SIGNIFICANCE OF MANAGERIAL MONITORING EFFICACY ON PRINCIPAL-AGENT MONITORING OUTCOMES IN TANZANIA DISTRICT COUNCILS

Victor Michael Bahati[2]

Abstract

The purpose of this study is to find out whether control and monitoring effectiveness in an entity has any significance on external audit reporting outcome. This study used 475 yearly observations from 95 district councils from 2011 to 2015. Data were analysed in a panel model that controls for time specific factors. This study found that when internal monitoring mechanisms are effective, they can predict the likelihood of an entity to receive a clean (qualified) audit opinion at 82 percent accuracy. Results further showed that effectiveness of control environment is very important if we take it alone or when it becomes effective in absence of an ineffective internal audit. However, there was no enough statistical significance on the direct effect of risk management or fraud prevention controls. Also, managers should plan and implement all controls to maximize possibility of getting a clean (unqualified) audit opinion in order to secure their positions. External auditors, on the other hand, should continue emphasizing on importance of internal monitoring and report any weakness if they find. They may encourage clients to at least strengthen control environment in case it happens that the internal audit is weak.

Key words: governance, agency theory, local government, Tanzania

Introduction

Governance is a key component of any entity (Boubacar, 2018) though in some instances, good governance was found to have no significant association with operational performance (Peris, Contani, Savoia, & Bergmann, 2017). Because of its importance, it exists in both simple and complex organizations. Differences in governance systems between any two organizations may be because of complexities between them due to their differences in nature or size. For instance, the kind of governance structure we can find in a street store jointly owned by two or three partners may be quite different from one in a publicly listed company owned by a thousand of shareholders. Besides, governance system is important, but it must be effective in order to be able to discharge its main responsibilities of leading an entity in different spheres (Usman, Zhang, Wang, Sun, & Makki, 2018). A weak governance system can become a cleft that can end up shaking an entity's performance and stability because such entity will be lacking proper controls and monitoring. Unstable governance has an implication of weak controls, which may also amount into having a poor resources management. Poor resources management can be interpreted in two perspectives. First, there will be no profit generation (if it is a profit-oriented entity) to increase owners' wealth. Second, existing resources can be fraudulently misused. The ultimate impact of such misuse is exhaustion of resources, which is costly to owners. Entity owners establish and use a governing board to minimize agency problems that may arise (Chang & Noguera, 2016). The governing board monitors the entity on behalf of its owners (Sabbaghi, 2016). The board ensures that management of an entity should work in line with owners'

[2]University of Dar es Salaam Business School, Tanzania
Email: victor.bahati@udbs.udsm.ac.tz or victormichael83@gmail.com

objectives and that there would not be any other objective that could erode owners' objectives in any way, including misuse of resources.

In order for a board to discharge its functions effectively, it should ensure that there are controls to identify and prevent any malpractice in the entity (Boubacar, 2018; Usman *et. al*., 2018; NAOT, 2015). Such controls are designed to safeguard resources of owners who instituted that board to guard on their behalves. Apart from controls, mechanisms should also exist to monitor controls and ensure that they are working as intended (Ismael & Roberts, 2018). The governing board has power with the entity's internal control system and monitoring mechanisms because it has responsibility to be on guard on behalf of owners. Owners, on the other side, set additional mechanisms to monitor behaviour of managers. One such external monitoring mechanism is demand for external auditing, whose purpose is to verify the environment from which management get numbers that they report (Ittonen, 2010). If internal control mechanism is not functioning properly, then external monitoring, if planned and executed properly, may point some shortfalls in the entity's financial reports. Severity of shortfalls may vary in degrees, ranging from those that an auditor issues an unclean (adverse) audit opinion to those with a modified opinion is sufficient (NAOT, 2015). If there is an effective control and monitoring, however, there is a likelihood of an external monitoring outcome to be a good one (with a clean audit opinion) unless if there was an intentional overriding of controls or errors that might have happened by chance.

In any case, if both internal control and monitoring are effective, they would result in a good external monitoring report because internal monitoring is intended to arrive at proper controls and fair reporting, which external auditors will be looking for. Therefore, since the internal control and monitoring in an entity are on-going compared to external monitoring, which is periodic, effectiveness of internal control and monitoring have to result into a favourable/clean external monitoring report. External monitoring establishes reality of numbers, which an internal system generates such that if the internal system is effective and well monitored, external monitoring will likely arrive at a conclusion of issuing a clean (unqualified) audit report on those numbers. Having the relationship between internal and external monitoring in mind, this study had the following specific objectives: To determine whether or not effectiveness of internal monitoring mechanisms has a relationship with external monitoring reports; and to determine whether or not effectiveness of internal control mechanisms has a positive influence on likelihood of a good external monitoring outcome. In order to arrive at those objectives, this study adapted agency and monitoring theories as key theoretical motivations for this study.

