

**EFFICIENCY AND EFFECTIVENESS OF RISK BASED INTERNAL AUDIT
ENGAGEMENT: A CASE OF DODOMA CITY COUNCIL**

JUSTA ALINDA JUSTICE

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF PROJECT
MANAGEMENT (MPM)**

**DEPARTMENT OF MARKETING, ENTREPRENEURSHIP AND
MANAGEMENT**

OF THE OPEN UNIVERSITY OF TANZANIA

2023

CERTIFICATION

The undersigned certifies that she has read and hereby recommends for acceptance by the Open University of Tanzania dissertation titled; **“Efficiency and Effectiveness of Risk based Internal Audit Engagement: A case of Dodoma City Council”** in partial fulfilment of the requirement for the degree of Master of Project Management (MPM).

.....

Dr. Janeth Isanzu

Supervisor

.....

Date

COPYRIGHT

No part of this dissertation may be reproduced, stored in any retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the author or The Open University of Tanzania in that behalf.

DECLARATION

I, **Justice, Justa Alinda** do hereby declare that, the work presented in this dissertation is original. It has never been presented to any other university or institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirement for the Degree of Masters of Project Management (MPM).



.....
Signature

03/11/2023

.....
Date

DEDICATION

I dedicate this work to my lovely family.

ACKNOWLEDGEMENTS

Above all, I thank the Almighty GOD for granting me good health through this study, the Lord has been generous thought the years, and I am grateful for the tender love and mercy.

My sincere gratitude goes to my supervisor Dr. Janeth Isanzu for her undoubted guidance and patience in seeing me through this study. For the immense assistance provided in terms of challenging me, guidance, suggestions and encouragements throughout the research process. Her contributions have been magnificent to the completion of this work and mentorship he has implanted will forever remain.

ABSTRACT

The need to manage risks has come to be recognized as an essential part of good corporate governance practice and engagement towards organizational performance globally. This study assessed the efficiency and effectiveness of risk based internal audit engagement with reference to Dodoma city council. Specifically, it examined the operational audit; assessed the performance audit and examined the information system audit efficiency and effectiveness at Dodoma city council. Cross-sectional design with mixed approach was employed. A sample of 70 respondents was selected and administered with questionnaires and in-depth interviews. Quantitative data was analysed descriptively and aided with regression analysis. Qualitative data was analysed through content analysis. The findings revealed that operational audit engagement improved the performance of Dodoma city council based on its processes and procedures. Further, performance auditing engagement resulted into analysing performance data, measures and self-assessment systems that identified right measures and enabled continuous improvements. Information system audit engagement was used as a specialised task performed by LGAs that utilize IT and systems, formalized and performed to enhance the determination of exposure and assessment of risks through enabling IT and segregation of duties among personnel. The study concludes that in-service training to LGAs personnel for the purpose of managing and controlling the information system audit engagement is vital. The study recommends the enhancement of value addition through carrying discussions and collaboration with personnel in order to aid in predicting and containing risks that are identified in the process.

Keywords: *Efficiency, Effectiveness, Risk based internal engagement, Risk.*

TABLE OF CONTENTS

CERTIFICATION	ii
COPYRIGHT	iii
DECLARATION.....	iv
DEDICATION.....	v
ACKNOWLEDGEMENTS	vi
ABSTRACT	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	xii
LIST OF FIGURE	xiii
LIST OF ABBREVIATIONS	xiv
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Chapter Overview	1
1.2 Background to the Problem	1
1.3 Statement of the Problem.....	3
1.4 Research Objectives.....	4
1.4.1 General Objective	4
1.4.2 Specific Objectives	5
1.5 Specific Questions	5
1.6 Significance of the Study	5
1.7 Organisation of the Study	6

CHAPTER TWO	7
LITERATURE REVIEW	7
2.1 Chapter Overview	7
2.2 Definition of Key Terms	7
2.3 Theoretical Literature Review	8
2.3.1 Agency Theory.....	8
2.3.2 Stakeholders' Theory	10
2.4 Empirical Literature Review	12
2.4.1 Worldwide Studies.....	12
2.4.2 African Studies.....	18
2.4.3 Tanzanian Studies	21
2.5 Research Gap	24
2.6 Conceptual Framework	25
CHAPTER THREE	27
RESEARCH METHODOLOGY	27
3.1 Chapter Overview	27
3.2 Research Philosophy	27
3.3 Research Design and Strategies	28
3.3.1 Research Design.....	28
3.3.2 Research Strategies	28
3.4 Survey Population.....	29
3.5 Area of Study	30
3.6 Sample Design and Procedures.....	30
3.6.1 Sample Design	30

3.6.2	Sampling Procedures	31
3.7	Methods of Data Collection	31
3.7.1	Primary Data	32
3.7.2	Secondary Data	32
3.8	Research Tools.....	32
3.8.1	Questionnaires.....	32
3.8.2	In-depth Interview.....	32
3.9	Reliability and Validity of Instruments.....	33
3.9.1	Reliability of Instruments	33
3.9.2	Validity	33
3.10	Data Processing and Analysis	34
3.10.1	Data Processing.....	34
3.10.2	Data Analysis	35
3.11	Ethical Considerations	35
	CHAPTER FOUR.....	36
	RESULTS AND DISCUSSION OF FINDINGS	36
4.1	Chapter Overview	36
4.2	Response Rate.....	36
4.3	Demographic Information.....	36
4.4	Operational Audit Efficiency and Effectiveness at Dodoma City Council.....	37
4.5	Performance Audit Efficiency and Effectiveness at Dodoma City Council	43

4.6	Information System Audit Efficiency and Effectiveness at Dodoma City Council	48
4.7	Regression Analysis	55
CHAPTER FIVE		57
SUMMARY, CONCLUSION AND RECOMMENDATIONS.....		57
5.1	Chapter Overview	57
5.2	Summary	57
5.3	Conclusion	58
5.4	Implications of the Findings	59
5.4.1	Theoretical Implications	59
5.4.2	Practical Implications.....	59
5.5	Recommendations.....	59
5.6	Recommendation for Further Studies	60
5.7	Limitations of the Study.....	60
REFERENCES.....		61
APPENDICES		66

LIST OF TABLES

Table 3.1: Sample Size	31
Table 3.2: Reliability Statistics	33
Table 4.1: Demographic Information.....	37
Table 4.2: Operational Audit Efficiency and Effectiveness	43
Table 4.3: Performance Audit Efficiency and Effectiveness	48
Table 4.4: Information System Audit Efficiency and Effectiveness	54
Table 4.5: Regression Model Summary.....	55
Table 4.6: Regressions Coefficients.....	56

LIST OF FIGURE

Figure 2.1: Conceptual Framework26

LIST OF ABBREVIATIONS

FGDs	Focus Group Discussions
LGAs	Local Government Authorities
RBA	Risk based audit
RBIA	Risk based internal audit
RMPs	Risk Management Practices
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Chapter Overview

This chapter presents the background of the study. It further presents the statement of the problem, research objectives and questions, significance, and finally organization of the study.

1.2 Background to the Problem

The role of internal auditing in assisting the mitigation of key risks threatening organisations has increased, not least, in ensuring that engagements are performed more effectively and efficiently (Lubbe and Coetzee, 2013; Bananuka et al., 2018). The financial crisis and decline of the world's financial markets core crisis resulted from the lack of an effective and efficient risk management strategy where internal control is one of the risk mitigating activities (a risk-driven approach) (Kim, 2019; Pazarskis et al., 2023). Risk based audit (RBA) is the methodology that provides assurance that risks are being managed to within the organization's risk appetite (Bananuka et al., 2018). It allows internal audit to provide assurance to the board (top management) that risk management processes are managing risks effectively, in relation to the risk appetite (Anugraheni et al., 2022).

Roussy and Brivot (2016) assert that risk based audit shifts the focus from inspecting the quality of the financial information that is recorded in the financial statements to building quality into the financial reporting process and adding value to the organisations' operations. Sheedy and Lubojanski (2018) study contended that a risk-based internal audit engagement consists of five steps, namely: setting the

objectives of the audit engagement based on the objectives of the activity under review.

Also, it identifies operational or strategic events within the scope of the audit engagement (including the risks threatening the achievement of the objectives) and performing a risk assessment. Yet, where the risks are measured in terms of the likelihood (the possibility that a given event will occur) and the impact (the result or effect of an event); the risk response (management developing a set of actions to align the risks with the organisation's risk appetite) that management has or must implement; and control activities which should form part of the risk response (Pazarskis, et al., 2023).

Bananuka, et al., (2018) reported that increased concerns regarding corporate accountability in various developed and developing nations have been associated with the need for appropriate risk based audit which involves risk management and internal control systems. Nuhu (2019) emphasized the importance of accountability in addressing public concerns and improving service delivery where in safeguarding assets, internal controls help prevent asset loss due to mistakes or fraud. Therefore, minimizing errors with internal controls ensure that financial information is carefully reviewed to reduce errors and improve efficiency in the long run.

Likangaga, et al., (2023) opined that corporate accountability required regular reporting, clear goals and proper use of funds as indicators of accountability that predict service delivery while learning from mistakes, treasury rules and regulations, promptness, misconduct and wrongdoing were not significant predictors of service

delivery. Therefore, emphasizing goal-setting and proper use of funds, involve all actors in setting goals and have more than one official to authorize payments while establishing committees responsible for monitoring local government authorities' activities along with implementing client service charters to ensure accountability in LGAs.

Despite the growing interest in internal audit engagements and the empirical investigation of all related aspects in Tanzanian context, there is still a lack of scholars' conclusive agreement on the matter regarding local government authorities (LGAs) efficiency and effectiveness on risk based internal audit (Kabuye et al. 2019). It is from this background that, this study assessed the effectiveness and effectiveness of risk based internal audit with reference to Dodoma city council.

1.3 Statement of the Problem

Performance audits, operational reviews and informational system audits engagements can improve the efficiency and effectiveness of operations by allowing the organisation to identify and seize opportunities for increasing customer quality, improve service and even increase positive cash flow (Bananuka et al., 2018). Performance audits typically test if the organisation makes good use of resources to effectively deliver its policy goals and achieve its intended impact through delivering new information, knowledge and value (Pazarskis et al., 2023).

Operational auditing plays an important role in today's business environment well beyond the realm of money, compliance and traditional internal controls, and into the realm of a trusted business partner influencing management's pursuit of

operational excellence (Sheedy and Lubojanski, 2018). Accounting Information System audit on the other hand provides a tool for finance department to enhance organizational effectiveness. Poor accounting information system audit jeopardizes administrative effectiveness, which makes managers malnourished administratively especially in local government authorities (Anugraheni, et al., 2022). The main reason for which accounting information system audit is generated is to facilitate decision making (Onaolapo and Odetayo, 2012).

Kabuye, et al., (2019) in their study found that LGAs in Tanzania face challenges in performing risk based internal auditing due to lack of expertise and quality information systems. They also found that operational, performance and information system audit efficiency and effectiveness are important in organisations' survival. Although organisations promote the performance of risk-based internal audit engagements based on the risk management process, there are still a few gaps that prevent the utilisation of the process to its fullest potential in LGAs in Tanzania, Dodoma in particular. Yet, there is a paucity of studies that focus on the efficiency and effectiveness of risk based internal audit in Dodoma city council something that necessitates a study to be done in order to rescue the situation that prevails. It is from this background that this study assessed the efficiency and effectiveness of risk based internal audit with reference to Dodoma city council.

