



**THE EFFECT OF INTERNAL CONTROL SYSTEM ON THE PROFITABILITY OF SMALL MEDIUM ENTERPRISES IN RWANDA. A CASE OF CETRAF LTD (2016-2019)**

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<sup>1</sup> Uwineza, F., <sup>2</sup> Maringa, E. K., & <sup>3</sup> Mbanzamahoro, H. F.

<sup>1</sup> Research scholar, University of Kigali, Musanze, Rwanda

<sup>2</sup> Masters Coordinator and Lecturer, University of Kigali, Musanze, Rwanda

<sup>3</sup> Research scholar, University of Kigali, Musanze, Rwanda

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**ABSTRACT**

*The aim of this study was to evaluate the effects of internal control systems on profitability of SME's in Rwanda. A descriptive research design was adopted in this study while the population of this study was 445 employees of CETRAF Ltd. A sample of 82 employees of CETRAF Ltd was selected. Purposive sampling technique was used both primary data and secondary data were used; where primary data were collected using questionnaire and interview while the secondary data were collected using documentation. After the data collected were organized, edited and coded, quantitative data were entered into SPSS 20 and MS-Excel. The significance of the findings was tested using the p-value, to determine whether the null hypothesis should be accepted or rejected. If the p-value >0.05 then alternative hypothesis is accepted while null hypothesis is rejected. The results examined and established a significant relationship between internal control system and profitability of CETRAF Ltd through the dimensions of internal control systems (the control environment, control activities, risk assessment, information and communication, and monitoring activities) and that of the profitability (ROE) selected for this particular study. Details showed that control environment is linked to ROE ( $r = 1.000$ ,  $p \leq 0.05$ ), control activities is also linked to ROE ( $r = 0.762$ ,  $p \leq 0.05$ ), risk assessment is linked to ROE ( $r = 0.836$ ,  $p \leq 0.01$ ), information and communication is also linked to ROE ( $r = 0.762$ ,  $p \leq 0.05$ ), and monitoring activities is linked to ROE ( $r = 0.836$ ,  $p \leq 0.01$ ). It implied that there a strong positive relationship between internal control system and profitability of CETRAF Ltd. The study concluded that there was a positive relationship between the control environment, control activities, risk assessment, information and communication, and monitoring activities and the profitability of CETRAF Ltd. The study recommended that SME's should ensure that they have effective control environment, control activities, proper risk assessment policies, efficient information and communication methods and proper monitoring activities strategies to ensure that their internal controls systems are effective and to enhance their profitability.*

**Key Words:** Internal Control Systems, Profitability of Small Medium Enterprise

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## INTRODUCTION

Today, across the world, internal control plays an important role in directing and preventing fraud and protecting the organization's resources, toward achievement of the organization goals. Internal control is a topical issue following global fraudulent financial reporting and accounting scandals in both developed and developing countries. Improving internal control in an organization may lead to improvement of financial reporting and decrease of bankruptcy. Internal control are the methods or procedure adopted in organization to safeguard its assets, ensure financial information is accurate and reliable, ensure compliance with all financial and operation requirements, and generally assist in achieving the business objectives (Uwingabire, 2019).

Small medium enterprises (SME's) are the engine of economic growth and equitable development in developing economies (Agwu& Emeti, 2014). In Africa, SMEs are the backbone of the economy and a key source of economic and dynamic growth and flexibility (Eniola et al., 2015). An entity should put in place its own system of controls in order to achieve its objectives (Mwindi, 2008). A system of effective internal controls is a critical component of company management and a foundation for the safe and sound operation of organizations. However, ineffective internal controls result in ineffective programs and eventually leading to losses (Olumbe, 2012).

SMEs have tended to have a more relaxed attitude towards fraud. This could be attributed to the increased difficulties in implementing solid internal controls or the closer working relationships within SMEs (KPMG, 2013). Whatever the reason, SMEs experienced a higher incidence of fraud with 50% of SME respondents experiencing at least one fraud in the past 2 years. One of the difficulties facing SMEs is their ability to absorb the cost of a fraud if it occurs. The survey identified that in over 40% of the fraud incidents none of the money lost was recovered, whilst the actual recovery rate of around 37% of the total dollar amount lost is very low. This

research project sought to investigate the extent to which small firms engage in internal control practice to ensure its future survival from the introductory phase to the growth phase of the organizational life cycle (Njaramba & Ngugi, 2014).

Profitability is the firm's ability to efficiently operate, be more profitable, to grow and survive for a long period of time (Akisik & Gal, 2017). All organizations strive to utilize it resources effectively to achieve a high-performance level especially in financial terms. Thus, Profitability is the outcome of any of many different activities undertaken by an organization. Profitability is an indication of how a firm can utilize its current assets from the firm's main business mode and operations and generate revenues for the business (Harashet al., 2014). Profitability also shows how health a firm is in financial terms over a certain period. Profitability is applied in weighing up firms from same industry or in comparison to other firms in different industries or sectors with intention to come up with a decision on how to improve on the prevailing situation or sustain a desirable position within the market (Alarussi & Alhaderi, 2018).

### Objectives of the Study

The general objective of this study was to evaluate the effects of internal control systems on profitability of SME's in Rwanda. The specific objectives of this study were the following;

- To determine the effect of control environment on profitability of CETRAF Ltd
- To examine the effect of control activities on profitability of CETRAF Ltd
- To analyze the effect of risk assessment on profitability of CETRAF Ltd
- To assess the effect of information and communication on profitability of CETRAF Ltd.
- To examine the effect of monitoring activities on profitability of CETRAF Ltd.

### Problem Statement

Globally, internal control failure among small businesses often leads to loss of assets, fraud, waste, mismanagement, inefficiency, loss of client

assurance, and failure to achieve business goals (Stone, 2016). Lack of internal control has a negative effect on the profits and continuity of business (Othman & Ali, 2015).

Poor internal controls system causes asset misappropriations, corruption, organizational fraud and fraudulent statements in SME's in Rwanda. The management of SME's must ensure that a proper internal control structure is instituted, reviewed updated to keep it effective. Properly developed and effectively implemented internal control helps to protect against wastage of resource and a basis for the smooth operations of all type of an organization. According to internal audit procedures manual published by (MINECOFIN, 2013), internal control is intended to prevent financial loss and waste, promote efficient financial management and accountability, prevent or detect and deter fraud or other irregularities, prevent or detect error, safeguard the entity's assets, promote ethical, orderly, efficient and effective government programs or projects, enhance reliability of financial information and reports, and promote compliance with laws and regulations. Despite the several studies that have been done in different countries USA; Sri Lanka; Nigeria; Kenya; and Rwanda), the effect of internal control system on profitability of SME's is not satisfactory. To fill this gap and add to the body of knowledge, the study therefore sought to evaluate the effects of internal control systems on profitability of SME's in Rwanda.

## LITERATURE REVIEW

### Theoretical framework

#### The theory of internal control

The internal control system is a concept that encapsulates the structure of any entity integrity, ethical values and all activities that control to ensuring balance in the traction for optimality (Francis & Imiete, 2018; Mary *et al.*, 2014). Internal control system reflects the framework of action that manages business strength, weakness, threat and opportunity in an attempt to sustain desired business outcome. It is an integrated line of activities, policies, plans and

effort by the management, board of directors and all the personnel to ensure the efficient achievement of organizational goals and objectives (Mahadeen *et al.*, 2016). Every effort put in place by an organization to enhance operating performance is related directly or indirectly with internal control system components, and this is why the internal control system mirrors the viability and sustainability of a business entity especially in a highly flexible business environment (Masadehet *al.*, 2015). It will among other things in an organization, ensures high level operational accountability, establishment of goal-oriented procedures and pattern of operation (El-Masri *et al.*, 2015).

#### Agency theory

Agency theory is concerned with resolving problems that can exist in agency relationships; that is, between principals such as shareholders and agents of the principals for example, company executives. The two problems that agency theory addresses are: the problems that arise when the desires or goals of the principal and agent are in conflict, and the principal is unable to verify what the agent is actually doing and the problems that arise when the principal and agent have different attitudes towards risk.

