INTERNAL AUDIT, ENVIRONMENTAL AUDIT AND
PERFORMANCE OF STATE CORPORATIONS IN
KENYA: A CASE OF NYAYO TEA ZONES
DEVELOPMENT CORPORATION OF KENYA

OMBONYO EDWARD

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DECLARATION

This research project is my original work that has not been presented for a degree in any other University, or for any other award and where other people’s research was used, they have been fully acknowledged.

Signature…………………… Date…………………………

Ombonyo Edward
D63/83921/2016

This project has been submitted for examination with my approval as university supervisor.

Signature…………………… Date…………………………

Mr. M. Odipo
Lecturer
Department of Finance and Accounting
School of Business
University of Nairobi
DEDICATION

I dedicate this work to my family for their endless support throughout my studies.
ACKNOWLEDGEMENT

The greatest lesson I have learnt in the compilation of this project is how we need others in doing anything substantial in academics. Many people were helpful directly or indirectly. I wish to take this opportunity to thank God for enabling me come this far, it is by his grace that this has been achieved.

Secondly I thank my family and parents for their endless love, care, support and understanding in my academic endeavor. I will not forget to thank my supervisor supervisors Mr. M. Odipo and Dr. Cyrus Mwangi Iraya for their advice, guidance, motivation and support during this process. Their guidance and advice always inspired me to seek more knowledge in solving the difficulties throughout this project.
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<td>Environmental Audit</td>
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<td>IA</td>
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ABSTRACT

Environmental audit measurement systems have been revered as a way of ensuring that public institutions continuously improve in performance. An environmental audit system is a contract that is enforceable setting measurable targets for governmental organizations to attain. The purpose of the study was to determine the outcome of internal audit on the relationship between performance and environmental audit of Nyayo Tea Zones Development Corporation in Kenya. The study employed descriptive research design. The target population was 19 nineteen branches of Nyayo Tea Zones Development Corporation, three regional offices, Kipchbo tea factory and Head office covering the period 1989-2018. Data was analyzed using descriptive analysis, trend analysis, correlation analysis and regression analysis. Descriptive results indicate that the average expenditure on internal audit was 6075711 KES. The correlation showed that expenditure on internal audit and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly associated (r=-0.1629, p=0.0386). Model results showed that internal audit (measured as expenditure on board allowance, external audit fees, internal audit monitoring fees and monitoring expenses) and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly related (β=-0.311839, p=0.0043). It was further established that the average expenditure on environmental audit was 19107198.58 KES. The correlation results indicated that expenditure on environmental audit expenditure asset quality and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly associated (r=-0.2164, p=0.0295). Regression of coefficients findings indicated that environmental audit (measured as expenditure on legal and professional fees, expenses on staff uniforms, expenses on electricity manufacturing cost and expense on fuel wood cost) and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly related (β=-0.209712, p=0.0043). From the study findings, there are several conclusions made which are noteworthy. Based on the findings above, the study concludes that expenditure on internal audit has a negative and significant relationship with financial performance of Nyayo Tea Zones Development Corporation. The study also concludes that expenditure on environmental audit has a negative and significant relationship with financial performance of Nyayo Tea Zones Development Corporation. The study recommends close monitoring of expenses on board allowance, external audit fees and internal audit monitoring expenses. This will ensure that the costs do not jeopardize the actual task of doing internal auditing. Internal audit plays an important role in deterring fraud through monitoring operations, carrying out checks on internal controls and reporting independently to the audit committee of the board and administratively to the executive management. It was established that environmental audit has inverse relation with performance. The study recommends for a close monitoring of legal and professional fees, staff uniforms expenses, electricity manufacturing cost and fuel wood cost in order to make sure that they do not eat into large portions of the corporation revenue. Environmental audit is an essential instrument providing a stepping stone for competitive advantage for companies that embrace it. Environmental issues in internal audit have demonstrated the usefulness of the department in the overall performance of an institution and therefore one can comfortably deduce that environmental audit plays a significance role of improving performance of organization.
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Internal audit department in most organizations of growing countries has not been well understood. It has always been perceived as a watch dog closely linked to the duties of policing institutions, convicting employees, prosecuting them at disciplinary committees or giving evidence in courts of law against them in regard to misappropriation of resources of the institution with the aim of recovery or dismissal of the employees. Thus, few have the knowledge of the importance audit plays in the performance of an organization.

Objectives, purpose, responsibilities of internal audit department of an organization are contained in the charter that is approved by the board. Thus the audit department draws its mandate from its own charter. One among the many objectives being assurance of control systems, policies and regulations are working as stipulated with required results. Further, it assists management minimize or eliminate errors completely by way of procedures and audit standards. Internal auditors through the chief audit executive should report to the chairman board audit committee functionally and administratively to the chief executive of the institution or company as a matter of corporate governance. By so doing internal audit is not left behind in issues of high risk and is able to guide the management appropriately (Morariu et al., 2008).

Auditing is mostly associated with financial accounts and records. The Researcher wants to give it a broad perspective by looking at environmental audit that affects the employees of almost all sectors of the economy and the citizenry at large. Kenya, is awakening to the fact that due to corruption the public is grabbing and putting up industries, buildings or encroaching in its forest lands thus causing pollution and land degradation that are both a danger to the ecosystems. Use of non renewable energy such as fossil fuel and coal besides agro-chemicals are harmful to the environment thus cause health problems that are costly to the exchequer through the ministry of Health and sanitation. Individual corporations such as Nyayo Tea Zones Development corporation are forced to increase health premiums to insurance companies that provide health covers so as to meet increasing costs as a result.
Environmental audit involves setting environmental policy, objectives and compliance to a structured management system. It therefore has to be designed towards prevention of adverse environmental effects. Thus, should not be used as a detection tool. It is expected to identify and assess effects arising from organizational products, activities, services, incidences, accidents and other emergencies. Environmental audit ensures regulatory requirements, priorities and targets are achieved without which management may diversify the company to a level of non-profitability (Iraldo 2008). In all, this study is anchored on three pillar theories, that is stakeholder theory, control theory and resource dependence theory.

1.1.1 Internal Audit

(IIA Global, 2015), defines the internal audit as an activity structured to add value to an institution by achieving set goals. To determine internal audit value, there is need to review its effectiveness. Research has been carried out in the recent past to show the important position internal audit occupies in an institution/ company (Ernst & Young, 2010). The quality of corporate governance in an organization is because of the important part audit plays Sarens (2009).

Internal audit plays an important role in deterring fraud through monitoring operations, carrying out checks on internal controls and reporting independently to the audit committee of the board and administratively to the executive management Sarens (2009).

Researches that have been carried out on the department and organizational performance in both public and private sectors remain inconclusive. In China, (Kyahko 2011); concludes that internal control systems have a relationship to public sector organizational performance. Roberts (2007) also avers that internal control systems have great effect on public sector performance in Australia. In India, Kumar and Singh (2010) consent that internal control systems have significant effects on the organizational performance. Bovens (2013) concurs that organizational performance is determined by various variables among them internal control system functions.

The public as a stakeholder in the affairs of state corporations requires environmental audit for the sole purpose of ensuring effective utilization of resources and subsequent delivery of services in fulfillment of the objectives to which the organization was
established. (Okiro, 2014). It is the right of citizens to demand and know the activities of their state corporations and the state corporation officers ought to voluntarily give account of their environmental audit to the public. This study therefore is an attempt to interrogate the role of internal audit on the performance and environmental audit of Nyayo Tea Zones Development Corporation in Kenya.

