

**EFFECT OF INTERNAL CONTROL SYSTEMS ON EFFICIENT REVENUE
COLLECTION AT THE NATIONAL TRANSPORT AND SAFETY AUTHORITY**

BY

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTERS OF SCIENCE
IN FINANCE, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI**

DECEMBER, 2020

DECLARATION

I declare that this is my original work and has not been submitted to any institution or university other than the University of Nairobi for examination.

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This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I wish to dedicate this project to my family and all those who supported me in the completion of this project.

Thank you and God bless you abundantly.

ACKNOWLEDGEMENT

I would like to express my sincere gratitude and appreciation to everyone who contributed their time towards the completion of this project. It has been a long and challenging journey.

I would like to thank my supervisor, Dr. Duncan Elly Ochieng for the valuable contributions, guidance and direction he has made towards completion of this proposal. I also wish to acknowledge the management and staff of NTSA for facilitating with the data collection process.

Finally, I would like to return my humble thanks to God for giving us the opportunity, resources, good health and determination to complete this project.

Thank you all.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
LIST OF ABBREVIATIONS AND ACRONYMS	viii
LIST OF TABLES	ix
LIST OF FIGURES	ix
ABSTRACT.....	x
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study.....	1
1.1.1 Internal Control Systems	2
1.1.2 Revenue Collection.....	3
1.1.3 Internal Control Systems and Revenue Collection.....	4
1.1.4 National Transport and Safety Authority (NTSA)	5
1.2 Research Problem.....	5
1.3 Objective of the Study.....	7
1.3.1 General Objective	7
1.3.2 Specific Objectives	7
1.4 Value of the Study.....	8
CHAPTER TWO: LITERATURE REVIEW.....	9
2.1 Introduction	9
2.2 Theoretical Review	9
2.1.1 Agency Theory	9
2.1.2 Stakeholders Theory	10
2.3.3 Contingency Theory	11
2.2.4 Institutional Theory	12
2.3 Determinants of Revenue Collection	12
2.3.1 Control Environment	13
2.3.2 Risk Assessment Controls	13
2.3.3 Control Activities	14
2.3.4 Information and Communication Controls.....	14
2.3.5 Monitoring Controls	14
2.4 Empirical Studies	15
2.4.1 International Studies	15

2.4.2 Regional Studies	16
2.4.3 Local Studies	17
2.5 Conceptual Framework	19
2.6 Summary of the Literature Review and Research Gap	19
CHAPTER THREE: RESEARCH METHODOLOGY	21
3.1 Introduction	21
3.2 Research Design.....	21
3.3 Study Population and Sample	21
3.4 Data Collection.....	21
3.5 Diagnostic Tests	22
3.5.1 Test of Validity	22
3.5.2 Test of Reliability	22
3.5.3 Test of Significance	23
3.6 Data Analysis	23
3.6.1 Regression Model	23
3.6.2 Operationalisation of the Variables	24
CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION	25
4.1 Introduction	25
4.2 Response Rate	25
4.3 Data Presentation.....	25
4.3.1 Data Validity.....	25
4.3.2 Data Reliability	26
4.4 General Information	27
4.4.1 Gender of Respondents	27
4.4.2 Respondents Age.....	28
4.4.3 Respondents Education Level.....	28
4.4.4 Duration of Service	29
4.5 Internal Control Systems	30
4.5.1 Control Environment	30
4.5.2 Risk Assessment	31
4.5.3 Control Activities	32
4.5.4 Information and Communication.....	33
4.5.5 Monitoring	34

4.6 Efficient Revenue Collection	35
4.7 Pearson Correlation Analysis	36
4.8 Regression Analysis	37
4.8.1 Model Summary	37
4.8.2 Analysis of Variance.....	37
4.8.3 Regression Coefficients	38
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	40
5.1 Introduction	40
5.2 Summary of Findings	40
5.3 Conclusions	41
5.4 Recommendations	42
5.5 Limitations of the Study	42
5.6 Areas for Further Research	43
REFERENCES.....	44
Appendices.....	47
Appendix I: Questionnaire	47

LIST OF ABBREVIATIONS AND ACRONYMS

TIMS Transport Information Management System

NTSA National Transport and Safety Authority

LIST OF TABLES

Table 2.6: Summary of the Literature Review and Research Gap	20
Table 3.1: Measurement of the Variables	24
Table 4.1: Response Rate.....	25
Table 4.2: Reliability Analysis	26
Table 4.3: Highest Level of Education	29
Table 4.4: Work Experience	29
Table 4.5: Control Environment	30
Table 4.6: Risk Assessment	31
Table 4.7: Control Activities.....	32
Table 4.8: Information and Communication.....	33
Table 4.9: Monitoring	34
Table 4.10: Revenue Collection.....	35
Table 4.11: Revenue Collection (b)	35
Table 4.12: Correlation Matrix	36
Table 4.13: Model Summary	37
Table 4.14: Analysis of Variance (ANOVA) ^a	37
Table 4.15 Regression Coefficients ^a	38

LIST OF FIGURES

Figure 2.1: Conceptual Framework	19
Figure 4.1: Gender of Respondents	27
Figure 4.2: Age Bracket of Respondents	28

ABSTRACT

The objective of the study was to determine the effect of internal control systems on revenue collection at the National Transport and Safety Authority. Specifically, the study sought to determine the effect of control environment, risk assessment, control activities, information communication and monitoring on efficient revenue collection at the National Transport and Safety Authority. The researcher used a descriptive research design to describe the nexus between internal control systems and efficient revenue collection. The target population of the study consisted of 3 senior managers of NTSA in each of the 18 stations totalling to 54 respondents. The researcher collected the data by using questionnaires which were administered digitally due to the impact of Covid-19. A total of 51 questionnaires representing 94.4% were properly filled. Only 3 questionnaires (5.6%) were not filled. The study concluded that internal control systems (control environment, risk assessment, control activities, information communication and monitoring) have a combined positive and significant effect on the level of revenue collection at NTSA. The study recommended that NTSA should endeavour to implement internal control systems adequately. This recommendation was based on the evidence that the respondents were undecided on whether there are adequate internal control systems at NTSA and that control environment, risk assessment, control activities, information communication and monitoring were found to have a positive and significant effect on the revenue collection at the National Transport and Safety Authority. The researcher suggested that in future, a similar study should be done in both public and private institutions in order to improve on the study findings, conclusions and policy change recommendations.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

An effective and sound internal control process is crucial for an organisation to avoid challenges related to reducing revenue levels. This enables an organisation to meet the set objectives. Businesses with no internal controls find it difficult to achieve their objectives since they can't detect fraudulent activities which lead to poor revenue performance. Poor revenue performance is associated to the lack of controls that lead to sustainable connections with customers, increase in the levels of revenue misuse or errors in operations (Papastathis, 2003) as cited by Yemer and Chekol (2017). Poor revenue performance according to Abdu and Mohd (2012), results from weak internal control systems of the organisation. Feng, Li and McVay (2009) also confirms that organisations with effective internal control systems have a greater tendency of detecting management errors.

The proposed study was anchored on the following key theories; Jensen and Meckling (1979) through "Agency theory" posit that, inadequate information by the agent on the relationship, interests or work execution may cause inefficiencies in the organisation operations. Meyer and Rowan (1977) through "Institutional theory" posit that, firms design and develop structures, processes and systems not for economic cost benefit analysis but as a requirement. Fiedler (1964) through "Contingency theory" opines that, there is no structure or processes that enhance firm performance but that it depends on other factors. Freeman's (1984) through "Stakeholder theory" proposes that, firms should be considered as a group of stakeholders whose purpose is to manage each other's interests, needs and viewpoints.

The NTSA doubled the amount of revenue collected by the agency after the migration of its services to an online platform. The agency's collection doubled from an average of 110

million to 200 million per month between the period July 2015 to October 2016 (NTSA, 2019). NTSA gets revenue from different sources such as registering and licensing of motor vehicles; conducting motor vehicle inspection and certification which calls for effectiveness and efficiency to enhance collection. However, the agency has experienced challenges calls to restructure and disband as well as her officers being withdrawn from roads (Muchui & Githae, 2018). In order to streamline revenue collection, NTSA has introduced the transport information management system (TIMS).

1.1.1 Internal Control Systems

Firm internal controls refer to the mechanisms adopted by the firm to ensure it attains its goals, missions and objectives. They also refer to the policies and the procedures put in place by a firm to make sure that its transactions are carried out in the suitable way to prevent theft, misuse and waste of resources of the firm. Internal controls however provide reasonable certainty only without complete assurance that the goals, missions and objectives of an organisation was attained. Internal control systems on the other hand refers to the collection of actions and policies adopted by firms to support the goals of the firm, such as maintaining the integrity of assets, complying with management policies, identifying criminal activities and mistakes and preventing them ((Hayes et al., 2005).