1.4 Research Objectives

1.4.1 General Objective

To assess the efficiency and effectiveness of risk based internal audit engagement with reference to Dodoma city council.

1.4.2 Specific Objectives

- i) To examine the operational audit efficiency and effectiveness at Dodoma city council
- ii) To assess the performance audit efficiency and effectiveness at Dodoma city council
- iii) To examine the information system audit efficiency and effectiveness at Dodoma city council

1.5 Specific Questions

- i) Does the operational audit enable efficiency and effectiveness at Dodoma city council?
- ii) Does the performance audit enable efficiency and effectiveness at Dodoma city council?
- iii) Does the information system audit enable efficiency and effectiveness at Dodoma city council?

1.6 Significance of the Study

This study is important for knowledge provision from the fact that in order for organisations to achieve the efficiency and effectiveness, proper risk based assessment in auditing need to be performed. This study informs auditing practitioners on the role played by risk based auditing and the effects it presents to the organisation. Moreover, the study is a partial fulfillment for the award of master of Project Management of the Open University of Tanzania.

1.7 Organisation of the Study

This study is organized into five chapters. Chapter one presents the background information that focus on the background to the problem, statement of the problem, research objectives and questions as well as the significance of the study. Chapter two presents and reviews relevant works related to the study including the definitions of key concepts, theoretical and empirical reviews as well as the conceptual framework.

Chapter three presents the research methodology used in the study that focused on research philosophy, design and approaches, study area, population and sample size, sampling procedures and data collection tools, validity and reliability issues, data management and analysis as well as ethical considerations. Chapter four focuses on results and discussion of findings as per objectives. Chapter five highlights the conclusion and recommendations that arise from the study findings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Chapter Overview

This chapter discusses the definition of key concepts, theoretical and empirical review; and conceptual framework of the study.

2.2 Definition of Key Terms

2.2.1 Efficiency

Efficiency means making the best possible use of resources (Bananuka et al., 2018). As per Kabuye et al., (2019) in organisations, efficiency focuses on maximising outputs from given inputs and so minimising their costs. In this study, Kabuye et al (2019) definition fits the study from the reason that efficiency focuses on reducing costs on one hand and improving competitiveness for the betterment of the organisations while focusing on how well the resources are used in economic terms.

2.2.2 Effectiveness

This is the degree to which something is successful in producing a desired result or success. On the other hand, effectiveness is the capability of producing a desired result or the ability to produce desired output (Sheedy and Lubojanski, 2018). Moreover, Kim (2019) refers effectiveness as something deemed or intended or expected outcome that produces a deep, vivid impression. In this study, Kim's (2019) definition fits the study from the reason that when the intended outcome is attained, a reflection of the effectiveness becomes vivid towards the achievement of objectives.

2.2.3 Risk based Internal Audit Engagement

The Institute of Internal Auditors (2018) defined risk based internal audit as a methodology that links internal auditing to an organisation's overall risk management framework. The definition from the Institute of internal audit fits the study from the fact that, risk based internal audit (RBIA) allows internal audit to provide assurance to the board that risk management processes are managing risks effectively in relation to the risk appetite.

2.3 Theoretical Literature Review

This study was guided by agency theory and stakeholders' theory.

2.3.1 Agency Theory

Agency theory explains the contribution of the top management level on operational, performance and information system audit and internal audit quality on effective and efficiency of the organisation (Roussy and Brivot, 2016). According to agency theory, top managers (Agents) in the organization act on behalf of the shareholders (Principals) in dealing with other people and running the organization towards efficiency and effectiveness. Thus, top management has a duty to design, implement and maintain adequate and effective risk management practices (RMPs) in order to achieve the goals of the shareholders such as profit maximization, wealth maximization, business continuity, business expansion and growth.

Nevertheless, the conflict of interests between the top management and shareholders tend to derail the presupposed agency relationship which leads to agency conflicts/problems (Chambers and Odar, 2015). For example, top managers usually

earn most of their income from the company they work for. They are therefore interested in the stability of the company, because this will protect their job and their future income. This means that management might be risk averse, and reluctant to invest in higher-risk projects.

Contrarily, shareholders might want the organization to take bigger risks, if the expected returns are sufficiently high. Shareholders often invest in a portfolio of different companies; therefore, it matters less to them if an individual company takes risks. Since, top management is unwilling to take risks it may not implement and maintain effective RMPs which may lead to huge financial and non-financial losses due to the failure to manage risks by the top managers as the agents. In the context of this study, the appropriate attitudes at the top management level can help in reducing goal incongruence between top managers and the shareholders towards implementing effective RMPs.

Roussy and Brivot (2016) assert that internal auditors are employed to monitor the agents (the managers); however, quite often they do not achieve their objectives due to poor-quality audits. The poor-quality internal audits are mainly attributed to limited independence of the internal auditors, inadequate management support, staff expertise, scope of services, and ineffective communication. Hitherto researchers such as Chambers and Odar (2015) have advocated the extended role and quality of the internal auditors in order to help in ensuring effective RMPs. Thus, as per the agency theory, internal auditors are expected to remain alert and help in ensuring effective RMPs as a way of adding value to the entity in terms of operational, performance and information system audit towards efficiency and effectiveness at

Dodoma city council.

Strengths and Weaknesses of Agency Theory: It illustrates features of the social approach, since it shows how decisions that people think are personal to them are actually expressions of their social situation. It ties into key question in social psychology, since it helps explain prejudice and how to reduce it (Anugraheni et al., 2022). The greatest weaknesses of agency theory are related to the narrowness of its behavioural assumptions and of the focus of the theory. The fact that agency theory focuses only on self-interested and opportunistic human behaviour means that the theory ignores a wider range of human motives. Similarly, the agent, as a utility maximizer will not act at the best interest of principal. Therefore, agents may cheat if they are not monitored by principal and principal, on the other hand, must bear agency cost to avoid suffering loss (Pazarskis et al., 2023). These agency costs includes monitoring costs of agent, bonding costs whereby agent will try to show that they are not self-serving, and residual losses that are too costly to monitor.

2.3.2 Stakeholders' Theory

Stakeholders' theory is based on the assumption that values are necessarily and explicitly a part of doing business. The theory asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together so as to deliver on their purpose (Freeman et al., 2004). Risk based internal audit engagement are subject to stakeholders' scrutiny to ascertain their usefulness in line with the stakeholder's theory. Danescu and Rus (2013) argue that accounting information available should serve the users for their target purpose. The users of the accounting information in the public sector is necessary for measuring performance,

accountability by government organisations, efficiency, and effectiveness and decision making to support a proper function of democracy.

Government accounting needs a broader theory of government accountability, which can be derived from Herbert Simon's organization theory. When applied to the public sector, the essence of the theory is that a variety of stakeholders have a vested interest in a financially viable government. Their incentive to use a government's financial statement, a source of their collective knowledge of the government comes from their desire to know the amount, timing and degrees of uncertainty of the benefits they expect to receive from the government (Sunder, 1997). The general purpose of financial reporting reduces information asymmetry between the stakeholders and government officials in control of government financial accounting system. The social contract between the public office holders and the citizens confers legitimacy on the citizens in the stakeholders' basis. To this end, the citizen organises themselves into strata of the private entity and constitute stakeholders by contributing in the running of their affairs in anticipation of benefits.

The significance of stakeholder theory is that it recognizes that organizations are not controlled or affected purely by those that exercise ownership rights in the organization. As Freeman et al. (2004) argued that the notion that shareholders govern the corporation is largely a fiction; typically, executives have the greatest power. In this sense the conventional model of the corporation, in both legal and managerial forms, has failed to discipline self-serving managerial behaviour. The fundamental consequence of stakeholder theory for corporate governance is that it necessitates governance structures that promote alignment not just between agents

and principals, but between agents, principals and parties who have broader, but reasonable, interests in the organization. According to Smallman (2004) the main criticism of stakeholder theory is focusing on identifying the problem of who constitutes genuine stakeholders. Another argument is that meeting stakeholders' interests also leads to corruption, as it offers agents the opportunity to divert the wealth away from shareholders to others.

Strengths and Weaknesses of Stakeholder's Theory: Stakeholder's theory strength is that of maintaining higher productivity through employee satisfaction as improved retention/referrals from happy customers. Increased investment from happy financiers leads to improved talent acquisition from a positive image in the community. Furthermore, it promotes fairness for everyone involved in the company and gives directors an objective. They must work to benefit the stakeholders (Pazarskis, et al., 2023).

Some criticize stakeholder theory, claiming that the interests of the group are just too broad to realistically manage. You can't please everyone, as the saying goes, and the needs of some stakeholders will naturally place higher than the interests of others. Due to the pressures to meet performance expectations, managers are often tempted to take a short-term perspective of the organization. In other words, managers might focus on maximizing value in the short-term rather than in the long-term.

2.4 Empirical Literature Review

2.4.1 Worldwide Studies

A study conducted by Ta and Doan (2022) investigated four factors affecting

internal audit engagement effectiveness and efficiency in Vietnam, namely, independence of internal audit, the competence of internal auditors, management support for internal audit, and quality of internal audit work. Quantitative and qualitative evaluations included a logistics regression model and other analyses, using SPSS software. Through semi-structured in-depth interviews and an online survey, 144 responses were obtained from internal Vietnamese auditors of no financial companies listed on the Vietnamese stock market in 2021. The results indicated two factors (independence of internal auditor and management support for internal audit) with a positive influence on internal audit engagement effectiveness, whereas the competence of internal auditors and quality of internal audit work did not affect internal audit engagement effectiveness and efficiency.

Dyball and Seethamraju (2021) in their study stated that due to an ongoing emphasis on internal information systems, procedures, data collecting, and data capturing, the use of assurance practice as a tool for internal control instead of social accounting or auditing is growing. This is a direct result of the shift in focus from social accounting or auditing. It was found that although local and global authorities have taken initiatives to address the reporting and assurance of social and environmental sustainability, the practice of assurance has not yet developed into a tool for social responsibility. This is the case despite global authorities taking initiatives to address the reporting and assurance of social and environmental sustainability leading to risk based internal audit engagement.

Zieba, et al., (2022) explored the relationship between innovation and agility and the sustainability of organisations and the influence that knowledge audit risk based

management has on these aspects. Additionally, they looked at how these factors are affecting the knowledge risk based management. The results revealed that the degree to which a firm innovates may be favourably affected by its level of agility, and the amount of agility may also positively impact the degree to which a company is imaginative. Both of these factors had a favourable impact on how long the organisations are able to remain in business. It has also been shown those organisations' capacities for innovation and flexibility may be affected, although to a lesser amount, by the management of the knowledge hazards that they face. The research contributes to the expanding body of literature that emphasises the one-of-a-kind significance that knowledge plays in the upkeep and continuation of organisational advancement.

Coetzee and Lubbe (2020) carried a study regarding the role of internal auditing engagement in assisting the mitigation of key risks threatening organisations that has increased, not least, for example, in ensuring that engagements are performed more effectively and efficiently, and that all the key risks of organisations are addressed, but also to ensure that scarce internal audit resources are used optimally. This study described the development of a model that can be used by internal auditors to perform the tasks. The model was developed from a study of the academic literature, current business practice norms, and other documentation where-after it was tested in a practical scenario, and input from heads of internal audit departments in prominent South African organisations was obtained.