Adams (1994) argued that, agency theory also provides a useful theoretical framework for the study of internal auditing function. He also proposed that agency theory not only helps to explain and predict the existence of internal audit but that is also helps to explain the role and responsibilities assigned to internal auditors by the organization and that agency theory predicts how the internal audit function is likely to be affected by organizational change. He concludes that agency theory provides a basis for rich research, which can benefit both the academic community and internal auditing profession. This theory relates to this my study as it helps to explain the role of internal control which helps to improve profitability of SME's.

#### Contingency theory

Contingency theory is usually applied in description

of a relationship that exists between context and structure of effective internal control and organizational performance especially in financial reporting perspective (Jokipii, 2010). This theory asserts that there exist no better way of design planning and system of control as well as management systems which can handle all situations effectively and successfully (Bobkova, 2014). Therefore, this theory suggests that exists no one universal control system, which is applicable to all firms in all situations. The basic premise of contingency research is that, organizational context and structure must fit together for an organization to perform well (Jokipii, 2010). Therefore, the planning design and systems of control is dependent on various internal variables and external variables and which a better fit between both internal and external variables and management systems should result in an improved performance of an organization (Bobkova, 2014).

#### **Stewardship theory**

Donaldson and Davis (1991) stated that this theory focuses on the ability of the management of the organization to align their goals with the institutional goals. They further stated that stewards' satisfaction and motivation is driven by the success of the organization. He further argued that effective stewardship requires employee empowerment and provision of independence based on trust.

Stewardship theory has its roots from psychology and sociology and is defined by Davis, Schoorman and Donaldson (1997) as "a steward protects and maximizes shareholders wealth through firm performance, because by so doing, the steward's utility functions are maximized". Unlike agency theory, stewardship theory stresses not on the perspective of individualism (Donaldson & Davis, 1991), but rather on the role of top management being as stewards, integrating their goals as part of the organization. The stewardship perspective suggests that stewards are satisfied and motivated when organizational success is attained. Argyris (1973) argues that while agency theory looks at an

employee or people as an economic being, which suppresses an individual's own aspirations, on the other hand Donaldson and Davis (1991) argue that stewardship theory recognizes the importance of structures that empower the steward and offers maximum autonomy built on trust. It stresses on the position of employees or executives to act more autonomously so that the shareholders returns are maximized. Indeed, Fama (1980) contend that executives and directors are also managing their careers in order to be seen as effective stewards of their organization, whilst, Shleifer, Andlei and Vishny (1997) claims that managers return finance to investors to establish a good reputation so that they can re-enter the market for future finance.

#### **Environment control on profitability of SME's**

Mugo (2013) investigated and sought to establish the relationship between internal control systems and financial performance in technical training institutions in Kenya. The research was conducted using both quantitative and qualitative approaches using survey, correlation and case study as research designs. Data was collected using questionnaires as well as review of available documents and records targeting basically finance officers, heads of departments, management committee members and finance and accounts staff as respondents from a population of 37 technical training institutions in Kenya. Data was analyzed using the statistical package for social scientists where conclusions were drawn from tables, figures from the package. The research was conducted using both quantitative and qualitative approaches using survey, correlation and case study as research designs. Based on the results; the correlation table presents the relationship between dimensions of internal controls measured by control environment, internal audit and control activities against financial performance, measured by liquidity, accountability and reporting. The results show that all the dimensions relate positively. Specifically, control environment relates positively with liquidity, accountability and reporting ( $r = 0.294$ ,  $p < 0.01$ ;  $r = 0.338$ ,  $p < 0.01$ ;  $r = 0.276$ ,  $p < 0.01$ ) respectively.



These suggest that the control environment relates positively with financial performance.

#### **Control activities on profitability of SME's**

Mugo (2013) investigated and sought to establish the relationship between internal control systems and financial performance in technical training institutions in Kenya. The research was conducted using both quantitative and qualitative approaches using survey, correlation and case study as research designs. Data was collected using questionnaires as well as review of available documents and records targeting basically finance officers, heads of departments, management committee members and finance and accounts staff as respondents from a population of 37 technical training institutions in Kenya. Data was analyzed using the statistical package for social scientists where conclusions were drawn from tables, figures from the package. The research was conducted using both quantitative and qualitative approaches using survey, correlation and case study as research designs. Based on the results; indicate a positive relationship between internal control activities as a component of internal control systems with liquidity,  $r = 0.291$  with a standard error,  $p < 0.01$ . Internal control activities further relate positively with accountability,  $r = 0.094$  with a standard error,  $p < 0.01$  and with reporting,  $r = 0.299$  with standard error,  $p < 0.01$ . This seems to agree with Ray and Pany (2001)'s belief that "control activities are policies and procedures that help ensure that management directives are carried out". Therefore, internal control activities affect financial performance.

#### **Risk assessment on profitability of SME's**

Bett and Memba (2017) assessed the effects of internal control systems on the financial performance of Menengai Oil Company, Kenya. The specific objectives of the study were to determine the effect of control environment on the financial performance of Menengai Company, determine the influence of risk assessment on the financial performance of Menengai Company and to establish the influence of information systems on financial performance of Menengai Company. The

study adopted a survey research design. A census of 189 respondents was used in the study. The data collected were first being tabulated, then analyzed by use of descriptive statistics and inferential statistics. The results were presented in charts, tables and graphs. ANOVA tests confirmed that control environment, risk assessment and information have a significant influence on financial performance.

Nyakundi *et al.* (2014) studied the effect of internal control systems on financial performance among SMEs in Kisumu city, Kenya. The research was conducted using both quantitative and qualitative approaches; adapting cross-sectional survey research design. The study used both primary and secondary data. Primary data was collected using structured questionnaire and interview, while secondary data was obtained from financial statements of the sampled enterprises. Data was analyzed using descriptive statistics as well as inferential statistics. The study specifically revealed that a significant change in financial performance is linked to internal controls systems. Based on the findings of the study, it is concluded that internal control systems as supported by the study findings significantly influence the financial performance of Small and Medium scale Enterprises. The investigation recommends training on the significance of internal controls among proprietors of Small and Medium scale Enterprises. The above empirical studies relate to the effect of risk assessment on financial performance.

#### **Information and communication on Profitability of SME's**

Bett and Memba (2017) assessed the effects of internal control systems on the financial performance of Menengai Oil Company, Kenya. The specific objectives of the study were to determine the effect of control environment on the financial performance of Menengai Company, determine the influence of risk assessment on the financial performance of Menengai Company and to establish the influence of information systems on financial performance of Menengai Company. The

study adopted a survey research design. A census of 189 respondents was used in the study. The data collected were first tabulated, and then analyzed by use of descriptive statistics and inferential statistics. The results were presented in charts, tables and graphs. ANOVA tests confirmed that control environment; risk assessment and information systems have a significant influence on financial performance. Alawattegama (2018) explored on the impact of the adoption of enterprise risk management (ERM) practices on firm performance. A sample of forty five banking and finance companies listed on the Colombo Stock Exchange (CSE) was selected for this study and uses both primary and secondary data for the empirical analysis. The extent of adoption of ERM practices was assessed by using the ERM integrated framework of committee of sponsoring organization (COSO) of the Tread way Commission of USA. Return on equity (ROE) is used as a proxy to measure the firm performance and uses multivariate regression analysis to assess the impact of key ERM functions on firm performance. Nyakundi *et al.* (2014) studied the effect of internal control systems on financial performance among SMEs in Kisumu city, Kenya. The research was conducted using both quantitative and qualitative approaches; adapting cross-sectional survey research design. The study used both primary and secondary data. Primary data was collected using structured questionnaire and interview, while secondary data was obtained from financial statements of the sampled enterprises. Data was analyzed using descriptive statistics as well as inferential statistics. The study specifically revealed that a significant change in financial performance is linked to internal controls systems. Based on the findings of the study, it is concluded that internal control systems as supported by the study findings significantly influence the financial performance of Small and Medium scale Enterprises. The investigation recommends training on the significance of internal controls among proprietors of Small and Medium scale Enterprises. Empirical studies above exist on quality of information,

effective communication and financial performance.