Companies adopt internal control systems so as to allow them attain organisational and performance objectives and goals, avoid resource losses, ensuring compliance with regulations and laws and also to be able to produce reliable reports. Internal control systems are either, detective, preventive or corrective. The detective controls help identify and report an error or a malicious act of omission when it occurs. Preventive controls help predict potential glitches, errors or malicious acts of omissions and prevent them from occurring. They also allow adjustments to be made before they occur (Singleton, 2006)).

Corrective controls on the other hand help reduce the effects of a threat, enables finding out the cause of the problem and gives the measures to correct the errors arising from the threat. Some of the mechanisms of internal control systems include; information and communication, risk assessment, monitoring, control activities and control environment (Singleton, 2006). This study shall apply the following mechanisms: control environment, control activities, risk assessment, monitoring and information communication.

1.1.2 Revenue Collection

Revenues are incomes including coins, money orders, currency, direct transfers, checks, internal charges, credit card (Angelovska, 2010). Pandey (1996) defines revenue as monetary event in which the value of assets increases through sale of goods or services. Revenue being one of the most liquid is susceptible to loss and misappropriation if it is not properly managed (Fight, 2002). Thus, it is very critical for all departments that handle cash to adopt and implement strong internal controls.

Revenue collection is measured in terms of the levels of wealth created, assets accumulation, customer complaints, satisfaction and the quality of the service rendered to customers (Kloot, 1999). Poor revenue collection performance has been associated with poor internal company revenue generation arrangements, poor revenue collection, theft or fraud, poor performance data analysis, improper cash handling, poor internal control structures, lack of incentive, employee errors due to inefficiencies and inexperienced personnel, poor service quality and poor pricing and fees (Abdu & Mohd, 2012). In this study, revenue collection shall be measured using average revenue collected by NTSA.

1.1.3 Internal Control Systems and Revenue Collection

Internal control systems are implemented mainly to improve the reliability of financial performance aspects either indirectly or directly through increasing culpability in the company (Jensen, 2003). Thus, internal controls have a wider purpose in an organisation through controlling challenges related to lower revenues such as fraud and misstatement (Doyle et al., 2005). They also enable the independent evaluation of the quality of the firm's managerial performance for improved revenue generation (Beeler, Hunton & Wier 1999) as cited by Sigilai (2016). Effective internal control system is without doubt associated with the firms in meeting its target revenue level (Fadzil, Haron & Jantan, 2005).

The association between internal control systems and revenue collection has been reviewed by various scholars on different contexts for instance; a review by Kumuthinidevi (2016) on private banks in Sri Lanka found that the effectiveness of internal control mechanisms such as control activities, control environment, communication, risk assessment and accounting enhanced the collections. Simangunsong (2014) evaluated how the performance of local government in Indonesia is affected by internal control and internal audit and found that their effective internal audit and internal controls improve the performance of local governments.

Njagi and Mwangi (2020) assessed the effect that internal controls have on collection of revenue among level five hospitals in Kiambu County and found that internal control mechanisms are positively and strongly correlated to revenue collection among level five hospitals in Kiambu County. Sigilai (2016) evaluated the effect that internal control systems have on the Nakuru Level Five Hospitals level of revenue collection and found that lack of internal controls contributes to loss of revenue, embezzlement of collected revenue and collusion to commit fraud.

1.1.4 National Transport and Safety Authority (NTSA)

National Transport and Safety Authority (NTSA) was incorporated in October 2012 through a parliament Act. The agency's main aim is to accord the key road transport operations from different road transport departments, to help effectively manage the road transport sub-sector and ensure accidents are minimised (NTSA, 2019).

Some of NTSA's mandate include; carrying out motor vehicle inspection, motor vehicle registering and licensing; and issuing certificates; regulating PSVs; harmonising inspection reports on traffic accidents; enabling public education on road safety; acting as adviser to the Government on matters concerning the road transport sector; to develop, implement and oversee road safety strategies; carrying out research and audits on road safety; putting procedures and systems in place for training, testing and licensing of drivers (NTSA, 2019).

1.2 Research Problem

The ever-increasing attention to effective internal control systems in organisations has been sharpened by the current challenges such as ever increasing fraudulent financial reporting allegations, technological advancements, complexity of business, globalisation of economies, increasing cases of businesses failures among many other challenges (Karagiorgos, Drogalas, Gotzamanis & Tampakoudis, 2009). The heightened attention to the concept of internal controls has in part, resulted from substantial losses incurred by several companies. He opines that problems related to losses incurred by most failed organisations could have been evaded had they upheld effective internal control systems (Briian, 2011).

NTSA does not obtain revenue from a single source rather from different activities such as registering and licensing of motor vehicles; conducting motor vehicle inspection and certification which calls for effectiveness and efficiency to enhance collection. In order to

improve capacity to meet stakeholder expectations and also enhance its operational effectiveness and delight its customers, the agency has introduced transport information management system (NTSA, 2019). The NTSA has had challenges which have brought about the question of the efficiency of the agency's internal controls systems. There have been calls to either restructure or disband NTSA for many reasons including the agency being unable to ensure safety in the roads. This led to NTSA officers being withdrawn from Kenyan roads (Muchui & Githae, 2018). This study aims at evaluating the effectiveness of these control mechanisms in ensuring enhanced accountability and performance.

Several studies have been reviewed in different contexts globally, regionally and locally to determine the effect that, internal control systems have on revenue collection in organisations; Globally, Yemer and Chekol (2017) examined the effect of internal controls systems on hotels and established that, not all internal control mechanisms positively affect firm revenues. Ibrahim (2017) empirically evaluated the internal control and public sector revenue generation in Nigeria and found that, internal control systems significantly enhances revenue collection in the Nigerian public sector although with hiccups here and there. Al-Zwyalif (2015) reviewed the role of internal control systems in Jordan established that internal control systems enhanced the effectiveness of corporate governance among organisations in Jordan.

Regionally, a study by Aden and Addow (2015) on the internal control systems in Somalia concluded that internal control systems help avoid errors and also detect frauds to reduce financial misrepresentation among remittance companies in Mogadishu. Uwingabiye (2020) assessed the association between financial performance and the internal control adopted by public institutions in Rwanda and established that the financial performance of public institutions in Rwanda increased following an increase in control environment by a unit. Mire

and Mukhongo (2016) evaluated the effects that internal control systems have on the remittance companies' performance in Modadishu-Somalia and found that internal control systems positively affected the remittance companies' performance in Somalia.

Locally, Njagi and Mwangi (2020) examined the effect that internal controls adopted by level five hospitals in Kiambu County on their revenue collection level and established a strong positive correlation between internal control mechanisms and revenue collection among level five hospitals in Kiambu County. Sigilai (2016) evaluated how internal control systems affect the Nakuru Level Five Hospital level of revenue collection and established that the absence of internal control systems contributes to loss of revenue, embezzlement of collected revenue and collusion to commit fraud. None of the researchers however focused on the context of this study which makes a review of the effect of internal control systems on the revenue collection at NTSA a unique component of review by this study. To fill this knowledge gap, this study answered the following question: how does internal control systems influence the efficiency of revenue collection at NTSA?

1.3 Objective of the Study

1.3.1 General Objective

To determine the effect of internal control systems on revenue collection at the National Transport and Safety Authority.

1.3.2 Specific Objectives

- i. To determine the effect of control environment on efficient revenue collection at the National Transport and Safety Authority.
- ii. To establish the effect of risk assessment on efficient revenue collection at the National Transport and Safety Authority.

- iii. To find out the effect of control activities on efficient revenue collection at the National Transport and Safety Authority.

1.4 Value of the Study

The government of Kenya and other regulators of revenue collection in the country, the NTSA and other organisations interested in internal controls and revenue collection was informed by the findings of this study. The governments and other regulators of revenue collection in Kenya would be enlightened by the findings of this study to design and implement policies and regulations that would ensure efficient internal control systems and maximum revenue collection is attained.

The management of NTSA would find the results of this study useful in that they would enlighten them on how internal control systems affect revenue collection at the NTSA thus be able to put in place policies that would enhance their revenue collection and improve the efficiency of their internal control systems.

The results of this research would also contribute to the knowledge pool that already exists on the effect of internal control systems on the revenue collection and also give recommendations on the gaps in knowledge that should be filled by future studies.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of literature on the effect of internal controls systems on revenue collection. The theoretical review comprised of the theories that make contributions to this area of knowledge followed by a review of the empirical literature related to the study. The chapter also looks at the conceptual framework as well as the summarises the literature review to identify research gaps.

2.2 Theoretical Review

The theoretical review of this study is based on four theories that explain the nexus between internal control systems and efficient revenue collection. These include; the agency theory, stakeholder's theory, institutional theory and contingency theory.

