THE IMPACT OF INTERNAL CONTROL ON THE OPERATIONAL PERFORMANCE OF MANUFACTURING FIRMS: A CASE OF KILOMBERO SUGAR COMPANY

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ABSTRACT

The research investigated how internal control influences the performance of manufacturing companies. The study had five specific goals: first, to evaluate how the control environment affects manufacturing firms' performance; second, to assess the impact of risk assessment on their performance; third, to examine how control activities influence their performance; fourth, to gauge the impact of Information and Communication on their performance; and fifth, to analyze how monitoring activities impact their performance. The research followed a descriptive research design that employed a quantitative approach. The participants were employees of Kilombero Sugar Company, with a sample of 78 employees chosen using convenience sampling. Data was collected through a questionnaire. The collected data underwent analysis using descriptive statistics and multiple regression analysis. The results of the multiple regression analysis indicated a significant and positive relationship between all five independent variables and the operational performance of the company. The findings revealed that Control Environment, Risk Assessment, Control Activities, Information and Communication, as well as Monitoring Activities, all had positive and significant effects on Operational Performance. For instance, Control Environment (B=0.383, p-value=0.000), Risk Assessment (B=0.481, p-value=0.000), Control Activities (B=0.553, p-value=0.000), Information and Communication (B=0.170, p-value=0.002), and Monitoring Activities (B=0.453, p-value=0.000) were all positively correlated with Operational Performance. In light of these results, the study suggests that companies should focus on strengthening their internal control mechanisms to enhance overall performance

Keyword: - *Internal controls, operational performance, manufacturing firms, Kilombero sugar company*

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1. INTRODUCTION

Many businesses are facing failure, and a large portion of these failures could have been avoided. The survival of an organization hinges on its efficient use of available resources [1]. The characteristics of contemporary businesses, regardless of their size, demand the implementation of internal control mechanisms. As businesses expand, maintaining control necessitates a more structured information system. The days of a single individual managing everything are over. Given the complexity and external influences, no individual can effectively manage the intricate control needed. Consequently, management requires reliable and accurate accounting data, which is largely ensured through a robust internal control system that originates from within the organization's operations. This internal control system is indeed formidable [2].

In order to optimize resource utilization by all employees, management employs various control measures, including internal control and internal audit. An effective internal control system is a crucial facet of company management and underpins secure and effective operations. Conversely, inadequate internal controls lead to ineffective operations, ultimately causing losses [3]. Often, corporate failures and accounting frauds are foreshadowed by shortcomings in internal control structures [1].

As per the Committee of Sponsoring Organizations of the Treadway Commission's (COSO) framework, every effective internal control system comprises five key elements: the control environment, risk assessment, control activities, information and communication, and monitoring of internal control [4]. Pickett [5] asserts that these elements synergize to create a dynamic system capable of adapting to changing circumstances. Essentially, the internal control system is pivotal to streamlined business operations and aligns with operational activities [6]. While businesses may incorporate these five components, failures still occur, particularly in manufacturing firms with substantial investments [7].

In spite of various companies implementing internal controls, instances of fraud have recently been prevalent. Business failures have adverse economic consequences for a country's economy [7]. The efficacy of internal control significantly impacts company performance and should be a priority, especially in manufacturing firms as they aid in preventing and detecting fraud [8].

Manufacturing companies often grapple with internal control issues, allowing malfeasants to inflict substantial financial losses. These organizations have suffered due to a lack of managerial frameworks and corporate governance. Subpar service delivery plagues businesses, contributing to their overall poor performance. Factors such as financial constraints, institutional inadequacies, and a lack of incentives for consistent high-quality services all contribute to the sector's underperformance [9]. The effectiveness of internal controls on performance should concern most firms, as despite their implementation, improvements in performance remain elusive [7].

Internal controls are created to offer a reasonable level of assurance that an organization will achieve its objectives related to operational efficiency, accurate financial reporting, and compliance with relevant laws and regulations [10]. Although most manufacturing companies have long implemented internal control measures, concerns about financial misconduct such as irregularities within departments, breaches of trust by trusted personnel, and control failures persist [11].