### **Monitoring activities on profitability of SME's**

Monitoring refers to the process of assessing the quality of the internal control structure over time. Since internal controls are processes, it is usually accepted that they need to be adequately monitored in order to assess the quality and the effectiveness of the system's performance over time. By monitoring, the organization gets provided with assurance that the findings of audits and other reviews are promptly determined (Karagiorgoset *al.*, 2011). Monitoring of operations ensures effective functioning of internal controls system. It's through monitoring that an organization determines whether its policies and procedures designed and implemented by management are being carried out effectively by employees (Ewa & Udoayang, 2012).

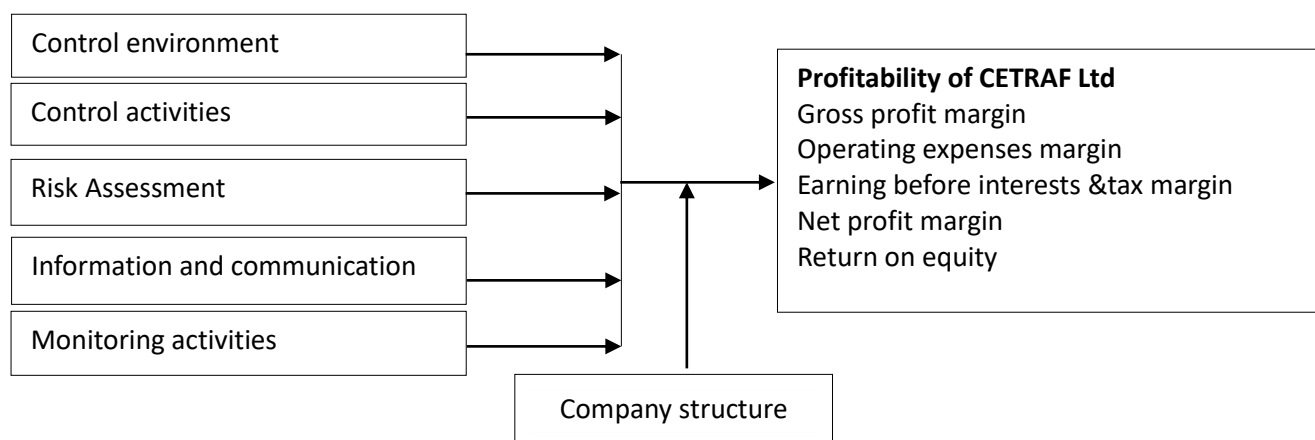
Internal controls are to be an integral part of any organization's financial and business policies and procedures. Internal controls consist of all the measures taken by the organization for the purpose of protecting its resources against waste, fraud, and inefficiency, ensuring accuracy and reliability in accounting and operating data, securing compliance with the policies of the organization; and evaluating the level of performance in all organizational units of the organization. The main responsibility of the internal control in SME'sisto prevent financial loss and waste, promote efficient financial management and accountability, prevent or detect and deter fraud or other irregularities, prevent or detect error, safeguard the entity's assets, promote ethical, orderly, efficient and effective government programs or projects, enhance reliability of financial information and reports, and promote compliance with laws and regulations(Uwingabiye, 2019).

According to Provasi and Riva (2015), internal control is a systematic process which does not rely on occasional occurrences; it is a process objectively effect by an entity for optimal goal achievement assurance, effectiveness, efficiency and compliance of operation. According to COSO (2013), internal control encompasses five major components namely the control environment, control activities,

risk assessment, information and communication, as well monitoring activities. It depicts the operating design of an entity in terms of policies and procedures to provide a desired level of efficiency and effectiveness of operation, financial report reliability and ardent compliance. Therefore, five components of internal control are applicable to all entities, but how they are configured with an entity will depend on several factors among them are as follows, the size of an entity its organization and ownership characteristics, the business nature applicable rules and regulations of its operations.

### Conceptual Framework

Conceptual framework diagrammatically depicts the relation between dependent and the independent variables of a study. Dependent variable for this study was profitability of CETRAF Ltd while independent variables will include control environment, control activities, risk assessment, communication and information and finally monitoring activities. Intervening variable is company structure.



**Independent Variable**

**Intervening Variable**

**Dependent Variable**

**Figure 1: Conceptual Framework**

### METHODOLOGY

This study used descriptive research design. Both qualitative and quantitative methods were used; the population of this study was employees of 445 employees of CETRAF Ltd. In this study a sample size of 82 employees of CETRAF Ltd were selected from the total population using purposive sampling technique. Only both primary data were collected using questionnaire and interview and secondary data were collected using documentation.

### FINDINGS

#### Descriptive statistics analysis and discussion

Descriptive were used to analyze primary data collected through use of structured questionnaires. Respondents rating were sought in a five-point Likert scaled range: 1 strongly disagree, 2 disagree, 3 neutral, 4 Agree, 5 Strongly Agree. Min, Max, Mean and standard deviations were used to

describe their responses.

#### Descriptive statistics after the field survey and discussion

Descriptive were used to analyze primary data collected through use of structured questionnaires. Respondents rating were sought in a five-point Likert scales ranging from 1 to 5, where strongly agree=1; agree= 2; undecided=3; disagree=4; and strongly disagree. Mean and standard deviations were used to describe their responses.

#### The control environment

The first objective of the study was to determine the effect of control environment on profitability of CETRAF Ltd. To maintain this objective, the respondents were asked to demonstrate their level of agreement on the statement related to control environment on profitability of CETRAF Ltd.



**Table 1: Descriptive statistics on control environment**

	N	Mean	Std. Deviation
Control Environment must be present for an internal control system to be considered effective	80	1.6000	.49299
CETRAF Ltd is committed to competence in the requirements of particular jobs and in translating those requirements into knowledge and skills	80	1.3750	.48718
The entity assigns authority and responsibility to provide a basis for accountability and control	80	1.8750	.33281
CETRAF Ltd has accounting and financial management system	80	1.7500	.43574
CETRAF Ltd's employees are committed to following an organization's policies and procedures and its ethical and behavioral standards	80	1.6250	.48718
Appropriate disciplinary action is taken when an employee does not comply with policies and procedures or behavioral standards	80	1.4625	.50174
Environment control reflect the attitude and the policies of management and it's an important auditing function	80	1.5000	.50315
Environment control set the tone of an organization and influence the control consciousness of its people	80	1.2500	.43574
The environment control affect the entire organization and all other elements of internal controls	80	1.1250	.33281
The quality of an entity's internal controls system depend on the function and quality of their environment control	80	1.4625	.50174
Valid N (listwise)	80		

The results from the table 1 indicated that the majority of the respondents were in strong agreement with the statement that, CETRAF Ltd is committed to competence in the requirements of particular jobs and in translating those requirements into knowledge and skills as indicated by mean=1.3750 and SD=0.48718; appropriate disciplinary action is taken when an employee does not comply with policies and procedures or behavioral standards as indicated by mean=1.4625 and SD=0.50174; environment control set the tone of an organization and influence the control consciousness of its people as indicated by mean=1.2500 and SD=0.43574; the environment control affect the entire organization and all other elements of internal controls as indicated by mean=1.1250 and SD=0.33281; and the quality of an entity's internal controls system depend on the function and quality of their environment control as indicated by mean=1.4625 and SD=0.50174. While other respondents were in agreement with the statement that, the control environment must be

present for an internal control system to be considered effective as indicated by mean=1.6000 and SD=0.49299; the entity assigns authority and responsibility to provide a basis for accountability and control as indicated by mean=1.8750 and SD=0.33281; CETRAF Ltd has accounting and financial management system as indicated by mean=1.7500 and SD=0.43574; CETRAF Ltd's employees are committed to following an organization's policies and procedures and its ethical and behavioral standards as indicated by mean=1.6250 and SD=0.48718; and environment control reflect the attitude and the policies of management and it's an important auditing function as indicated by mean=1.5000 and SD=0.50315.

This was supported by COSO (2013) expressed the control environment as a component of the internal control system that sets the pace for all other components of internal control system. It is the foundation upon which the entire internal control

framework is based, because it is the component with undoubting influence on the consciousness of people in an enterprise. The control environment focuses on issues relating to organizational structure, policies and practices design, commitment to competence managerial fundamental philosophy and style among other things.

### The control activities

The second objective of the study was to examine the effect of control activities on profitability of CETRAF Ltd. To maintain this objective, the respondents were asked to demonstrate their level of agreement on the statement related to control activities on profitability of CETRAF Ltd.