1.1.2 Environmental Audit

Environmental audit involves impact assessment and policy of the organization. It procedurally reviews activities, objectives, services and practices that affect managerial structures of a company (Coulson et al., 1993). It includes risk exposures that should be assessed. Among them being fines, penalties, expenditures that are mandatory by the environmental agency and in the Kenyan case National Environmental Management Authority mandated expenditures. This does not leave out the environmental health and safty (EH&S) risks (Gleim, 2006).

Environmental audit was initially established as an internal management practice. Today, regulatory units and programmes have been set up for purpose of external reporting for example National Environmental Management Authority (NEMA). Accounting and audit standards are not explicit on the same and hence reporting is still charitable activity Darnall et al. (2009). With changing times stakeholder influence is almost making it mandatory to report on environmental issues through environmental audit.

Internal audit reports are however not for public consumption but depending on the weight of the matter, it may be picked by systems audit/ interim audit of external auditors who may highlight on the same in the opinion section of the financial statement report which is a public document. Modern published financial statements have a section of reporting on corporate governance issues on risk that arises out of audit committee reports which essentially emanates from internal audit. Therefore, the criticism of lack of credibility and transparency on internal audit reports has been reduced substantially.

Environmental audit is structured such that it focuses on addressing the prevention rather than damage. In so doing it addresses itself to matters of conservation, non-renewable resources, the legislation that has been put in place by the state in terms of requirements to reduce damage. It therefore ensures that laws, policies and standards
are in place for efficiency and effective performance (Petrosillo et al., 2012).

Questions do arise as to whether environmental audit is an aide to performance of an organization. Environmental audit is an essential instrument providing a stepping stone for competitive advantage for companies that embrace it. The gainful advantage that come with it are savings and positive public image to the company (Mattis, 2000).

Environmental issues in internal audit have demonstrated the usefulness of the department in the overall performance of an institution and therefore one can comfortably deduce that environmental audit plays a significance role of improving performance of organization. The same gives confidence to the public since compliance to regulations is followed. The unbiased intention of this research is to portray environmental audit as a system that is identified with relevant regulatory requirements, policies and priorities pertinent to environmental objectives that are geared to prevent damage and achieve targets.

It also facilitates planning, control, monitoring, auditing and reviewing activities thus ensuring that policies are complied with. It is important to note that EH&S is isolated from other auditing activities and thus there is need for the Chief Audit Executive to foster a close working relationship with those charged with environmental auditing if they do not fall under internal audit.

1.1.3 Performance Measurement Systems

Performance Measurement system is a goal-oriented system where an organization sets agreed upon achievable goals, which are specific, measurable, achievable, realistic and timebound (SMART). Performance measurement starts with employees narrowing towards the whole organization. The aim is to reduce cost through efficiency and effectiveness while performing tasks (Cohen & sayag, 2010).

The system assigns responsibility and deliverables according to agreed upon terms. The deliverables may be in form of quality services or products. Good governance in a firm is the engine that drives performance, it consolidates the company’s group interests into one basket. This ensures effective utilization of material resources, labour resource in form of human capital and finance (Morariu et al., 2009).

Performance contracting is seen by some researchers as a communication that leads
to Understanding and is anchored in an evaluation system, reviews performance comprehensively and ensures improvement of performance keeping management on their toes and ensuring industries are run autonomously, they are accountable and more transparent (Kumar, 1994). Whereas others see it as a dimension system with a number of tools that bestow duty to each and every employee in an organization for target result achievement (Roberts, 2007). The whole institution benefits as a result of involvement of all the employees in the performance measurement system.

In Kenya performance measurement was introduced in 2003 with a purpose of ensuring transparency, accountability, reduced reliance on the exchequer funds, diligent utilization of resources, clear segregation of duties to avoid multiplicity of objectives, focus planning, action arising matters promptly and make institutions autonomous with improved performance (Mattis, 2000). Implementation of the system took effect in 2004 with state corporation.

The government decided to enforce performance contracting in state corporations in 2004. This was initially done on a pilot basis with selected sector based institutions under the strategic plans initiatives. Successful implementation led the government widen the scope to include the local government in 2005. The indicators, the government stressed on in local governments were internal audit and environmental audit among others. Since then performance contracting has become a norm in the government circles of Kenyan institutions except for Teachers Service Commission where resistance is still being felt today.

1.1.4 Nyayo Tea Zones Development Corporations in Kenya

The corporation by the name Nyayo Tea Zones Development Corporation was established through a Legal Gazette Notice No. 265 of 1986 amended vide legal notice No.30 of 2002. The corporation’s mandate is to conserve Kenyan forests wherever it is located through buffer belts of various assorted tea clones researched for the soils of the area by Tea Research Institute. The buffer belt of tea shields forests from locals by one hundred metres in width between the locals and the forest. In simple terms the tea is simply a fence that forms the cutline. Where, the soils are not agronomically suitable for tea growing, the corporation is further mandated to plant various tree species both for fuelwood and indigenous particularly in ecologically sensitive areas such as river sources, swamps and marshlands.
The corporation produces high quality tea as most of the land where its tea is grown is in the highland areas. It is said that the higher the altitude the higher the quality of tea. The corporation's workforce as of now stands at approximately six thousand five hundred. Of these, five hundred eighty three can be accounted for through the payroll and the balance through casual employment.

It further has stakeholders in the transport sector, Kenya forest service, National environmental management authority, Kenya water towers, Kenya Tea development authority, County Governments, Local communities who form the bulk of the corporation's casual labour source.

The corporation is rapidly expanding and currently has one fully fledged tea factory at Kipchabo in Nandi county and is constructing a second one at Gatitu in Kirinyaga county. This is in line with the mandate of producing high quality tea for export purposes. It has nineteen branches across the country popularly known as zones, three regional offices and a Head office located on 11th floor of Nyayo House in the city of Nairobi.

Nyayo Tea Zones Development Corporation does not depend in anyway on the exchequer funds for its recurrent expenditure. The revenue earned from tea sales fund all its operation costs and partly its capital expenditures. The largest single
operational cost being direct cost of tea plucking and plantation maintenance costs. Whereas, capital expenditures that are incurred on yearly basis include tea and forest nursery expenses and consolidation with tea and forest seedlings of opened up areas. The corporation is funding the Gatitu Tea Factory through UBA Bank of Kenya loan. The future strategic plan of the corporation is to have another factory in the south rift to serve the interests of Olenguruone zone, Kuresoi zone, Nyangores zone and Olposimoru zone. Currently, these zones are being served by Kenya Tea Development Agency(KTDA) Factories and other privately owned factories such as Kiptagich Factory.

To diversify its marketing strategy, the corporation has established a commercial unit which is marketing its processed tea locally in addition to export sales. The local value addition brands the corporation is marketing are Eco standard, Chabo tea, Eco premium, Chabo tea bags and Front door sales (FDS). The corporation has established two shops, one located at Kipchabo factory and the second at its Head office in Nyayo house 11th floor. To ensure continuous supply of its products, three ware houses have been established. The first one is located at Kipchabo tea factory limited in Nandi, the second at Industrial area along Machakos road and the third in Mombasa specifically to serve the Mombasa auction sales for export purposes.