The findings of the study, inter alia, support the use of the model. However, a concern is that the risk management strategy currently implemented by organisations

is not mature enough for internal auditing to rely on the outcome of the risk management process, a prerequisite for the model to function optimally. A second concern is that internal auditing is reluctant to use a pure risk-based approach when performing audit engagements and still prefers to use a control-based approach in terms of performance audit with more emphasis placed on high risk areas.

Lenz, et al (2017) examined the relationship between Chief Audit Executives (CAEs) and Senior Management (SM) and its relationship with internal audit (IA) effectiveness. The study revealed differences between more and less effective IA functions and offers explanations by studying organizational, personal, and interpersonal factors within the German corporate governance context. The findings showed that the pattern of interaction between CAEs and SM is a key determinant of IA effectiveness. This study highlights the danger of viewing customer satisfaction as the key measure of IA effectiveness since in practice expectations can vary significantly and as sometimes very little may be demanded.

Moreover, CAEs typically adjust to expectations, upward and downward. CAEs can drive the agenda as well when it comes to personality factors; where finger-feeling and swimming in the organization characterize the successful internal auditor. IA designations for CAEs were not found to be of added value. At the organizational level, the findings show that companies that are considered as hidden champions demand and benefit from effective IA practices.

Bednarek (2017) sought to understand the factors that affect internal audit risk based engagement regarding the effectiveness and efficiency. Based on the survey from

342 organizations in Poland it was found that the internal audit effectiveness is affected by the characteristics of the internal audit, audit activity, and inter-organizational relationships. The effectiveness increases when the age of the internal audit grows, performing audit engagements is regularly monitored, the results of measuring the audit performance and self-assessment are employed for introducing changes, audit committee indicates significant risks and sets priorities for the annual and strategic audit plans, and commissioned audits do not exceed 20% of the work of the internal audit.

Cheese (2016) in his study argued that in order to manage and mitigate risk, organizations need to understand corporate cultures, operating models and organizational constructs, leadership and governance, as well as the more traditional talent management practices and processes focusing on internal audit risk based engagement. Similarly, Sheedy and Lubojanski (2018) report that appropriate risk management behaviour at the employee level includes compliance, speaking up, thoughtful engagement with and accountability for the risk management framework. Thus, older workers as well as those with greater seniority are more likely to report desirable risk management behaviour.

Yang (2016) in his study discussed the effect of big data on internal audit in Chinese universities and concluded that the activation of internal audit engagement functions might be affected by the extent to which they are based on the presence of extensive information. Therefore, the best and appropriate use of such data may enhance internal audit independence, contributing to improving the quality of auditing in institutions. It was further found that the internal audit engagements must

concentrate on the risks as soon as they arise and look behind the expected risks.

Baharud-din, et al., (2014) investigated the factors that contribute to the effectiveness of internal audit in the Malaysian public sector. It was to determine the auditors' perception toward the effectiveness of internal audit work, influenced by the quality of audit work in order to perform in an effective manner as control instrument in public financial management. It also aimed to determine the relationship between factors that contribute to the effectiveness of internal audit works in promoting better transparency and integrity of public management. The scope of this study covered the internal auditors that work in the ministries in Putrajaya.

This study employed a cross sectional survey to investigate the effectiveness of internal audit. Several statistical techniques such as the descriptive statistic, correlation and regression analysis were used to analyse the data from the survey. The result of the study showed that there were significant positive relationships among the factors analyzed in the study such as auditor competency, auditors' independence and objectivity and management support to the effectiveness of internal audit. Thus, the effectiveness of internal audit will depend strongly on the attributes of the factors analyzed in this study.

Zwaan, et al., (2011) in their study found that a high involvement in enterprise risk management impacts the perceptions of internal auditors' willingness to report a breakdown in risk procedures to the audit committee. It was found that internal audit should be alert to the whole process of implementation of the systems for managing

operational risks in entities. On the contrary, though internal auditors are believed to have a role to play but concerns are expressed about their expertise and independence which may limit the quality of their audits is discovering and reporting risks.

Cohen and Sayag (2010) using exploratory study was to build a conceptual understanding of the effectiveness of internal audit in organizations. They developed a scale to measure the effectiveness of internal audit and a model of its determinants. One hundred and eight Israeli organizations that employ internal audit participated in the study (a 37% response rate). Data on the effectiveness of internal audit were collected from the organizations' general managers and data on the determinants from their internal auditors. The findings revealed good psychometric properties for the scale developed in this study. The correlation and regression analyses showed support from top management to be the main determinant of internal audit effectiveness, with some effect also found for the organizational independence of internal audit. The effect of the predictors was consistent between the public and private sectors. The research model explained a large amount of variance of internal audit effectiveness.

2.4.2 African Studies

Bouthach and Taouab (2023) carried out a study to provide empirical evidence of the main factors influencing the effectiveness of internal audit (IA) in public administration in Morocco, namely independence, competence, management support and the use of the AI function as a career opportunity. Based on a quantitative study, the research was conducted through a questionnaire survey of a sample of auditors,

43 in number, from selected public administrations with the aim of examining their perceptions of the identified factors. The results of the study show that the independence of the IA, the strengthening of their skills and the support of senior management contribute to improving the effectiveness of the IA.

Musah, et al., (2018) examined factors that determine internal audit effectiveness among SOEs in Ghana. The study was conducted in response to various scandals among Ghanaian SOEs and the lack of empirical studies on determinants of internal audit effectiveness that can deal with these problems. The study specifically examined the respondent's perception about the impact of factors such as; competence of internal audit unit, size of internal audit unit, relation between internal and external auditors, management support for internal audit function, and independence of internal audit unit on internal audit effectiveness among SOEs in Ghana. They surveyed internal auditors, accountants and management of these sampled SOEs in Ghana. The results of the study showed that management support for internal audit function is the most significant determinants of internal audit effectiveness. The study also revealed that size of internal audit unit, competence of internal audit staff, independence of internal audit unit as well as good relationship between internal and external auditors were significant determinants of internal audit effectiveness.

Bananuka, et al., (2018) reported that, the board risk management committee oversees operational risk management systems, practices and procedures including risk identification, management, monitoring and control. The committee also monitors legal suits against the organization and their materiality and reports on risk

assessment levels. Subordinately, the operational risk committee of executive management is responsible for risk assessment, management and reporting matters arising from discussions of existing and potential operational risk within the various units across the entire organization. Thus, the combined role of the risk management committee and the operational risk committee is very substantial in the overall risk management.

Endaya and Hanefah (2016) investigated the direct relationship between internal auditors' characteristics and internal audit effectiveness, and the moderating effect of senior management support. Standard multiple regression and moderated multiple regression were applied, and the data were collected from 114 members of Libyan Association of Accountants and Auditors by using personally administered questionnaire. The findings revealed that internal auditors' characteristics have a significant impact on internal audit effectiveness and senior management support has a moderating effect. The findings would encourage Libyan organizations to concentrate on the issue of internal audit effectiveness, and will strengthen the capacity of internal auditing in public organizations.

Tackie, et al (2016) examined the determinants of internal audit effectiveness in decentralized local government administrative systems of Ghana. Ghana's local government system is structured into Metropolitan, Municipal, and District Assemblies (MMDAs). For the purpose of the study, the researchers focused on the Ashanti region of Ghana which has the highest number of MMDAs. The motivation for the study was derived from the increased interest in the internal audits of local government units. Using a descriptive survey, the data gathered, through the use of

questionnaire, revealed that majority of the internal audit staff of MMDAs in the Ashanti Region of Ghana possess the requisite professional proficiency.

Contrary to the perception that audit quality in the public sector is usually compromised, the study revealed that there exists high quality of audit work due to compliance with the international standards on auditing and local audit legislations. Professional proficiency, organizational independence, and career advancement were found to have statistically significant positive relationship with internal audit effectiveness, while top management support was found to have no effect on internal audit effectiveness.

Based upon a case study of a large public sector higher educational institution in Ethiopia, Mihret and Yismaw (2007) examined how internal audit quality, management support, organizational setting, auditee attributes, and the interplay among these factors, influence internal audit effectiveness. The findings of the study highlight that internal audit effectiveness is strongly influenced by internal audit quality and management support, whereas organizational setting and auditee attributes do not have a strong impact on audit effectiveness.

2.4.3 Tanzanian Studies

The study conducted by Manyama (2020) set to examine the effectiveness of internal audit function in local government authority, a case study of Arusha DC. The overall objective of the study was to evaluate the effectiveness of internal audit function in Arusha DC and factors related to internal audit effectiveness. The study was based on agency and institutional theories. These theories provided independent variables

including auditor integrity, interest separation, competency, independency and top management support. The descriptive design was adopted alongside qualitative and quantitative approach.

The population comprised of the employees working in Arusha DC. The sample size was 120 respondents, the unit of analysis being internal auditors, District planning officers, VEO, WEO and accountants, both primary and secondary data were used. This study observed that the internal audit function is not effective since top management, inadequate internal audit staff, and lack of training on part of the internal audit staff do not adequately support internal auditors. The study recommends the allocation of more resources to support recruitment of audit staff as well as support in periodic training.

Kabuye, et al., (2019) in the study defined performance auditing as a term used whenever there is a need to distinguish between financial auditing and auditing that goes beyond financial transactions. It was stated that performance audits expand into operations, management and administrative performance of an organization. They add value and insight, and provide information to improve performance, financial management, operational efficiency and cost reductions, as well as facilitate decision making and contribute to accountability.

In other words, performance auditing is a means of assisting management in improving its operations, not just identifying problems or weaknesses. For this type of audit to be effective, the auditor must be objective and not assess a one-size-fits-all approach when evaluating, for example, a new program or process against one

that has been in existence for a long time. Performance audits can help organizations and governments become more efficient, drive better performance and provide more value. Organizations who utilize a performance audit have a forward-looking approach to their operation.

Kim (2019) in his study found that individual factors (behavioural belief about risk management, social pressure and risk management knowledge) positively influence risk management intention; organizational factors (such as organizational risk management support) positively affect managers' risk management knowledge; and both individual and organizational factors are affected by organizational environment and/or risk management championship.

Christopher (2019) asserted that the risk based internal audit engagement functions in management and planning play a fundamental and important role in promoting and improving good governance. In conducting its audit engagements, the internal audit function will consider the risk of fraud, and ensure that the organization fraud risk management framework effectively covers risks related to the areas being audited or reviewed. Though risk management is primarily the responsibility of directors and senior managers; internal auditors also have a role in consulting and providing assurance on risk management.

Lotto (2014) carried out a study that assessed the impact of Information technology on internal auditing in Tanzanian organizations. The study was exploratory and descriptive in nature and it was restricted to the Dar es Salaam area, which is the commercial center of Tanzania. As such it represents IT growth of both government

and a business organizations in the country. Primary data was collected through questionnaires. The central finding in this research work reveal that the internal audit profession in Tanzania lags behind in effective use of IT to support their duties.

From the discussion of the findings it was clearly observed that several factors, which contributed to the hindrance of internal auditors' use of technology, are interwoven. As such, it was clear that the lack of top management support seemed to be a critical problem because it is from this factor that other factors were brought into existence. For instance, inadequate training programs, internal auditors' involvement in information systems development, and poor allocation of budget to the internal audit department were the result of lack of top management support.

2.5 Research Gap

The key empirical findings focus on public sector organisations regarding the internal audit attributes as measurement of internal audit efficiency and effectiveness with varying opinions. Specifically, Ta and Doan (2022) focused on factors affecting internal audit engagement in Vietnam; Dyball and Seethamraju (2021) opined on the internal audit information system while Coetzee and Lubbe (2020) focused on the role of internal auditing engagement in mitigating risks. In addition, Bouthach and Taouab (2023) focused on factors influencing the effectiveness of internal audit in public sector; Musah, et al., (2018) paved a way on the factors influencing internal audit risk based engagement effectiveness in Ghana while Bananuka, et al., (2018) showed how board risk management committee oversees the operational risk management system.