Literature Review

Administration, Governance and Financial Reporting in District Councils in Tanzania

A local government is a semi-autonomous and sub-national level authority that discharges its power and jurisdiction within a small area of a large nation. It means a sub-government closer to people than the national-wide or central government (PO-RALG, 2017). The local government operates in a small area with elected people to lead that government, usually residents of that locality. Therefore, the local government is a small area government machinery operated by residents of that area but it is itself a sub-machinery of a larger government, which acts as an umbrella of more than one local government at a national or state level. In the United Republic of Tanzania, the local government authority can be either an urban or rural area type of settings. Regardless of the two settings, the local government has the responsibility to work with people

and ensure their wellbeing now and the future (DIA, 2002). Local governments were re-established in Tanzania in 1982, ten years after they were abolished in 1972. Formerly, local governments were established during colonial era in 1926. The local government is a co-part of a two-tier government system that Tanzania adopts. The two-tier government system includes the central government as an umbrella and the overall controller of country affairs, while the local governments as semi-autonomous operating within their respective small areas of their jurisdiction. Article 146 of the constitution of the United Republic of Tanzania establishes the local governments with two main purposes. First, to increase people's democracy and second, to fasten development of people at a closer proximity. Local governments are classified into two broad categories of Urban and District authorities. The former includes cities, municipalities and townships, whose establishment is within the legal framework of Local Government (Urban Authorities) Act of 1982. A district authority, on the other side, is established through the Local Government (District Authorities) Act of 1982. As of 2011, there were a total of 134 local government authorities (or councils). The total number of councils increased to 174 as of June 2015. By June 2017, there were 185 local government authorities (NAOT, 2017). The total number of councils and their legal categorization from 2011 to 2015 is shown in Table 1-1.

Table 1-1: Number of Councils from 2011 to 2015

Category	Council/Year	2011	2012	2013	2014	2015
Urban Authorities	Cities	4	4	5	5	5
	Municipals	17	17	18	18	18
	Townships	7	7	10	11	18
Rural Authorities	Districts	106	106	107	129	133
	Total	**134**	**134**	**140**	**163**	**174**

Source: National Audit Office General Audit Reports

Elected and special seat councilors, politically, oversee the general administration and accountability in a District Council in the United Republic of Tanzania. Their main role is to ensure that the district council discharges its responsibilities in a manner that it effectively provides services to its residents. The councilors ensure those responsibilities by either questioning actions or omissions in their full council meetings or via standing committees or any other committee that they establish as per Sections 74, 75 and 76 of the Local Government (District Authorities) Act of 1982. Day-to-day administration of the district council is under supervision of a District Executive Director (DED). Section 35(2) of the Act stipulates that the District Executive Director is a member of a council meeting in capacity of the Secretary in that meeting. Setting up of internal control and ensuring that it works effectively are sole responsibilities of the district council. The Local Government Financial Memorandum puts it clear that responsibility for internal control and monitoring rests with management of the district council where the district executive director is the in-charge.

Just like all other categories of local government authorities, the Controller and Auditor General (CAG) is a statutory auditor in the District Council. Mandate of the Controller and Auditor General to be a statutory auditor of the district council is stipulated in Article 143 of the Constitution of the United Republic of Tanzania of 1977, Revised in 2005. Further provisions are enshrined in the Local Government Finance Act of 1982 as revised in 2000 and Public Audit Act of 2008. Therefore, the District Council must submit its annual financial reports for the year

ending 30th June on or before 30th September of the same calendar year for audit purpose. Following adoption of accrual-based International Public Sector Accounting Standards (IPSAs) in 2004, district councils started to effectively implement them from July 1st, 2009 for a five-year initial adoption phase that ended on June 30th, 2014. By June 30th, 2015, each district council was supposed to prepare financial statements that were fully compliant with those new reporting standards. That migration affected reporting quality in some districts, causing them fail to get a clean (unqualified) audit opinion (NAOT, 2015).

Prior Literature on Importance of Control Mechanisms

There is a finding in prior studies, which stipulates that existence of a strong audit committee reduces external agency cost because of enhanced internal audit function and other controls (Ismael & Roberts, 2018). This finding, which is from a developed country's (the United Kingdom) context, sheds light on the importance of monitoring components. In due regard, it means that the internal corporate governance tool of audit committee and internal audit are crucial to an entity. When both tools function effectively, they enhance external monitoring through strengthened control systems. Ismael and Roberts (2018) considered monitoring in the contexts of principal-agent relationship that can be extended to agent-agent and principal-agent relationships (Panda & Leepsa, 2017). This study involved both control and monitoring systems as omnibus parameters, which influence on external monitoring outcomes, with an argument that principal-agent monitoring outcome is much better in presence of a strong agent-agent monitoring.