Presently, the breakdown of internal control systems is being held responsible for business failures on a global scale [12]. Various companies worldwide have faced bankruptcy due to the collapse of their internal control systems. The failures of these organizations have cast doubts on the significance and impact of internal control systems, particularly their effect on the financial performance of the organization [13]. Moreover, businesses continue to grapple with problems like liquidity challenges, delayed financial reporting, insufficient tracking of financial resources, misuse of organizational assets, and hasty decisions that result in the inability to achieve projected outcomes [14]. According to [15], inadequate controls have led to substantial business losses resulting from asset fraud and misappropriation, causing both organizations and stakeholders to incur substantial damages.

Numerous studies have explored the relationship between internal control and the performance of manufacturing firms, yielding a mix of results. While some studies suggest that internal control positively influences performance [11, 16], others argue that internal control lacks a significant impact on firm performance [14, 17]. Additionally, a majority of these studies were carried out in foreign contexts [18, 19, 20], with only a handful conducted in Tanzania. As a result, this study addresses a gap by offering empirical insights into how internal control affects the performance of Tanzanian manufacturing firms, specifically focusing on Kilombero Sugar Company.

This study holds significance as it provides understanding and remedies for existing internal control challenges that hinder firm performance, particularly within Tanzanian manufacturing companies. Furthermore, Tanzania's manufacturing sector is a cornerstone of the nation's economic advancement, making measures that enhance performance highly valuable.

1.2. THEORETICAL REVIEW

The research was guided by the agency theory, originally formulated by Jensen and Meckling [21]. This theory elucidates an agency relationship as a contractual arrangement wherein one or more individuals (referred to as the principal(s)) enlist another individual (the agent) to undertake certain services on their behalf, involving the delegation of decision-making authority to the agent. The theory primarily analyzes the interaction between investors and managers. The agent (manager) commits to fulfilling specific responsibilities for the principal (investors), who, in turn, commit to compensating the agent. Consequently, the theory characterizes companies as essential structures for upholding contracts, enabling control mechanisms to be established through firms to mitigate opportunistic behavior among agents [22].

According to this theory, to align the interests of both the agent and the principal, a comprehensive contract is formulated that takes into account the concerns of both parties. Strengthening the agent-principal relationship is further achieved through the principal's utilization of experts and systems (like auditors and control systems) to oversee the agent [23].

At its core, the agency theory posits that a firm's management acts as agents of the investors [24]. The theory assumes that management's objectives frequently diverge from those of investors, necessitating monitoring, control, and evaluation of management. Internal control, therefore, ensures that management's objectives remain largely in line with those established by the business owners. Moreover, it aims to mitigate corporate risks, such as the risk of managerial fraud, and eliminate them [25]. Thus, the theory underscores the significance of internal auditing in overseeing, controlling, and evaluating organizational and management performance. These factors play a crucial role in enhancing financial performance and exhibit a one-sided correlation with financial outcomes.

Critics of the agency theory contend that it fails to acknowledge a firm's role in competitive landscapes, the dynamic contexts they operate in, and the necessity of reallocating resources within a company to sustain growth [26]. Furthermore, Lubatkin [27] asserts that the theory falls short in explaining the intricacies faced by real-world companies. In essence, real-world companies extend beyond shareholders' interests to encompass the concept of stakeholders and the reciprocal influence between business and this concept.

This theory is applicable to this study due to internal control being one of numerous mechanisms utilized in businesses to address the agency issue by mitigating agency costs, which impact the overall dynamic and the benefits for the principal [28, 29]. Internal controls, including those that ensure transparent information flow, relevant data, and high-quality information, enhance the availability of additional information to the principal (shareholder) about the conduct of the agent (management). This, in turn, diminishes information asymmetry, reduces investor risk, and minimizes revenue loss.

2. MATERIAL AND METHODS

2.1 Research Design and Approach

As per Kothari [30], a research design is a strategy used to choose participants, research locations, and data collection methods to respond to research inquiries. The current study employed a descriptive design, which aims to portray the attributes of a particular individual or group, as described by Creswell [31]. Since its purpose is to systematically and accurately depict a population, situation, or phenomenon, the descriptive research design was opted for. It addresses questions such as what, where, when, and how, but not the question of why. In accordance with McLeod [32], a descriptive research design can employ various research techniques to examine one or more variables.