Similarly, Tackie, et al., (2016) examined the determinants of internal audit effectiveness in decentralized LGAs in Ghana; Manyama (2020) examined the effectiveness of internal audit function in LGAs in Tanzania focusing on Arusha district council; Christopher focused on risk based internal audit engagement function on various organisations while Lotto (2014) assessed the impact of information technology on internal auditing in Tanzanian organisations. Generally, a few studies concentrated in LGAs (Manyama, 2020; Tackie et al., 2016) while others concentrating on risk based internal audit functions and engagements in a general sense creating a gap in knowledge that the study aimed to fill.

2.6 Conceptual Framework

A conceptual framework is a tool used by a researcher to guide his/her inquiry (Kothari, 2019). It is a researcher's own position on the problem and gives direction to the study. It may be an adaptation of a model used in a previous study, with modifications to suit the inquiry. Figure 2.1 provides the conceptual framework that is defined by Creswell (2018) as an abstract idea or a theory used to develop new concepts or to reinterpret existing ones that build a relationship between the dependent and independent variables. In this study the independent variables include the operational audit, performance audit and information system audit while the dependent variable is the efficiency and effectiveness of risk based internal audit engagement.

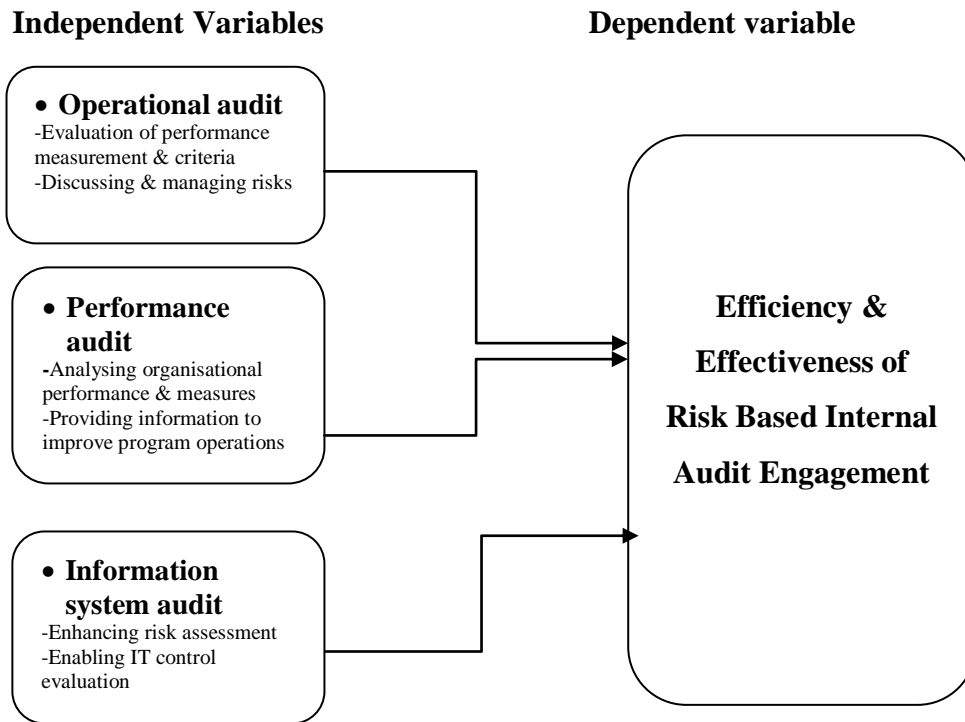


Figure 2.1: Conceptual Framework

Source: Researcher's modeling (2023).

In the above figure 2.1 the independent variables include the operational audit that focuses on evaluating performance measurement and criteria, doing value creation and making discussions focusing on controls and methods to manage risks. Moreover, performance audit analyses organisational performance and measurements through identifying the best practices to establish baselines towards providing information to improve operations. Moreover, the information system audit has the role of enhancing risk assessment, enabling IT controls evaluation and developing remediation strategies towards the attainment of efficiency and effectiveness of internal audit engagement. Yet, the dependent variable is the efficiency and effectiveness of risk based internal audit engagement that help in identifying cost savings and service provision through analysing gaps and how to contain them for broader attainment of service provision.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Chapter Overview

This chapter highlights the systematic approach through which this research was conducted. It consists of research philosophy, research design, study area, population and sample size, sampling procedures, types of data, data collection tools, reliability and validity, data management and analysis, expected results and ethical considerations.

3.2 Research Philosophy

Creswell (2018) defined a research philosophy as a belief on how data about a phenomenon should be gathered, analyzed and used. The four main research philosophies include the positivist research philosophy that asserts that the social world can be understood objectively as the scientist is an objective analyst where the researcher dissociated him/herself from personal values and works independently. The interpretivist research philosophy that states that based on the principles, it is not easy to understand the social world as the social world can be interpreted subjectively where the researcher performs a specific role in observing the social world (Saunders et al., 2017).

Further, the pragmatist research philosophy that deals with facts and claims that the choice of research philosophy is determined by the research problem. Thus, researchers choose freely and do not see the world as an absolute unity. Finally, the realistic research philosophy that is based on the principles of positivist and interpretivist research philosophies. It is based on assumptions that are necessary for

the perception of the subjective nature of the human (Greene, *et al.*, 2010). Therefore, in this study, a pragmatic philosophy was used as it focuses on multiple approaches such as quantitative and qualitative approaches.

3.3 Research Design and Strategies

3.3.1 Research Design

Kothari (2019) defines a research design as a conceptual structure within which the research is conducted. It constitutes the blueprint for the collection, measurement, and analysis of data. This study adopted a cross-sectional research design whereby questionnaire and in-depth interview were used to solicit information. Zheng (2015) asserts that cross-sectional research design is a research design in which the researcher investigates the state of affairs in a population at a certain point in time.

Cameron (2018) stated that cross-sectional design is especially useful in situations where contextual conditions of the event being studied are critical and where the researcher has no control over the events as they unfold. Therefore, given the interpretive position adopted in this research and the nature of the research questions, the cross-sectional design was considered the most appropriate design to employ because it provides a systematic way to collect data, analyze information and report the results, thus understanding a particular problem or situation in great depth (Anderson, 2017).

3.3.2 Research Strategies

The study applied a mixed method approach that utilizes both qualitative and quantitative approaches to obtain the required data. Qualitative approach aimed to

explore and to discover issues about the problem on hand, because very little was known about the problem (Creswell, 2018). Quantitative approach makes use of questionnaires, surveys and experiments to gather data that is revised and tabulated in numbers, which allows the data to be characterised by the use of statistical analysis (Freeman, 2017). Quantitative approach aimed at measuring variables on a sample of subjects and expressed the relationship between variables using effective statistics such as correlations, relative frequencies or differences between means. Its focus was to a large extent on the testing of theory (Creswell, 2018). Quantitative approach presents statistical results represented by numerical or statistical data (Lankshear, 2011).

Therefore, the use of mixed method approach enabled triangulation that focused on using two or more independent sources of data or data collection methods to corroborate research findings within a study. Similarly, the approach provided complementarity that focused on using two or more research strategies in order that different aspects of an investigation can be dovetailed (e.g. qualitative plus quantitative questionnaire to fill in gaps quantitative plus qualitative questionnaire for issues, interview for meaning) (Saunders et al., 2017). Finally, the approach helped in solving a puzzle through the use of an alternative data collection method when the initial method revealed unexplainable results or insufficient data (Creswell, 2018).

3.4 Survey Population

The study population involved staff and audit committee from the study area that sum up to 240. According to Cameron (2018), 10-30 % is a good representative of

the population which also helps in reducing sampling errors.

3.5 Area of Study

The study was conducted in Dodoma city council focusing on assessing the efficiency and effectiveness of risk based internal audit engagements. The reason for its choice is that, although organisations promote the performance of risk-based internal audit engagements based on the risk management process, there are still a few gaps that prevent the utilisation of the process to its fullest potential in local government authorities (LGAs) in Tanzania (Kabuye et al., 2019). This study assessed the effectiveness and effectiveness of risk based internal audit with reference to Dodoma city council.

3.6 Sample Design and Procedures

3.6.1 Sample Design

The sample size is an important feature of any empirical study in which the goal is to make inferences about the population from a sample (Lankshear, 2011). The Yamane (1967) formula was applied in determining the appropriate portion of respondents to represent the study population. Where n is the sample size, N is the total target population in this case the 240 population size obtained, and e is the error rate in this case 10%. The sample size for this study was calculated as shown below.

$$n = \frac{N}{1+N(e)^2}$$

N = the Total Population

e = the margin of error (10% has been used to obtain the best sample given the population size)

n = the sample size

$$n = \frac{240}{1+240(0.1)^2}$$

$n = 70.5$

Therefore, the sample size is **70** respondents.

Table 3.1: Sample Size

No	Category	Sample Size
1	Internal auditors	08
2	Heads of departments	18
3	Audit committee members other participants	44
TOTAL		70

Source: Research data, (2023).

3.6.2 Sampling Procedures

A purposive sampling procedure was used by the researcher to select individuals who have required information depending on the nature of the problem as advised by Freeman (2017). The purposive method was used focusing on people with good knowledge and understanding regarding the assessment of the efficiency and effectiveness of risk based internal audit in Dodoma city council.

3.7 Methods of Data Collection

Data are facts, figures and other materials that fall under past and present information that serve as bases for study and analysis (Saunders et al., 2017). To gather sufficient and convenient data, the researcher used both primary and secondary data. This study comprises of two types of data to be collected as hereunder.

3.7.1 Primary Data

Primary data were collected through questionnaire and in-depth interview among respondents.

3.7.2 Secondary Data

Secondary data were obtained from national board of accountants and auditors (NBAA) guideline and government unpublished and published reports.

3.8 Research Tools

The study used a well-designed questionnaire and in-depth interview as the main data collection tools.

3.8.1 Questionnaires

Questionnaires were developed and administered to various participants such as internal auditors and heads of department. Closed-ended questions were in the form of Likert type scale and respondents were asked to put a tick against the answer for their selection. Questionnaires are preferred because they are efficient, cheap and easy to be administered (Cameron, 2018).

3.8.2 In-depth Interview

Moreover, in-depth interview was used to audit committee members. The advantage of this method is that it enables the researcher to evaluate the entire situation over the study concerned and it is convenient as it gathers information from a number of people at minimum cost (Creswell, 2018).

3.9 Reliability and Validity of Instruments

3.9.1 Reliability of Instruments

Reliability refers to the consistency of a research study or measuring test or the repeatability of findings. As per Creswell (2018) if findings from the research are replicated consistently they are reliable. Mohajan (2017) defines reliability as the ability of the measurements or the degree to which instrument measures the same way each time it is used under the same condition with the same subjects.

To test the reliability, the researcher carried out a Cronbach's Alpha test on questionnaires that resulted into 0.8. According to Kothari (2019) a Cronbach's Alpha above 0.7 is preferable. Since the reliability of data goes with the accuracy or precision of a measuring instrument, in this research study, reliability was concerned with the questions' consistency of responses in repeated measurements as no adoption was done (Freeman, 2017).