Apart from reducing external agency cost, a study in a developing country (Pakistan) reveals that strengthened control mechanisms have an impact on financial performance of an entity (Sohail, Rasul, & Fatima, 2017). Likewise, studies in the same context of developing countries (Middle East and North Africa) also reveal that a combination of internal governance mechanisms and external audit work together enhance performance (Hassoun & Aloui, 2017). The two studies also addressed control mechanisms in a combination as a determinant of another outcome (performance). Studies still point out influence of these two mechanisms (internal and external monitoring) to another (a third) variable. For example, financial disclosures have also been pointed as a dependent on effectiveness of the audit committee as an internal governance mechanism in Ghana (Agyei-Mensah, 2016).

A slightly different finding from Greece shows that internal auditing is a very important tool in corporate governance. Its effectiveness strengthens monitoring capacity of a governing board (Kontogeorgis, 2018). A similar conclusion was drawn from one of the Middle East country (Oman) in which authors admit that their study findings support that there is a positive relationship between internal audit and effectiveness of corporate governance (Bilal, Twafik, & Bakhit, 2018). Findings from the study by Kontogeorgis (2018) and those by Bilal and colleagues (2018) are somehow consistent with this study although the latter add more information on internal audit effectiveness. In this study, our findings show that not only that effectiveness of an internal audit unit is significantly important but also weakness of the internal audit unit can be compensated by an effective control environment.

The presented literature review formed a nice benchmark for this study on control mechanisms that add value to the importance of internal and external monitoring because such issues were not within the scope of reported previous studies. Furthermore, objectives of the authors were much

on how a combination of mechanisms (internal and external) can predict a given outcome (e.g., disclosure, performance). Moreover, the major focus of those authors was to address governance issues in the private sector and in different industries as well as economic contexts. An important question, which is out of scope of reported studies was whether or not internal governance control mechanisms have a relationship with external control outcomes. This study aligns itself to answer that question and addresses those governance issues in a public sector environment.

Theoretical Motivation

This study was motivated by agency theory as the main theory supported by monitoring hypothesis. Agency Theory, mainly, proposes existence of conflict between principals (owners) and agents (managers) of an entity. The main source of conflict is delegation of authority and control of an entity. The main proposition of the theory is that agents can be motivated to set their own goals that can erode goals of the principal (Jensen & Meckling, 1976). In that case, agents have to be monitored in order to ensure that they are not diverging from principals' (owners') goals. Having a governance board is one way through which owners monitor actions of managers whom they have entrusted resources (Perrow, 1986). Owners can go an extra mile to make sure that a large proportion of those directors are independent in order to strengthen control power of that board (Fama & Jensen, 1983). Such kind of control, which primarily originates from owners, aims at controlling managers in an attempt to solve the principal-agent problem in the Agency Theory. Since the root of agency problem is delegation of authority and control then, it is possible for the problem to manifest itself anywhere whenever one delegates power and entrusts another person to act on his or her behalf. For example, relationship between top management and middle managers or a supervisor and subordinates is also some form of agency relationship. For that reason, top managers also institute mechanisms to control lower level managers. That chain of control mechanisms goes on in the same way to the lowest employee who does not delegate any power to anyone in work relationship (Wallace, 2004).

Any conflict that can arise out of such relationship can be addressed by agent-agent framework of Agency Theory (Panda & Leepsa, 2017). As an attempt to solve agency problems arising from agent-agent relationship, usually, management designs some mechanisms to ensure that for those they delegated power do not act out of their own will and conflict entity interest. Such internal mechanisms include establishment of internal control functions for detecting and preventing undesired deviations that could occur due to error or fraud (NAOT, 2015). That means managers try to make sure that numbers that subordinates generate and process are carefully prepared and that they are free from errors or fraud. It is in the same way that principals (owners) use external auditing function to ensure that numbers provided by agents (managers) to principals to enable the latter monitor actions of the former are free from error or fraud (Robertson & Smieliauskas, 2001). Therefore, if internal mechanisms are effective enough to ensure that numbers generated are free from error or fraud, we should also expect an independent audit to find the same and issue a clean (unqualified) audit opinion on that entity.

In summary, outcomes of an external audit function depend on strength or weaknesses of internal control and monitoring mechanisms. Strong mechanisms ensure generation of reliable numbers. Therefore, when an independent auditor gives a clean (unqualified) audit opinion it means two things: First, it has perspectives of principal-agent relationship in Agency Theory. In principal-agent framework, it means that managers have prepared correct numbers for the principal in order to comply with accountability requirements. The second implication has agent-agent

relationship that can be drawn from a superior-subordinate relation in Agency Theory as Panda and Leepsa (2017) suggests. The second proposition means that managers have exercised appropriate and effective control as well as monitoring to make sure that subordinates generate the correct numbers. So, we can also propose that when agent-agent monitoring holds then, principal-agent monitoring would be satisfied.