**Table 2: Descriptive statistics on control activities**

	N	Mean	Std. Deviation
CETRAF Ltd have policies and procedures that help ensure management directives are carried out	80	1.4750	.50253
Management of CETRAF Ltd establish control activities to effectively and efficiently accomplish the organization's objectives and mission	80	1.7250	.44933
Management of CETRAF Ltd authorizes employees to perform certain activities and to execute certain transactions within limited parameters	80	1.6750	.47133
Availability of information from external and internal parties is easily accessible	80	1.2625	.44277
The management of CETRAF Ltd implements internal control which enhances performance of CETRAF Ltd	80	1.1500	.35932
The person who approves transactions is the same person who performs the reconciliation	80	3.7250	.77908
Reconciliations is always documented and approved by management	80	1.1500	.35932
CETRAF Ltd's fraud reporting from employees is encouraged and adequate measures are taken to counteract them for the future	80	1.1500	.35932
Top management team positively affect financial fraud prevention of CETRAF Ltd	80	1.1125	.31797
CETRAF Ltd maintain adequate recording and duplicating systems have efficient staff control	80	1.3375	.47584
Valid N (listwise)	80		

The results from the table 2 indicated that majority of the respondents were in strong agreement with the statement that, CETRAF Ltd have policies and procedures that help ensure management directives are carried out as indicated by mean=1.4750 and SD=0.50253; availability of information from external and internal parties is easily accessible as indicated by mean=1.2625 and SD=0.44277; the management of CETRAF Ltd implements internal control which enhances performance of CETRAF Ltd as indicated by mean=1.1500 and SD=0.35932; reconciliations is always documented and approved by management as indicated by mean=1.1500 and SD=0.35932; top management team positively affect financial fraud prevention of CETRAF Ltd as indicated by mean=1.1125 and SD=0.31797; and CETRAF Ltd maintain adequate recording and

duplicating systems have efficient staff control as indicated by mean=1.3375 and SD=0.47584. While other respondents were in agreement with the statement that, management of CETRAF Ltd establish control activities to effectively and efficiently accomplish the organization's objectives and mission as indicated by mean=1.7250 and SD=0.44933; management of CETRAF Ltd authorizes employees to perform certain activities and to execute certain transactions within limited parameters as indicated by mean=1.6750 and SD=0.47133; and other respondents were in disagreement with the statement that, the person who approves transactions is the same person who performs the reconciliation as indicated by mean=3.7250 and SD=0.77908. This was supported by Magu and Kibati (2016) established a significant

positive relationship between control activities and financial performance.

### The risk assessment

The third objective of the study was to analyze the

effect of risk assessment on profitability of CETRAF Ltd. To maintain this objective, the respondents were asked to demonstrate their level of agreement on the statement related to risk assessment on profitability of CETRAF Ltd.

**Table 3: Descriptive statistics on risk assessment**

	N	Mean	Std. Deviation
The management of CETRAF Ltd determines the level of risk carefully and try to maintain such risk within determined levels	80	1.5625	.49921
The external; auditors respond to the role of the board when making judgments with respect to control risk assessments	80	1.7750	.42022
CETRAF Ltd risk management requires the operation of risk evaluation and mitigation	80	1.5500	.50063
It is necessary for every SMEs like CETRAF Ltd to manage its risks in order to minimize the loss exposure	80	1.4375	.49921
Development of CETRAF Ltd internal audit effectiveness of health care, the financial statements reflect the quality of the internal audit	80	1.4375	.49921
Internal audit and structure of CETRAF Ltd is an important part of reliable financial reporting	80	1.4375	.49921
CETRAF Ltd management's responsibility is to design internal controls to ensure efficiency and effectiveness	80	1.3250	.47133
There is always periodic performance review and evaluation by the internal auditor for CETRAF Ltd	80	1.2000	.40252
There is careful assessment of factors that affect the possibility of objectives of the organization not being achieved	80	1.7625	.42824
The organization identifies and analyze management relevant risks to the preparation of financial statements	80	1.3000	.46115
Valid N (listwise)	80		

The results from the table 3 indicated that majority of the respondents were in strong agreement with the statement that, It is necessary for every SMEs like CETRAF Ltd to manage its risks in order to minimize the loss exposure as indicated by mean=1.4375 and SD=0.49921; Development of CETRAF Ltd internal audit effectiveness of health care, the financial statements reflect the quality of the internal audit as indicated by mean=1.4375 and SD=0.49921; internal audit and structure of CETRAF Ltd is an important part of reliable financial reporting as indicated by mean=1.4375 and SD=0.49921; CETRAF Ltd management's responsibility is to design internal controls to ensure

efficiency and effectiveness as indicated by mean=1.3250 and SD=0.47133; there is always periodic performance review and evaluation by the internal auditor for CETRAF Ltd as indicated by mean=1.2000 and SD=0.40252; and the organization identifies and analyze management relevant risks to the preparation of financial statements as indicated by mean=1.3000 and SD=0.46115. While other respondents were in agreement with the statement that, the management of CETRAF Ltd determines the level of risk carefully and try to maintain such risk within determined levels as indicated by mean=1.5625 and SD=0.49921; the external; auditors respond to the

role of the board when making judgments with respect to control risk assessments as indicated by mean=1.7750 and SD=0.42022; CETRAF Ltd risk management requires the operation of risk evaluation and mitigation as indicated by mean=1.5500 and SD=0.50063; there is careful assessment of factors that affect the possibility of objectives of the organization not being achieved as indicated by mean=1.7625 and SD=0.42824. Bett and Memba (2017) assessed the effects of internal control systems on the financial performance. ANOVA tests confirmed that control environment,

risk assessment and information systems have a significant influence on financial performance.

#### The information and communication

The forth objective of the study was to assess the effect of information and communication on profitability of CETRAF Ltd. To maintain this objective, the respondents were asked to demonstrate their level of agreement on the statement related to information and communication on profitability of CETRAF Ltd.

**Table 4: Descriptive Statistics on information and communication**

	N	Mean	Std. Deviation
CETRAF Ltd's management communicates the information necessary for employees to CETRAF Ltd have physical security	80	1.6125	.49025
The communication relates to providing a clear understanding of financial reporting and safeguarding controls, how they work, and the responsibilities of individuals within the CETRAF Ltd related to those controls	80	1.6000	.49299
The quality of information generated by CETRAF Ltd's information systems is critical to the institution's operations and success	80	1.3500	.47998
External and internal information obtained from the information systems provide management with necessary reports on the CETRAF Ltd's performance relative to ensuring reliable financial reporting and safeguarding of assets	80	1.2625	.44277
Communication helps to evaluate how well guidelines and policies of CETRAF Ltd are working and being implemented	80	1.2625	.44277
Communication and information-systems enable people in CETRAF Ltd to carry out their responsibilities	80	1.1750	.38236
Information is the vehicle by which control policies, procedures are introduced and reinforced	80	1.1000	.30189
Communication enable employees to become aware of management's commitment to internal controls	80	1.4875	.50300
Information is communicated throughout the entire CETRAF Ltd to permit personnel to carry out their responsibilities	80	1.3250	.47133
Reliable and relevant information from both internal and external sources should be communicated to ever one in CETRAF Ltd	80	1.6750	.47133
Valid N (listwise)	80		

The results from the table 4 indicated that majority of the respondents were in strong agreement with the statement that, The quality of information generated by CETRAF Ltd's information systems is critical to the institution's operations and success as indicated by mean=1.3500 and SD=0.47998; External and internal information obtained from the information systems provide management with

necessary reports on the CETRAF Ltd's performance relative to ensuring reliable financial reporting and safeguarding of assets as indicated by mean=1.2625 and SD=0.44277; Communication helps to evaluate how well guidelines and policies of CETRAF Ltd are working and being implemented as indicated by mean=1.2625 and SD=0.44277; Communication and information-systems enable people in CETRAF Ltd to

carry out their responsibilities as indicated by mean=1.1750 and SD=0.38326; Information is the vehicle by which control policies, procedures are introduced and reinforced as indicated by mean=1.1000 and SD=0.30189; and Communication enable employees to become aware of management's commitment to internal controls as indicated by mean=1.4875 and SD=0.50300; Information is communicated throughout the entire CETRAF Ltd to permit personnel to carry out their responsibilities as indicated by mean=1.3250 and SD=0.47133. While other respondents were in agreement with the statement that, CETRAF Ltd's management communicates the information necessary for employees to CETRAF Ltd have physical security as indicated by mean=1.6000 and

SD=0.49266; Reliable and relevant information from both internal and external sources should be communicated to ever one in CETRAF Ltd as indicated by mean=1.6750 and SD=0.47133. Bett and Memba (2017) assessed the effects of internal control systems on the financial performance. ANOVA tests confirmed that control environment, risk assessment and information systems have a significant influence on financial performance.