In this study, a quantitative research approach was utilized. Following Miles & Huberman [33], a quantitative research approach quantifies variables using numerical values to tackle research objectives. Consequently, the study embraced a quantitative research approach due to its intention to evaluate the connections between variables. This approach was particularly valuable in gauging the degree to which each independent variable influences the dependent variable.

2.2 Targeted population, unity of analysis and sample size

Kombo & Tromp [34] offer a definition of population as a collection of individuals, objects, or items from which samples are selected for the purpose of measurement. It encompasses units that share common characteristics relevant to a researcher's focus [31]. For this study, the population comprises the employees engaged in Auditing, Accounting, Risk Management, Information and Communication Technology, and Human Resources roles at Kilombero Sugar Company. Additionally, the population includes the company's senior management, who are responsible for establishing internal controls. As a result, the study's sample size was determined to be 78 individuals employed by Kilombero Sugar Company.

2.3 Data collection methods
Both primary and secondary data were acquired through diverse research techniques. The primary data was gathered using a questionnaire approach, while secondary data was procured through a Documentary Review method, extracting information from readily available sources like financial reports, books, journals, and the internet.

According to Kothari [35], a questionnaire is a data collection tool that involves direct interaction between the researcher and the respondents. It comprises a series of questions that the respondents answer, serving as a means to gather self-reported information via self-administration of questions [36]. This approach was utilized to gather quantitative data from 78 participants in the context of this study. The questionnaire was designed using a 5-point Likert scale to assess the influence of internal control on manufacturing firms' performance.

The Documentary Review method, on the other hand, was employed to collect secondary data. Secondary data supplements primary data by providing additional context and enhancing the reliability and validity of the gathered information. Documentary review involves scrutinizing materials from sources such as the Internet, reports, and policies. In this study, the performance reports were examined to ascertain the extent of internal controls and their impact on the company's performance.

2.4 Data analysis
The data underwent analysis through the establishment of a database, while questionnaires were reviewed to ensure their completeness. The analytical process encompassed coding, inputting data, refining data quality, and generating descriptive metrics. These metrics encompassed the frequency counts alongside their corresponding percentages. To conduct this analysis, the Statistical Package for the Social Sciences (SPSS) program version 22 was employed. This software facilitated the creation of various frequency tables and graphical representations reflecting the collected data. Moreover, it was utilized to uncover interrelationships among variables, accomplished through multiple regression analysis as outlined in the provided model:

Firm Operating Performance (Y) was the dependent variable, while Control Environment (β_1), Risk Assessment (β_2), Control Activities (β_3), Information and Communication (β_4), and Monitoring Activities (β_5) were the independent variables. The equation for this relationship is as follows:
$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Here, β_0 signifies the constant factor, β_1 to β_5 correspond to the coefficients of the respective independent variables, and 'e' represents the random variable.

3. RESULTS AND DISCUSSION

3.1 Descriptive Statistics on the Variable Responses

3.1.1 Descriptive Statistics on Control Environment

The control environment at Kilombero Sugar Company was assessed. According to the findings, it was revealed that There is a clear organization structure; Majority strongly agreed (50.5%) and agreed (26.3%) while a minority few disagreed (6.1%) and strongly disagreed (6.1%) and the rest were indifferent (11.1%). The findings resulted to mean value of 4.09 with a standard deviation of 1.187 indicating that majority of the responses agreed and strongly agreed.

Moreover, it was revealed that Kilombero Sugar Company has a clear line of authority for the staff as the majority of respondents (57.6%) strongly agreed and agreed (21.2%); few respondents disagreed (9.1%) and strongly disagreed (1.0%) while the rest were neutral (11.1%). This resulted to a mean of 4.25 and a standard deviation of 1.043. Therefore, it can be generally stated that the company has a clear line of authority for the staff.