Table 3.2: Reliability Statistics

Cronbach's Alpha	N of Items
.800	21

3.9.2 Validity

Validity is defined as the instrument's ability to measure exactly what concept it is supposed to measure (Creswell, 2018). To validate the data and instruments used in the research, the researcher asked the experts to recommend their representativeness and suitability. Besides, the researcher allowed suggestions to be done to the structure of the questions as argued by Cooper and Schindler (2008). In this study validity of data was ensured by choosing the sample from a true representative of the

population, preparing good research tools, having appropriate methods of data collection, pre-testing research instruments and proper recording of data (Mohajan, 2017).

3.10 Data Processing and Analysis

3.10.1 Data Processing

The data from the field were edited, coded and analyzed. The coded items were then analyzed with the aid of computer software for analyzing data (Cameron, 2018). Data coding, classification and editing were done to ensure data completeness, accuracy, clarity and meaning before interpreting them with the aids of statistical package for social sciences (SPSS) software version 20 along with multiple regression analysis. The following regression model was used

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where;

Y = efficiency and effectiveness of risk based internal audit engagement; X_1 = operational audit; X_2 = performance audit; X_3 = information system audit

β_0 = is the Y intercept which is a constant being a dependent variable value, while all other Independent variables remain 0.

β_1, β_2 & β_3 = these are regression coefficients/constants of independent variables of X_1, X_2 , and X_3 in relation to Y . While, e = the standard error term

Therefore,

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

3.10.2 Data Analysis

Quantitative data from the completed questionnaires were cleaned, coded and entered into the computer using the statistical packages for social sciences (SPSS) for analysis. The software packages enabled the researcher to analyze the data descriptively while presenting them in frequencies and percentages. Qualitative data from in-depth interviews were coded and analysed through content analysis where themes and emerging patterns were coded from the interview transcripts (Anderson, 2017). Content analysis involved transcribing all information from verbal discussions with informants followed by breaking the recorded information into meaningful smallest units of thematic information, subjects and tendencies and presented as a text (Saunders et al., 2017).

3.11 Ethical Considerations

Procedures were followed to conform to the ethical standards of research. The researcher sought for the permission from the relevant authorities before carrying out the research. All information obtained in this research were strictly used for academic purposes and respondents were assured of the confidentiality of information given (Cameron, 2018). Moreover, anonymity together with accessibility to research information was observed. Treatment was done according to the organizational protocol for the management of data collection.

CHAPTER FOUR

RESULTS AND DISCUSSION OF FINDINGS

4.1 Chapter Overview

This part offers the results and discussions from the findings on the assessment of efficiency and effectiveness of risk based internal audit engagement with reference to Dodoma city council. It starts with the response rate, demographic information and then the objectives.

4.2 Response Rate

Response rate included 26 questionnaires distributed to (internal audit staff and heads of department) respondents through a method of drop and pick. The questionnaires were all filled and collected with 100% response. More so, the members of audit committee (44) were served with interviews as scheduled.

4.3 Demographic Information

This included; gender, age, length in service and employment status. The results in Table 4.1 show that gender distribution was 60% and 40% for males and females respectively. Also, with regard to age distribution, those aged between 20 to 25 years were 8.6%, those between 26 to 30 years were 17.1%, those between 31 to 35 years were 37.1%, those between 36 to 40 years were 2.9% and those who were above 41 years were 34.3%. On the other hand, respondents had served Dodoma city council for different years as; those who worked for less than 3 years were 20%, those who worked for 3 to 6 years were 31.4% and those who worked more than 6 years were 48.6%. More so, respondents that worked as permanent staff were 54.3% while those who worked temporally were 45.7%. Those who worked as temporal workers

included audit committee members. The results are presented in Table 4.1.

Table 4.1: Demographic Information

Category	Frequency	Percentage %
Gender		
Male	42	60
Female	28	40
Age (in yrs)		
20-25	06	8.6
26-30	12	17.1
31-35	26	37.1
36-40	02	2.9
41 and above	24	34.3
Length in service (in yrs)		
Less than 3	14	20
3 to 6	22	31.4
Above 6	34	48.6
Employment status		
Permanent	38	54.3
Temporally	32	45.7

4.4 Operational Audit Efficiency and Effectiveness at Dodoma City Council

The first objective examined the operational audit efficiency and effectiveness at Dodoma city council. Questionnaires were administered to staff while interviews to the members of audit committee.

The results in Table 4.2 shows that 80% of respondents strongly agreed while 20% of respondents agreed that in order to enable efficiency and effectiveness of risk based internal audit engagement in Dodoma city council, assumptions associated with a risk-based approach are identified prior to performing operational auditing to determine which operations drive value creation. This implies that auditing goes beyond financial control focusing on strengthening the operations of the organisation through value creation for the day to day operations. This consideration help in identifying the points of non-conformity towards procedure implementation to aid the management take corrective actions. The statement above concurs with Zwaan, et al., (2011) who argued that operational audition with its assumptions allow

internal auditing engagement to provide guarantee to the top management that risk management processes would manage risks effectively in relation to the risk appetite.

One of the interviewees was of the following view;

Identification of assumptions to aid in determining value creation using risk-based approach in operational audit oftenly emphasizes the provision of advice to management in order to control the processes in organisations, heighten risk management and as organisation value. Such assumptions have been put forward in the study area in order to enable the facilitation of processes in such a way that efficiency and effectiveness have been attained, (Interviewee, M, 1).

Similarly, the results in Table 4.2 indicate that 90% of respondents strongly agreed while 10% of respondents agreed that in order to achieve efficiency and effectiveness at Dodoma city council, the usage of operations audit has enabled the facilitation of discussions regarding risk-based terminology to ensure a common understanding. With a common understanding, staffs have been able to understand what need to be done and come out with clear focus towards goals' attainment. This also, helped in reviewing strategies and processes towards providing advice to the management.

The above statement is in line with Bananuka, et al., (2018) who asserted that in order to have a good operational audit discussion on terminology o be used has been essential to many organisations something that becomes an avenue in providing advice on organisational processes, policies and other critical reviews toward ensuring organisational growth and expansion. Therefore, the need to audit the management on key risks within the organisation on each risk management process component is vital during discussion.

The following interviewee stated as follows;

Discussions on risk-based terminologies have been a norm towards achieving efficiency and effectiveness in organisations. Our organisation has occasionally adhered to it something that resulted into possible improvements towards achievements with keen interest in avoiding unnecessary mistakes. (Interviewee, M, 2).

On the other hand, the results in Table 4.2 indicate that 75% of respondents strongly agreed that to enable operational audit efficiency and effectiveness, operational audit helps in evaluating performance measurements criteria for operations objectives and risk management strategies. It was found that the common operational audit objectives included maintaining efficient, effective and management-directed operations. Moreover, the effectiveness of an operation in the study area explained how well a process meets its desired objectives.

In contrast, efficiency described how well an operation transforms inputs to outputs with minimal wastage. However, 25% of respondents disagreed that to some extent operational audit at Dodoma city council has not been practiced to evaluate the performance measurement criteria from the fact that its emphasis has been on financial statements. The statement above is in line with Kabuye et al (2019) who reported that most of LGAs in Tanzania put more emphasis on presenting financial statements rather than conducting operational audits that focus on internal controls and processes.

An interviewee was of the following view

Although carrying operational audit enables and organisation to go deeper than other audit types, Dodoma city council has been focusing on the financial statement provision to suit for CAG requirements. So, to conduct operations towards improving its effectiveness and efficiency focusing on all the internal controls and processes in various departments

has not been emphasized fully (Interviewee, M, 4).

Furthermore, the results in Table 4.2 show that 95% of respondents strongly agreed while 5% of respondents agreed that Dodoma city council used operational audits to predict risk events in relation to operations' objectives and goals yet, 5% of respondents were not sure on the matters. The above statement is in concurrent with Cheese (2016) who argued that in order to manage and mitigate risk, organizations need to understand corporate cultures, operating models and organizational constructs, leadership and governance, as well as the more traditional talent management practices and processes that suit on operational audits to enable the attainment of efficiency and effectiveness.

One of the interviewee was of the following concern.

In order to successfully accomplish the objectives of an operational audit requires a form of process improvement where purposeful steps and actions are completed to produce a desired result. Thus, identifying the processes to be reviewed has been vital (Interviewee, M, 3).

Additionally, the results in Table 4.2 show that 75% of respondents strongly agreed that operational audit practices at Dodoma city council has developed measures to assess the impact and likelihood of potential risk events where discovery of risks and issues that would not be known previously became vivid. Therefore, conducting operational auditing identified risks and provided methods of resolving them. Moreover, 25% of respondents disagreed that in the study area some measures were not properly assessed to test the likelihood of potential risks from the fact that some staffs were not capacitated with skills and abilities to perform operational audits as operational audit is reserved for a few highly qualified auditors.

The statement above is in agreement with Weber (2010) who reported that when an organisation possesses highly qualified personnel, they aid in identifying areas that may work efficiently and use them as examples to boost the teams' efficiency. Therefore, operational auditing utilized in the study area helped in establishing and gaining a fresh perspective in assessing the process that served as an objective evaluation means.

One interviewee was of the following view;

There has been a motivation to carry out operational audit in Dodoma city council something that developed objectives to be achieved. These objectives aimed at helping the council to perform better by making improvements to specific processes and procedures in the audit department. This has resulted into attaining efficiency and effectiveness while meeting its customers' expectations (Interviewee, M, 5)

Finally, the results in Table 4.2 show that 85% of respondents strongly agreed while 15% of respondents agreed that through operational auditing, Dodoma city council discovered and utilized operations that focused on controls and methods to manage risks towards realizing opportunities for improvements. Apart from the above attainment in performing a risk-based operational audit, the internal audit engagement process aided in affirming literatures that still refers to the control-driven process, even though it should be risk-driven based on the internal audit process generation as reflected in the literature sources and their respective dates.

This implies that operational audit resulted into outputs that ensured resource maximization through attaining minimum costs in its dealings. Although, such success enabled the attainment of efficiency and effectiveness at Dodoma city council; operational auditing went hand in hand with changes that required staff to

be trained in order to adjust them to the proposed changes towards conducting new and improved processes.

One of the interviewees stated as follows;

Operational audit brings monetary costs to the organisation as changes necessitate improving specific processes and procedures where the improvements cost the organisation, yet such improvements may put on hold the organisation when implementing necessary changes. Likewise, implementing solutions can result into taking time to complete the intended goals (Interviewee, M, 7).

Generally, the results show that operational audit is important as it improves the performance of an organisation based on its processes and procedures where the performance improvement majorly occurs in the effectiveness and efficiency of its operations and activities. It is from such backdrop that Dodoma city council put forward assumptions associated with risk-based approach to determine operations that drive value creation before performing operational audit. This has enabled discussions regarding risk-based terminology that ensured common understanding among personnel towards evaluating performance measurement criteria for operations objectives and risk management strategies.

More so, operational audit performed at Dodoma city council helped in predicting potential risks where measures to develop and assess the impact and likelihood of potential risks were identified. This resulted into discovering operations focusing on controls and methods to manage risks and realize opportunities to achieve the efficiency and effectiveness respectively. Therefore, operational audit had a value-adding element at Dodoma city council that enhanced the image of internal auditing processes. Also, the LGA that is risk-mature needs to have a comprehensive risk management strategy in place to facilitate both strategic and operational levels.