This organization is comprised of six departments namely administration, finance, audit, operations, commercial and human resource. Head of internal audit and Risk management reports functionally to the chairman audit committee of the board and administratively to the managing Director. Internal audit is tasked with the responsibility of monitoring budgets, costs, operations and assets with the goal of ensuring that invested resources do not go to waste. Internal audit is not left behind in matters to do with environmental conservation being the core mandate of the corporation. It ensures that the government policies, regulations and corporation guidelines regarding application standards of agro-chemicals and waste management at the factory are adhered to. Matters of performance contracting are at the core of the corporation business and every year field supervisor award week is held in Nakuru. This is because the field supervisors hold the key to the corporation business of production of Greenleaf which is measureable in terms of kilograms picked and delivered to the factory for manufacture of tea. Nationally, the corporation is
categorized under the commercial corporations and hence the key financial indicators are pre-tax profits, dividends to National Treasury and return on investment. The other indicators upon which its performance is measured being increase in employment, tea sales volumes both locally and internationally and on value addition among others.

1.2 Research Problem

Environmental audit measurement systems have been revered as a way of ensuring that public institutions continuously improve in performance. An environmental audit system is a contract that is enforceable setting measurable targets for governmental organizations to attain. Achievement of environmental audit measurement systems in other countries has given developing countries such as Kenya a competitive edge. For this reason most countries are now re-engineering and coming up with policies towards matching their competitors (Mattis, 2000). Internal audit is now considered an essential tool for enhancing good governance, performance, accountability and environmental audit for results in the public sector.

The adoption of environmental audit systems in the Nyayo Tea Zones Development corporation would aim at compelling the agency to improve its standing not only in Kenya but the world over. A good standing in terms of environmental control systems will give the corporation a competitive edge over other tea processing industries and give the government of Kenya a good return. This will ensure the corporation maximises the utilization of its resources and eventually benefit the government being the single shareholder (Roberts, 2007) and the citizenry at large.

Previous studies conducted on internal audit and performance measurement systems have concentrated on the implementation of performance measurement (Okiro, 2014) whereas (Ongore, 2011) carried out a research on the influence on performance measurement on governmental agencies. The system of environmental auditing needs flexibility taking into account relevant regulatory requirements, related environmental ideas and facilitate planning, monitoring, auditing and review of activities in line with changing times (Oakland, 2003). Managers in the public sector have been accused of mis-use of public funds and internal control is required to
provide assurance to stakeholders (Lee, 2004).

So far, there is no research that has been carried out in Kenya to associate internal audit, environmental audit and performance in commercial state corporations in Kenya using Nyayo Tea Zones Development Corporation.

The purpose of this research is to determine the effects of internal audit, environmental audit and performance on Nyayo Tea Zones Development Corporation as a commercial state corporation in Kenya.

1.3 Research Objectives

1.3.1 General Objective

The broad aim of this review was to determine the outcome of internal audit on the relationship between performance and environmental audit of Nyayo Tea Zones Development Corporation in Kenya.

1.3.2 Specific Objectives

The following specific objectives guided the study:

i. Determine the effects of internal audit on performance of Nyayo Tea Zones development corporation in Kenya

ii. Determine the effects of internal audit on environmental audit of Nyayo Tea Zones Development Corporation in Kenya

iii. Determine the effects of environmental audit on the performance of Nyayo Tea Zones development corporation in Kenya

1.4 Value of the Study

To policy makers, conclusions reached may aide the top organs set the necessary tone at the top streamlining direction of decisions in state corporations. It may give direction on governance on Kenyan state corporations and shade empirical light on internal control system audit, internal audit, organizational performance and environmental audit. In practice, the findings could therefore be used to support or refute this argument and in effect shape, tighten or guide policy review on internal control systems, internal audit, state performance and environmental audit within the Kenyan state corporation’s context. To scholars and researchers, the study may act as
a spring board to identify research gaps that need to be addressed on internal control systems, internal audit, organizational performance and environmental audit on corporate governance as the basis for other relevant researches.

The results may increase the available literature from which knowledge to improve internal control systems, performance and environmental audit of Kenyan state corporations can be drawn. The ongoing restructuring of Kenyan state corporations is guided by arguments of poor accountability practices, weak and ineffective internal audit, poor performance, lack of environmental audit, lack of resources to employ a team of employees with varied disciplines that can move state agencies to another level. This means that as the national GoK seeks to use her state corporations to drive its Vision 2030 agenda, the findings of this study may complement available data in guiding towards effective internal audit systems linking them to performance and environmental audit of individual state corporations. The role of internal audit systems in this relationship between performance and environmental audit can also be borrowed from this study.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
The section reviews related literature studied by other scholars with specifics to performance measurement and system implementation.

2.2 Theoretical Review
This study was based on three theories, stakeholder theory, control theory and resource dependence theory. Stakeholders have an effect on the performance of an organization whereas control theory is concerned with checks and balances. Resource dependence theory refers to borrowings of either resources or ideas by way of bringing in experienced or knowledgeable personnel to revamp an organization.

2.2.1 Stakeholder Theory
Internal control systems are supposed to take into account the intertwined nature of relationships of various interest groups that form around the environment of an organization. Stakeholders go beyond anyone special group, be it employees, shareholders, suppliers, customers among others (Callen & Tinkleman, 2003). This theory indicates that all these groups are dependent on one another thus internal control systems must not be narrow as the extent of corporation duty goes beyond anyone group (Roberts, 2007). The stakeholder is sensitive to decisions made that have direct impact to the company and are viewed both negatively and positively (Cohen & Sayag, 2010).

This theory distinguishes the connectivity of the various constituencies with a firm and decisions made affect them directly or indirectly (Mattis et al., 2000). Thus, the value created by a firm trickles down to suppliers, customers, employees, managers and communities in a positive manner Donaldson and Preston (1995). Stakeholders in a company shape the behavior of managers. Morariu & Crecan et al., (2009) posit the need for managers to create value aimed at retention of stakeholders in the organization.
Whereas stakeholders have non-equity stake in a company or organization, managers must foster a relationship without discrimination from the shareholders. This enforces the need to evaluate performance considering the wealth and profit that is to be shared among all stakeholders (Roberts, 2007).

Soh and Martino (2011) agree that it is not possible to identify each and every stakeholder and what they stand for in a company. They also believe that share value maximization leads to value claim from non-shareholders at expense of shareholders.

Roberts (2004) focused on the question of purpose of the firm and responsibility of managers to shareholders. He observes that the two questions are interrelated and so managers must work towards motivating stakeholders who in the end should be encouraged to work towards firm’s value. The stakeholder theory by all standards purposes managers to focus on performance.

**2.2.2 Control Theory**

This theory has borrowed heavily from the disciplines of mathematics and engineering disciplines. The theory deals with dynamic systems that have inputs with outputs. The controller of the system works on the inputs ensuring that the desired results are obtained (Mattis, 2000). The objective of the theory is to come up with corrective action if non-conformities are established. The mathematics behind the systems uses differential equations to check linearity or relationships between input and outputs (Morariu & Crecana, 2009). It is therefore possible to formulate budgetary plans with expectation criteria for control purposes. Control interacts with social environment affecting change in behavior of employees. Internal control structure follows a similar plan (Roberts, 2007).

**2.2.3 Resource Dependence Theory**

It is noted that organizations just like living things co-exist with what is in the environment. No organization operates in isolation. They co-opt resources needed for their going concern purposes (Pfeffer & Salancik, 1978).

Firms in dire need of resources co-opt independent directors with diverse knowledge as a resource for growth and survival. The aim being to tap from their experiences, skills and business acumen (Hillman et al., 2000).
The theory also plays a part in ensuring firms are sufficiently financed with needed resources. Thompson and McEwen (1958), Ding and Charoenwong (2004) found out that firms in unhealthy financial position often appoint directors from financial institutions for ease of access to finances and internal control systems. Dalton and Dalton (2010) also found a relationship between borrowing strategy and presentation on internal control system.