Majority of respondents were also found to support the fact that there are proper organization values at Kilombero sugar Company; most of the respondents (68.7%) strongly agreed, 14.1% agreed, 11.1% disagreed, 6.1% strongly disagreed (Mean = 4.28, standard deviation = 1.270). The distribution of responses shows that majority of respondents agreed on the fact.

Additionally, the study assessed if there are clear job descriptions for the staff; and to this the majority (64.6%) of respondents strongly agreed, 30.3% agreed, 1.0% disagreed and 4.0% were neutral with a mean value of 4.59 and a standard deviation of 0.623. Thus, most of the respondents agreed that Kilombero Sugar Company has clear job description for each staff. Table 1 show that descriptive statistics of control environment.

Table 1 Descriptive Statistics on Control Environment

Questions	Responses	SD	D	I	A	SA	Mean	Std. Dev
There is a clear organization structure at Kilombero Sugar Company	Frequency	5	5	9	20	39	4.09	1.187
	Percentage	6.1	6.1	11.1	26.3	50.5		
Kilombero Sugar Company has a clear line of authority for the staff	Frequency	1	7	9	16	45	4.25	1.043
	Percentage	1.0	9.1	11.1	21.2	57.6		
There are proper organization values at Kilombero sugar Company	Frequency	5	9	0	11	53	4.28	1.270
	Percentage	6.1	11.1	0.0	14.1	68.7		
The company has clear job description for each staff	Frequency	0	0	6	22	50	4.58	0.624
	Percentage	0.0	0.0	7.1	28.3	64.6		

3.1.2 Descriptive Statistics on Risk Assessment

Regarding the risk assessment activities, findings revealed that there are good risk identification mechanisms at Kilombero Sugar Company. This was evidenced by a majority of respondents who strongly agreed (65.7%) followed by those who agreed (15.2%), 6.1% disagreed and 5.1% strongly disagreed while the remaining 8.1% were undecided (Mean = 4.30, Standard deviation = 1.165). In addition to that, it was also unveiled that risk assessment is done at each level of operations since majority of respondents (55.6%) strongly agreed and agreed (30.3%) while a minority few disagreed (5.1%), strongly disagreed (5.1%) and others didn't know (4.0%). The mean value was 4.26 with a standard deviation of 1.093.

Findings on the risk management techniques and found that there are proper risk management techniques and to this, the majority (58.6%) of respondents strongly agreed and agreed (25.3%). However, 6.1% of respondents disagreed, 4.0% strongly disagreed while 6.1% were neutral (Mean = 4.28, Standard deviation = 1.088). Moreover, the majority of respondents were in support of the fact that evaluation of results is done periodically to measure the effectiveness of risk management. This was evidenced by the majority of respondents who strongly agreed (64.6%) and agreed (18.2%) while a minority few (10.1%) disagreed and 7.1% were neutral with a mean value of 4.37 and a standard deviation of 0.996 as presented on Table 2 below;

Table 2 Descriptive Statistics on Risk Management

Questions	Responses	SD	D	I	A	SA	Mean	Std Dev
There are good risk identification mechanisms at Kilombero Sugar Company	Frequency	4	5	6	12	51	4.30	1.165
	Percentage	5.1	6.1	8.1	15.2	65.7		
Risk assessment is done at each level of operations	Frequency	4	4	3	24	43	4.26	1.093
	Percentage	5.1	5.1	4.0	30.3	55.6		
There are proper risk management techniques at Kilombero Sugar Company	Frequency	3	5	5	20	45	4.28	1.088
	Percentage	4.0	6.1	6.1	25.3	58.6		
An evaluation of results is done periodically to measure the effectiveness of risk management	Frequency	0	8	6	14	50	4.37	0.996
	Percentage	0.0	10.1	7.1	18.2	64.6		

3.1.3 Descriptive Statistics on Control Activities

When assessing the control activities at Kilombero sugar Company, the findings of the study revealed that there are proper authorization and approval procedures for all transactions and to this; the majority of respondents (50.5%) strongly agreed and (27.3%) agreed. Few of them (6.1%) disagreed and 5.1% strongly disagreed while 11.1% were neutral (Mean = 4.12 and Standard deviation = 1.145). Findings also revealed that the available segregation of duties gives a clear control mechanism for the operations as evidenced by 46.5% of respondents who strongly agreed, 34.3% agreed, 5.1% neutral, 6.1% disagreed and 8.1% strongly disagreed (Mean = 4.07, Standard deviation = 1.180).