2.1.1 Agency Theory

The Agency theory was brought forward by Jensen and Meckling (1976). The theory was developed from the work of Jensen and Meckling "The Theory of the Firm". The theory is concerned about solving the problem that may exist between the principals and agents of the principals. According to the theory, separation of control and ownership has been seen to the major challenge of modern businesses. As such, they the businesses are managed by professional managers (in this case agents) whom the shareholders hold accountable. As a result, agency problems can occur from this relationship. Agency theory emphasis on the ways the firm leadership can align its goals with the organisation's goals (Donaldson & Davis, 1991).

The agency problems emerge when the goals and desires of the agent and the principal have clashed and the principal is not able to corroborate the goals of the agent. The problem also arises when the agent and principal hold differing attitudes towards risk leading the agent taking actions that may be of self-interest which negatively affect the operations. Jensen and Meckling's theory is however criticised for portraying employees as more individualistic and rational and can only be controlled mainly by punishments and rewards. The Agency theory is however relevant to this research for proposing that when the firm's management goals support those of the organisation, the organisation's various systems will work efficiently which will enhance the firm's various performance aspects.

2.1.2 Stakeholders Theory

Stakeholder theory was developed by Freeman (1984). This theory was developed by combining the organisational and sociological disciplines (Wheeler et al., 2002). The theory views a firm as a group of stakeholders and that the purpose of the management of the firm should be to ensure the interests, needs and viewpoints of the stakeholders are met. The managers are tasked with on the one hand managing the organisation to enhance stakeholder benefits and on the other ensure their rights are upheld and that they also participate in decision making. Stakeholder interests could comprise of a broad range of issues, such as risk assessment, communication control environment, control activities, or labour conditions which might be contrary to the interests of the firm.

Jensen (2001) criticised the stakeholder theory for assuming a single-valued objective in that gains that accrue to a firm's stakeholders. Jensen (2001) however argues that, organisational performance should not be determined by ascertaining the gains that accrue to its stakeholders because there are other measures such as inter-personal relations, information flow from up to down and working environment. Stakeholder theory is however applicable to

this research for it holds that, when the firm management focus of increasing the gains to the stakeholders, they will improve the efficiency of the organisation's systems which will enhance the organisation's performance.

2.3.3 Contingency Theory

Fiedler (1964) also through his work "contingency theory" contributes to this field through proposing that there is no structure or processes that enhance firm performance aspects such as revenue collection but that it depends on other factors which should be considered. The Contingency theory asserts that there is no unsurpassed approach to provide an effective management, however, management effectiveness depends upon many other factors that must be considered such as the type of environmental impulsiveness, technology, organisation size, the organisational structure features as well as its information system. This study incidentally stipulates that the internal control effectiveness can be best described using contingency theory.

The work of this theory is further supported by the work of Lista, Advisor and Rojas (2014) who assert that there is no best way to manage or organise an organisation's internal control systems, lead an organisation or make decisions. The theory proposes that, it all depends on both the manager's personality and the situation in which the manager operates (Fiedler, 1964). The theory calls for the consideration of other contingency factors that mostly assumed by scholars for instance; culture, technological changes and external environment factors which influences the design and functioning of an organisation. The contingency theory is criticised by Child (1972) on the grounds that organisational structure is not entirely determined by changes in contingencies. This theory is however appropriate to this study since it proposes that organisations implement strategies based on their unique experiences which then enhance internal controls.

2.2.4 Institutional Theory

Meyer and Rowan developed the institutional theory in 1977 to review the role of internal and external environment in shaping what an organisation does. The theory asserts that, firms design and develop processes, structures and systems not for economic cost benefit analysis but to meet the requirements of incorporating new procedures and practices. This implies that companies are compelled to adopt the procedures and practices defined by prevalent business and regulatory environment and not to earn more income. Thus, the firms that do so increase their survival prospects and their legitimacy.

Meyer and Rowan believe that, there are institutionalised rules which involve normative requirements that are part and parcel of the organisation if it were to exist and which must be considered by the operating businesses. Company structures such as internal control systems, processes and roles are put in place as a symbol of conformity and social accountability to avoid the never-ending investigations into their business operations. Thus, according to the institutional theory, if the internal structures of the organisation are effective, the external scrutiny was minimal which gives the organisation an ample time to improve its performance (Fogarty, 1996). This theory is majorly criticised for its organisational passivity assumptions and failure to address strategic behaviour and the exercise of influence in conceptualising institutions. The theory is relevant to this study since it expounds on how firms are affected by structures hence the needs to put in place controls that will help the firm survive.

2.3 Determinants of Revenue Collection

There are various factors stated by different researchers to determine the level of revenue collection in an organisation. This study however focuses on the five mechanisms of internal control systems.

2.3.1 Control Environment

The control environment is deemed the underpinning on which effective systems of internal control are developed and ran in a firm. Failure in the control environment is given as the cause of a larger part of the 2008 financial crisis and other 21st century well known failures. Some of the control environment factors are; the integrity, ethical values, employee competence; operating style; management's philosophy; responsibility assignment by the management, and organises and develops its people; and the board of directors' direction and attention provided. A study by Njiru and Sigilai (2016) on Nakuru Level Five Hospital that assessed whether revenue collection at the hospital is affected by internal control systems using qualitative and quantitative approaches and a sample of 40 respondents found that control environment does not influence the level of revenue collection at Nakuru Level five hospital.

2.3.2 Risk Assessment Controls

Risk assessment is a practice of recognising and analysing pertinent perils that hinder the attainment of the organisation's objectives. Risk assessment also include coming up with the appropriate response. Assessing risks play a critical part in the choice of the appropriate control activities that are to be undertaken by the organisation. Internal controls offer only rational guarantee that the organisation's goals are being attained. The organisational purposes are well laid out before the management can detect the risks to their attainment and take actions that are necessary to control the risks. According to Jesse (2012), internal control activities are adopted as a reaction to the risk. They are intended to contain the uncertainty that may arise from the risks that have been identified. Studies such as Attah-Botchwey (2018) and Yemer and Chekol (2017) found revenue collection of organisations is positively and significantly influenced by risk assessment controls.

2.3.3 Control Activities

The control activities are instructions, methods, rules and decisions made over several activities by the firm to avoid or decrease risks that impede the firm from attaining its goals. Control activities are also measures set up to ensure the objectives of the firm are met and also the risks involved are mitigated. These activities may include; performance reviews, information processing, segregation of duties and physical controls and they happen at all functions and levels of the firm. Others are; approvals, verifications, authorisations, reconciliation, maintenance of security, performing reviews and the development and maintenance of records related to and that show evidence that the activities have been executed and appropriately documented (Ofori, 2011). Studies such as Ewa & Uduayang (2012) confirm that performance is positive and significantly affected by control activities.

2.3.4 Information and Communication Controls

Information is crucial at every levels of the firm. It enables the flow of instructions and feedback which help the organisation meet its goals. Information that comes both from inside and outside the organisation is needed. Information flows from top levels to bottom in form of instructions. The information must be shared according to need-to-know basis so as to prevent sharing of confidential and strategic information to other players in the industry. Thus, information communicated must be reliable, relevant and realistic and available to users in a timely manner (Amaudo & Inanga, 2009).

2.3.5 Monitoring Controls

Monitoring controls are employed by firms to scrutinise the quality of their internal controls. These controls keep in check the firm's internal control operational status and frame and give the needed responses to ensure that the organisation's internal controls work at optimum. It is

the firm's internal audit unit that performs the individual assessment (Sarens & Beelde, 2006). Continuous monitoring on the other hand entail the firm's leadership at every level inspecting, analysing and evaluating the efficiency and effectiveness of their respective departments' operating activities. A review by Doyle and McVay (2005) found that monitoring enables tracking performance thus it is crucial in determining increased performance of every aspect of the organisation.

2.4 Empirical Studies

This section comprises of empirical studies on this area of knowledge. International, regional and local studies are reviewed as follows.

2.4.1 International Studies

Attah-Botchwey (2018) reviewed internal control as an instrument for effective revenue mobilisation management at the Accra Metropolitan Assembly in Ghana. It was established that the components of internal control system such as information communication, risk assessment, control activities and monitoring all highly influence effective management of revenue mobilisation at the Accra Metropolitan. The researcher concluded that the internal control system components positively and significantly affect revenue mobilisation and that problems such as poor or improper risk assessment, revenue diversion, lack of knowledge and education on the projects of the Assembly and lack of support by the administration and logistics department which reduces the systems' effectiveness hence revenue mobilisation.

Kikonyogo (2017) examined the effect that internal controls have on revenue collection at the Kampala Capital City Authority. Using a cross sectional design and a sample of 72 respondents who were Kampala Capital City Authority staff, the researcher found a positive and significant association exists between control activities, control environment and

monitoring with revenue collection. The study then recommended that organisations involved in revenue collection should establish appropriate control environment, implement effective control activities and carry out effective monitoring to enhance the performance of their revenue collection function.