Study Hypotheses

From the theoretical and literature point of view, we may deduce the following: If internal control and monitoring mechanisms are well designed and that they work effectively, they should be able to satisfy needs of the principal. The principal needs numbers that do not have errors and that represent true states of affairs (Robertson & Smieliauskas, 2001). We can then comfortably conjecture the following propositions:

- H_1: Effectiveness of all internal control mechanisms collectively influence on likelihood of a clean (unqualified) external audit opinion.
- H_2: Effectiveness of all monitoring mechanisms collectively influence on likelihood of a clean (unqualified) external audit opinion.

Since internal control and internal governance monitoring systems work to achieve the same objective (generating error free reports), all controls should be equally important in achieving objectives of the principal. Weakness of an internal control mechanism allows generation of unreliable reports, while weakness of internal control monitoring mechanism can allow ineffectiveness of internal controls, whose consequence is allowing possibilities of fraudulent activities to occur. Likewise, effectiveness of all governance mechanisms (monitoring and control) is important for organizational control effectiveness. We can further add the following propositions.

- H_3: Effectiveness of every component of internal control system is equally important with the rest of components in influencing on likelihood of receiving a clean external audit opinion.
- H_4: Effectiveness of every component of monitoring mechanisms is equally significant like the rest of components in influencing on likelihood of an entity receiving a clean external audit opinion.

Materials and Methods

This study used secondary data from 95 district councils in mainland Tanzania. Selection of those district councils was based on data availability and variability of audit opinions issued by the Controller and Auditor General. It was impossible to include those districts with the same type of opinion for the whole period because it is impossible to study variability of a constant. Selection of district councils without other types of local government authorities was based on homogeneity of those entities and their number, which is big enough to get sufficient observations for a credible as well as rigorous analysis. This study covered the period of five years from 2011 to 2015 only. In that five-year period, there were no changes in main governing organs (councils) in those district councils, a pattern, which made it possible to control their effects in the analysis. If this study was to go beyond the five-year period, it would been mandatory to take into account differences and changes within individual governing councils for results to become valid (see Gujarati, 2004).

This study modeled the likelihood of a district council getting a clean audit opinion in presence of effective internal control and monitoring mechanisms. Choosing a panel design is advantageous for the purpose of controlling for unobserved heterogeneity. Furthermore, cross-section longitudinal design can establish dynamic relationships rather than what a cross-section design can do (Wooldridge, 2002;Gujarati, 2004). Entity specific dynamics would easily be studied with this design rather than its counterpart. This study sought to study an entity-specific variation that is why a fixed effects model was opted. The unit of analysis for this study encompassed individual district councils.

This study employed two categories of key variables. The first group was composed of variables that measured effectiveness of the internal monitoring mechanisms. This group is represented by the internal audit (internlaud) and the audit committee (auditcomm) in the model. These variables take value of 0 or 1, where 1 represents effectiveness of a mechanism, while 0 represents ineffectiveness. The second group of variables in the model represents internal control mechanisms that an entity has. Three variables represent these mechanisms, namely, fraud prevention (fraprev), control environment (contrlenv) and risk mitigation/management controls (rskmgt). These variables also take a value of 1 when control is effective otherwise, it takes value of 0. In the model, there are two nuisance or control variables to control for effect of variability due to time specific factors (time dummies) and effect of variability due to mandatory migration to new reporting requirements that the public sector adopts.

Results and Discussion

The same district councils were used throughout the study period. A sample of 95 district councils for five years represented 475 cases in total. Total number of cases on the basis of all existing districts was 577 (Table 2-1). Therefore, this study used 82.3 percent of all cases (Table 2-1).

Table 2-1: Study Population and Sample Size

Year	2011	2012	2013	2014	2015	Total Cases
Number of Districts	106	106	107	129	133	577*
Sample Size	95	95	95	95	95	475

Source: National Audit Office General Audit Reports

* This number excludes 6 districts which were not audited for year ended June 30, 2015 because they had no reports as they were just newly established.

There was variability of audit opinions for all 95 district councils in the period under review. Therefore, a total of 475 yearly observations were available for the study. Number of clean reports was varying with time for five years as Table 2-2 shows. A drastic change can be noticed in 2015 whereby only 8 out of 95 districts in this study received a clean (unqualified) report.