Callen and Tinkelman (2003) established that firms source experienced directors from outside replacing existing ones in times of poor performance. Pearce & Zahra (1992) also noted similarities in appointment of outsiders in internal control system to reengineer organizations towards profitability. Dalton and Dalton (2010) encouraged networking. This was found to improve the firm’s performance. Over ally, the resource dependence theory confirms that internal control system cannot only displace but does influence change on the environment for improved firm performance.

2.3 Determinant of Firm Performance

2.3.1 Internal Audit and Organizational Performance

The audit department in an institution is a change agent. It ensures that the corporate processes are geared towards organization mission (Soh & Martino (2011). Internal audit works to protect the interest of shareholders to ensure that professionalism and accountability are upheld pursuant to organization performance (Kayhko, 2010).

Internal audit is expected to work towards corporate growth and good performance by preventing fraud or scandals. Internal auditors’ composition should have various disciplines and experiences that combine their effort towards enhancing accountability (Cohen & Sayag, 2010). Resource requirements of staff and financial budget are communicated to senior management by the Chief Audit Executive for approval by the board(Gleim, 2006).

The existing works have primarily fixated on the internal audit affecting organization performance (Cohen & Sayag, 2010). The study aims to examine the independent influence of internal audit on performance with respect to state corporations in Kenya.
2.3.2 Environmental Audit and Organizational Performance

The objective of this subsection is to compare procedures for environmental audit against financial audit. The procedures for a financial audit follow the following stages: knowledge of client, overall plan, coming up with an audit programme then execution of the plan, Cohen and Hanno (2000).

Which corresponds with environmental audit that follows the stages of pre-audit, developing an audit plan, auditing and post audit (Cohen and Sayag, 2010).

2.3.3 Internal Audit, Environmental Audit and Corporate Performance

Currently environmental audit is not a statutory compulsory report. Companies therefore make a choice to report or not to. Darnall et al. (2009), researched on voluntary environmental reporting and the impact it had on motivating stakeholders for implementation. Stakeholders have had interest in external audit report as the main mode of assurance. External auditors do not have the depth of the company’s operations as do the internal auditors on both financial and environmental audit of a company. The benefits that arise from internal audit thus override those of external auditors. In any case external auditors rely on internal audit reports for systems audit.

Sustainable development and increased technological systems in environmental auditing has encouraged firms to edge out others competitively, further, improved technology has given firms the necessary impetus to get involved in matters of ecological efficiency. ISO 14001 read together with ISO 9001:2000 enable organizations to align various environmental auditable assessments. These in turn align objectives, policies, and responsibilities and enable regular audit of systems (Petrosillo et al., 2012). To achieve environmental objectives, an organization must keep monitoring continuous improvement of environmental performance vide efficient organization planning, strategic and environmental investment and considering technological measures. A high level of competent staff with a sense of awareness of matters of environmental impact will be an added advantage (Iraldo et al., 2009). Environmental accounting and publishing results is becoming a strategic advantageous tool for most companies. Companies that show compliance with laws, standards and environmental policies are now being recognized worldwide (Darnall et al., 2009).
2.4 Empirical Review

The study takes into account various researches carried out by other scholars, the scope, the results and the conclusions reached. It involves both local and international scholars’ findings in relation to internal audit and organizational performance. There are some studies that have been conducted on internal controls, internal audit, environmental audit and organizational performance.

Otieno (2011) looked at commercial banks financial performance in relation to internal control and practices. This study was carried out in Kenya and it concluded that internal controls play a major role on a bank’s standing as concerns performance.

Ombayo (2008) examined how internal control practices of companies listed at the Nairobi Stock Exchange impact financial performance. Similarly, he established a relationship among the firms surveyed. Firms that had instituted strong corporate governance practices and internal audit particularly on environmental audit exhibited strong financial performance. From the study he concludes that the Board takes a keen interest in matters regarding internal audit and environmental audit. It should also ensure that systems are in place for identifying, monitoring and managing the organization's risk profile. The study concluded that amongst the factors determining the overall bank performance, 20.7% are attributable to internal audit.

Kibugi (2012) reviewed internal audit practices of National banks in the country. Her research deduced internal controls affect the financial performance of the banks. Weak internal controls expose banks to high risks of fraudulent activities and since depositors want to believe that their money is safe, any slight case of mistrust may lead to mass walk-out on the bank leading to its closure.

Ogbechie (2011) studied the level of understanding of the Central Bank of Nigeria (CBN) internal control guidelines amongst Nigerian banks. He also evaluated the level of compliance to environmental audit amongst the banks and problems encountered.

Matana (2008) researched on the internal controls and environmental reviews relating to commercial banks in Uganda. The study established a relationship between internal controls and commercial banks. Further, the study found a
prediction variance of 34.5% between financial performance and environmental audit.

Although several studies have been carried out on internal controls, internal audit, environmental audit and organizational performance, there is no research carried out to establish the link between the internal controls, internal audit, environmental audit and performance (variables) on Nyayo Tea Zones Development Corporation in Kenya.

The internal audit serves as the key Board watchdog, blowing the whistle in the event of noncompliance with set rules and procedures. Thus, this seeks to establish the relationship between internal controls, internal audit, environmental audit and organizational performance on Nyayo Tea Zones Development Corporation in Kenya.

2.5 Conceptual Framework

The internal audit influence on overall existence and operations of an organization ROA cannot be underestimated. Whether tautological or basic reasoning, the internal audit has roles to play in ROA of organizations. However, most of the previous studies have been on two or three variable relationships on organizational ROA. Further, literature is categorical of the postulation that no single factor can influence organizational ROA. There have been propositions of testing the role of internal audit on firm ROA in combination of other variables. This study took keen interest of these propositions and thus present a comprehensive conceptual model in Figure 2.1

The research conceptualizes a close link between internal audit; environmental audit and organizational ROA. The internal audit was conceptualized to have an independent empirical role influencing ROA. The operational indicators of internal audit included oversight and monitoring as evidenced in extant literature and ROA as the dependent variable.

Return on Assets is indicated by a single composite index comprising of six indicators. The indicators are financial and non-financial on performance as; Budget and Revenue. The study conceptualizes that internal audit roles and environmental audit have an influence on ROA. Previous studies have been conceptualized either in terms of the internal control system or ownership structure with much of the works skewing towards the internal control system characteristics and composition. This
study seeks to establish the relationship of internal audit, environmental audit on ROA of Nyayo Tea Zones Development Corporation of Kenya.

**Figure 2.1: Conceptual Framework**

Internal Audit (X₁)
1. Oversight
   - Board Allowances
   - Audit Fee (External)
2. Monitoring

Environmental Audit (X₂)
1. Health and safety
   - Legal & professional Expenses
   - Staff uniforms
2. Energy
   - Electricity manufacturing cost
   - Fuel wood cost

Return on Assets (ROA) (Y₁)
- Budget Increase
- Revenue increase
- Increase in assets
- Decreases in assets
- Budget Decrease
- Revenue Decrease

Source: Researcher’s own conceptualization (2018)

Punch (2005) advises that good research assumption will enable the researcher to stay on track. This advice is handy considering that research can be complicated. The project study conceptualizes the link between internal controls; internal control processes and organizational presentation. Internal controls are conceptualized to have an independent empirical role influencing performance. The operational
indicators of internal control include oversight, monitoring as evidenced in extant literature and performance was the dependent variable.

2.6 Research Gaps

The empirical analysis of the link between complex functions of internal audit, environmental audit in comparison with organizational performance so far has not conclusively established relationship between these two variables. Some earlier researches have concluded that internal audit functions have a positive effect on environmental audit and organizational performance but there are other studies that have concluded there is a negative relationship.