Ewa and Udoayang (2012) evaluated the impact that designing internal controls has on the Nigerian banks' capability to probe fraud by staff through staff life style audit. Using data from 13 banks from Nigerian and a questionnaire to collect data, Ewa and Udoayang found that staff attitude concerning fraud is strongly influenced by the design of internal controls and that the two variables have a strong association. Thus, staff fraud is dissuaded by strong internal control mechanism and that staff to commit fraud where there is while weak internal controls. The study thus suggested that Nigerian banks should make sure their internal controls are upgraded to help detect and eliminate earlier.

2.4.2 Regional Studies

Uwingabiye (2020) assessed the association between financial performance and the internal control adopted by public institutions in Rwanda. The researcher used primary data gathered using questionnaires from 30 respondents. It was established that the financial performance of public institutions in Rwanda increased following an increase in control environment by a unit. The researcher also found that risk assessment is positively and significantly associated with the financial performance of public institutions. The study also established that the public institutions financial performance in Rwanda improved following an improvement of the control activities by one unit. The researcher concluded that financial performance is positively and significantly influenced by internal controls. The study then recommended that the mechanisms of the ICS should be improved to enhance the Public institutions' performance.

Yemer and Chekol (2017) examined the influence of internal controls systems on hotels in Bahir Dar and Gondar Cities of Ethiopia. The researchers focused on determining how internal control systems influenced the revenue collection. The researchers chose 30 hotels from the two cities as the context of the study. The study specifically focused on effect of control environment, risk assessment, controlling activity, monitoring and information communication activities on revenue of the hotels. Using regression model, the researchers established that internal control systems significantly influences revenue among the hotels. The study then concluded that all the internal control mechanisms do not positively and significantly affect collection of revenues of the hotels.

Mire and Mukhongo (2016) evaluated how the remittance companies' performance in Mogadishu-Somalia is affected by internal control systems. A quantitative research and a descriptive design were adopted. The study population comprised of the employees of the classified fifteen remittance companies in Bakara market. A purposive sampling technique was employed to ascertain the study sample. The researchers used primary. The conclusion was that internal control systems positively influences the remittance companies' performance in Somalia. It was then recommended that remittance firms in Somalia should increase their internal control mechanisms.

2.4.3 Local Studies

Maina, Muturi, Atambo and Nyamasege (2018) assessed how internal control systems influence the execution of county government projects in Nyamira County, Kenya. The researchers employed an explanatory survey design. The researchers also employed secondary data which was found on the county government website. The study established that execution of projects at the county government is significantly influenced by internal control systems. The researchers then concluded that having adequate internal control

mechanisms will ensure the resources are safeguarded and assigned to the right projects as planned.

Njiru and Bunyasi (2016) evaluated the effect of internal controls on water companies' Tana Water Services Board financial performance. The study focused on four groups of 22, including finance managers, members of the audit committee, senior accountants and internal auditors that were in the firm in 2014. The researchers also used a purposive sampling technique to pick the study sample. Using descriptive survey research design and questionnaires to collect data, the researchers established that cash reconciliation, inventory audits, segregation of duties and cost management have an impact on firm performance. The study concluded that a positive and strong association exists between the financial performance of water companies and the internal controls put in place. It was then recommended that water companies adopt efficient practices such as internal controls to enhance the performance of their organisations.

Njiru and Sigilai (2016) assessed whether internal control systems affect the level of revenue collection at Level Five Nakuru Hospital. Data from 40 participants was collected questionnaires. The study used descriptive statistics to analyse the data. The study found that the level of revenue collection of the Nakuru Level five hospital is not significantly affected by control environment activities. It was then recommended that realistic and achievable revenue collection targets be set by the ministry/hospital management to enhance revenue collection.

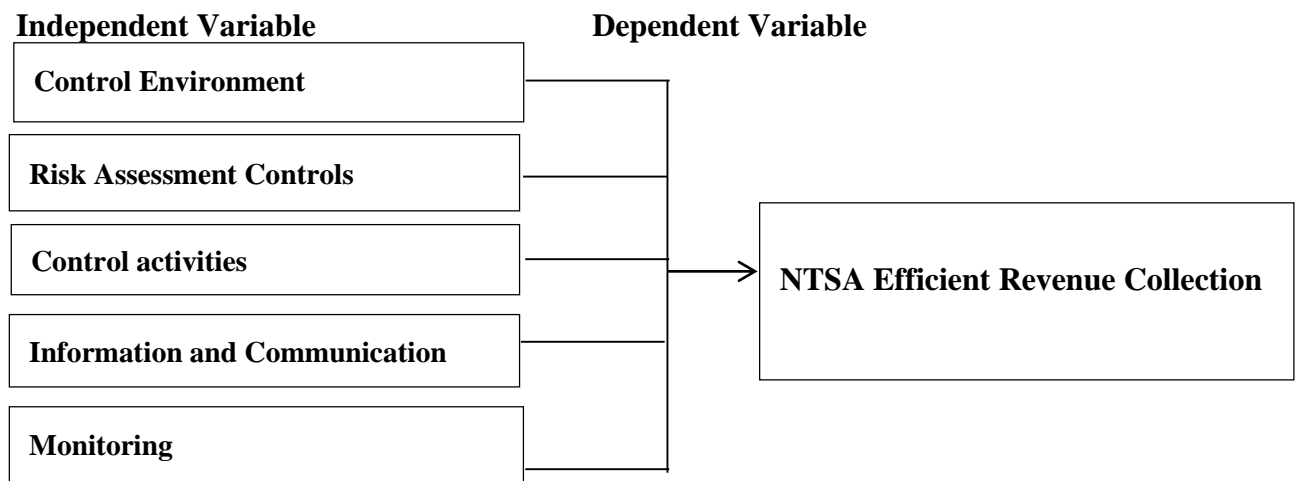
Ndung'u (2013) assessed the relation between revenue generation and internal controls at the UNES Limited. The study targeted employees of UNES Limited. The study established that UNES has in place procedures and policies to guide the firm's activities which allows for good and efficient communication, monitoring and control. The study concluded that internal

controls influences the quality and effectiveness of firm performance. The study recommendation was that UNES Limited should continuously monitor customer feedback and carryout periodic internal audits.

2.5 Conceptual Framework

Internal control system mechanisms (control environment activities, control activities, information communication activities, risk assessment activities and monitoring activities) constitutes the independent variables while efficient revenue collection was the dependent variable as shown in the figure below.

Figure 2.1: Conceptual Framework



2.6 Summary of the Literature Review and Research Gap

Different empirical studies have been reviewed on the influence of internal control system on revenue collection across the globe. Some studies suggest a general positive relationship between the two variables while others suggest that internal control systems do not entirely affect revenue collection in an organisation. None of the studies however focused on the context of this study which is NTSA hence leaving a knowledge gap. The summary of the literature review is given in the table below.

Table 2.6: Summary of the Literature Review and Research Gap

Author	Focus of Study	Methodology	Findings	Knowledge Gaps	Focus of Current Study
Uwingabiye (2020)	Public institution in Rwanda	Used both quantitative and qualitative data together with a descriptive design	An increase in the internal control system components by one unit increases the financial performance of the firm by one unit.	Focused on firm financial performance measures such as profits and ROA	Focus of determining the how internal control systems influence the collection of revenue.
Maina et al. (2018)	Nyamira County government projects in Kenya	Used a descriptive research design.	The study established that internal control systems significantly influence the implementation of county government projects in Kenya.	Focused on Nyamira County	Will focus on NTSA
Yemer and Chekol (2017)	Bahir Dar and Gondar Cities in Ethiopia	Used both quantitative and qualitative and a descriptive design.	The study established that not all internal control mechanisms positively and significantly affect collection of revenue in hotels.	Focused on internal control mechanisms in General	Will focus on internal control system components
Kikonyogo (2017)	Kampala Capital City Authority	Adopted a cross sectional design	A positive and significant nexus exists between revenue collection and internal controls.	Employed a cross sectional design	Will employ a descriptive research design.
Mire and Mukhongo (2016)	Remittance companies in Modadishu-Somalia	Used a quantitative research and a descriptive design	Internal control positively affects performance of remittance companies.	Focused on Remittance companies in Modadishu-Somalia	Will focus on NTSA in Kenya
Njiru and Bunyasi (2016)	Water companies in Tana Water Services Board	Used a purposive sampling technique in selecting the study sample.	The study found that internal controls have a strong positive association with the performance.	Focused on water companies in Tana Water Services Board.	Will focus on NTSA
Njiru and Sigilai (2016)	Nakuru Level Five Hospital	Employed both qualitative and quantitative approaches	Control environment does not significantly affect collection of revenue at the Level five Nakuru hospital.	Focused on one component of internal control systems	Will focus on five components of internal control systems

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter discusses the approaches used in carrying out the study. The chapter consists of the following section; research design, study population and sample, data collection, diagnostic tests and data analysis.