Furthermore, it was revealed that reconciliations are done periodically as a control mechanism for the transactions as evidenced by 57.6% who strongly agreed, 20.2% agreed, 8.1% were neutral and 14.1% disagreed with a mean value of 4.21 and a standard deviation of 1.091. It was also found that there are frequent performance reviews to crosscheck the control activities as evidenced by 63.6% of respondents who strongly agreed and 21.2% agreed. However, 8.1% disagreed, 2.0% strongly disagreed and 5.1% were neutral with a mean value of 4.36 and a standard deviation of 1.035. Findings are as portrayed on Table 3 below;

Table 3 Descriptive Statistics on Control Activities

Questions	Responses	SD	D	I	A	SA	Mean	Std Dev
There are proper authorization and approval procedures for all transactions	Frequency	4	5	9	21	39	4.12	1.145
	Percentage	5.1	6.1	11.1	27.3	50.5		
The available segregation of duties gives a clear control mechanism for the operations	Frequency	5	6	4	27	36	4.07	1.180
	Percentage	6.1	8.1	5.1	34.3	46.5		
Reconciliations are done periodically as a control mechanism for the transactions	Frequency	0	11	6	16	45	4.21	1.091
	Percentage	0.0	14.1	8.1	20.2	57.6		
There are frequent performance reviews to crosscheck the control activities	Frequency	2	6	4	16	50	4.36	1.035
	Percentage	2.0	8.1	5.1	21.2	63.6		

3.1.4 Descriptive Statistics on Information and Communication

With regard to information and communication, findings indicated that there is a clear flow of information at each level of operation (68.7% of respondents strongly agreed, 10.1% agreed, 10.1% disagreed, and 11.1% indifferent). The findings resulted to a mean of 4.37 and standard deviation of 1.036. Moreover, it was discovered that all the relevant information is readily available for the operations as evidenced by majority of respondents who strongly

agreed (51.5%) and agreed (34.3%) while others disagreed (13.1%) and undecided (1.0%) with a mean value of 4.24 and a standard deviation of 1.001.

Further disclosures were that there is good quality of information flow at Kilombero Sugar Company as evidenced by majority of respondents strongly agreed (68.7%) and agreed (20.2%). However, 12.1% disagreed and 1.0% strongly disagreed while 8.1% were neutral; findings also resulted to a mean of 4.33 and a standard deviation of 1.116. Finally, it was discovered that the information flows through a clear line of authority and to this, 60.6% respondents strongly agreed, 20.2% agreed while a few respondents were neutral (5.1%), strongly disagreed (4.0%) and disagreed (10.1%). A mean value of 4.23 and a standard deviation of 1.177 were also obtained and findings are as shown on Table 4 below;

Table 4 Descriptive Statistics on Information and Communication

Questions	Responses	SD	D	I	A	SA	Mean	Std. Dev
There is a clear flow of information at each level of operation	Frequency	0	8	9	8	53	4.37	1.036
	Percentage	0.0	10.1	11.1	10.1	68.7		
All the relevant information is readily available for the operations	Frequency	0	10	1	27	40	4.24	1.001
	Percentage	0.0	13.1	1.0	34.3	51.5		
There is good quality of information flow at Kilombero Sugar Company	Frequency	0	11	6	8	53	4.33	1.116
	Percentage	0.0	13.1	8.1	10.1	68.7		
The information flows through a clear line of authority	Frequency	3	8	4	16	47	4.23	1.177
	Percentage	4.0	10.1	5.1	20.2	60.6		

3.1.5 Descriptive Statistics on Control Activities

The control activities were also examined by the study. On this, findings of the study revealed that there are constant evaluations of operations at the company as 43.6% strongly agreed and 43.6% agreed. On the other hand, 8.9% disagreed and 3.9% strongly disagreed. Also, the findings led to a mean value of 4.34 with a standard deviation of 1.055 indicating that they fall under agreeing.