Table 4.2: Operational Audit Efficiency and Effectiveness

Statements	Strongly agree %	Agree %	Not sure %	Disagree %	Strongly disagree %
There is an identification of the assumptions associated with a risk-based approach to determine which operations drive value creation	80	20	0	0	0
Operational audit enables the discussion regarding risk-based terminology to ensure a common understanding	90	10	0	0	0
Operational audit evaluates the performance measurement criteria for operations objectives and risk management strategies	75	0	0	25	0
Operational audit predicts potential risk events in relation to operations objectives and goals	90	5	5	0	0
Operational audit develops measures to assess the impact and likelihood of potential risk events	75	0	0	25	0
Operational audit discovers operations focused controls and methods to manage risk and realize opportunities	85	15	0	0	0

4.5 Performance Audit Efficiency and Effectiveness at Dodoma city council

The second objective examined the performance audit efficiency and effectiveness at Dodoma city council. Questionnaires were administered to staff while interviews to the members of audit committee. The results in Table 4.3 show that 90% of respondents strongly agreed that using operational audit, Dodoma city council was able to analyse organisation's performance data, performance measures and self-assessment systems towards identifying right measures on continuous improvement, recommend on changes and elimination of unnecessary roles and functions. It was found that performance audit focused on three Es namely economy, efficiency and effectiveness.

One of the interviewee stated that;

Performance audit is the management audit for the organisation's programs and functions that identify whether auditing is carried out in an efficient and effective manner while the management practices promoting improvement by trying to find the reasons for any under-performance

(Interviewee, M, 6).

Moreover, 10% of respondents disagreed that although performance audit enabled Dodoma city council to analyse the organisation's performance data, measures and self-assessment systems towards right measures for continuous improvement; there have been weaknesses towards achieving efficiency and effectiveness. It was found that when tested regarding good use of resources to effectively deliver its policy goals and achieve the intended impact, the council could not perform to its maximum as performance attained has improved due to minor changes made to little operations. The statement above concurs with Bananuka et al., (2018) who reported that performance audits typically test if the organisation makes good use of resources to effectively deliver its policy goals and achieve its intended impact through delivering new information, knowledge and value. Therefore, performance auditing seeks to provide new information, analysis, insights and where appropriate, recommendations for improvement.

Nonetheless, the results in Table 4.3 show that 80% of respondents strongly agreed while 20% of respondents agreed that performance audit aided Dodoma city council to identify the best practices to establish baselines, defining best practices, improving opportunities and gaps that exist between current operations and practices. This implies that by enhancing performance auditing direct reporting engagement was enriched where the auditor was able to select the subject matter, criteria and evaluate the subject matter against the criteria, consider risk and materiality. Here the outcome of the measure was presented in the audit report findings, conclusions,

recommendations as an opinion when needed.

The above statement is in concurrence with the views by Kim (2019) who found that improving opportunities and minimizing gaps in operations are the results of individual factors (behavioural belief about risk management, social pressure and risk management knowledge) that positively influence risk management intention; and organizational factors (such as organizational risk management support) that positively affect managers' risk management knowledge; and both individual and organizational factors are affected by organizational environment and/or risk management championship.

Similarly, the results in Table 4.3 show that 85% of respondents strongly agreed that in Dodoma city council performance audit provided information to improve program operations and facilitated decision making among parties responsible to oversee or initiate corrective actions and improve operations while 15% of respondents were not sure on the matters. This implies that Dodoma city council was able to tune itself towards improving the operations from the information given towards making thorough informed decisions.

Therefore, such informed decisions enabled the council to utilize properly the inputs to their optimal use in terms of quality, quantity and turnaround time using fewer. The statement above concurs with Sheedy and Lubojanski (2018) who reported that informed decisions are the result of performance audit that enable the attainment of audit economy through minimising the cost of resources (inputs) with a focus of taking into account the appropriate quality of these resources.

One of the interviewees stated as follows;

When performance auditing is carried out, inputs are turned into outputs that impact on the organisation. So, Dodoma city council has succeeded through carrying such operations by assessing the effectiveness of the operations towards implementing its policies to achieve its goals. This has added value to citizens who are served by the city, (Interviewee, M, 7).

On the other hand, the results in Table 4.3 show that 90% of respondents strongly agreed that in Dodoma city council performance auditing acted as the aid towards identifying cost savings and services provision while 10% of respondents were not sure of what went on when performing performance auditing. Those who were unsure of operations could not distinguish between what was done versus the outcomes something that required a training to enable understanding of the issues. However, it was found that performance audit contributed to improving the services towards beneficiaries' recommendations for actions as it deemed to be. The statement above concurs with Weber (2010) who asserted that performance audit enabled entities to improve services and enable beneficiaries to have chances to recommend on the services rendered.

The interviewee stated as follows;

The usage of performance audit in Dodoma city council has enabled the council to evaluate its operations something that enabled those served to recommend positively on its services it renders. The services included those focusing on health, education and infrastructure development (Interviewee, M, 9).

Finally, the results in Table 4.3 show that 95% of respondents strongly agreed while 5% of respondents agreed that Dodoma city council utilize performance audit in analysing gaps that emanated from its programs or services something that facilitated the attainment of recommendations aiming at producing corrective measures to be

undertaken.

The interviewee stated as follows;

Performance audit carried out in Dodoma city council helped in identifying waste and inefficiency in delivering services something that reduced risks towards achieving policy goals on matters of social and economic concerns to its beneficiaries (Interviewee, M, 8)

The statement above concurs with Kabuye et al (2019) who argued that when organisations carry out performance auditing, they are able to manage opportunities that come by that lead to maximising return on investment for public service consumption.

Generally, carrying out performance auditing in Dodoma city council resulted into analysing performance data, measures and self-assessment systems that identified right measurer that enable continuous improvements. Yet, performance auditing helped in identifying the best practices to establish baselines, best practices and improving opportunities that bridged the gaps that may exist during operations and practices. More so, performance audit has provided information that enhanced program operations and facilitating decision making towards corrective actions and improving operations. Similarly, it identified cost savings and service provision through analysing gaps and how to contain them for broader efficiency and effectiveness.

Table 4.3: Performance Audit Efficiency and Effectiveness

Statement	Strongly agree %	Agree %	Not sure %	Disagree %	Strongly disagree %
Performance audit analyses the organization's performance data, performance measures and self-assessment systems to identify the right measures to guide continuous improvement towards recommendations to changes or elimination of unnecessary roles or functions	90	0	0	10	0
Performance audit identifies the best practices for establishing baselines, defining best practices and identifying improvement opportunities or competitive advances as well as the gaps that may exist between current operations and those practices	80	20	0	0	0
Performance audit provides information to improve program operations and facilitate decision making by parties with responsibility to oversee or initiate corrective action and improve operations	85	0	15	0	0
Performance audit identifies cost savings and services to be reduced or eliminated	90	0	10	0	0
Performance audit analysis gaps or overlaps in programs or services and recommendations for how to correct them	95	5	0	0	0

4.6 Information System Audit Efficiency and Effectiveness at Dodoma City Council

The third objective examined the information system audit efficiency and effectiveness at Dodoma city council. Questionnaires were administered to staff while interviews to the members of audit committee.

The results in Table 4.4 show that information audit at Dodoma city council contributed highly towards service provision where 80% of respondents strongly agreed that information audit enhanced the determination of exposure and assessment of risks by enabling IT usage and segregation of duties. This implies that as the data and information generated in organisations are endless and are processed within an organisation but incalculable; when poorly managed result into

ineffectiveness. The information system audit aids in assessing the risk as a key requirement of the planning phase of an audit where material misstatement resulting from error or fraud at the financial statement may be evaluated on the basis of relevancy towards attaining assertion levels which helps in designing further audit procedures for effective organisation performance.

The statement above is in line with Sheedy & Lubojanski (2018) who stated that poor accounting information system audit jeopardizes into administrative effectiveness making personnel malnourished administratively especially in local government authorities where the evaluated risks may not be assessed properly to enable the organisation attain its goals. However, 10% of respondents were not sure of the matter while 10% of the respondents disagreed that information audit did not enhance fully the determination of exposure and assessment of risks to enable IT usage and segregation of duties from the fact that there have been little usage of information systems towards service provision.

Thus, there is a need to effectively enhance the information system audit towards improving the performance of technology-enabled auditing for the effective management of organisational resources. In so doing, effective information system audit would set the mechanisms that involve structures, process and communication leading to efficiency and effectiveness of the LGAs such as Dodoma city council. The mechanisms may involve the formation of executive teams, committees and IT support services to assure clear strategic direction is established and technology-related issues are handled appropriately. It should be observed that a well-disseminated IT strategies and policies are designed to ensure employees'

behaviours are consistent with organisational objectives.

More so, the results in Table 4.4 show that 80% of respondents strongly agreed while 20% of respondents agreed that information system audit enabled IT control and evaluation. This implies that at Dodoma city council, IT control and evaluation helped in safeguarding assets and maintaining data integrity. The statement above is in line with Weber (2010) who reported that the process of collecting, evaluating and safeguarding assets and data remains on the need for the organisation to hand well information systems for efficient resources consumption.

In lieu of that, it is observed that the control issues may involve the generation of appropriate framework that determines the right decisions that are accompanied with accountability to stimulate anticipated behaviour in the use of information technology where the application of effective information system audit may stimulate and influence the staff in utilizing the technology and warrant compliance with the city's vision, norms and beliefs towards service provision. The key aims related to information system audit are reducing risk, sustaining goal achievement and monitoring of IT investment.

One of the interviewees was of the following view;

Information audit has helped the city to manage the number of resources invested, the profitability of the operations carried out and evaluating the effectiveness and efficiency of the operations towards service provision (Interviewee, M, 10).

Furthermore, the results in Table 4.4 show that 75% of respondents strongly agreed that information audit at Dodoma city council helped in evaluating the design and

operational effectiveness where by the quality of information given was enriched towards value addition to the services rendered. Moreover, 25% of respondents disagreed that the system could not do its highest role from the fact that a few of personnel could not have skills to manage and use the system fully. The statement above concurs with Roussy & Brivot (2016) who assert that risk based on information system audit shifts the focus from inspecting the quality of the financial information that is recorded in the financial statements to building quality into the financial reporting process and adding value to the organisations' operations.

In this regard, the information system audit may aid in enriching the management participation where well-disseminated IT strategies and policies may be well and clearly defined with performance indicators to be attained thereof. Furthermore, top management participation in evaluating the design and operations would enable decision making that emphasize on establishing committees to handle IT related issues towards ensuring that the designs and operations are in line with organisational goals while the key performance indicators related to IT significantly measure the effectiveness of the audit systems for the city council.

The interviewees were of the following view;

The utilization of information system audit in evaluating the design and operations has helped in achieving the desired performance in various organisations through improved and established effective IT governance mechanisms that guide auditors with appropriate IT strategy and policy to enable them with adequate IT support service. Besides, auditors may be effectively guided on how to manage IT related issues through the formation of IT committees that further support the senior management to make informed decisions. This has been anticipated to encourage a positive behaviour toward the use of technology during the audit task among the auditors (Interviewees, M 11 &16)

Finally, the results in Table 4.4 show that 90% of respondents strongly agreed while 10% of respondents agreed that information system audit at Dodoma city council developed remediation strategies. It was reported that remediation strategies included correcting or making right things from the previous ones. This implies the overarching plan developed to achieve the remediation objectives agreed at the outset through verifying and judging the information objectively although missing trained personnel would be a setback.