3.2 Research Design

A descriptive research design was used by the researchers to describe the link between internal control systems and revenue collection. This design was considered suitable since it provided information that was sufficient to achieve the set objectives and purposes of the study qualitatively, quantitatively or both. The study also employed the descriptive research design of the case study approach. The design was preferred since it gave focused and valuable insights into phenomena that may otherwise be understood (Kothari, 2004).

3.3 Study Population and Sample

The population of the study is defined as the number of respondents that the researcher intends to focus on when collecting data for the study (Kothari, 2004). This study's population consisted of the senior managers of NTSA in each of the 18 stations. The researcher was targeting 3 managers leading to a total of 54 respondents. The respondents were selected using simple random sampling technique.

3.4 Data Collection

Primary data was used by this study. The researcher collected the data by means of questionnaires. The questionnaires which consisted of both close and open-ended questions and were administered to the study population by way of "drop and pick" later. The

respondents in this study was employees involved directly with revenue management at the NTSA.

The study data collection questionnaire was divided into four parts. Section A includes questions on the general information on the participants. Section B includes questions on the extent to which NTSA upholds and the efficiency of the internal control systems. Section C comprises questions the extent to which revenue collection parameters are achieved through adoption of internal control systems.

3.5 Diagnostic Tests

Stationarity diagnostic tests was conducted to establish the normality of the data collected. This entailed testing the statistical tools to be used by the research such as standard deviation, mean and variance. Normality test was done using Shapiro-Wilk and Kolmogorov-Smirnov tests to ascertain whether collected data is distributed normally around the mean. Other tests include; validity and reliability, autocorrelation, heteroscedasticity and multicollinearity test.

3.5.1 Test of Validity

Validity is the level of the accuracy of a concept's conclusion and the way it corresponds to the real world (Brains, Willnat, Manheim & Rich, 2011). Only reliable sources were considered for data collection to increase the validity of the study. A pre-test was also done on several potential respondents. The research instrument was piloted for clarification of grammar and wording of the instrument to avoid misinterpretation and research bias and to detect ambiguity in the questions to enhance the validity of the data used in this analysis.

3.5.2 Test of Reliability

Data reliability was also tested by means of Cronbach's Alpha. If a reliability co-efficient of $\alpha \geq 0.7$ is attained, it was viewed as sufficient in showing that the level of internal consistency for the Likert scale employed is high. This enabled the researcher to address any flaws in the questionnaire and the research technique and also edit both the content and the structure of the research tools to help reduce the errors.

3.5.3 Test of Significance

Statistical significance of the correlation between internal control systems and revenue collection was tested by use using p-value where the computations were done using a 95% confidence interval. The model's goodness-of-fit was tested using Analysis of Variance (ANOVA) with an F-statistic significance level of 5%.

3.6 Data Analysis

When data collection process is complete, the researchers inspected the questionnaires to certify that they are complete and then code them in readiness for entry. Then after coding, the questionnaire responses were entered into the SPSS software and then analysed. Descriptive statistics for instance standard deviations, frequency distributions and means were used to analyse data. The results were then presented using frequency tables. The study also employed multiple regression analysis to determine the association between internal control systems and revenue collection at the NTSA.

3.6.1 Regression Model

The researcher employed the multivariate regression model below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Y= Efficient Revenue Collection (Dependent Variable)

X₁= Control Environment

X₂= Risk Assessment

X₃=Control Activities

X₄= Information Communication

X₅= Monitoring

β₀ – The constant of the model

β₁ - β₅ are regression coefficients

ε = Stochastic error term estimate

3.6.2 Operationalisation of the Variables

The dependent variable in this study shall be revenue collection by NTSA. The independent variable was internal control systems. The variables in the analytical model shall be measured as described in table 3.1.

Table 3.1: Measurement of the Variables

No.	Variable	Source	Measurement
Y	Efficient Revenue Collection	Kloot (1999)	Measured as the natural logarithm of the average revenue collected by NTSA per month.
X ₁	Control Environment	Singleton (2006); Njiru and Sigilai (2016)	Measured as the extent to which NTSA has implemented various control environment variables using Likert responses.
X ₂	Risk Assessment	Singleton (2006); Yemer & Chekol (2017)	Measured as the extent to which NTSA has implemented various risk assessment variables.
X ₃	Control Activities	Singleton (2006); Ofori (2011); Ewa & Uduayang (2012)	Measured as the extent to which NTSA has implemented various control activities variables using Likert responses.
X ₄	Information Communication	Singleton (2006); Amaudo & Inanga (2009)	Measured as the extent to which NTSA has implemented various information communication variables using Likert responses.
X ₅	Monitoring	Singleton (2006); Doyle and McVay (2005)	Measured as the extent to which NTSA has implemented various monitoring variables using Likert responses.

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the study findings. The researcher tested the questionnaires for consistency before being coding and keying the data into the SPSS. General information was analysed using percentages and frequency distributions. Internal control systems were analysed using means and standard deviations. The inferential statistics were used to check the correlation between efficient revenue collection and internal control.

4.2 Response Rate

The researcher administered 54 questionnaires to senior managers of NTSA in each of the 18 stations. A total of 51 questionnaires representing 94.4% were properly filled. Only 3 questionnaires (5.6%) were not filled. This research met the minimum response rate of 80% proposed by Edwards, Clarke and Kwan (2002).

Table 4.1: Response Rate

Response Rate	Frequency	Percentage
Response	51	94.4
Non-response	3	5.6
Total	54	100

Source: Research Findings (2020)

4.3 Data Presentation

4.3.1 Data Validity

The researcher pre-tested 6 questionnaires to ensure that the questions are interpreted the same way. Pre-testing was used to correct grammar, remove ambiguities and misinterpretations hence giving the data collected validity.

4.3.2 Data Reliability

The researcher tested the internal consistency of the questionnaires by conducting reliability tests using a Cronbach's Alpha of 0.7 as the threshold. The reliability results are tabulated in 4.2.

Table 4.2: Reliability Analysis

	Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
Control Environment	.903	.909	7
Risk Assessment	.895	.894	5
Control Activities	.858	.859	5
Information Communication	.937	.938	5
Monitoring	.895	.895	5
Revenue Collection	.739	.740	3
Overall	.861	.860	6

Source: Research Findings (2020)

The researcher established that the questionnaire was highly consistent internally. Overall, the questionnaire recorded a Cronbach's Alpha of 0.861. Control environment (0.903), risk assessment (0.895), control activities (0.858), information communication (0.937), monitoring (0.895) and revenue collection (0.739) also recorded Cronbach's Alphas higher 0.7 implying the Likert scale reliable and that the questionnaire measure what it intended to measure.

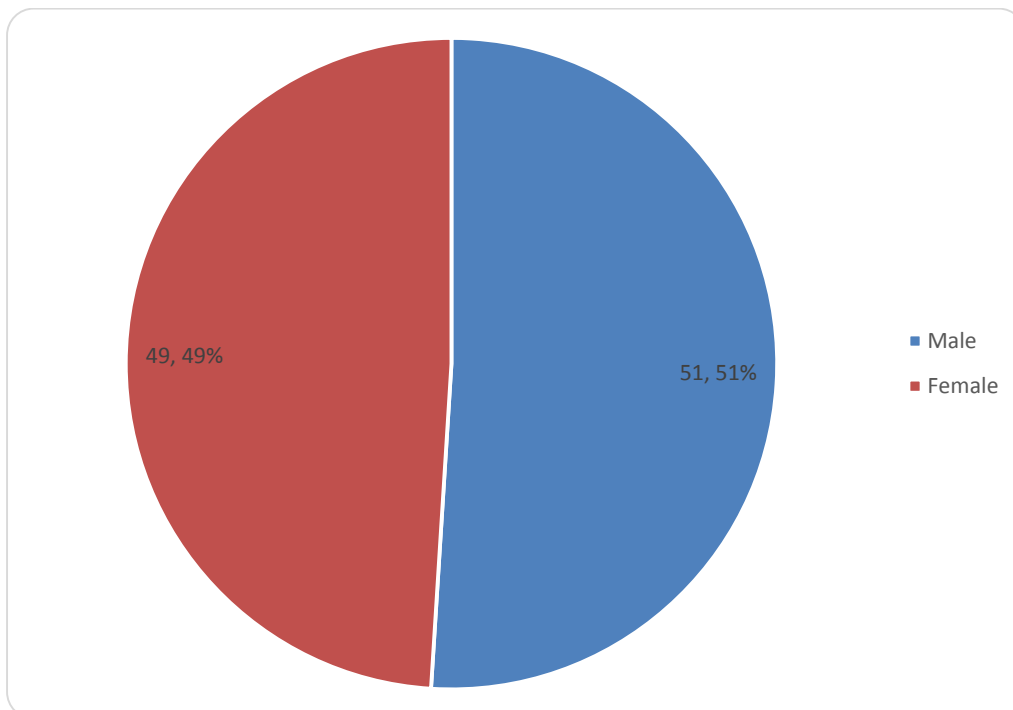
4.4 General Information

The researcher sought general information on the gender, education level, age and the working experience of the respondents.