#### The monitoring activities

The fifth objective of the study was to examine the effect of monitoring activities on profitability of CETRAF Ltd. To maintain this objective, the respondents were asked to demonstrate their level of agreement on the statement related to monitoring activities on profitability of CETRAF Ltd.

**Table 5: Descriptive statistics on monitoring activities**

	N	Mean	Std. Dev.
CETRAF Ltd is monitored in order to assess the quality and the effectiveness of the system's performance over time	80	1.6625	.47584
Monitoring of operations ensures effective functioning of internal controls system	80	1.4000	.49299
Monitoring ensures that the findings of audits and other reviews are promptly resolved	80	1.5000	.50315
Internal control is adequately designed and properly executed	80	1.4625	.50174
CETRAF Ltd is monitored for the events and transactions to gauge the quality of performance throughout the period	80	1.3125	.46644
Monitoring can be done through on-going activities or separate evaluations	80	1.2375	.42824
CETRAF Ltd effective way to improve financial performance is by reducing the level of irregularity and fraud	80	1.3125	.46644
CETRAF Ltd periodic comparisons of accounting records and physical asset and a review of activity performance like review of reports on performance	80	1.5375	.50174
The management of CETRAF Ltd is responsible for establishing and maintaining a system of internal control, to be used	80	1.3750	.48718
Monitoring has the highest influence on the financial performance of CETRAF Ltd	80	1.8125	.39277
Valid N (listwise)	80		

The results from the table 5 indicated that majority of the respondents were in strong agreement with the statement that, Monitoring of operations ensures effective functioning of internal controls system as indicated by mean=1.4000 and SD=0.49299; Internal control is adequately designed and properly executed as indicated by mean=1.4625 and SD=0.50174; CETRAF Ltd is monitored for the

events and transactions to gauge the quality of performance throughout the period as indicated by mean=1.3125 and SD=0.42824; Monitoring can be done through on-going activities or separate evaluations as indicated by mean=1.2375 and SD=0.42824; CETRAF Ltd effective way to improve financial performance is by reducing the level of irregularity and fraud as indicated by mean=1.3125



and SD=0.46644; and The management of CETRAF Ltd is responsible for establishing and maintaining a system of internal control, to be used as indicated by mean=1.3750 and SD=0.48718. While other respondents were in agreement with the statement that, CETRAF Ltd is monitored in order to assess the quality and the effectiveness of the system's performance over time as indicated by mean=1.6625 and SD=0.47584; Monitoring ensures that the findings of audits and other reviews are promptly resolved as indicated by mean=1.5000 and SD=0.50315; CETRAF Ltd periodic comparisons of accounting records and physical asset and a review of activity performance like review of reports on performance as indicated by mean=1.5375 and SD=0.50174; Monitoring has the highest influence on the financial performance of CETRAF Ltd as indicated by mean=1.8125 and SD=0.39277.

This was supported by Theofanis (2011) who noted that monitoring of operations ensures effective functioning of internal controls in an organization. Hence, monitoring determines whether or not policies and procedures designed and implemented by management are being carried out effectively by employees. Further, Lenzet *al.* (2014) said

organizational performance encompasses accumulated end results of all the organization's work processes and activities. The most effective way to improve financial performance is by reducing the level of irregularity and fraud through improvements in the firm's systems of internal financial control. Shareholders need to be assured that their resources are being used efficiently and effectively in providing the right service at the least cost.

### Inferential Statistics

This section used inferential statistics to analyze the relationship using correlation and the effect using regression analysis.

### Correlation analysis between internal control system on profitability of CETRAF Ltd

This section analyzed the relationship between internal control system on profitability of CETRAF Ltd was demonstrated using different dimensions of internal control system (control environment, control activities, risk assessment, communication and information and finally monitoring activities) while ROE was for profitability of CETRAF Ltd.

**Table 6: Correlations between internal control systems on profitability of CETRAF Ltd**

Control Variables		X1	X2	X3	X4	X5
X1	Correlation	1.000	.762	.836	.886	.767
	Significance (2-tailed)	.	.000	.000	.000	.000
	df	0	5	5	5	5
X2	Correlation	.762	1.000	.730	.878	.782
	Significance (2-tailed)	.000	.	.000	.000	.000
	df	5	0	5	5	5
Profitability (ROE)	Correlation	.836	.730	1.000	.790	.757
	Significance (2-tailed)	.000	.000	.	.000	.000
	df	5	5	0	5	5
X4	Correlation	.886	.878	.790	1.000	.751
	Significance (2-tailed)	.000	.000	.000	.	.000
	df	5	5	5	0	5
X5	Correlation	.767	.782	.757	.751	1.000
	Significance (2-tailed)	.000	.000	.000	.000	.
	df	5	5	5	5	0

The results from the table 6 examined and established a significant relationship between

internal control system and profitability of CETRAF Ltd. This relationship was examined through the dimensions of internal control systems (the control environment, control activities, risk assessment, information and communication, and monitoring activities) and that of the profitability (ROE) selected for this particular study. Details show that control environment is linked to ROE ( $r = 1.000$ ,  $p \leq 0.05$ ), control activities is also linked to ROE ( $r = 0.762$ ,  $p \leq 0.05$ ), risk assessment is linked to ROE ( $r = 0.836$ ,  $p \leq 0.01$ ), information and communication is also linked to ROE ( $r = 0.762$ ,  $p \leq 0.05$ ), and monitoring activities is linked to ROE ( $r = 0.836$ ,  $p \leq 0.01$ ). It implied that there a strong positive relationship between internal control system and profitability of CETRAF Ltd.

This was supported by Nyakundi *et al.* (2014) studied the effect of internal control systems on financial performance among SMEs. The study specifically revealed that a significant change in financial performance is linked to internal controls systems. Based on the findings of the study, it is concluded that internal control systems as supported by the study findings significantly influence the financial performance of Small and Medium scale Enterprises.

**Effect of between the controls environments on profitability of CETRAF Ltd.**

The first objective of this study was to determine the effect of control environment on profitability of CETRAF Ltd and was tested and attained as it shown on the following tables.

**Table 7: Model Summary between the control environments on profitability of CETRAF Ltd**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.869 <sup>a</sup>	.755	.728	.26039

a. Predictors: (Constant), control environment

The results from Table 7 showed that the coefficient of correlation (R) is 0.869 indicated that there was a strong positive relationship between the control environments on profitability of CETRAF Ltd (ROE). The results also found that coefficient of determination ( $R^2$ ) is 0.755 indicated that 75.5% of increase in profitability of CETRAF Ltd (ROE) was influenced by the control environment while 24.5%

is due to other variables. These results do not support HO1 which states that the control environment has no significance effect on profitability of CETRAF Ltd. This was supported by Foster (2019) argued that the control environment describes a set of standards, processes, and structures that provide the basis for carrying out internal control across the organization.

**Table 8: ANOVA<sup>a</sup> between the control environments on profitability of CETRAF Ltd**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.873	1	1.859	27.420	.000 <sup>b</sup>
	Residual	4.814	78	.068		
	Total	19.688	79			

a. Dependent Variable: Profitability of CETRAF Ltd (ROE)

b. Predictors: (Constant), The control environment

The Analysis of Variance (ANOVA) result is a further confirmation of the fitness of the regression model given the significance of the parameters. The results from the table 8 indicated that the ANOVA statistics show that ( $F=27.420$ ,  $p = .000^b$ ), the p-

value (0.000) is less than the level of significance (0.05). Hence, the study concluded that the control environment has a significant effect on profitability of CETRAF Ltd (ROE). Then alternative hypothesis was accepted while null hypothesis was rejected.