The statement above concurs with Kabuye, et al., (2019) who found that LGAs in Tanzania face challenges in performing information system auditing due to lack of expertise and quality information systems. In addition the findings are in line with Rose et al (2017) who opined that the auditor needs to incorporate state-of-art audit technology to enhance the audit process where the most recommended audit technology use is often promoted by professionals.

The standards include the Computer Assisted Audit Tools (CAATs) that are most widely used audit technology including; test data, parallel stimulation and integrated test facility assessing the internal logic of the financial application directly and to test a program is functioning as intended and correctly; the generalised audit software that is used to access client electronic files, extract related data, and conduct substantive tests to examine the details of transaction and balances, and perform analytical reviews to identify unusual transactions; and finally the system control audit review files (SCARF) that embed audit modules being installed into the system to evaluate flows of transaction and identify exceptional transactions.

One of the interviewees was of the following view;

The usage of information system audit may be aided by the type of system being assessed that is related to technology that supports the implementation of audit tasks in a digital environment focusing on the automation of individual job functions usually by a single user. Based on the literature reviews, technology/system/application effectiveness or success is evaluated based on the IS Success Model by DeLone and McLean. This is rarely used at Dodoma city council although its efficient use has been vital, (Interviewee, M, 17).

The statement above concurs with Gorla et al, (2010) who found that certified accountants in Hong Kong among were successful in using accounting information systems something that showed that information quality, system quality and service quality impacted their organisational performance. Further, it was indicated that a strong association exists regarding the system quality, information quality, service quality, perceived usefulness and user satisfaction on information system audit for a mandatory taxation information system use.

One of interviewees stated as follows;

Although the city council has been doing its level best to empower staff on the use of information systems, still some face challenges in utilizing the system due to little knowledge in usage. The major elements of information system audit include physical and environmental review, system administration review, application of software review, network security review, business continuity review and data integrity review that scrutinizes live data towards verifying controls and impact weaknesses. Moreover, there has been a challenge that involves finding and recording observations that are highly technical (Interviewee, M, 10)

Therefore, developing remediation strategies assist in risk mitigations and business value creation where, mechanisms may enhance the administration of IT-related activities by assuring technology usage is in line with objectives with outcomes being monitored effectively towards organisational performance. Also, the findings confirm that developing remediation strategies are important towards inducing

anticipated behaviour to staff in using the technology.

One of the interviewees was of the following view;

The management should provide adequate assistance through effective IT plans and providing adequate resources for the successful use of audit technology during the audit task. In addition, the use of technology should be supported by management and a clear IT strategy to achieve successful utilization of information system audit as information system audit aids internal control mechanisms through controlling the environment, control activities, risk assessment, monitoring of controls and information and communication. (Interviewee, M, 12).

Generally, the results show that information system audit is a specialized task performed by organisations that utilizes IT and systems. As it is needed to be formalized and performed with rigor; the results indicated that information system audit at Dodoma city council enhanced the determination of exposure and assessment of risks through enabling IT and segregation of duties among personnel; enabled IT control and evaluation, helped in evaluating designs and operational effectiveness and developed remediation strategies that resulted into enabling corrections where needed while focusing on making right things.

Table 4.4: Information System Audit Efficiency and Effectiveness

Statement	Strongly agree %	Agree %	Not sure %	Disagree %	Strongly disagree %
Information system audit enhances the determination of exposure and assessment of risks by enabling IT and segregation of duties	80	0	10	10	0
Information system audit enables internal IT control and evaluation	80	20	0	0	0
Information system audit evaluates the design and operational effectiveness	75	0	0	25	0
Information system audit develops remediation strategies	90	10	0	0	0

4.7 Regression Analysis

The regression analysis findings ought to indicate its R Square variable implying that, independent variables explain the percentage of the model variations. The results indicate that, the model was statistically significant at ($p < 0.05$). Table 4.5 shows the analysis.

Regression analysis indicates that the coefficient of correlation R is 0.802 an indication of positive relationship between variables. Coefficient of adjusted determination R^2 is 0.644 that changes to 64.4% an indication of changes of dependent variable that can be explained by operational audit, performance audit and information system audit. The residual of 35.6% can be explained by other variables beyond the scope of the current study. This is in concurrence with Davis et al (2016) who reported that changes in efficiency and effectiveness of risk based internal audit engagement is the outcome of operational, performance and information system audit.

Table 4.5: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig
1	.802 ^a	.644	.595	.622	.000

a. Predictors: (Constant), Information audit, Performance audit, Operational Audit

b. Dependent Variable: Efficiency and Effectiveness of Risk based Internal Audit Engagement

The results in Table 4.6 show the regression coefficients that suggests that, all variables were significant predictors ($p < 0.05$) of the model. This informs that one unit increase of operational audit explains **-0.010** decrease in efficiency and effectiveness of risk based internal audit engagement. An increase in one unit of performance audit suggests **0.574** unit decrease of efficiency and effectiveness of

risk based internal audit engagement. Also, one unit increase on information system audit explains **0.045** decrease in efficiency and effectiveness of risk based internal audit engagement.

The following regression model was used

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where;

Y = efficiency and effectiveness of risk based internal audit engagement; X_1 = operational audit; X_2 = performance audit; X_3 = information system audit

β_0 = is the Y intercept which is a constant being a dependent variable value, while all other Independent variables remain 0.

β_1, β_2 & β_3 = these are regression coefficients/constants of independent variables of X_1, X_2 , and X_3 in relation to Y . While, e = the standard error term

Therefore,

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

$$Y = 0.279 + (-0.010) \beta_1 + (0.574) \beta_2 + (0.045) \beta_3 + \varepsilon$$

Table 4.6: Regressions Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.279	.321		.871	.000
1 Operational audit	-.010	.164	-.014	4.119	.050
Performance audit	.574	.096	.823	5.949	.000
Information system audit	.045	.155	.067	3.120	.005

a. Predictors: (Constant), Information audit, Performance audit, Operational Audit

b. Dependent Variable: Efficiency and Effectiveness of Risk based Internal Audit Engagement

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Chapter Overview

This chapter presents the summary, conclusion and recommendations arising from the study findings. It commences with the summary, conclusion; recommendations and finally the further studies follow.

5.2 Summary

This study assessed the efficiency and effectiveness of risk based internal audit engagement with reference to Dodoma city council. Specifically, the study examined the operational audit efficiency and effectiveness; assessed the performance audit efficiency and effectiveness; and examined the information system audit efficiency and effectiveness at Dodoma city council. Local Government Authorities (LGAs), as branches of the Central Government, play crucial roles in economic, political and social life. Moreover, LGAs consume a significant proportion of government revenues but with enhanced performance audits, operational reviews and informational system audits would improve the efficiency and effectiveness of operations by allowing the LGA to identify and seize opportunities for increasing customer quality, improve service and even increase positive cash flow. This study assessed the efficiency and effectiveness of risk based internal audit engagement with reference to Dodoma city council.

The findings reveal that operational audit is vital for the improvement of the performance of Dodoma city council where the performance improvement majorly occurred in the effectiveness and efficiency of its operations and activities. More so,

operational audit performed at Dodoma city council helped in predicting potential risks where measures to develop and assess the impact and likelihood of potential risks were identified. On the other hand, carrying out performance auditing in Dodoma city council resulted into analysing performance data, measures and self-assessment systems that identified right measures to enable continuous improvements for service provision through analysing gaps and how to contain them for broader efficiency and effectiveness. Similarly, information system audit was used as a specialised task performed by organisations that utilizes IT and systems that was formalized and performed with rigor indicating that at Dodoma city council information system audit enhanced the determination of exposure and assessment of risks through enabling IT and segregation of duties among personnel

5.3 Conclusion

Operational audit was important for improving the performance of Dodoma city council where its processes and procedures resulted into performance improvement of its operations and activities. This has enabled proper discussions on risk-based terminology that ensured common understanding among personnel while aiding in predicting potential risks and developing measures to assess the impact and likelihood of potential risks. Therefore, operational audit had a value-adding element at Dodoma city council that enhanced the image of internal auditing processes.

On the other hand, performance auditing in Dodoma city council resulted into analysing performance data, measures and self-assessment systems where identifying best practices resulted into establishing baselines, best practices and improving opportunities that bridged the gaps existing during operations and

practices. Similarly, information system audit was used as a specialised task performed by organisations that utilizes IT and systems indicating that at Dodoma city council information system audit enhanced the determination of exposure and assessment of risks through enabling IT and segregation of duties among personnel with IT control and evaluation enhancement. This helped in evaluating designs and operational effectiveness while developing remediation strategies that facilitated corrections where needed while focusing on making right things.

5.4 Implications of the Findings

5.4.1 Theoretical Implications

The results in this study present the efficiency and effectiveness of risk based audit engagements that help in predicting risks where measures to develop and assess the impact and likelihood of potential risks would be identified towards improving the opportunities that bridge the gaps in knowledge.

5.4.2 Practical Implications

Enhancing performance audits, operational reviews and informational system audit engagements would improve the efficiency and effectiveness of operations by allowing the LGAs to identify and seize opportunities for increasing customer quality, positive cash flow and improving service provision.

5.5 Recommendations

The subsequent recommendations are put forward based on conclusion as follows; Operational audit improved the performance at Dodoma city council. It is recommended that to enhance value addition through carrying discussions and

collaboration with personnel in order to aid in predicting and containing risks that are identified in the process. Performance audit at Dodoma city council resulted into analysing performance data, measures and self-assessment systems that identified right measures to enable continuous improvements. It is recommended to bridge the gap in operations for the purpose of providing efficient and effective service provision.

Information system audit became formalized and performed with rigor at Dodoma city council that enhanced the determination of exposure and assessment of risks with trained personnel. It is recommended that to enable thorough use of the system in-service training needs to be done for the purpose of managing and controlling the system.

5.6 Recommendation for Further Studies

This study assessed the efficiency and effectiveness of risk based internal audit engagement with reference to Dodoma city council. It is opined that further studies be done on the following issues. Examining the application of software and network security review systems in enhancing data control in LGAs in Tanzania

5.7 Limitations of the Study

This study was limited by staff and audit committee found in Dodoma city council. It also utilized a cross-sectional research design that aims at investigating a phenomenon at a point in time; thus being limited with time and cost considerations. Moreover, the findings cannot be generalized to other city councils rather than Dodoma city council.

REFERENCES

- Anderson, V. (2017). Criteria for evaluating qualitative research. *Human Resource Development Quarterly*, 28(2), 125–133.
- Anugraheni, E. P. Setiawati, E. & Trisnawati, R. (2022). Analysis of Risk-Based Internal Audit Planning Implementation and Its Impact on Audit Quality: Case Study at the Inspectorate of Surakarta, *Economics and Business Quarterly Reviews*, 5(3).
- Baharud-din, Z., Shokiyah, A. & Ibrahim, M. S. (2014). Factors That Contribute to the Effectiveness of Internal Audit in Public Sector. *International Proceedings of Economics Development and Research*, 70, 126-132.
- Bananuka, J., Tumwebaze, Z. & Orobia, L. A. (2018). The adoption of integrated reporting: A developing country perspective. *Journal of Financial Reporting and Accounting*, 17(1), 2-23.
- Bednarek, P. (2017). The Relationship between Organisational Attributes and Internal Audit Effectiveness. Research Papers of the Wroclaw University of Economics/Prace Naukowe Uniwersytetu Ekonomicznego we Wroclawiu, No. 474.
- Cameron, C. (2018). The evolution of a mixed methods study in work-integrated learning [special issue]. *International Journal of Work-Integrated Learning*, 19(3), 237-247
- Chambers, A. D. & Odar, M. (2015). A new vision for internal audit. *Managerial Auditing Journal*, 30(1), 34–55.
- Cohen, A. & Sayag, G. (2010). The Effectiveness of Internal Auditing: An Empirical Examination of Its Determinants in Israeli Organisations. *Australian*

Accounting Review, 20, 296-307.