4.4.1 Gender of Respondents

The researcher requested the respondents to provide their gender details. Their responses were analysed and the findings are as shown in Figure 4.1.

Figure 4.1: Gender of Respondents



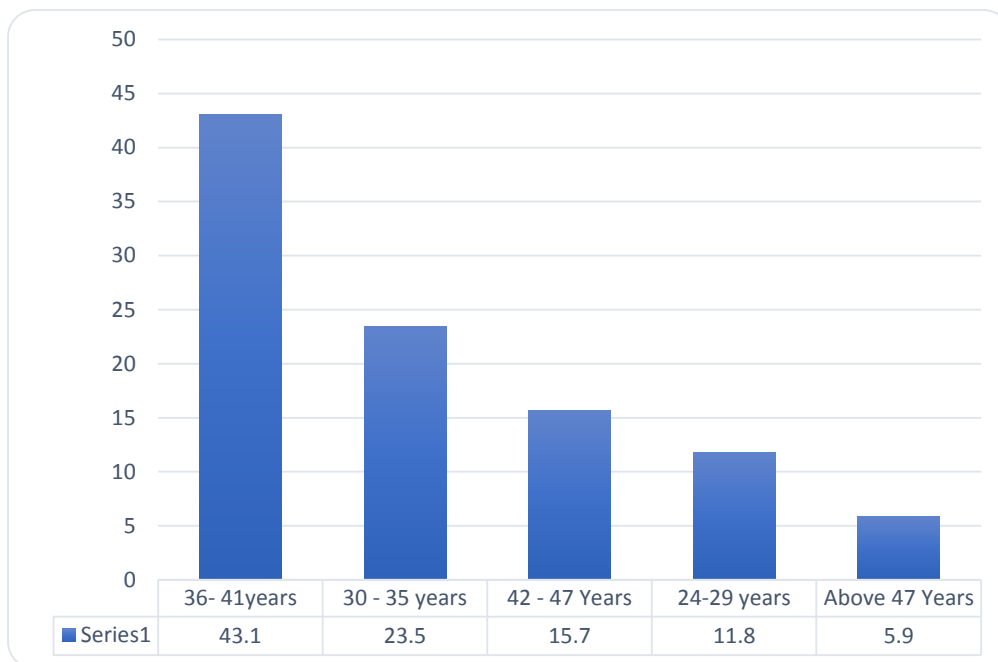
Source: Research Findings (2020)

The study established that majority (51%) of the participants were of male gender while 49% were of female gender. This indicates that gender balance was achieved in this study during the administration of the research instrument.

4.4.2 Respondents Age

The respondents were requested to indicate the age brackets they fitted into. Their responses were obtained and analysed as tabulated in 4.2.

Figure 4.2: Respondents Age



Source: Research Findings (2020)

The study found out that most (43.1%) of the participants were 36-41 years old while 23.5% were 30-35 years old. Those in the age bracket of 42-47 years accounted for 15.7%. Only 5.9% were aged 5.9.

4.4.3 Respondents Education Level

On the academic qualification of participants from NTSA, the responses obtained were analysed as tabulated in 4.3.

Table 4.3: Highest Level of Education

Level	Frequency	Percent
Degree	34	66.7
Masters	17	33.3
Total	51	100.0

Source: Research Findings (2020)

The findings indicated that a majority (66.7%) of the respondents had attained a bachelor’s degree. Those with a master’s degree represented 33.3% of the respondents. The respondents therefore had adequate education to comprehend the questionnaires and answer appropriately.

4.4.4 Duration of Service

The participants were also requested to provide information about the duration they had been at the NTSA. Table 4.4 shows the findings.

Table 4.4: Duration of Service

Experience	Frequency	Percent
5-10 years	31	60.8
Below 5 years	20	39.2
Total	51	100.0

Source: Research Findings (2020)

Majority (60.8%) of the respondents had been serving at NTSA for 5-10 years. Those who had been working at NTSA represented 39.2% of the respondents. This indicates that the respondents had been working at NTSA long enough to understand how internal control systems influences revenue collection.

4.5 Internal Control Systems

The participants further rated the level to which NTSA has implemented internal control systems. The responses obtained were analysed using means and standard deviations. Interpretation was done as follows: Strongly Disagree (1.0 - 1.49); Disagree (1.5 - 2.49); Undecided (2.5 - 3.49); Agree (3.5 - 4.49) and Strongly Agree (4.5 - 5.0).

4.5.1 Control Environment

The extent to which NTSA has implemented control environment was rated. Table 4.5 shows the results.

Table 4.5: Control Environment

Parameters	Mean	Stdev
There are formalised policies and procedures for all primary operations of the agency	3.63	0.958
The agency has good Accounting and Financial Management System in place	3.61	0.961
Organisational structure put in place does adequately reflect chain of command	3.49	1.065
Delegation of roles and responsibilities followed up to ensure performance	3.45	1.154
The agency officers are trained on fraud and how to respond appropriately when control deficiencies are detected.	3.37	1.414
NTSA management is dedicated to the operations of the internal control systems	3.33	1.125
The agency gives feedback to its officers' in regard to the operations of the internal control systems	2.88	1.259
Aggregate Mean	3.39	1.134

Source: Research Findings (2020)

Control environment recorded an aggregate mean of (M= 3.39, SD= 1.134) indicating undecidedness among respondents. The respondents agreed that there are formalised policies and procedures for all primary operations of the agency (M= 3.63, SD= 0.958) and that NTSA has good Accounting and Financial Management System in place (M= 3.61, SD=

0.961). The least rated parameters of control environment were that the NTSA officers are trained on the fraud and how to respond appropriately when control deficiencies are detected; the NTSA management is dedicated to the operations of the internal control systems and gives feedback to its officers on the same. Njiru and Sigilai (2016) established that control environment influences the level of revenue collection at Nakuru Level five hospital positively.

4.5.2 Risk Assessment

The extent to which NTSA has implemented risk assessment was assessed. Table 4.7 displays the results.

Table 4.6: Risk Assessment

Parameters	Mean	Stdev
NTSA has defined clearly the organisation's objectives	3.86	0.849
Relevant risks that affect the achievement of the organisational goals are identified and analysed	3.45	0.923
NTSA management has appropriate mechanisms in place to mitigate critical risks	3.04	1.216
The organisation has procedures to analyse and distinguish the pertinent risks that may influence the organisation's capacity to accomplish its significant targets	3.02	1.140
The agency's staff are adequately involved in risks management process	2.73	1.328
Aggregate Mean	3.22	1.091

Source: Research Findings (2020)

Risk assessment recorded an aggregate mean of (M= 3.22, SD= 1.091) indicating respondents were undecided on the level of its implementation. The respondents agreed that the management of NTSA has defined clearly the organisation's objectives (M= 3.86, SD= 0.849). The least rated parameters were that the organisation has procedures to analyse and

distinguish the pertinent risks that may influence the organisation’s capacity to attain set targets and that the agency’s staff are adequately involved in risks management process. According to Attah-Botchwey (2018) and Yemer and Chekol (2017), revenue collection of organizations is positively and significantly influenced by risk assessment controls.

4.5.3 Control Activities

The extent to which NTSA has implemented control activities was evaluated. Table 4.7 indicates the findings.

Table 4.7: Control Activities

Parameters	Mean	Stdev
The management has put in place procedures, policies, and mechanisms that ensure the directives given are properly carried out	3.59	0.983
Proper and close supervision is done to mostly junior staff at the NTSA	3.39	1.185
Revenue collection reconciliations are done periodically	3.27	1.234
The guidelines, policies and procedures are properly documented to help understand how to execute control activities	2.94	1.240
The management uses incentives and rewards as well as threats and punishments	2.59	1.186
Aggregate Mean	3.16	1.166

Source: Research Findings (2020)

Control activities recorded an aggregate mean of (M= 3.16, SD= 1.166). This shows the respondents were undecided on how NTSA had implemented the control activities. Further, the respondents agreed that the management has put in place procedures, policies, and mechanisms that ensure the directives given are properly carried out (M= 3.59, SD= 0.983). The statement that the guidelines, policies and procedures are properly documented to help understand how to execute control activities and the management uses incentives and rewards as well as threats and punishments were the least rated. According to Ewa and Uduuayang (2012), performance is positive and significantly affected by control activities.

4.5.4 Information and Communication

The extent to which NTSA has implemented information and communication was evaluated.