The study also assessed if the there are periodic evaluations of operations at Kilombero SugarCompany ; most of the respondents disagreed (51.9%) and strongly disagreed (35.4%) on contrary few respondents agreed (10.1%) and strongly agreed (2.5%). The findings also resulted to mean value of 1.92 falling under disagree side. Also, the data were not far from the mean since the standard deviation was 0.997.

Apart from that, it was exposed that there are frequent meetings to monitor the operations of the company. This was evident from most of the respondents who strongly agreed (57%) and those who agreed (26.6%); others disagreed (6.3%), strongly disagreed (10.1%). A mean value of 4.24 was obtained which means majority agree and the responses were not spread from each other since a standard deviation of 1.135 was obtained.

Furthermore, findings revealed that there are frequent reporting requirement for reporting the operations as the findings were supported by 64.6% of the respondents who strongly agreed and 19% who agreed. Others were against the fact, 5.1% disagreed, and 11.4% strongly disagreed. The findings had a mean value of 4.37 with a standard deviation of 1.015. Findings are indicated in Table 5 below;

Table 5 Descriptive Statistics on Control Activities

Statements	Response	SD	D	I	A	SA	Mean	Std. Dev
There are constant evaluations of operations at the company	Frequency	3	7	0	34	34	4.34	1.055
	Percentage	3.9	8.9	0.0	43.6	43.6		
There are periodic evaluations of operations at Kilombero Sugar Company	Frequency	2	8	0	40	28	4.02	0.997
	Percentage	2.5	10.1	0.0	51.9	35.4		
There are frequent meetings to monitor the operations of the company	Frequency	8	5	0	21	44	4.24	1.135
	Percentage	10.1	6.3	0.0	26.6	57		
There are frequent reporting requirement for reporting the operations	Frequency	9	4	0	15	50	4.37	1.015
	Percentage	11.4	5.1	0.0	19	64.6		

3.2 Multiple Regressions Analysis

The study also measured the extent at which each independent variable influences the dependent variable. Therefore, the extent which Control Environment (CE), Risk Management (RM), Information and Communication (IC), Control Activities (CA) and Monitoring Activities (MA) influence the dependent variable Operational Performance (OP) was assessed. However, before the regression analysis, the Goodness of fit test, Multicollinearity test and Normality tests were conducted and findings presented below;

3.2.1 Goodness of Fit Test

A goodness of fit test for the model was conducted through the analysis of Variance (ANOVA). This shows the extent to which the model explains the dependent variable OP. By considering the sum of squares in Table 6 below it is indicated that the model can explain OP by 89.1% (152.761 out of 171.509). The model's F value yields a p-value of 0.000, which is less than the 0.05 level of significance for normally distributed data. The P-value of 0.000 for the F-statistics strongly supports the validity and stability of the study's model. This means that there is a significant relationship between the independent variables and the dependent variable. Results are shown on Table 6 below;

Table 6 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	152.761	3	50.920	423.686	0.000
	Residual	18.748	74	0.120		
	Total	171.509	78			

3.2.2 Multicollinearity Test

Multicollinearity happens when independent variables are highly correlated with each other to the extent that they can affect the accuracy of regression analysis results in the model and becomes a challenge to rely on the results obtained [37]. Variance Inflation Factor (VIF) was used to measure the extent to which independent variables (CE, RM, CA, IC and MA) are correlated to the extent that they can adversely distort the results.

The Variance Inflation Factor (VIF) was used to support the validity of the regression results. According to Lelissa[38] VIF below 10 suggests that, there is no multicollinearity. On the other hand, the VIF value which is above 10 indicates that, a collinearity problem exists and further investigation is recommended such as those variables which are much correlated or lead to multicollinearity to be removed or replaced with other variables in order to obtain accurate results. Table 7 shows the results which was used to test multicollinearity among the independent variables.

Table 7 Multicollinearity Statistics

Variable	Collinearity Statistics	
	Tolerance	VIF
CE	0.201	4.987
RM	0.187	5.342
CA	0.223	4.487
IC	0.304	3.290
MA	0.223	4.483

Table 7 above shows that the multicollinearity results indicate that all the variables had VIF values less than 10, thus, indicating that there was no multicollinearity problem, thus, all the independent variables were taken to the next state.