More research openings stem from the issues looked at in this chapter. Some of which include, failing to agree on the effects regarding internal audit functions on organizational performance. Studies have been carried out on the positivity and negativities between internal audit functions, environmental audit and organizational performance. The results have not given answers in one direction. Hence some conclusions have been made in a positive direction while others in a negative direction. We therefore have gaps that need to be filled to clear mixed results in variables like board size, board composition and structure. Most studies have looked at the accountability and governance-based performance measures while others have only looked at the combinative effect of corporate boards and compliance on the relation between governance and organizational performance. The gaps that arise in a research are conceptual, methodological and contextual. The contextual gap arises from the fact that internal audit functions, environmental audit and organizational performance concepts have been understudied in state corporations. Theoretical gaps include failure to agree on the roles of corporate internal audit yet observations on the influence on firm performance is questionable. This study provided further suggestions especially in the background of government corporations with the introduction of environmental audit besides organizational performance.

The shortcoming with studies carried out in the past have been that they have looked at two variables at a time. None of the studies has considered the effects and relationships of the three variables (internal audit functions, environmental audit and organizational performance) as taken together. This study tested the effects and relationships of the three variables whether individually or jointly have an effect and
relationship on the performance of Nyayo Tea Zones Development Corporation in Kenya.

2.7 Summary of Literature Review

Here we evaluate the work of two parent disciplines of internal controls; internal control systems and organizational performance. The review is important to help the study appreciate what exists in the foundation of the study. The main theories anchoring the study are also discussed. Later, this yield exposition of empirical research gaps from previous studies along international and local studies. A conceptual framework demonstrating the relationship among the variables of this study is then schematized along arguments.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methodology that is used in the study. It involves the methodology and procedure used to conduct the study. In short, the chapter covers research design, data collection, target population and data analysis.

3.2 Research Design

This research adopted descriptive research design techniques. This method is chosen because it provides a foundation upon which interrelations between variables stated in the conceptual framework are studied. Measures of association are also used in descriptive studies which makes it easier to study how the independent variables mentioned affect performance. (Nachmias & Nachmias, 2004) calls it an inquiry.

3.3 Target Population

The target population was nineteen branches of Nyayo Tea Zones Development Corporation, Three Regional Offices of the corporation, Kipchabo Tea Factory Limited which is wholly owned by the Corporation and the Head office located at Nyayo House 11th Floor, Kenyatta Avenue of Nairobi City of Kenya. This is in accordance to Nachmias & Nachmias (2004) description of a population as an aggregate of commonalities. Thirty year audited financial statements and components on the internal audit and environmental audit were analyzed. Internal audit focused on two audits functional cost centres of oversight and monitoring. The environmental audit focused on health and safety and manufacturing energy cost centres. Secondary data was used in this study. Table 3.1 shows how the variables were measured.
3.4 Data Collection

The study used secondary consolidated data from all the twenty-four units of Nyayo Tea Zones Development Corporation which are mentioned in the above paragraph. Thirty years of published financial statements formed the core source from which data are drawn. The years ranged from 1989/1990 to 2017/2018. The data is attached in Appendix II.

3.5 Data Analysis

Analysis of data was done using statistical methods including Eviews. Eviews is more appropriate when analyzing time series data. Regression analysis model was used to aid in data analysis. The level of significance to be adopted was 0.05. The aim being to find if there exists a link between internal audit, environmental audit and performance of Nyayo Tea Zones Development Corporation using Return on Assets as a measure.

3.6 The Analytical Model and Operationalization of the Study Variables

The model presented a link between the three variables, internal audit, environmental audit and performance of state corporations in Kenya. The following analytical model was used to test the relationship between internal audit, environmental audit and Return on Assets(ROA) of Nyayo Tea Zones Development Corporation being a state corporation in Kenya which the Researcher has chosen as a representative case study:

\[ \text{Return on Assets (ROA)} \ (Y) = \alpha_0 + \beta_1X_1 + \beta_2X_2 + \ldots + \beta_pX_p + \epsilon_t \]
Where;

Y is the dependent variable (Return on Assets) and is a linear function of $X_1, X_2, X_3, X_4 \ldots X_i$ plus $\epsilon_i$.

$\alpha_0$ is the regression constant/intercept

$\beta_{1-2}$ are the regression coefficients/change induced in Y by each of; $X_1$ and $X_2$.

$X_1$ is Internal Audit

$X_2$ is Environmental Audit

$\epsilon_i$ is the error term

To compare the Return on Assets of different categories of internal audit and environmental audit of Nyayo Tea Zones Development Corporation in Kenya, an analysis of variances was carried out to find beta of the analyzed ROA for thirty years earlier referred to.

The Researcher operationalized this process by way of defining variables into measurable indicators, study concepts and carryout measurements both empirically and quantitatively (Nachmias & Nachmias, 2004). This simply means classifying into measurable variables the dependent, independent and mediating variables. In this case, the independent variables were Internal Audit (IA) and Environmental Audit Audit (EA). The dependent variable is Return on Assets Operationalized as ROA which has been chosen as a measure of performance. This was very crucial as the researcher used it to measure; analyze and test the hypotheses for the study objectives.

### 3.7 Diagnostic Tests

It is fundamental to guarantee non-infringement of the assumptions of the classical linear regression model (CLRM) before endeavoring to assess a regression analysis. Assessing these conditions when the presumptions of the regression analysis are abused risks acquiring conflicting parameter gauges (Brooks, 2008). Stationarity, autocorrelation and heteroscedasticity were conducted to guarantee appropriate determination of the model.
CHAPTER FOUR

RESEARCH RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides the presentation of the findings and discussions. The findings are presented in line with the study objectives. Analysis of descriptive statistics and inferential statistics was conducted and the results presented in form of tables.

4.2 Descriptive Statistics

This section provides descriptive results for the variables. Descriptive statistics employed were mean, minimum, maximum and standard deviation. The results are presented in Table 4.1. This section provides results on measures of central tendency of variables in Table 4.1. The results show that the overall average mean expenditure on board allowance was 5033659 KES. The minimum and the maximum of expenditure on board allowance were 13074833 KES and 0.0000 respectively. Its standard deviation was 4418066 which indicated that expenditure on board allowance varied throughout the measurement period. The average expenditure on external audit fees was 778629.3 KES. The standard deviation was 738287.5 which indicated that external audit fees varied throughout the measurement period.