Table 2-2: Types of Opinions Issued for 5 Years

	opinion types			Total
year	clean	Reservations	unclean	Population
2011	50	41	4	95
2012	75	20	0	95
2013	79	16	0	95
2014	88	7	0	95
2015	8	85	2	95
Total	300	169	6	475

Source: Study data

A major weakness in the district councils was notable in the audit committee whereby about 65 percent of districts in the study had weaknesses followed by risk management control system such that 53 percent of districts were reported to have weaknesses (Table2-1). Effectiveness of internal audit was good for majority of councils for all five years because 73 percent of them showed they had effective internal audit units (Table 2-1). Furthermore, 68 percent of all districts in this study had an effective control environment, while 57 percent of districts instituted effective fraud prevention controls (Appendix 1).

Data and Model Fitness

A total of 475 observations equivalent to 39 cases per variable was above the minimum sample size of 10 cases per variable (see also Hair, Black, Babin, & Anderson, 2010). After data inspection, there were no missing data with found in any of the district councils. Therefore, the sample had no any problem in terms of size. Variance inflation factors (VIF) of all variables were between 1.09 and 3.17, which is far below the maximum threshold of 10. Mean VIF was 1.82, which is also below a threshold of 6. These indicators give an assurance that there is no problem of multicollinearity (see O'brien, 2007). Since none of the explanatory variables was continuous, it was not important to test linearity with the logit because it would not exist in this case of all dummy variables (see Tabachnick & Fidell, 2007).

A backward elimination approach was used to arrive at a parsimonious model. With this approach, a model with all possible order interactions variables was reduced from the highest order variable backwards to the most efficient model, which represents our data optimally (Hair *et. al*., 2010). Except for an interaction between *control environment* and *internal audit,* all other first and higher order interactions were insignificant (when they were measured by changes of the Bayesian Information Criterion, BIC). The interaction term was represented by variable *crlenvnointad* in the model. Specification test for this study model was insignificant (p-value of hatsquare was 0.527). That test implied that the log link function was correctly used and there were no possibilities of omitted variables (Tabachnick & Fidell, 2007).

Further evaluation of the model was based on its predictive power – as a classifier of success of the dependent variable based on a set of independent variables. To provide for that let P_i = f (θ' z_i) denote the model-based estimates for probability that an external auditor gives a clean (unqualified) audit opinion on financial statements. Classification rule (which is also a default rule in Stata) is:

$$N_i(a) = \begin{cases} P_i \geq a & \text{case } i \text{ is a clean opinion} \\ P_i < a & \text{case } i \text{ is otherwise} \end{cases}$$

which implements the classification rule N(a=0.5) and therefore, classifying each case P_i exceeding 0.5 as a clean (unqualified) opinion case. When each of the 475 cases was classified in that rule, the summary resulted as shown in Table 3-1. In the sample, there were 300 cases of clean (unqualified) audit opinion and 175 cases that were not clean (Tables 2-2 and 3-1). Using the rule of classification of *phat*, a total of 337 cases were classified as clean (unqualified) opinion cases, while 138 were categorized as cases of not clean (unqualified) opinions.

Table 3-1: Classification of Cases

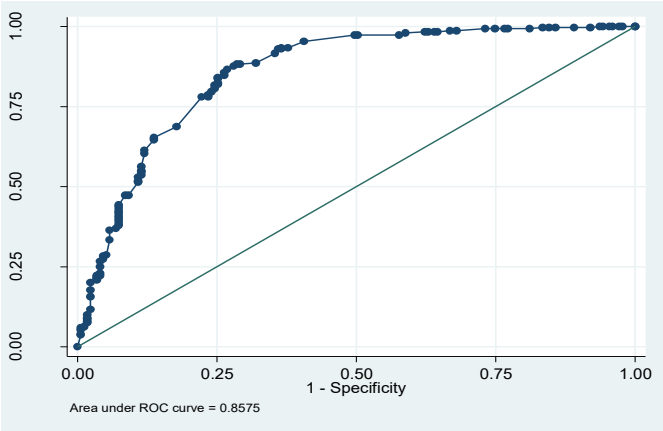
Classified by N(0.5)	True		TOTAL
	Clean	Not Clean	
Clean	275	62	337
Not Clean	25	113	138
TOTAL	300	175	475

Source: Model diagnostics

Based on those results (Table 3-1), the model correctly classifies cases at probability of 0.82. Probability that a case was classified as a clean (unqualified) opinion on the basis of the model given that it was truly observed as a clean (unqualified) opinion was 0.91. Thus, 0.91 means that for every 10 clean (unqualified) cases observed, the model was able to identify at least 9 of them correctly. Probability of the model classifying a case not clean while it was truly not clean is 0.65. Suppose the model classifies the case as a clean case, the probability that the case is a clean one is 0.82. The odd of observing the case, which is not clean (unqualified) and the model classifier categorizes it as not clean (unqualified) case is also 0.82.