**Table 9: Coefficients<sup>a</sup> between the control environments on profitability of CETRAF Ltd**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.347	.147		2.352	.021
Control environment	.687	.087	.667	7.901	.000

a. Dependent Variable: Profitability of CETRAF Ltd (ROE)

The results from the table 9 indicated that the regression equation was obtained:  $Y=0.347+0.687X_1+e$ , where Y = Profitability of CETRAF Ltd (ROE),  $X_1$  = Control environment, e= Error term. This indicated that holding other factors (Control environment) remain constant to zero; the Profitability of CETRAF Ltd (ROE) would be achieved at a unit of 0.347. It was also indicated that a unit increase in control environment would lead to increase in Profitability of CETRAF Ltd (ROE) by a factor of 0.687. This was supported by Roger (2009) who confirmed that the control environment set the

quality of a business, influencing the control realization of its people. It is the basis for all other components of internal control, providing discipline and structure.

**Effect of between control activities on profitability of CETRAF Ltd**

The second objective of this study was to examine the effect of control activities on profitability of CETRAF Ltd and was tested and attained as it shown on the following tables.

**Table 10: Model Summary between control activities and profitability of CETRAF Ltd**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877 <sup>a</sup>	.770	.767	.24219

a. Predictors: (Constant), control activities

The results from Table 10 showed that the coefficient of correlation (R) is 0.877 indicated that there was a strong positive relationship between the control activities on profitability of CETRAF Ltd (ROE). The results also found that coefficient of determination ( $R^2$ ) is 0.770 indicated that 77.0% of increase in profitability of CETRAF Ltd (ROE) was

influenced by the control activities while 23.0% is due to other variables. These results do not support HO1 which states that the control activities have no significance effect on profitability of CETRAF Ltd. This was supported by Provasi & Riva (2015) defined control activities depict the policies

**Table 11: ANOVA<sup>a</sup> between control activities and profitability of CETRAF Ltd**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.313	1	15.313	261.066	.000 <sup>b</sup>
	Residual	4.575	78	.059		
	Total	19.887	79			

a. Dependent Variable: Profitability of CETRAF Ltd (ROE)

b. Predictors: (Constant), control activities

The Analysis of Variance (ANOVA) result is a further confirmation of the fitness of the regression model given the significance of the parameters. The results from the table 11 indicated that the ANOVA statistics show that ( $F=261.066$ ,  $p = .000^b$ ), the p-

value (0.000) is less than the level of significance (0.05). Hence, the study concluded that the control activities have a significant effect on profitability of CETRAF Ltd (ROE). Then alternative hypothesis was accepted while null hypothesis was rejected.

**Table 12: Coefficients<sup>a</sup> between control activities and profitability of CETRAF Ltd**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.150	.086		1.752	.084
	Control activities	.875	.054	.877	16.158	.000

a. Dependent Variable: Profitability of CETRAF Ltd (ROE),

The results from the table 12 indicated that the regression equation was obtained:  $Y=0.150+0.875X_2+e$ , where Y= Profitability of CETRAF Ltd (ROE),  $X_2$  = Control activities, e= Error term. This indicated that holding other factors (Control activities) remain constant to zero; the Profitability of CETRAF Ltd (ROE) would be achieved at a unit of 0.150. It was also indicated that a unit increase in control environment would lead to increase in Profitability of CETRAF Ltd (ROE) by a factor of 0.875. This was supported by Muraleetharan (2013) undertook a study on the

relationship between control activities and performance of the organizations. The study finds control activities and organizations performance are statistically significant in determining performance.

#### Effect of between risk assessment on profitability of CETRAF Ltd

The third objective of this study was to analyze the effect of risk assessment on profitability of CETRAF Ltd and was tested and attained as it shown on the following tables.

**Table 13: Model Summary between risk assessments on profitability of CETRAF Ltd**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.950 <sup>a</sup>	.902	.901	.15810

a. Predictors: (Constant), risk assessment

The results from Table 13 showed that the coefficient of correlation (R) is 0.950 indicated that there was a strong positive relationship between the risk assessments on profitability of CETRAF Ltd (ROE). The results also found that coefficient of determination ( $R^2$ ) is 0.902 indicated that 90.2% of

increase in profitability of CETRAF Ltd (ROE) was influenced by the risk assessment while 9.8% is due to other variables. These results do not support HO1 which states that the risk assessment has no significance effect on profitability of CETRAF Ltd.

**Table 14: ANOVA<sup>a</sup> between risk assessments on profitability of CETRAF Ltd**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.938	1	17.938	717.615	.000 <sup>b</sup>
	Residual	1.950	78	.025		
	Total	19.887	79			

a. Dependent Variable: profitability of CETRAF Ltd (ROE)

b. Predictors: (Constant), risk assessment

The analysis of variance (ANOVA) result is a further confirmation of the fitness of the regression model given the significance of the parameters. The results from the table 14 indicated that the ANOVA statistics show that ( $F=717.615$ ,  $p = .000^b$ ), the p-

value (0.000) is less than the level of significance (0.05). Hence, the study concluded that the risk assessment has a significant effect on profitability of CETRAF Ltd (ROE). Then alternative hypothesis was accepted while null hypothesis was rejected.

**Table 15: Coefficients<sup>a</sup> between risk assessments on profitability of CETRAF Ltd**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.074	.055		1.342	.183
	Risk assessment	.950	.035	.950	26.788	.000

a. Dependent Variable: profitability of CETRAF Ltd (ROE)

The results from the table 15 indicated that the regression equation was obtained:  $Y=0.075+0.950X_3+e$ , where Y= Profitability of CETRAF Ltd (ROE),  $X_3$  = risk assessment, e= Error term. This indicated that holding other factors (risk assessment) remain constant to zero; the profitability of CETRAF Ltd (ROE) would be achieved at a unit of 0.075. It was also indicated that a unit increase in risk assessment would lead to increase in Profitability of CETRAF Ltd (ROE) by a factor of 0.950. This was supported by Bett and Memba (2017) assessed the effects of internal control

systems on the financial performance. ANOVA tests confirmed that control environment, risk assessment and information have a significant influence on financial performance.

**Effect of between information and communication on profitability of CETRAF Ltd**

The fourth objective of this study was to assess the effect of information and communication on profitability of CETRAF Ltd and was tested and attained as it shown on the following tables.

**Table 16: Model Summary between information and communication on profitability of CETRAF Ltd**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775 <sup>a</sup>	.600	.595	.32026

a. Predictors: (Constant), information and communication

The results from Table 16 showed that the coefficient of correlation (R) is 0.775 indicated that there was a strong positive relationship between the information and communication on profitability of CETRAF Ltd (ROE). The results also found that coefficient of determination ( $R^2$ ) is 0.600 indicated that 60.0% of increase in profitability of CETRAF Ltd

(ROE) was influenced by the information and communication while 40.0% is due to other variables. These results do not support HO1 which states that the information and communication has no significance effect on profitability of CETRAF Ltd (ROE).

**Table 17: ANOVA<sup>a</sup> between information and communication on profitability of CETRAF Ltd**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.000	1	12.000	117.000	.000 <sup>b</sup>
	Residual	8.000	78	.103		
	Total	20.000	79			

a. Dependent Variable: Profitability of CETRAF Ltd (ROE).

b. Predictors: (Constant), information and communication

The Analysis of Variance (ANOVA) result is a further confirmation of the fitness of the regression model given the significance of the parameters. The results from the table 17 indicated that the ANOVA statistics show that ( $F=117.000$ ,  $p = .000^b$ ), the p-value (0.000) is less than the level of significance

(0.05). Hence, the study concluded that the information and communication has a significant effect on profitability of CETRAF Ltd (ROE). Then alternative hypothesis was accepted while null hypothesis was rejected.



**Table 18: Coefficients<sup>a</sup> between information and communication on profitability of CETRAF Ltd**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.200	.125		1.595	.115
	Information and communication	.800	.074	.775	10.817	.000

a. Dependent Variable: Profitability of CETRAF Ltd (ROE).

The results from the table 18 indicated that the regression equation was obtained:  $Y=0.200+0.800X_4+e$ , where Y= Profitability of CETRAF Ltd (ROE),  $X_4$  = information and communication, e= Error term. This indicated that holding other factors (information and communication) remain constant to zero; the profitability of CETRAF Ltd (ROE) would be achieved at a unit of 0.200.