Further, the average expenditure on electricity manufacturing cost was 7166358KES while the standard deviation was 14085689 indicating that electricity manufacturing cost varied throughout the measurement period. For fuel wood cost, the average expenditure was 4663142KES while the standard deviation was 8802340 indicating that fuel wood cost varied throughout the measurement period. Further, the internal audit monitoring fees for the period was not available. Average expenditure on legal and professional fees was 7049066KES with a standard deviation of 13051539 indicating that legal and professional fees varied throughout the measurement period.
## Table 4.1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Board allowance</th>
<th>External audit fees</th>
<th>electricity manufacturing cost</th>
<th>Fuel wood cost</th>
<th>Legal and professional fees</th>
<th>Monitoring expenses</th>
<th>Staff uniforms</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5033659</td>
<td>778629.3</td>
<td>7166358</td>
<td>4663142</td>
<td>7049066</td>
<td>699250.9</td>
<td>228633</td>
<td>0.046878</td>
</tr>
<tr>
<td>Median</td>
<td>4246223</td>
<td>500000</td>
<td>0.00000</td>
<td>0.00000</td>
<td>2593006</td>
<td>413315</td>
<td>65837.5</td>
<td>0.040664</td>
</tr>
<tr>
<td>Maximum</td>
<td>13074833</td>
<td>2957848</td>
<td>42901637</td>
<td>24620940</td>
<td>63311592</td>
<td>2494974</td>
<td>1714045</td>
<td>0.2745</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.00000</td>
<td>0.00000</td>
<td>0.00000</td>
<td>0.00000</td>
<td>0.00000</td>
<td>37070</td>
<td>0.00000</td>
<td>-0.20354</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>4418066</td>
<td>738287.5</td>
<td>14085689</td>
<td>8802340</td>
<td>13051539</td>
<td>711066.8</td>
<td>443506.5</td>
<td>0.087386</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.553571</td>
<td>1.858407</td>
<td>1.636421</td>
<td>1.401405</td>
<td>3.16338</td>
<td>1.373483</td>
<td>2.668481</td>
<td>-0.39535</td>
</tr>
<tr>
<td>Probability</td>
<td>0.222743</td>
<td>0.000003</td>
<td>0.000604</td>
<td>0.007307</td>
<td>0.00000</td>
<td>0.007432</td>
<td>0.00000</td>
<td>0.034806</td>
</tr>
<tr>
<td>Observations</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

Average monitoring expenses was 699250.9 KES and standard deviation of 711066.8 indicating that monitoring expenses varied throughout the measurement period. The average expenditure on staff uniform was 228633 KES with a standard deviation of 443506.5 indicating that expenditure on staff uniform varied throughout the measurement period. Finally, the average performance of Nyayo Tea Zones Development Corporation measured as return on assets was 0.046878. The standard deviation of 0.087386 indicating that performance of Nyayo Tea Zones Development Corporation varied throughout the measurement period.
4.3 Trend Analysis

Trend analysis was conducted for internal audit, environmental audit and return on assets. The trend lines are presented in the subsequent sections.

4.3.1 Internal audit

The study sought to establish the trend line in the growth of internal audit expenditure from 1989-2018. The trend line is as shown in the Figure 4.1. The trend line shows that expenses on internal audit have been growing constantly over the years. However, there were some drops and rise across the years. There was a drastic drop in 2008. The expenditure on internal audit was high in 2016. On approaching 2017, expenditure on internal audit dropped. This could be as a result of slashed expenditure because of the elections.

Figure 4.1 Trend line for Internal Audit expenditure
4.3.2 Environmental audit

The study sought to establish the trend line for environmental audit expenditure from 1989-2018. The trend line is as shown in the Figure 4.2. The trend line shows that expenses on environmental audit were low from 1989 to 2009. However, from 2010 expenditure on environmental audit shot up reaching highest in 2014/2015 financial year. This could be as a result of NEMA tightening regulations and other legal incidences that are related to environmental conservation.

![Figure 4.2 Trend line for Environmental Audit](image-url)
4.3.3 Return on Assets

The study sought to establish the trend line of Nyayo Tea Zones Development Corporation performance measured in terms of return on assets from 1989-2018. The trend line is as shown in the Figure 4.3. The trend line shows that it was highest in 1989 and lowest in 2004. Across the years, return on assets fluctuated.

Figure 4.3 Trend line for Return on Assets
4.4 Diagnostic Tests

Prior to running a regression model diagnostic tests were conducted. The tests conducted in this case were the unit root tests (Stationarity test), Heteroscedasticity test and Autocorrelation test. This is usually performed to avoid spurious regression results from being obtained.

4.4.1 Stationarity test

Stationarity test was conducted using Augmented Dickey-Fuller (ADF) method. Most secondary data are usually non-stationary in nature and prior to running a regression analysis. Unit root tests were thus conducted using the Augmented Dickey-Fuller (ADF) test to establish whether the variables were stationary or non-stationary. The purpose of this is to avoid spurious regression results being obtained by using non-stationary series.

Table 4.2: Unit Root Tests at Level

<table>
<thead>
<tr>
<th>Variable name</th>
<th>ADF test</th>
<th>1% Level</th>
<th>5% Level</th>
<th>10% Level</th>
<th>Prob</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on assets</td>
<td>-4.175003</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>0.0030</td>
<td>Stationary</td>
</tr>
<tr>
<td>Internal audit</td>
<td>-2.360988</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>0.1611</td>
<td>Non-Stationary</td>
</tr>
<tr>
<td>Environmental audit</td>
<td>-2.108178</td>
<td>-3.752946</td>
<td>-2.998064</td>
<td>-2.638752</td>
<td>0.2434</td>
<td>Non-Stationary</td>
</tr>
</tbody>
</table>

Results in Table 4.2 indicated that return on assets was stationary (i.e. absence of unit roots) at 1%, 5% and 10% levels of significance. Expenditure on internal audit and expenditure on environmental audit were non-stationary at level. Therefore, there was need for differencing expenditure on internal audit and expenditure on environmental audit to make them stationary. For internal audit and environmental audit, first differencing was applied to make the variables stationary. During the first difference, the internal audit and environmental audit variables became stationary. The stationary results are presented in Table 4.3.
### Table 4.3: Unit Root Tests at first difference

<table>
<thead>
<tr>
<th>Variable name</th>
<th>ADF test</th>
<th>1% Level</th>
<th>5% Level</th>
<th>10% Level</th>
<th>Prob</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on assets</td>
<td>-4.175003</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>0.0030</td>
<td>Stationary</td>
</tr>
<tr>
<td>Internal audit</td>
<td>-6.546692</td>
<td>-6.546692</td>
<td>-2.971853</td>
<td>-2.625121</td>
<td>0.0000</td>
<td>Stationary</td>
</tr>
<tr>
<td>Environmental audit</td>
<td>-4.282832</td>
<td>-3.752946</td>
<td>-2.998064</td>
<td>-2.638752</td>
<td>0.0030</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

### 4.4.2 Autocorrelation Test

Serial correlation tests were run in order to check for correlation of error terms across time periods. Serial/auto correlation is tested using the Breusch-Godfrey serial correlation LM test. The null hypothesis is that no first order serial /auto correlation exists. The p value of 0.1792 indicates that we do not reject the null hypothesis of no serial correlation and conclude that serial correlation does not exist. Data do not suffer from serial correlation which is desirable. These results are presented in Table 4.4.

#### Table 4.4: Serial Correlation LM Test

<table>
<thead>
<tr>
<th>Breusch-Godfrey Serial Correlation LM Test:</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Obs*R-squared</td>
</tr>
</tbody>
</table>

### 4.4.3 Heteroscedasticity Test

Heteroscedasticity test was run in order to test whether the error terms are correlated across observation in the time series data. The error terms from a regression model must have a constant variance called Homoskedastic. And thus to ensure whether the residuals meet this criteria the study used the Breusch-Pagan test for Heteroskedasticity where the null hypothesis under this test is that residuals are Homoskedastic. If the p-value is >0.05, there is constant variance. The null hypothesis was therefore not rejected at a critical p value of 0.05 since the reported value was
Thus the data did not suffer from statistically significant heteroscedasticity as shown in Table 4.5.

### Table 4.5: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

<table>
<thead>
<tr>
<th></th>
<th>F-statistic</th>
<th>Prob. F(2,26)</th>
<th>Prob. Chi-Square(2)</th>
<th>Prob. Chi-Square(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>0.744004</td>
<td></td>
<td></td>
<td>0.4851</td>
</tr>
<tr>
<td>Obs*R-squared</td>
<td>1.569856</td>
<td></td>
<td></td>
<td>0.4562</td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>2.407661</td>
<td></td>
<td></td>
<td>0.3000</td>
</tr>
</tbody>
</table>

#### 4.3 Correlation Analysis

Correlation analysis is the statistical tool that can be utilized to determine the level of association between two variables (Levin & Rubin, 1998). Correlation matrix was developed to analyze the strength of association between the expenditure on internal audit and expenditure on environmental audit. Table 4.6 presents the results of the correlation analysis.

