for the construct financial performance was conducted to find out how Capital Structure Optimization, Liquidity Management, Working Capital Optimization and Cost of management correlated with financial performance. Table 4.8 below shows that the Pearson correlation coefficient of Capital Structure Optimization was 0.877 clearly indicating a strong positive correlation with financial performance (p-values < 0.05). This means that good capital structure has a big contribution to the financial performance of the firms.

Effective liquidity management also has a strong and significant positive relationship (r=0.853) and (p-values < 0.05). This indicates that effective liquidity management has significant influence on financial performance and this concurs with (Joyo et al., 2018) who suggested that sugar companies with robust liquidity positions exhibit elevated financial performance. Similarly, there

exists a strong positive correlation between working capital optimization, Cost of capital management and financial performance of the sugar firms both with p-values < 0.05. This indicates that when the cost of capital of the firms is reduced and working capital effectively managed, there will be improved financial performance.

Table 7: Correlation results for Cost management practices and financial performance

		Financial Performance	Capital Structure Optimization	Liquidity Management	Working Capital Optimization	Cost of Capital Reduction
Financial Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	33				
Capital Structure Optimization	Pearson Correlation	.877**	1			
	Sig. (2-tailed)	.000				
	N	33	33			
Liquidity Management	Pearson Correlation	.853**	.982**	1		
	Sig. (2-tailed)	.000	.000			
	N	33	33	33		
Working Capital Optimization	Pearson Correlation	.811**	.806**	.808**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	33	33	33	33	
Cost of Capital management	Pearson Correlation	.888**	.807**	.818**	.862**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	33	33	33	33	33

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

Regression analysis

Multiple regression analysis was used to explain the variations in the dependent variable which is explained by the independent variables. The r-squared for the relationship between the

independent and dependent variables was 0.793. This implied that 79.3% of the variation in the dependent variable (Financial performance of state owned sugar firms in Nyanza) could be attributed to the independent variables

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.868[a]	.793	.876	.29466

a. Predictors: (Constant), Cost_of_Capital_management, Capital_Structure_Optimization, Working_Capital_Optimization, Liquidity Management

Analysis of Variance (ANOVA)

The model's suitability for the data was assessed using the ANOVA. As indicated by the results (Table 4.13), the p-values are equal to 0.000, indicating that the regression models used in the study are statistically significant given that their p-value is less than 0.05 at the 95% confidence level. The F statistic value of 48.771 implied that the combined model was significant and was suitable in predicting financial performance and that at least one of the predictors has a significant impact on financial performance. This was supported by a probability value of (0.000) which is less than (0.05). In conclusion, the predictors collectively explain 87.5% of the variation in financial performance of the sugar firms.

Table 9: Results for Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.939	4	4.235	48.771	.000[b]
	Residual	2.431	28	.087		
	Total	19.370	32			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Cost_of_Capital_Management, Capital_Structure_Optimization, Working_Capital_Optimization, Liquidity Management

Regression Coefficients

According to the results presented in Table 10 below, Capital structure optimization has a statistically significant positive effect on financial performance ($\beta = 1.003$, $p = 0.007$). This suggests that improvements in capital structure have a direct and strong impact on the financial performance of the firms as it has a substantial influence among other predictors. Holding all factors constant, a unit increase in capital optimization results to 1.003 changes in financial performance.

Though liquidity Management is linked to financial performance, it is not statistically significant (p-values >0.05), in addition, the Beta ($\beta = -0.516$) indicates a moderately negative effect and this

may suggest that the more the firms concentrate on liquidity management it may end up realizing poor financial performance, but the effect being not strong enough, the results cannot be conclusive. The results on the other side indicate working capital optimization has a negligible and statistically insignificant effect on financial performance of the firms (β = -0.020, p-values >0.05), indicating that working capital optimization cannot predict financial performance of the sugar firms.

The cost of capital management indicates a statistically positive and significant effect on financial performance (β = 0.635, $p < 0.001$). These results mean the practices put in place to reduce the cost of capital contribute to better financial performance with a (Beta = 0.571) which indicates a moderately strong effect.

Table 10: Regression coefficients of Capital structure optimization, Liquidity Management, Working capital optimization and Cost of capital management

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**T**	**Sig.**
1	(Constant)	-.475	.467		-1.018	.317
	Capital_Structure_Optimization	1.003	.346	1.022	2.901	.007
	Liquidity Management	-.516	.307	-.605	-1.683	.103
	Working_Capital_Optimization	-.020	.194	-.015	-.104	.918
	Cost_of_Capital_management	.635	.161	.571	3.954	.000

a. Dependent Variable: Financial Performance

In summary, both the constant and the predictors contribute significantly to the model and can provide the information needed to predict financial performance from cost management practices. The regression model is presented in the following form:

$Y = -0.475 + 1.003x1 - 0.516x2 - 0.020x3 + 0.635x4$……. Where:

Y = Financial performance,

X1= Capital structure optimization; X2=Liquidity Management

X3= Working capital optimization; X4= Cost of capital management

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The research findings have therefore shown that the influence of cost management practices on financial performance in the Kenya sugar-manufacturing firms is significant. The sugar firms should therefore make strong consideration for recognizing, identifying, measuring and adopting proper evaluation techniques on the four cost management practices. This is because effective cost management practices remains to be key factors in enhancing financial sustainability, competitiveness and overall financial performance of the state-owned sugar firms.

Recommendation

The researcher would strongly recommend to firms to adopt practices for optimizing capital structure, strengthening liquidity management, improving working capital practices, and reducing the cost of capital, to enhance their profitability, resilience, and long-term sustainability. Based on this study findings, the study recommends that organizations management need to keep their production costs optimal as high costs negates their financial performance.

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