The receiver operating characteristics (ROC) curve shows the area under it to be 0.86 (Figure 1). When the area under the curve is 0.5, it means that the model has no classification ability, while an area of 1.0 indicates perfect classification of cases (Krichene, 2017). Given that the study model classified cases at higher than 0.5 (0.86, which is closer to 1.0), it shows that classification ability of the model was good. Since the area under receiver operating characteristics (ROC) curve is 0.86, we can conclude that the logistic model not only fits our data well but also performs surprisingly well as a classifier in the sample based on predictor variables that were used. A Panel model with jackknife correction was used in the analysis to deal with incidental parameter problem (Cruz-Gonzalez, Fernández-Val, & Weidner, 2017) that arises with nonlinear panel models with short time, T and many panels, N (Wooldridge, 2002). Likewise, because of short time T, there was no need to do a unit root test (Hadri & Larsson, 2005).

Figure 1: ROC curve



Source: Model Diagnostic test

We are also comfortable that there was no any loss of power because of some other reason like attrition and there was no any missing data for the whole period of the study (see Young, Powers, & Bell, 2006). A fixed effect model was the best choice because each entity has a different governing board (council) that could have different levels of pro-activeness in addressing and enforcing accountability behaviour in their respective councils. Since such variables, possibly with others of similar nature, were not included in the model, they represent an unmeasured heterogeneity. Such heterogeneity can only be controlled for by a fixed effect model and not otherwise (see Gujarati, 2004). The fixed effect model is also very appropriate because the period under study was chosen at a point when unmeasured variables did not change and their effects remained fixed throughout (Baltagi, 2005). The fixed effect model that predicted the probability of an audit report to be a clean (unqualified) one was run using 11 predictor variables. Thus, 2 of those 11 variables represented effectiveness of monitoring mechanisms and 3 variables represented effectiveness of different internal control mechanism that an entity had. In addition, 1 of the variables represented the interaction between one control mechanism and a monitoring mechanism in an entity. The rest (5 variables) are controls in the model.

Final Model Results

Likelihood ratio (LR) chi-square of the final model was 323.99 with 105 degrees of freedom (Exhibit 1). Test for overall fitness of the model (against a constant only model) was significant at 0.01.

Exhibit 1: Panel Logit Model Summary

ID variable	=	id	Number of obs.	=	475
Time variable	=	year	Number of groups	=	95
			Obs. per group: Min	=	5
			Avg	=	5
			Max	=	5
			LR chi2(105)	=	323.99
			Prob > chi2	=	0.0000
Log-likelihood	=	-150.605	Pseudo R2	=	0.5182

Source: Model Results

That significance implies that the model predicts probability of a district council getting a clean (unqualified) audit opinion significantly better than a model without any predictor variable. Statistical significance of the model either indicates that the model reliably distinguished entities, whose audit opinions were clean (unqualified) against those with opinions that were not clean. A McFadden's pseudo r-squared of about 52 percent also gives an indicator of more than an excellent model fit in a maximum likelihood estimation, which requires pseudo r-squared ranging from 0.2 to 0.4 for a model to have an excellent fit (see Tabachnick & Fidell, 2007).
Results from panel logit model, after controlling for time and new standard requirements, showed that there are three main affects, which significantly predict the likelihood of an entity receiving a clean (unqualified) audit opinion (Table 3-2). Effectiveness of the audit committee and that of an internal audit, which represent effectiveness of monitoring mechanisms (auditcomm & internlaud) attain statistical significance at level 0.01. In both cases, the model showed that when the internal audit and audit committees of an entity are effective, they positively influence on likelihood of that entity getting a clean (unqualified) audit opinion rather than when they are not effective {model (1)}. Control environment (contrlenv) is the only internal control mechanism that showed significance in this study. Results showed that when the control environment is effective, it increases the likelihood of an entity getting a clean audit opinion rather than when the control environment is ineffective. The interaction variable representing the interaction effect between the control environment and internal audit (contrlenvnointaud) showed that it is a statistically significant predictor of the likelihood of a clean (unqualified) audit opinion for the period of study. However, the interaction variable showed that it positively and significantly predicts the likelihood of a clean audit opinion only if an entity has an effective control environment but with a weak or ineffective internal audit unit and not otherwise.