### Table 4.6: Correlation analysis

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>Internal audit expenditure</th>
<th>Environmental audit expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal audit expenditure</td>
<td>-0.1629</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Environmental audit expenditure</td>
<td>0.0386</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental audit expenditure</td>
<td>-0.2164</td>
<td>0.0642</td>
<td>1.000</td>
</tr>
<tr>
<td>Environmental audit expenditure</td>
<td>0.0295</td>
<td>0.7407</td>
<td></td>
</tr>
</tbody>
</table>

The correlation results showed that the expenditure on internal audit and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly associated ($r=-0.1629$, $p=0.0386$). The results agree with Otieno (2011) who looked at commercial banks financial performance in relation to internal control practices and concluded that internal controls play a major role on a bank’s standing as concerns performance. However, the results contrast that of Ombayo (2008) who examined how internal control practices of companies listed at the Nairobi Stock Exchange impact financial performance and established that internal audit exhibited
strong effect on financial performance. The results also agree with Matana (2008) who researched on the internal controls and environmental reviews relating to commercial banks in Uganda and established a relationship between internal controls and commercial banks.

The results also indicated that expenditure on environmental audit and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly associated (r=-0.2164, p=0.0295). The results are in agreement with Ombayo (2008) who examined how internal control practices of companies listed at the Nairobi Stock Exchange impact financial performance. And established that environmental audit exhibit a strong effect on financial performance.

**4.5 Regression Analysis**

After conducting the diagnostic tests, regression model was run. Results are presented in Table 4.7. Results revealed that expenditure on internal audit and expenditure on environmental audit are found to be satisfactory variables in explaining performance of Nyayo Tea Zones Development Corporation. This is supported by coefficient of determination also known as the R square of 0.369116. This means that expenditure on internal audit and expenditure on environmental audit explain 36.9% of the variation in financial performance of Nyayo Tea Zones Development Corporation in Kenya.

Further, F statistic results in Table 4.7 indicated that the overall model was statistically significant. The results imply that the independent variables (expenditure on internal audit and expenditure on environmental audit) averagely predict the performance of Nyayo Tea Zones Development Corporation. This is supported by the F statistic of 17.965221 and the reported p value (0.024132) which was less than the conventional probability of 0.05 significance level.

Regression of coefficients results in table 4.7 shows that internal audit (measured as expenditure on board allowance, external audit fees, internal audit monitoring fees and monitoring expenses) and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly related (β=-0.311839, p=0.0043). This means that a unit increase in the expenses on internal audit by one unit will lead to a subsequent decrease in financial performance (measured by ROA) of Nyayo Tea Zones Development Corporation by -0.311839 units. The
The acceptance/rejection criterion was that, if the p value is greater than the significance level of 0.05, we fail to reject the Ho₁ but if it’s less than 0.05 level of significance, the Ho₁ is rejected. Results in Table 4.7 indicate that the p-value is 0.0043. The alternative hypothesis was therefore accepted. The study therefore adopted the alternative hypothesis that internal audit has a significant effect on financial performance of Nyayo Tea Zones Development Corporation. The results agree with Otieno (2011) who looked at commercial banks financial performance in relation to internal control and practices and established that internal controls play a major role on a bank’s standing as concerns performance. Bovens (2013) concurs that organizational performance is determined by various variables among them internal control system functions.

Table 4.7: Regression Results

<table>
<thead>
<tr>
<th>RETURN ON ASSETS</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLINTERAL AUDIT</td>
<td>-0.311839</td>
<td>0.095297</td>
<td>-3.272286</td>
<td>0.0043</td>
</tr>
<tr>
<td>DLENVIRONMENTAL AUDIT</td>
<td>-0.209712</td>
<td>0.092270</td>
<td>-2.272808</td>
<td>0.0254</td>
</tr>
<tr>
<td>C</td>
<td>0.045212</td>
<td>0.015068</td>
<td>3.000476</td>
<td>0.0059</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.369116</td>
<td></td>
<td></td>
<td>0.039029</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.232490</td>
<td>S.D. dependent var</td>
<td>0.077427</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.077523</td>
<td>Akaike info criterion</td>
<td>-2.178785</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>0.156256</td>
<td>Schwarz criterion</td>
<td>-2.037340</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>34.59238</td>
<td>Hannan-Quinn criter.</td>
<td>-2.134486</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>17.965221</td>
<td>Durbin-Watson stat</td>
<td>1.187102</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.024132</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results also revealed that environmental audit (measured as expenditure on Legal and professional fees, expenses on staff uniforms, expenses on electricity manufacturing cost and expense on fuel wood cost) and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly related (β=-0.209712, p=0.0043). This means that a unit increase in the expenses on environmental audit by one unit will lead to a subsequent decrease in financial performance (measured by ROA) of Nyayo Tea Zones Development Corporation by -0.209712 units. The acceptance/rejection criterion was that, if the p value is greater
than the significance level of 0.05, we fail to reject the Ho$_2$ but if it’s less than 0.05
level of significance, the Ho$_2$ is rejected. Results in Table 4.7 indicate that the p-
value is 0.0043. The alternative hypothesis was therefore accepted. The study
therefore adopted the alternative hypothesis that environmental audit has a
significant effect on financial performance of Nyayo Tea Zones Development
Corporation. The results agree with Matana (2008) who researched on the internal
controls and environmental reviews relating to commercial banks in Uganda and
found a prediction variance of 34.5% between financial performance and
environmental audit. Therefore, as per the results above, the estimated model was as
shown below:

\[
\text{Financial Performance (ROA)} = 0.045212 - 0.311839 \times \text{Internal Audit} - 0.209712 \times \text{Environmental Audit}
\]

4.6 Discussion of Research Findings

The study sought to determine the effects of internal audit, environmental audit and
performance on Nyayo Tea Zones Development Corporation as a commercial
state corporation in Kenya. Independent variables for this study were internal audit
and environmental audit. The effect of each of the internal audit and environmental
audit on performance on Nyayo Tea Zones Development Corporation was
analyzed in terms of relationship, strength and direction.

The Pearson correlation coefficients between the variables revealed that a negative
and statistically significant correlation exists between expenditure on internal audit
and financial performance of Nyayo Tea Zones Development Corporation. The
model results also presented a negative relationship between internal audit and
financial performance of Nyayo Tea Zones Development Corporation. Internal
audit as an activity structured to add value to an institution by achieving set goals. Internal
audit plays an important role in deterring fraud through monitoring operations, carrying
out checks on internal controls and reporting independently to the audit committee of the
board and administratively to the executive management. However, the corporation must
not spend a lot of funds in conducting internal audit. A lot of money is spend on board
allowances, external audit fees, internal audit monitoring fees and monitoring expenses. This therefore negatively impacts on the profitability of the corporation.

The Pearson correlation also established that there is a negative and statistically significant association between expenditure on environmental audit and financial performance of Nyayo Tea Zones Development Corporation. The model results also presented a negative relationship between environmental audit and financial performance of Nyayo Tea Zones Development Corporation. Environmental audit involves impact assessment and policy of the organization. It procedurally reviews activities, objectives, services and practices that affect managerial structures of a company. It includes risk exposures that should be assessed. Among them being fines, penalties, expenditures that are mandatory by the environmental agency and in the Kenyan case National Environmental Mangement Authority mandated expenditures. In the context of the study, Nyayo Tea Zones Development Corporation spends on legal and professional fees, staff uniforms, electricity manufacturing cost and fuel wood cost. The expenses eat into the profitability of the corporation.