Table 4.7 presents the outcome.

Table 4.8: Information and Communication

Parameters	Mean	Stdev
The reporting system on organisational structures clearly stipulates roles and responsibilities.	3.49	1.302
Annual revenue targets are reported effectively	3.47	1.155
Management ensures that reliable and relevant information is disseminated organisation-wise	3.14	1.132
The management ensures that all employees understand and are up to date on performance, development, risks and the function of managerial control	3.00	1.296
Communication aids in the evaluation of how policies and guidelines of NTSA are being execute.	3.00	1.327
Aggregate Mean	3.22	1.242

Source: Research Findings (2020)

Information and communication recorded an aggregate mean of (M= 3.22, SD= 1.242) indicating undecidedness. Under information and communication, the respondent agreed that the reporting system on organisational structures clearly stipulates roles and responsibilities (M= 3.49, SD= 1.302). The statements that the management ensures that all employees understand and are up to date on performance, development, risks and the function of managerial control and that communication aids in the evaluation of how policies and guidelines of NTSA are being executed were the least rated statements. Information communicated is useful if it is reliable and relevant, realistic and available in a timely (Amaudo & Inanga, 2009).

4.5.5 Monitoring

The extent to which NTSA has implemented monitoring was assessed. The results are as shown in Table 4.7.

Table 4.9: Monitoring

Parameters	Mean	Stdev
Periodic evaluations of the efficiency of internal control personnel in carrying out the duty's assigned.	3.55	0.879
Monitoring has helped assess if internal controls are adequately designed, appropriately executed and whether the entire process is successful	3.55	1.119
Opportunities for increasing revenue collection and associated risks were identified	3.29	0.923
Monitoring is done on a continuous basis	3.22	1.238
The targets set on revenue collection are always monitored to assess the effectiveness and the quality of the system	3.08	1.055
Aggregate Mean	3.34	1.043

Source: Research Findings (2020)

Monitoring recorded an aggregate mean of (M= 3.34, SD= 1.043) revealing that the respondents were undecided. The respondents agreed that periodic evaluations of the efficiency of internal control personnel in carrying out the duty's assigned (M= 3.55, SD= 0.879). The least rated statements were that opportunities for increasing revenue collection and associated risks were identified; monitoring is done on a continuous basis and that the targets set on revenue collection are always monitored to assess the effectiveness and the quality of the system. A review by Doyle and McVay (2005) found that monitoring enables tracking performance thus it is crucial in determining increased performance of every aspect of the organization.

4.6 Efficient Revenue Collection

NTSA's efficiency in revenue collection was also evaluated. The scores recorded were interpreted as follows: Strongly Disagree (1 - 1.49); Disagree (1.5 - 2.49); Undecided (2.5 - 3.49); Agree (3.5 - 4.49) and Strongly Agree (4.5 - 5.0). The results are as shown in Table 4.10.

Table 4.10: Revenue Collection

Parameters	Mean	Stdev
NTSA sets realistic and attainable collection targets	3.25	.977
NTSA carries out proper planning through budgeting to increase revenue collection efficiency	3.06	.834
NTSA meets the collection targets efficiently	2.92	1.181
Aggregate Mean	3.08	0.997

Source: Research Findings (2020)

The respondents were undecided on the efficiency of NTSA in revenue collection as evidenced by the aggregate mean of 3.08 (SD= 0.997). Specifically, the respondents were undecided on the statement that NTSA sets realistic and attainable collection targets (M= 3.25, SD= 0.977); that NTSA carries out proper planning through budgeting to increase revenue collection efficiency (M= 3.06, SD= 0.834) and that NTSA meets the collection targets efficiently (M= 2.92, SD= 1.181). The average amount of revenue collected by the NTSA between 2014 and 2019 are shown in Table 4.6.1.

Table 4.11: Revenue Collection (b)

Years	2014/2015.	2015/2016.	2016/2017.	2017/2018.	2018/2019.
Amount	Approximate ksh.1.5-1.8 b	Approximate ksh.1.6 billion	Approximate ksh.1.65 billion	Approximate ksh.1.7 billion	Approximate ksh.1.8 billion

Source: Research Findings (2020)

4.7 Pearson Correlation Analysis

The researcher used Pearson product-moment correlation analysis to test the strength of a linear association among the variables. Statistical significance of the correlation was evaluated using a p-value ≤ 0.05 . The results are tabulated in 4.8.

Table 4.12: Correlation Matrix

		Revenue Collection	Control Environment	Risk Assessment	Control Activities	Information Communication	Monitoring
Revenue Collection	Pearson Correlation Sig. (2- tailed)	1					
Control Environment	Pearson Correlation Sig. (2- tailed)	.421**	1				
Risk Assessment	Pearson Correlation Sig. (2- tailed)	.355*	.743**	1			
Control Activities	Pearson Correlation Sig. (2- tailed)	.555**	.690**	.400**	1		
Information Communication	Pearson Correlation Sig. (2- tailed)	.368**	.648**	.784**	.410**	1	
Monitoring	Pearson Correlation Sig. (2- tailed)	.122	.620**	.345*	.660**	.464**	1
		.395	.000	.013	.000	.001	

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source; Research Findings (2020).

Revenue collection was positively correlated to control environment ($r = .421$, $p = .002$), Risk Assessment ($r = .355$, $p = .011$), Control Activities ($r = .555$, $p = .000$), Information Communication ($r = .368$, $p = .008$) and Information Communication ($r = .122$, $p = .395$). Further, the results revealed that correlation among the independent variables ranged from moderate to strong linear relationship.

4.8 Regression Analysis

The relationship between efficient revenue collection and internal control systems was evaluated using inferential statistics. Since the variables were measured on a nominal scale, they were quantified into dummy variable by computing Z-scores.

4.8.1 Model Summary

The model summary presents findings on the nexus between efficient revenue collection and internal control systems.

Table 4.13: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694 ^a	.482	.424	.58251

a. Predictors: (Constant), Monitoring, Risk Assessment, Control Activities, Information Communication, Control Environment

Source: Research Findings (2020)

A strong relationship ($R= 0.646$) between internal control systems and efficient revenue collection. Internal control systems accounted for 42.4% of the total variance in NTSA's revenue collection as evidenced by the adjusted R-squared of 0.424.

4.8.2 Analysis of Variance

Regression model's goodness of fit was evaluated using ANOVA.

Table 4.14: Analysis of Variance (ANOVA) ^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.195	5	2.839	8.367	.000 ^b
	Residual	15.269	45	.339		
	Total	29.464	50			

a. Dependent Variable: Revenue Collection
b. Predictors: (Constant), Monitoring, Risk Assessment, Control Activities, Information Communication, Control Environment

Source: Research Findings (2020)

The model had a significance of 0.0% (which is less than 5%) and F-static of 8.387. This implied the model had goodness of fit hence ideal for determining how internal control systems influences NTSA’s revenue collection.

4.8.3 Regression Coefficients

At 95% confidence level, internal control systems have a combined positive effect on the level of revenue collection at NTSA. Positive effect was reported for all the internal control systems.

Table 4.15 Regression Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.950	.381		5.113	.000
Control Environment	.578	.185	.092	3.124	.003
Risk Assessment	.551	.177	.062	3.113	.003
Control Activities	.623	.135	.758	4.608	.000
Information Communication	.409	.127	.303	3.220	.002
Monitoring	.483	.137	.555	3.513	.001

a. Dependent Variable: Revenue Collection

Source: Research Findings (2020)

Control environment (t= 3.124, p= 0.003), risk assessment (t= 3.113, p= 0.003), control activities (t= 4.608, p= 0.000), information communication (t= 3.220, p= 0.002), and monitoring (t= 3.513, p= 0.001) produced statistically significant values.

The constant value (1.950) shows that in the absence of internal control systems at NTSA, revenue collection would just be 1.950 indicating inefficiency. Stochastic error term was assumed to be zero. The equation was expressed as:

$$Y = 1.950 + 0.578X_1 + 0.551X_2 + 0.623X_3 + 0.409X_4 + 0.483X_5$$

Where:

Y – Operational performance (Dependent variable)

X₁- X₅ – The independent variables

X₁- Control Environment

X₂- Risk Assessment

X₃- Control Activities

X₄- Information Communication

X₅- Monitoring

4.9 Interpretation and Discussion of Findings

The findings of the study revealed that a strong correlation exists between internal control systems and revenue collection. Further, it was established that internal control systems have a combined positive effect on the level of revenue collection at NTSA they account for 42.4% of the total variance in NTSA's revenue collection.

These results corroborate findings of previous research findings. For instance, a review by Kumuthinidevi (2016) on private banks in Sri Lanka found that the effectiveness of internal control mechanisms such as control activities, control environment, communication, risk assessment and accounting enhanced revenue collections. Simangunsong (2014) evaluated how the performance of local government in Indonesia is affected by internal control and internal audit and found that they have improved the performance of local governments.