**Effect of between monitoring activities on profitability of CETRAF Ltd**

The fifth objective of this study was to examine the effect of monitoring activities on profitability of CETRAF Ltd and was tested and attained as it shown on the following tables.

**Table 19: Model Summary between monitoring activities on profitability of CETRAF Ltd**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719 <sup>a</sup>	.516	.510	.35119

a. Predictors: (Constant), monitoring activities

The results from Table 19 showed that the coefficient of correlation (R) is 0.719 indicated that there was a strong positive relationship between the monitoring activities on profitability of CETRAF Ltd. The results also found that coefficient of determination ( $R^2$ ) is 0.516 indicated that 51.6% of

increase in profitability of CETRAF Ltd (ROE) was influenced by the monitoring activities while 48.4% is due to other variables. These results do not support HO1 which states that the monitoring activities have no significance effect on profitability of CETRAF Ltd.

**Table 20: ANOVA<sup>a</sup> between monitoring activities on profitability of CETRAF Ltd**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.267	1	10.267	83.250	.000 <sup>b</sup>
	Residual	9.620	78	.123		
	Total	19.887	79			

a. Dependent Variable: profitability of CETRAF Ltd (ROE)

b. Predictors: (Constant), monitoring activities

The analysis of variance (ANOVA) result is a further confirmation of the fitness of the regression model given the significance of the parameters. The results from the table 20 indicated that the ANOVA statistics show that ( $F=83.250$ ,  $p = .000^b$ ), the p-value (0.000) is less than the level of significance

(0.05). Hence, the study concluded that the monitoring activities have a significant effect on profitability of CETRAF Ltd (ROE). Then alternative hypothesis was accepted while null hypothesis was rejected.

**Table 21: Coefficients<sup>a</sup> between monitoring activities on profitability of CETRAF Ltd**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.260	.138		1.891	.062
Monitoring activities	.740	.081	.719	9.124	.000

a. Dependent Variable: Profitability of CETRAF Ltd (ROE)

The results from the table 21 indicated that the regression equation was obtained:  $Y=0.260+0.740X_5+e$ , where Y= Profitability of CETRAF Ltd (ROE),  $X_5$  = Monitoring activities, e= Error term. This indicated that holding other factors (monitoring activities) remain constant to zero; the profitability of CETRAF Ltd (ROE) would be achieved at a unit of 0.260. It was also indicated that a unit increase in monitoring activities would lead to increase in Profitability of CETRAF Ltd (ROE) by a factor of 0.740.

#### CONCLUSION AND RECOMMENDATION

The study concluded that there was a positive relationship between the control environment, control activities, risk assessment, information and communication, and monitoring activities and the profitability of CETRAF Ltd. The study objectives was achieved, all its research questions were answered and all hypothesis of the study was verified and confirmed where all alternative hypothesis of all financial statement audit was accepted while null

hypothesis was rejected.

Based on the conclusion that the control environment, control activities, risk assessment, information and communication, and monitoring activities and the profitability of CETRAF Ltd and thus, the study recommended the following; SME's should ensure that they have effective control environment, control activities, proper risk assessment policies, efficient information and communication methods and proper monitoring activities strategies to ensure that their internal controls systems are effective and to enhance their profitability.

CETRAF Ltd should improvement and strengthening of internal control activities, tends to improve its profitability because a decline in adherence or weak internal control system can lead into a decline in the profitability. This study recommended similar studies to be carried out and change the case study and compare the findings with the previous findings of the study.

#### REFERENCES

- Adams, M. B. (1994). Agency theory and the internal audit. *Managerial Auditing Journal*, 9(8), 8-12.
- Agwu, M. O., & Emeti, C. I. (2014). Issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port-Harcourt city. *European Journal of Sustainable Development*, 3(1), 101-101.
- Akimana, K. J. (2019). *Effect of internal controls on financial performance of small and medium enterprises in Nairobi County* (Doctoral dissertation), United States International University-Africa, Nairobi.
- Akisik, O., & Gal, G. (2017). The impact of corporate social responsibility and internal controls on stakeholders' view of the firm and financial performance. *Accounting, Management and Policy Journal*, 8(3), 246-280.
- Alarussi, A. S., & Alhaderi, S. M. (2018). Factors affecting profitability in Malaysia. *Journal of Economic Studies*, 45(3), 442-458.
- Alawattegama, K. (2018). The Impact of Enterprise Risk Management on Firm Performance: Evidence from Sri Lankan Banking and Finance Industry. *International Journal of Business and Management*, 13(1), 225-

- Baltagi, B. (2008). *Econometric analysis of panel data*. Wiley: John Wiley & Sons. pp 123-142.
- Bett, J. C., & Memba, F. S. (2017). Effects of internal control on the financial performance of processing firms in Kenya: A case of Menengai company. *International Journal of Recent Research in Commerce Economics and Management*, 4(1), 11-22.
- Bobkova, N. G. (2014). *Contingency theory and design of planning and control systems*. Irkutsk: Irkutsk State University.
- Bouchard, A. (1990). *Hand book of research methodology* (Unpublished). UNR, Huye.
- Bryman, A., & Bell, E. (2003). *Business Research Methods*. UK: Oxford University Press.
- COSO. (1992). Committee of Sponsoring Organizations of the Treadway Commission: Internal control, Integrated framework, evaluation tools. pp. 23. Retrieved from <http://coso.org>. on 15<sup>th</sup> November, 2020
- COSO. (2013). Committee of sponsoring organization: Internal control integrated framework. New Jersey: Pearson education.
- Dineshkumar, S., & Kogulacumar, P. (2013). Internal Control System and its impact on the Performance of the Sri Lanka Telecom limited in Jaffna District. *International Journal of Advanced Computer Technology*, 2(6), 56-64.
- Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16(1), 49–64.
- Dubihlela, J., & Nqala, L. (2017). Internal controls systems and the risk performance characterizing small and medium manufacturing firms in the Cape Metropole. *International journal of business and management studies*, 9(2), 87-103.
- Ejoh, N., & Ejom, P. (2014). The impact of internal control activities on financial performance of tertiary institutions in Nigeria. *Journal of Economics and Sustainable Development*, 5(16), 133-143
- El-Masri, M., Orozco, J., Tarhini, A., & Tarhini, T. (2015). *The impact of IS-business alignment practices on organizational choice of IS-business alignment strategies*. Paper presented at the The 19th Pacific Asia Conference on Information Systems (PACIS 2015), Paper 215, Singapore, 6-9 July 2015.
- El-Masri, M., Orozco, J., Tarhini, A., & Tarhini, T. (2015, July). *The Impact of IS-Business Alignment Practices on Organizational Choice of IS-Business Alignment Strategies*.
- Eniola, A. A., Entebang, H., & Sakariyau, O. B. (2015). Small and medium scale business performance in Nigeria: Challenges faced from an intellectual capital perspective. *International Journal of Research Studies in Management*, 4(1), 59-71.
- Eniola, O. J., & Akinselure, O. P. (2016). Effect of internal control on financial performance of firms in Nigeria (a study of selected manufacturing firms). *Journal of Business and Management*, 18(10), 80-85.
- Ershaid, D. J., Abdullah, A. B., & Mohamed, M. B. (2017). Moderating effect of internal control system on the relationship between environmental turbulence and firm performance in Jordanian listed companies. *Journal of Accounting and Finance in Emerging Economies*, 3(1), 21-32.
- Ewa, E. U., & Udoayang, J. O. (2012). The impact of internal control design on banks ability to investigate staff fraud, and life style and fraud detection in Nigeria. *International Journal of Research in Economics & Social Sciences*, 2(2), 32-43.
- Fadzil, F. H., Haron, H., & Jantan, M. (2005). Internal auditing practices and internal control

system. *Managerial Auditing Journal*, 20(8), 844-866.