3.2.3 Normality Test

Normality test was done through a Kolmogorov-Smirnov test to determine if the data on the variables are normally distributed before running multiple regression. Findings indicated that all the variables had a p-value of 0.000 thus significant and normally distributed. Table 8 below indicates the results.

Table 8 Kolmogorov-Smirnov Test of Normality

	Kolmogorov-Smirnov		
	Statistic	df	Sig.
CE	0.214	78	0.000
RM	0.267	78	0.000
CA	0.235	78	0.000
IC	0.346	78	0.000
MA	0.245	78	0.000
OP	0.279	78	0.000

3.2.4 Multiple Regression Model Summary

The multiple regression between independent variables (CE, RM, CA, IC and MA) and the dependent variable (OP) was conducted to determine the extent at which independent variables influence the dependent variable. Therefore, the standard multiple regressions were used to test if the three variables significantly predict the dependent variable. The results of the multiple regressions indicated that there is a correlation of 94.4% (R = 0.944) between the five independent variables and the dependent variable. Results also indicated that the three predictors explained 89.1% of the variation in OP (R^2 = 0.891). Findings are as presented on Table 9 below;

Table 9 Multiple Regressions Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.944	0.891	0.889	0.34768

3.2.5 Multiple Regression Model Coefficients

The model also produced beta coefficients which explains the effect of change in the independent variable (CE, RM, CA, IC and MA) to the dependent variable (OP). Findings are as presented on Table 10 below;

Table 10 Multiple Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	0.102	0.133		0.771	0.442
CE	0.383	0.063	0.338	6.085	0.000
RM	0.481	0.063	0.486	7.602	0.000
CA	0.553	0.037	0.530	14.818	0.000
IC	0.170	0.054	0.165	3.139	0.002

| MA | 0.453 | 0.043 | 0.410 | 10.479 | 0.000 |

3.2.5.1 The Impact of Control Environment on Operational Performance

The study's first specific objective was to assess the impact of the control environment on the operational performance of Kilombero Sugar Company. Multiple regression analysis revealed that the control environment has a significant and positive impact on Kilombero Sugar Company's operational performance. The control environment was found to have a regression coefficient of 0.383 and a p-value of 0.000. This means that every unit increase in the control environment results in a 0.383 unit increase in operational performance. As a result, the company has a good control environment, which improves operational performance.

The findings were similar to those obtained by Benedict [11], who investigated the effects of internal control on manufacturing industry performance. The study also discovered that the control environment is most positively correlated with audit effectiveness and efficiency, while it is negatively correlated with final audit objective agreement. Similarly, Yego and Olouch [2] discovered similar results when they investigated how internal controls affect operational cost efficiency in Kenyan parastatals. The study discovered that the control environment had a significant positive impact on organizational performance in Kenyan parastatals.

3.2.5.2 The Impact of Risk Management on Operational Performance

Regarding the second specific objective, the study revealed that the impact of risk management on operational performance was assessed. The study's findings revealed that risk management practices at Kilombero Sugar Company had a positive significant impact on the company's operational performance, with a multiple regression coefficient of 0.481 and a p-value of 0.000. This means that a one-unit increase in risk management practices leads to a 0.481-unit increase in operational performance. As a result, the company has good risk management practices as part of internal control because they have a positive impact on the company's operational performance.

The results are consistent with those obtained by Akinyemi et al., [18], who investigated the impact of internal control systems on the financial performance of manufacturing companies listed in Nigeria and discovered that risk management has a significant and positive effect on the financial performance of manufacturing companies listed in Nigeria. Kamau [39] discovered similar results when researching the effect of internal controls on the financial performance of manufacturing firms in Kenya. According to the empirical results of the regression analysis, risk assessment was the most important factor in predicting the financial performance of manufacturing firms.