Njagi and Mwangi (2020) assessed the effect that internal controls on collection of revenue among level five hospitals in Kiambu County and found that internal control mechanisms are positively and strongly correlated to revenue collection. Sigilai (2016) evaluated the effect that internal control systems have on the Nakuru Level Five Hospitals level of revenue collection and found that lack of internal controls contributes to loss of revenue, embezzlement of collected revenue and collusion to commit fraud.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarises the findings of the study, the conclusions drawn thereof, recommendations for change in policy and suggestions for future research and the limitations faced during the study.

5.2 Summary of Findings

This study focussed on the nexus between efficient revenue collection and internal control systems at NTSA. Specifically, the study looked at control environment, risk assessment, control activities, information communication and monitoring on the revenue collection at the National Transport and Safety Authority.

The study established that the respondents were undecided on the adequacy of implementation of internal control systems at NTSA. However, the respondents agreed that under control environment, NTSA has formal procedures and policies in place for all primary operations and that the agency has good accounting and financial management system in place. On risk assessment NTSA has defined appropriate objectives for the organisation. Under control activities, the respondents agreed that the management has put in place policies, procedures and mechanisms that ensure the directives given are properly carried out. Under information and communication, the respondent agreed that the reporting system on organisational structures spells out all the responsibilities of each section/unit in the organisation. Under monitoring, the respondents agreed that periodic evaluations of the efficiency of internal control personnel in carrying out the duty's assigned.

The study established that there was a strong relationship ($R= 0.646$) between internal control systems and revenue collection. The study also established that internal control systems accounts for 42.4% of the total variance in NTSA's revenue collection. Further, it was established that internal control systems have a combined positive effect on the level of revenue collection at NTSA.

5.3 Conclusions

On the effect of control environment on revenue collection at the NTSA, the study concludes that control environment influences efficient revenue collection at the NTSA positively and significantly. On the effect of risk assessment on revenue collection at the NTSA, the study concludes that control environment has a positive and significant effect on the revenue collection at the NTSA.

On the effect of control activities on revenue collection at the NTSA, the study concludes that control activities influence efficient revenue collection at the NTSA and significantly. This implies that improving control activities NTSA would lead to improved revenue collection.

On the effect of information communication on revenue collection at the NTSA, the study concludes that information communication has a positive and significant effect on the revenue collection at the NTSA.

On the effect of monitoring on revenue collection at the NTSA, the study concludes that monitoring has a positive and significant effect on the revenue collection at the NTSA. This implies that monitoring and evaluation of internal controls can help NTSA collect revenue in an efficient way.

5.4 Recommendations

The study wishes to recommend that NTSA should endeavour to implement internal control systems adequately. This recommendation is based on the fact that the respondents were undecided on whether there are adequacy internal control systems at NTSA. The recommendation is also based on the evidenced that risk assessment, control environment, control activities, information communication and monitoring have a has a positive and significant effect on the revenue collection at the NTSA.

In practice, the management of NTSA should put in place adequate policies, procedures, and mechanisms to ensure that directives of the are properly implemented. NTSA internal auditors should regularly audit the efficacy of internal control systems with which the various units perform their assigned functions. This will entrench the desired internal controls into the corporate culture of NTSA.

In regard to existing theory, the study recommends that more research continue to be done in order to understand in-depth the real nature of the relationship between revenue collection and internal control systems. This will enable future scholars to reliable understand how internal control systems influences revenue collection.

5.5 Limitations of the Study

Some of the participants showed reluctance when requested to fill-in the questionnaires for fear of being victimised based on the information they provide. The researcher made it clear to them that the research was just an academic exercise and assured them of utmost confidentiality in regard to the information provided.

Further, the respondents were senior managers at NTSA had had busy at their work stations which slowed the data collection process. To accelerate the process, the researcher explained to them that the exercise was being carried out on a tight academic deadline

Lastly, the researcher assumed the data provided by the participants was accurate. The researcher didn't have control over the accuracy. However, the researcher believed the data was a true representation of the reality at NTSA since it was provided by senior managers.

5.6 Areas for Further Research

The study's scope was narrowed to NTSA. A similar study should be carried out in other governmental institutions for adequate conclusions and more appropriate recommendations for policy. This would also help the researcher to affirm confidently the theoretical nexus between efficient revenue collection and internal control systems.

Further, it was established that internal control systems only accounts for 42.4% of the total variance in NTSA's revenue collection. The researcher recommends that a further research be carried out to identify the other factors that influence revenue collection of NTSA.

Further, a similar study should be carried out among private companies to understand how internal control systems influences firm performance. The findings would also be used for comparative analysis on how internal controls influence public vs private organizations.

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Appendices

Appendix I: Questionnaire

This questionnaire is developed to facilitate data collection of a management research paper on **Effect of Internal Control Systems on Revenue Collection at the NTSA** as a requirement for the award of the master of science in finance of University of Nairobi. You have therefore been selected to participate in this study due to the importance of your information to the study. The information you provide will only be used for the purpose of this study and was treated with utmost confidentiality.

Please feel free and answer all the questions truthfully.

PART A : - DEMOGRAPHIC INFORMATION

1. Gender

(a) Male (b) Female

2. Age bracket

18-23 years 24-29 years 30 - 35 years

36- 41years 42 - 47 Years Above 47 Years

3. The highest level of education attained

KCSE Certificate Diploma

Degree Masters PhD

4. Number of years worked at the NTSA?

Below 5 5-10

10 -15 15 and above

PART B – INTERNAL CONTROL SYSTEM MECHANISMS

5. To what extent do you consider the following statements? (Kindly, for each tick the relevant box). SA-Strongly Agree (5), A-Agree (4), U-Undecided (3), D-Disagree (2), SD-Strongly Disagree (1).

	INTERNAL CONTROL SYSTEM MECHANISMS	SA	A	U	D	SD
A	Control Environment					
1.	There are formalised policies and procedures for all major operations of the agency					
2.	The agency has good Accounting and Financial Management System in place					
3.	The agency officers are taught about the nature of fraud and the system for responding meaningfully when control deficiencies are pointed out					
4.	Organisational structure put in place does adequately reflect chain of command					
5.	The roles and responsibilities are delegated and follow up is done to get feedback on results of performance of all tasks delegated					
6.	Management is committed to the operation of the system					
7.	The agency provides feedback to its officers on the operation of the system					
B	Risk Assessment					
1.	The management has defined appropriate objectives for the organisation					
2.	Relevant risks that affect the achievement of the organisational goals are identified and analysed					
3.	The agency’s staff are adequately involved in risks management process					
4.	Management has put in place mechanisms for mitigation of critical risks that may result from fraud					
5.	The organisation has procedures to analyse and distinguish the pertinent risks that may influence the organisation’s capacity to accomplish its significant targets					
C	Control Activities					
1.	The management has put in place policies, procedures and mechanisms that ensure the directives given are properly carried out					
2.	The guidelines, policies and procedures are properly documented to help determine how the control activities are to be executed					
3.	The management uses incentives and rewards as well as threats and punishments					
4.	Proper and close supervision is done to mostly junior staff at the NTSA					
5.	Periodic independent reconciliations of revenue collection is done on a regular basis					

D Information and Communication						
1.	Management ensures that reliable and relevant information is communicated at all levels of the firm					
2.	The management ensures that all employees understand and are up to date on performance, development, risks and the function of managerial control					
3.	Communication helps to evaluate how well guidelines and policies of the organisation are working and being implemented.					
4.	The reporting system on organisational structures spells out all the responsibilities of each section/unit in the organisation.					
5.	There is effective reporting of revenue targets to be achieved in a particular year					
E Monitoring						
1.	The targets set on revenue collection are always monitored to assess the quality and the effectiveness of the system					
2.	Monitoring is done on a continuous basis					
3.	Key opportunities to increase revenue collection and the risks of revenue diversion are identified					
4.	Monitoring has helped assess if internal controls are adequately designed, appropriately executed and whether the entire process is successful					
5.	Periodic evaluations of the efficiency of internal control personnel in carrying out the duty's assigned.					

PART C- EFFICIENT REVENUE COLLECTION

6. To what extent do you consider the following statements? (Kindly, for each tick the relevant box). SA-Strongly Agree (5), A-Agree (4), U-Undecided (3), D-Disagree (2), SD-Strongly Disagree (1)

	SA	A	U	D	SD
NTSA sets realistic and attainable collection targets					
NTSA carries out proper planning through budgeting to increase revenue collection efficiency.					
NTSA meets the collection targets efficiently					

7. Please indicate the average amount of revenue collected by the NTSA in the last 5 years

- (a) 2014/2015.....
- (b) 2015/2016.....
- (c) 2016/2017.....
- (d) 2017/2018.....
- (e) 2018/2019.....

Thank you for your participation