The model summary results revealed that expenditure on internal audit and expenditure on environmental audit are found to be satisfactory variables in explaining performance of Nyayo Tea Zones Development Corporation. Expenditure on internal audit and environmental audit explain 36.9% of changes in the financial performance of Nyayo Tea Zones Development Corporation in Kenya implying that there are other factors not included in this model that account for 63.1% of the performance of Nyayo Tea Zones Development Corporation. The model is fit at 95% level of confidence since the F-value is 17.965221. This confirms that overall the multiple regression model is statistically significant, in that it is a suitable prediction model for explaining how expenditure on internal audit and environmental audit affects financial performance of Nyayo Tea Zones Development Corporation.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction
This chapter presents the summary of the study, a summary of the key findings of the previous chapter and the conclusions drawn. The chapter also highlights the policy recommendations that Nyayo Tea Zones Development Corporation can adopt to improve its performance. Lastly it presents suggestions for further research which can be useful to future researchers.

5.2 Summary
The study sought to determine the outcome of internal audit on the relationship between performance and environmental audit of Nyayo Tea Zones Development Corporation in Kenya. The study employed descriptive research design. The target population was 19 nineteen branches of Nyayo Tea Zones Development Corporation covering the period 1989-2018. Data was analyzed using descriptive analysis, trend analysis, correlation analysis and regression analysis.

Descriptive results indicate that the average expenditure on internal audit was 6075711 KES. The correlation showed that expenditure on internal audit and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly associated ($r=-0.1629, p=0.0386$). Model results showed that internal audit (measured as expenditure on board allowance, external audit fees, internal audit monitoring fees and monitoring expenses) and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly related ($\beta=-0.311839, p=0.0043$). The study rejected the null hypothesis and accepted the alternative hypothesis that internal audit has a significant effect on financial performance of Nyayo Tea Zones Development Corporation.
It was further established that the average expenditure on environmental audit was 19107198.58 KES. The correlation results indicated that expenditure on environmental audit expenditure asset quality and and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly associated ($r=-0.2164$, $p=0.0295$). Regression of coefficients findings indicated that that environmental audit (measured as expenditure on legal and professional fees, expenses on staff uniforms, expenses on electricity manufacturing cost and expense on fuel wood cost) and financial performance of Nyayo Tea Zones Development Corporation are negatively and significantly related ($\beta=-0.209712$, $p=0.0043$). The study rejected the null hypothesis and adopted the alternative hypothesis that environmental audit has a significant effect on financial performance of Nyayo Tea Zones Development Corporation.

5.3 Conclusion

From the study findings, there are several conclusions made which are noteworthy. Based on the findings above, the study concludes that expenditure on internal audit has a negative and and significant relationship with financial performance of Nyayo Tea Zones Development Corporation. Internal audit works to protect the interest of shareholders to ensure that professionalism and accountability are upheld pursuant to organization performance. Internal audit is expected to work towards corporate growth and good performance by preventing fraud or scandals. The company thus must channel resources towards auditing.

The study also concludes that expenditure on environmental audit has a negative and significant relationship with financial performance of Nyayo Tea Zones Development Corporation. Environmental audit ensures regulatory requirements, priorities and targets are achieved without which management may diversify the company to a level of non-profitability. Environmental audit is structured such that it focuses on addressing the prevention rather than damage. In so doing it addresses itself to matters of conservation, non-renewable resources, the legislation that has been put in place by the state in terms of requirements to reduce damage. It therefore ensures that laws, policies and standards are in place for efficiency and effective performance.
5.4 Recommendations

The study recommends close monitoring of expenses on board allowance, external audit fees, internal audit monitoring expenses. This will ensure that the costs do not jeopardize the actual task of carrying out internal audit. Internal audit plays an important role in deterring fraud through monitoring operations, carrying out checks on internal controls and reporting independently to the audit committee of the board and administratively to the executive management.

It was established that environmental audit has inverse relation with performance. The study recommends for a close monitoring on legal and professional fees, expenses on staff uniforms, expenses on electricity manufacturing cost and expense on fuel wood cost in order to make sure that they do not eat large portion of the corporation revenue income. Environmental audit is an essential instrument providing a stepping stone for competitive advantage for companies that embrace it. The gainful advantage that come with it are savings and positive public image to the company. Environmental issues in internal audit have demonstrated the usefulness of the department in the overall performance of an institution and therefore one can comfortably deduce that environmental audit plays a significance role of improving performance of organization.

5.5 Contribution to Knowledge

The study established that internal audit and environmental audit significantly affects performance. Environmental audit entails expenditure on legal and professional fees, expenses on staff uniforms, electricity manufacturing cost and fuel wood cost. This means that there are other key stakeholders that play a critical role in ensuring successful environmental audit. The study therefore makes a contribution to the Stakeholder Theory.

It also established that Nyayo Tea Zones Development Corporation requires sufficient resources to conduct internal and environmental audit. The company requires sufficient resources to pay for external auditors, internal auditors monitoring expenses, legal and professional fees, electricity and fuel wood. The findings of the study therefore make a contribution to Resource Dependence Theory. Over ally, the
resource dependence theory confirms that internal control system cannot only displace but does influence change on the environment for improved firm performance.

5.6 Limitation of the Study

The limitation that the researcher anticipates to encounter in this study included reluctance of the corporation to disclose pertinent financial statements. However, this was mitigated by assuring the management of Nyayo Tea Zones Development Corporation that the data to be collected will be used for the purpose of academic research only.

5.7 Areas for further Research

The study relied on ROA as a measure of profitability. It is important to note, however, that many factors can influence ROA, including a firm's degree of capitalization. ROA favors highly capitalized institutions. ROA measure treats equity capital as free funds, there is no cost associated with them. Financial theory tells us that this is certainly not the case. As a result of this and other limitations, it is advisable to combine ROA with other measures of profitability and performance. Future research should involve measuring profitability using both Return on Assets (ROA) and Return on Equity (ROE). ROE is a true bottom-line profitability metric, comparing the profit available to shareholders to the capital provided or owned by shareholders. By employing both ROA and ROE in measuring financial performance of Nyayo Tea Zones Development Corporation, we can compare their effects.
REFERENCES


Canada: Jones and Barlett Publishers, Inc.


Unpublished MBA Project Report, School of Business, University of Nairobi.


Appendix I: Nyayo Tea Zones Development Cooperation

Mt. Kenya Forest
1. Meru Central
2. Meru South
3. Embu
4. Kirinyaga
5. Mathira

Aberdare Ranges Forest
6. Nyeri
7. Murang’a
8. Kiambu

Mau/Trans-Mara & Ol-Posumoru Forest Complex
9. Olenguruone
10. Nyangores
11. Kericho
12. Mau Olposimoru (New establishment)
13. Kuresoi (New establishment)

Nandi Forest
14. Nandi South
15. Nandi North

Kakamega Forest
16. Kakamega
Mt. Elgon Forest
17. Kapsokwony / Saboti

Cherangani Hills Forest
18. Kapcherop

Kaptagat Forest
19. Kaptarakwa

Head office
20. Nyayo house

Factory
21. kipchabo Tea Factory limited

Regional offices
22. East of Rift
23. North of Rift
24. South of Rift
# Appendix II: Secondary Data

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