3.2.5.3 The Impact of Control Activities on Operational Performance

On the third specific objective, the impact of control activities on the operational performance of the company was assessed. Multiple regression results revealed a positive and significant relationship between control activities and operational performance (B=0.553, p-value=0.000). As a result, a unit increase in control activities results in a 0.553 unit increase in operational performance. As a result, the company has effective control activities that benefit its operational performance.

Bett and Memba [40] discovered similar results when they investigated the effects of internal control on the financial performance of Kenyan processing firms. The findings confirmed that control activities have a significant impact on Menengai Company's financial performance. Kamau [41] investigated the effect of internal control components on financial performance in the Iraqi banking sector. According to their findings, the most important internal control system aspect that has an impact on financial success is control activity. Ironkwe and Promise [42], on the other hand, discovered that there is no significant relationship between control activities and the use of an organization's funds and assets.

3.2.5.4 The Impact of Information and Communication on Operational Performance

The fourth specific objective of the study was to assess the impact of information and communication on operational performance. The results of the multiple regression analysis revealed that information and communication as part of the internal control system have a positive and significant impact on the company's operational performance. The regression coefficient was 0.170, and the p-value was 0.002. As a result of the findings, information and communication at Kilombero Sugar Company positively and significantly influence the company's operational performance.

Kinyua [43] also investigated the impact of internal control systems on the financial performance of Nairobi Securities Exchange (NSE)-listed companies. According to the findings and results, there is a significant

relationship between information and communication and financial performance. Bett and Memba [40] discovered similar results when they investigated the effects of internal control on the financial performance of Kenyan processing firms. The findings confirmed that information and communication have a significant impact on Menengai Company's financial performance.

3.2.5.5 The Impact of Monitoring Activities on Operational Performance

The last specific objective assessed the impact of monitoring activities on operational performance of the company. The findings revealed that monitoring activities have a positive and significant impact on the company's operational performance (B=0.453, p-value=0.000). As a result, the findings imply that increasing monitoring activities by one unit results in an increase of 0.453 monitoring activities. As a result, the company has good monitoring activities, which positively influence the company's operational performance.

Alemu [44] also looked into the impact of internal control systems on organizational performance. The descriptive design was used in this study, and the results were similar. It was discovered that control activity had an impact on the company's performance. Furthermore, Denzin and Lincoln [45] discovered a positive relationship between internal control components, particularly monitoring activities, and organizational success.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

An effective control environment is essential for an organization to carry out its responsibilities in adherence to internal policies and guidelines. Consequently, when an organization establishes an enhanced control environment encompassing all staff and management levels, it is more likely to attain superior operational performance. Additionally, employing techniques like risk identification, risk assessment, and risk management plays a pivotal role in ensuring that potential risks are identified and addressed proactively, preventing disruptions in company operations. This, in turn, leads to heightened organizational performance.

Control activities such as authorization, segregation of duties, and reconciliations play a vital role in managing an organization's resources. By implementing these control activities appropriately, the organization can enhance its operational efficiency. The significance of information and communication cannot be overstated in an organization's performance. A consistent and relevant flow of information throughout various departments and units contributes to the organization's improved performance. Furthermore, the monitoring of activities holds great importance in tracking the implementation progress. Therefore, consistent and timely monitoring is indispensable for elevating the company's performance.

4.2 RECOMMENDATIONS

i. Manufacturing companies and other businesses must prioritize the company's control environment. It is through the control environment that organizational employees will be able to implement the company's internal control system for improved organizational performance.

ii. Companies should also have a risk assessment system in place where risks are identified and managed before they distort the company's performance. As a result, there should be a risk assessment system in place at each level of the organization, as well as methods to manage those risks that are identified and implemented as soon as possible to reduce the impact of risk on performance.

iii. Control activities related to that specific section should be carried out at each level of management and in each department or unit. Control activities such as transaction authorization and approval, among others, will reduce the risk of fraud and thus improve the company's performance.

iv. A smooth flow of information is also critical to the success of the business. As a result, businesses must have an effective communication system in place to ensure that the flow of information is not distorted and that there is no miscommunication on the operations. This will improve organizational performance as well.

v. All internal control activities must be monitored. As a result, organizations could have a monitoring department to ensure that all activities are monitored in order to improve implementation.

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