Table 3-2: Regression Results

	(1)	**(2)**
VARIABLES	Clinrport	kwestnedreprt
auditcomm	1.577*** (0.525)	-1.372*** (0.511)
internlaud	32.22*** (0.818)	-30.15*** (0.809)
contrlenv	1.770*** (0.560)	-1.491*** (0.541)
rskmgt	0.351 (0.404)	-0.492 (0.398)
fraprev	0.121 (0.385)	-0.0733 (0.376)
contrlenvnointaud	30.87*** (0.968)	-28.84*** (0.965)
2012.year	2.474*** (0.473)	-2.307*** (0.460)
2013.year	2.657*** (0.460)	-2.329*** (0.447)
2014.year	3.642*** (0.598)	-3.565*** (0.579)
2015.year	29.27*** (0.602)	-27.24*** (0.591)
newstd	3.224 (2.105)	-3.079 (2.009)
Observations	475	470

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Effectiveness of fraud prevention (fraprev) and risk management (rskmgt) mechanisms did not show any significance in this study. Results also showed that time as a control variable is significant because entities are not homogeneous throughout the time of study. When we try to

predict the likelihood of an entity receiving an audit opinion with reservations [(a report that is neither unclean nor clean) kwestnedreprt], results showed that the same variables that were significant predictors of clean (unqualified) report (clinrport) also become significant accordingly {model (2)}. The only difference is that they took a negative sign, which means when those mechanisms are effective, they reduce the likelihood of an entity to receive an opinion with reservations. However, they load with different estimates.

Cruz-Gonzalez and colleagues (2017) propose interpretation of results of a nonlinear model basing on partial/marginal effects rather than odds ratios. Accordingly, other factors constant, when an entity enhances effectiveness of its audit committee, it increases the likelihood of receiving a clean (unqualified) audit opinion by 12.4 percent rather than when the committee remains ineffective for a given time. In addition, if an entity creates an effective control environment, it increases chances for getting a clean audit opinion by 14 percent rather than if it remains with a weak control environment. Furthermore, when the internal audit is effective an entity increases chances for getting a clean opinion by 23 percent rather than when the monitoring unit is ineffective in an entity. The rocking marginal effect occurs when an entity improves its control environment and makes it effective while the internal audit remains weak. The study found that there was 55.4 percent increase in the likelihood of that entity getting a clean (unqualified) audit opinion if it ensures that the control environment is effective even if the internal audit becomes ineffective.

Hypotheses Testing

From Table 3-3, we fail to reject all hypotheses at level .05. Therefore, it can be concluded as follows: effectiveness of all internal control mechanisms and monitoring mechanisms are significant for an entity to get a clean (unqualified) external audit opinion. Likewise, results of hypotheses testing showed individual controls and monitoring mechanisms are equally significant. Therefore, none of the controls or monitoring mechanisms should be undermined or taken for granted.

Table 3-3: Hypotheses Testing Results Summary

Description of the Hypothesis	**Results**	
	Chi-square	*p-value*
H_1: Effectiveness of all internal control mechanisms collectively influence on likelihood of a clean (unqualified) external audit opinion	10.42	0.0153
H_2: Effectiveness of all monitoring mechanisms collectively influence on likelihood of a clean (unqualified) external audit opinion	1656.54	0.0000
H_3: Effectiveness of every component of internal control system is equally important with the rest of components in influencing on likelihood of receiving a clean external audit opinion	7.95	0.0188
H_4: Effectiveness of every component of monitoring mechanisms is equally significant as the rest of components in influencing on likelihood of an entity receiving a clean external audit opinion	1404.82	0.0000

Source: Study Findings

Conclusion and Recommendations for Future Research

This study aimed at establishing probability of an entity to receive a clean audit opinion given effectiveness of its internal control and monitoring mechanisms. The study revealed that when an internal audit unit is effective, it increases chances for that entity getting a clean audit opinion. Effectiveness of an audit committee, as a monitoring mechanism, has significant evidence that it is important in predicting the likelihood of that entity getting a good/clean report. These findings imply that if an entity wants to maximize its chances for getting a clean audit opinion, it should empower its monitoring mechanisms. Control environment is the only internal control component that increases the likelihood of a clean audit opinion. Risk management and fraud prevention controls cannot significantly predict the likelihood of an entity getting a clean audit opinion. However, hypotheses tests showed that effectiveness of all controls is collectively significant in influencing on likelihood of a clean audit opinion. Therefore, although individual controls of fraud prevention and risk management have no direct significance, they should not be undermined because they have collective significance. The study further showed that effectiveness of monitoring and control mechanisms is equally significant and that none of them has a greater impact than the other.

Despite individual significance, effectiveness of control environment is also important when the internal audit unit in ineffective. So, a combination of an effective control environment and ineffective internal audit saves the disaster. This interpretation is by no means a suggestion that the internal audit should be weak but it means that given other factors constant, if an entity has a weak internal audit unit, it should make sure that it creates an effective control environment to counter the effect of that weakness. In case an entity has a weak internal audit and it opts to strengthen the control environment, it increases chances for getting a clean audit opinion by more than 55 percent. If it otherwise opts strengthening the internal audit alone, it increases chances for a clean audit opinion by 23 percent and loses 32 percent chances for getting a clean opinion (Appendix 2). Managers should as well plan and implement all controls to maximize the possibility of getting a clean (unqualified) audit opinion in order to secure their positions. External auditors, on the other hand, should continue emphasizing on importance of internal monitoring and report any weakness whenever they find any weaknesses.