Cooper, J. & Schindler, M. (2014). *Perfect Sample Size in Research*. New Jersey: Macmillan.

Creswell, J. W. (2018). *Research design: qualitative, quantitative and mixed methods approach*. Thousand Oaks, California: Sage Publications

Dyball, M. C. & Seethamraju, R. (2021). Client use of block chain technology: Exploring its (potential) impact on financial statement audits of Australian accounting firms. *Accounting, Auditing & Accountability Journal*, 35(7), 1656–1684.

Endaya, K. A., & Hanefah, M. M. (2016). Internal Auditor Characteristics, Internal Audit Effectiveness, and Moderating Effect of Senior Management. *Journal of Economic and Administrative Sciences*, 32, 160-176.

Fraser, I. & Henry, W. (2007). Embedding risk management: Structures and approaches. *Managerial Auditing Journal*, 22(4), 392–409.

Kabuye, F., Kato, J., Akugizibwe, I., & Bugambiro, N. (2019). Internal control systems, working capital management and financial performance of supermarkets. *Cogent Business & Management*, 6(1), 1573524.

Kim, S. S. (2019). The role of knowledge and organizational support in explaining managers' active risk management behavior. *Journal of Enterprise Information Management*, 32(2), 345–363.

Kothari, C. R. (2019). *Research Methodology*, 5th edition, New Delhi: New International (P) Limited.

Lam, J. (2009). Key requirements for enterprise-wide risk management: lessons learned from the global financial crisis, *RMA Journal*, 91(8), 22–27.

- Lankshear, C. (2011). Some Notes on the Nature and Importance of Research Design within Educational Research. Unpublished master dissertation, Monash University, Clayton, Australia.
- Lenz, R., Sarens, G., & Hoos, F. (2017). Internal Audit Effectiveness: Multiple Case Study Research Involving Chief Audit Executives and Senior Management. *EDPACS*, 55, 1-17.
- Likangaga, R., Kumburu, N. & Panga, F. (2023). Influence of Accountability Indicators on Service Delivery among Local Government Authorities in Dodoma, Tanzania. *East African Journal of Education and Social Sciences*, 4(3)96-108.
- Lotto, J. (2014). Examining the Impact of Information Technology on Internal Auditing effectiveness in Tanzania Organisations. *Time Journal of Social Sciences*, 2 (3), 13-23.
- Manyama, M (2020). Effectiveness of Internal Audit functions in Tanzania: A case of Arusha district council. Unpublished Master Dissertation, The Open University of Tanzania, Dar es Salaam, Tanzania.
- Mihret, D. G. & Yismaw, A. W. (2007). Internal Audit Effectiveness: An Ethiopian Public Sector Case Study. *Managerial Auditing Journal*, 22, 470-484.
- Mohammed, M. A. A., Kareem, M. A. & Mohameed, A. S. (2022). The impact of the operational audit on enhancing the efficiency of the financial and non-financial performance of Iraqi government banks. *Journal of Management Information and Decision Sciences*, 25(S4), 1-11.
- Musah, A., Gapketor, E. D. & Anokye, F. K. (2018). Determinants of Internal Audit Effectiveness in State-Owned Enterprises (SOEs) in Ghana. *The Journal of*

Accounting and Management, 8, 52.

- Nuhu, S. (2019). Peri-urban land governance in developing countries: understanding the role, interaction and power relation among actors in Tanzania. *Urban Forum*, 30(1), 1–16.
- Onaolapo, K. & Odetayo, P. (2012). Effect of Accounting Information System on Organisational effectiveness: A case of selected Construction companies in Ibadan, Nigeria. *American Journal of Business Management*, 1, 4, 183-189.
- Pazarskis, M, Koutoupis, A, Kyriakou, M. & Galanis, S. (2023). A Risk-Based Internal Audit Methodology for Greek Local Government Organizations. *Journal of Operational Risk*, 18(1).
- Roussy, M., & Brivot, M. (2016). Internal audit quality: A polysemous notion? *Accounting, Auditing & Accountability Journal*, 29(5), 714–738.
- Saunders, M., Lewis, P. & Thornhill, A. (2017). *Research methods for business students, 5th ed.* (5 ed.). Harlow: Pearson Education.
- Sheedy, E. & Lubojanski, M. (2018). Risk management behaviour in banking. *Managerial Finance*, 44(7), 902–918.
- Ta, T. & Doan, T. N. (2022). Factors Affecting Internal Audit Effectiveness: Empirical Evidence from Vietnam. *International Journal of Financial Studies* 10(2), 37.
- Tackie, G., Marfo-Yiadom, E. & Achina, S. O. (2016). Determinants of Internal Audit Effectiveness in Decentralized Local Government Administrative Systems. *International Journal of Business and Management*, 11, 184-195.
- Yang, J. (2016). Research on application of big data technology in University internal auditing. 2nd *International Conference on Materials Engineering and*

Information Technology Applications (MEITA 2016), China, 432–435

Zieba, M., Durst, S. & Hinteregger, C. (2022). The impact of knowledge risk management on Sustainability. *Journal of Knowledge Management*, 26(11), 234–258.

APPENDICES

Appendix 1: Research Questionnaire for Internal Auditors and Heads of Department

Dear Prospective Respondent;

This questionnaire is designed to solicit information from you. The purpose of this research is for the academic award of a Master's degree in project management from the Open University of Tanzania. Kindly fill in the required information as per the researcher's requirement.

Gender: Male (), Female ()

Age: 20 to 25 (), 26 to 30 (), 31 to 35 (), 36 to 40 (), over 41 ()

Length of services with the organization (In years) -----,

Employment status: Permanent (), Temporally ()

For each of the following aspects shown below rate your level of agreement using the following Likert type scale provided:

Agreement: 1= strongly agree, 2= Agree, 3= Not sure, 4= Disagree, 5= strongly disagree

Na.	Operational Audit	Level of agreement
1.	There is an identification of the assumptions associated with a risk-based approach	1 2 3 4 5
2.	Operational audit enables the discussion regarding risk-based terminology to ensure a common understanding	1 2 3 4 5
3.	Operational audit evaluates the performance measurement criteria for operations objectives	1 2 3 4 5
4.	Operational audit determines which operations drive value creation	1 2 3 4 5
5.	Operational audit predicts potential risk events in relation to operations objectives and goals	1 2 3 4 5
6.	Operational audit develops measures to assess the impact and likelihood of potential risk events	1 2 3 4 5
7.	Operational audit discovers operations focused controls and methods to manage risk and realize opportunities	1 2 3 4 5
8.	Operational audit evaluates the operational performance of risk management strategies	1 2 3 4 5
	Performance Audit	Level of agreement

9	Performance audit analyses the organization's performance data, performance measures and self-assessment systems to identify the right measures to guide continuous improvement	1	2	3	4	5
10	Performance audit identifies the best practices for establishing baselines, defining best practices and identifying improvement opportunities or competitive advances as well as the gaps that may exist between current operations and those practices	1	2	3	4	5
11	Performance audit provides information to improve program operations and facilitate decision making by parties with responsibility to oversee or initiate corrective action and improve operations	1	2	3	4	5
12	Performance audit identifies cost savings and services to be reduced or eliminated	1	2	3	4	5
13	Performance audit analysis gaps or overlaps in programs or services and recommendations for how to correct them	1	2	3	4	5
14	Performance audit analysis of the roles and functions of the entity and recommendations to change or eliminate unnecessary roles or functions	1	2	3	4	5
	Information system audit	Level of agreement				
15	Information system audit enhances risk assessment	1	2	3	4	5
16	Information system audit enables IT segregation of duties	1	2	3	4	5
17	Information system audit enables IT control evaluation	1	2	3	4	5
18	Information system audit examines internal IT controls	1	2	3	4	5
19	Information system audit evaluates the design and operational effectiveness	1	2	3	4	5
20	Information system audit determines exposure into risks	1	2	3	4	5
21	Information system audit develops remediation strategies	1	2	3	4	5

Appendix 2: Interview guide for Audit Committee members

i) Does the operational audit enable efficiency and effectiveness at Dodoma city council? Yes () No ()

If Yes, Why?

If No, Why?

How and Why?

ii) Does the performance audit enable efficiency and effectiveness at Dodoma city council? Yes () No ()

If Yes, Why?

If No, Why?

How and Why?

iii) Does the information system audit enable efficiency and effectiveness at Dodoma city council? Yes () No ()

If Yes, Why?

If No, Why?

How and Why?

THANK YOU

Appendix 3: Research Budget

The following is the budget that will support the execution of the study. The whole budget will come from the researcher's pocket money.

Budget Items	Details	Cost (Tshs)
Research proposal preparation and submission	-Proposal preparations and stationeries	350,000/=
	-Tools preparation	150,000/=
Sub-Total		500,000/=
Pilot study	-Transport	80,000/=
	-Training 3 research assistants @ 20,000/= per diem per person for 2 days	120,000/=
Sub-Total		200,000/=
Primary Data collection	-Transport to and from study area 30 days	1,500,000/=
	-Subsistence allowance for principal research @ 25,000/= * 30 days	750,000/=
	-Subsistence allowance for research assistant @ 15,000/= * 30 days	1,800,000/=
Sub-Total		4,050,000/=
Data processing and report writing	-Data entry, cleaning and editing	140,000/=
	-Correction of dissertation	80,000/=
	-Printing and photocopy	70,000/=
	-Soft binding 4 copies @ 12,000/=	48,000/=
	-Hard binding 5 copies @ 50,000/=	250,000/=
Sub-Total		588,000/=
TOTAL		5,338,000/=

Appendix 4: Work Plan

The research took seven months from March 2023 to September 2023 as hereunder;

Year	March 2023 to September, 2023						
Activity / Month	Mar	April	May	Ju	Jul	Aug	Sep
Proposal writing & submission							
Data collection & documentation							
Data analysis and organization							
Thesis development and referencing							
Thesis printing, submission, and correction							
Thesis final report printing and submission							
Publication of research journal							

Appendix 5: Research Clearance Letter

THE OPEN UNIVERSITY OF TANZANIA

DIRECTORATE OF POSTGRADUATE STUDIES

P.O. Box 23409
Dar es Salaam, Tanzania
<http://www.out.ac.tz>



Tel: 255-22-2668992/2668445
ext.2101
Fax: 255-22-2668759
E-mail: dpgs@out.ac.tz

Our Ref: PG201900103

16th September 2022

City Director,
Dodoma City Council,
P.O. Box 1249,
DODOMA.

RE: RESEARCH CLEARANCE

The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1st January 2007. In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.

To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you **Ms. JUSTICE, Justa Alinda, Reg No: PG201900103** pursuing **Master of Project Management (MPM)**. We here by grant this clearance to conduct a research titled **"Assessing the Efficiency and Effectiveness of Risk based Internal Audit Engagement: A Case of Dodoma City Council"**. She will collect her data at your office from 20th September 2022 to 20th October 2022.

In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409, Dar es Salaam. Tel: 022-2-2668820. We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours,
THE OPEN UNIVERSITY OF TANZANIA


Prof. Magreth S. Bushesha
DIRECTOR OF POSTGRADUATE STUDIES.