- Foster, P. L. (2019). *COSO internal control–integrated framework: An implementation guide*. New Jersey: Pearson education.
- Francis, S., & Imiete, B. U. (2018). Internal control system as a mechanism for effective fund management of universities in Bayelsa State, Nigeria. *Global Journal of Social Sciences*, 17(1), 77-91.
- Frazer, L. (2012). The effect of internal control on the operating activities of small restaurants. *Journal of Business & Economics Research*, 10(6), 361-374.
- Grinnell, R., & Williams, M. (1990). *Research methods for BSW students*. Sarasota: Pair Bond Publications.
- Grix, J. (2004). *The foundations of research*. New York: Palgrave Macmillan.
- Gyebi, F., & Quain, S. (2013). Internal control on cash collection. A case of the electricity company of Ghana Ltd, Accra East Region. *International Journal of Business and Social Science*, 4(9) 217-233.
- Hansen, R., & Mowen, M. (2000). *Cost management: Accounting and control*. Ohio: South- Western College Publishing.
- Harash, E., Al-Timimi, S., & Alsaadi, J. (2014). The influence of finance on performance of small and medium enterprises (SMES). *Journal Technology*, 4(3), 161-167.
- Ironkwe, U. I., & Otti, J. O. (2016). Accounting information and financial performance of banks in Nigeria. *Journal of Accounting and Financial Management*, 2(3), 60-68.
- Jill, M. D., & Houmes, R. (2014). COSO's updated internal control and enterprise risk management frameworks. *The CPA Journal*, 84(5), 54-59.
- Jokipii, A. (2010). Determinants and consequences of internal control in firms: A contingency theory based analysis. *Journal of Management & Governance*, 14(2), 115-144.
- Kachelmeier, S. J., Majors, T., & Williamson, M. G. (2014). Does intent modify risk-based auditing?. *The Accounting Review*, 89(6), 2181-2201.
- Karagiorgos, T., Drogalas, G., & Giovanis, N. (2011). Evaluation of the effectiveness of internal audit in Greek Hotel Business. *International Journal of Economic Sciences and Applied Research*, 4(1), 19-34.
- Kirogo, F. K., Ngahu, M. S., & Wagoki, M. J. (2014). Effect of risk-based audit on financial performance: A survey of insurance companies in Nakuru town, Kenya. *Stratford Peer Reviewed Journals and Book Publishing*, 1(1).
- Kisanyanya, G. A. (2018). *Internal control systems and financial performance of public institutions of higher learning in Vihiga county, Kenya* (Doctoral dissertation). Kenyatta University, Nairobi.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. Bengaluru: New Age International publishers.
- KPMG. (2013). COSO internal control – integrated framework. Retrieved from: <https://home.kpmg/content/dam/kpmg/pdf/2016/05/2750-New-COSO-2013-Framework-whitepaper-v4.pdf>. On 20<sup>th</sup> January, 2021.
- Lavrakas, P. (2008). *Encyclopedia of survey research methods*. Los Angeles: Sage Publications.
- Lenz, R., Sarens, G., & D'Silva, K. (2014). Probing the discriminatory power of characteristics of internal audit functions: Sorting the wheat from the chaff. *International Journal of Auditing*, 18(2), 126-138.
- Lista, P., Advisor, F., & Rojas, F. (2014). *Contingency in organizational behavior organization decision-making and the market environment: Examining contingency in organizational behavior*. Retrieved from

<https://www.icpsr.umich.edu/ICPSR/prize/lista.pdf>. on 11<sup>th</sup> January, 2021.

- Magara, C. N. (2013). *Effect of internal controls on financial performance of deposit taking savings and credit cooperative societies in Kenya* (Doctoral dissertation). University of Nairobi, Nairobi.
- Magu, J., & Kibati, P. (2016). Influence of Internal Control Systems on Financial Performance of Kenya Farmers' Association Limited. *International Journal of Economics, Commerce and Management*, 4(4), 783-800.
- Mahadeen, B., Al-Dmour, R. H., Obeidat, B. Y., & Tarhini, A. (2016). Examining the effect of the organization's internal control system on organizational effectiveness: A Jordanian empirical study. *International Journal of Business Administration*, 7(6), 22-41.
- Mary, M., Albert, O., & Byaruhanga, J. (2014). Effects of internal control systems on financial performance of sugarcane out grower companies in Kenya. *IOSR Journal of Business and Management*, 16(12), 62-73.
- Masadeh, R., Al-Dmour, R. H., & Tarhini, A. (2015). Knowledge management strategies as intermediary variables between itbusiness strategic alignment and firm performance. *European Scientific Journal*, 11(7), 344-368.
- MINECOFIN. (2013). *Public finance management framework*. Kigali: MINECOFIN. pp 1-89.
- Muceku, H. (2014). The development of public internal financial control in Albania—and his role in strengthening the managerial accountability. *Academic Journal of Interdisciplinary Studies*, 3(4), 301-301.
- Mugo, J. M. (2013). *Effects of internal controls on financial performance of technical training institutions in Kenya* (Doctoral dissertation). University of Nairobi, Nairobi.
- Muhunyo, B. M., & Jagongo, A. O. (2018). *Effect of internal control systems on financial performance of public institutions of higher learning in Nairobi city county, Kenya* (Doctoral dissertation). Kenyatta University, Nairobi.
- Muhunyo, B. M., & Jagongo, A. O. (2018). *Effect of internal control systems on financial performance of public institutions of higher learning in Nairobi City County, Kenya* (Doctoral dissertation). Kenyatta University, Nairobi.
- Muraleetharan, P. (2013). Control Activities and Performance of Organizations (Special Reference in Jaffna District). *International Journal of Marketing, Financial Services & Management Research*, 2(4), 10-16.
- Mwachiro, D. B. (2013). *Effects of internal controls on revenue collection: a case of Kenya Revenue Authority* (Doctoral dissertation). University of Nairobi, Nairobi.
- Mwindi, D. (2008). *Auditing*. Nairobi: Focus Publishers.
- Ngechu, G. (2004). *Methodology in social sciences*. Paris: Dalloz.
- Niyonsenga, E., & Olang'o, A. J. (2017). Internal control system and financial performance in financial institutions in Rwanda: A case OF I & M bank ltd Rwanda. *African Journal of Business and Industry*, 2(3), 46–58.
- Njaramba, E. A. N., & Ngugi, J. K. (2014). The influence of internal controls on growth of small and medium enterprise in the errand services businesses in Nairobi County. *International Journal of Current Business and Social Sciences*, 1(1), 30-47.
- Noland, T. G., & Metrejean, P. (2013). The importance of the control environment: Expense account fraud at Blue Grass Airport. *Journal of Business & Economics Research*, 11(2), 98.



- Nyakundi, D., Nyamita, M., & Tinega, T. (2014). Effect of internal control systems on financial performance of small and medium scale business enterprises in Kisumu City, Kenya. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 1-15.
- Olumbe, C. O. (2012). *The relationship between internal controls and corporate Governance in commercial banks in Kenya* (Doctoral dissertation). University of Nairobi, Nairobi.
- Ondiek, G. (2009). Assessment of materials management in the Kenyan manufacturing firms-exploratory survey of manufacturing firms based in Nairobi. *Journal of Social Science*, 22(1), 123-155.
- Othman, R., & Ali, N. (2015). Erratum to: NPO, internal controls, and supervision mechanisms in a developing country. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, 26(2), 720-720.
- Provasi, R., & Riva, P. (2015). The updated COSO report 2013. *Journal of Modern Accounting and Auditing*, 11(10), 487-498.
- Ray, D., & Pany, D. (2001). A bridge too far?: Consistent quality initiatives in financial services. *The TQM Magazine*, 8(5), 5.
- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students* (4<sup>th</sup> ed). Harlow: Pearson Education Ltd.
- Schindler, P. S. (2016). *Business research methods* (7th ed.). New York: McGraw-Hill.
- Stone, R. (2016). Fraud, security, and controls in small businesses: A proposed research agenda. *Journal of Business*, 1(3), 15-21.
- Uwingabiye, M. J. (2019). *Internal control components and financial performance in public institutions in Rwanda: A case study of Rwanda social security board (RSSB)*. UR, Huye.
- Whitehouse, T. (2013). COSO framework to spark internal controls review. *Compliance Week*, 10(114), 28-29.
- Yamane, T. (1967). *Statistics, an introductory analysis* (2<sup>nd</sup> ed.). New York: Harper and Row.
- Zecheru, V. (2014). Internal Audit–Managerial Control Relation. *Revista of Management Comparat Internațional*, 15(1), 106-114.