This study makes contribution in Agency Theory, especially on importance of agent-agent monitoring. It signifies that when there are effective internal monitoring and controls, there is an increase in the likelihood of getting a good report in a principal-agent monitoring case. This study agrees with the contention that a clean audit opinion signifies that there is an effective monitoring in the agent-agent monitoring in the superior-subordinate relationship in an entity. Just as literature also pointed that better controls and monitoring reduce agency cost, this study found that statistical significance in the public sector settings. Likewise, importance of two monitoring mechanisms has been manifested. Studies should also take into account the need for considering Agency Theory in all its possible dimensions, where possible, in order to tackle issues within Agency Theory framework effectively.

This study has two recommendations for policy makers and practitioners in public sector financial management, control and accountability. Firstly, governing councils should become highly proactive to watch out control functions in their respective entities. As part of their

responsibilities, they should, first of all, ensure that all controls and monitoring systems in an entity are effectively functioning. Besides, this study found that even though both monitoring and control mechanisms are significant, it further showed that the control environment is the only significant control compared to the rest of internal control systems. More importantly, the study found that even if it happens that the internal audit is ineffective, its weakness can be countered with a strong/effective control environment. That being the case, practitioners have more flexibility in case they do not have enough resources and whatever that it takes to have all controls effectively working. Secondly, external auditors should specifically emphasize on importance of having an effective control environment to their clients. Thought other studies have suggested that internal audit is very important, this study found that its weakness can be compensated with an effective control environment.

This study successfully examined why one entity would get a clean audit opinion while another one would not by using strength of internal controls and their monitoring mechanisms. A further study of interest could examine determinants of internal control and monitoring efficacy. In particular, future studies may examine characteristics of the governing board that affect monitoring efficacy in an entity. It will be interesting because each board may have its unique characteristics from the rest that makes it highly superior in influencing monitoring mechanisms. The other interesting area would be to examine Chief Executive Officer's (CEO's) background and other necessary personal characteristics that can be a determining factor for a given CEO to pioneer internal monitoring effectiveness in his/her entity.

List of Statutes

1. The Constitution of the United Republic of Tanzania (1977) Revised Edition of 2005
2. Local Government Financial Memorandum (2009)
3. Local Government Finance Act (1982) Revised Edition of 2000
4. Public Audit Act (2008)
5. Local Government (Urban Authorities) Act (1982)
6. Local Government (District Authorities) Act (1982)
7. Public Finance Act (1982) Revised Edition of 2000

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Appendix

Appendix 1: Effectiveness of monitoring mechanisms and control systems

Year		2011	2012	2013	2014	2015	Sub-total	**TOTAL**
Audit committee	Ineffective	65	75	67	66	38	311	**475**
	Effective	30	20	28	29	57	164	
Internal audit	Ineffective	13	21	21	24	50	129	**475**
	Effective	82	74	74	71	45	346	
Control environment	Ineffective	17	23	25	34	52	151	**475**
	Effective	78	72	70	61	43	324	
Risk management	Ineffective	52	71	38	45	48	254	**475**
	Effective	43	24	57	50	47	221	
Fraud prevention	Ineffective	48	47	39	33	39	206	**475**
	Effective	47	48	56	62	56	269	
TOTAL		**475**	**475**	**475**	**475**	**475**		

Source: CAG General Reports 2011-2015

Appendix 2: Average Partial Effects (APE)

clinrport	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
auditcomm	0.1241557	0.0500427	2.48	0.013	0.0260739	0.2222376
contrlenv	0.1432903	0.0586167	2.44	0.015	0.0284036	0.2581770
internlaud	0.2291303	0.0838325	2.73	0.006	0.0648217	0.3934389
rskmgt	0.0642378	0.0406730	1.58	0.114	-0.0154797	0.1439554
fraprev	0.0034049	0.0378623	0.09	0.928	-0.0708038	0.0776137
contrlenvnointaud	0.5537067	0.0926168	5.98	0.000	0.3721812	0.7352323
Year 2012	0.2401497	0.0676285	3.55	0.000	0.1076003	0.3726990
Year 2013	0.2644939	0.0672651	3.93	0.000	0.1326566	0.3963311
Year 2014	0.3970798	0.0835170	4.75	0.000	0.2333895	0.5607701
Year 2015	-0.2647714	0.0763508	-3.47	0.001	-0.4144163	-0.1151266
newstd	0.3220376	0.2447480	1.32	0.188	-0.1576596	0.8017349

Source: Study findings