THE IMPACT OF INTERNAL CONTROLS ON REVENUE COLLECTION:

The Case of Tanzania Official Seed Certification Institute (TOSCI) in Morogoro Municipality

ABSTRACT

Various organizations have wondered if there is any relationship between revenue collection and internal controls over the years. The purpose of this study is to assess the impact of internal controls on revenue collection at TOSCI in Morogoro Municipality. A system of effective internal controls is a critical component of company management and a foundation for the safe and sound operation of organizations. However, ineffective internal controls result in ineffective programs and eventually leading to losses. The study applied mixed method approach that utilizes both qualitative and quantitative methods to obtain the required data. The qualitative data from documentary review and interview was subjected to content analysis through explicit rules of coding where by quantitative data from questionnaire was tabulated and converted into frequencies and percentages. Purposive sampling procedures were used in this study and the sample size of this study were 41 respondents. The relationship between revenue collection and internal controls was tested using regression analysis. The key findings indicated that the impact of risk management on collection of revenue led to some multicollinearity problem, hence it was dropped in the regression model. Furthermore, the laws and regulation, the effect of supervision and internal audit in this study revealed that there is no relationship with revenue collection is rejected and alternative hypothesis is accepted. It was found that internal control inefficiencies resulted into less revenue collection at TOSCI. The study recommends that the Government should provide in-service training, seminars and workshop to workers. Furthermore, there is a need of formulating appropriate laws and regulation which promote the collection of the revenue. This study definitely answers the question regarding correlation between internal controls and revenue collection at TOSCI in Morogoro Municipality.

Introduction

1.0 Statement of the Problem

The incidence of internal control weaknesses, unsatisfactory and deteriorating service delivery have the undesired effect of not only weakening the company's ability to effectively collect revenue but also encourages collusion, fraud, embezzlements, loss of cash (revenue), assets conversion genuine and deliberate mistakes, corruption, lack of transparency and accountability for revenue collection and other assets. Despite considerable investment, service delivery is unsatisfactory and degenerating. For the enhancement of the attainment of the mission and goals of the company, it is therefore necessary that these hindrances be removed. The management of the company should familiarize themselves with internal control procedures that will ensure effective service delivery and the desired revenue generation. (Efozie 2010).

Despite of Government efforts through CAG reports published each year insisting on the role of internal control in enhancing revenue collection, there has been insufficient control over revenue collection with reference to TOSCI. The financial report for TOSCI 2017/2018 & 2018/2019 shows that seed dealers fail to pay for amount due to internal and external factors that seem to be overridden or not insisted which led to more credit billing and insufficient revenue collection at TOSCI. Moreover, studies above have tried to deal on the internal auditing of revenue collection in various organizations leaving aside the seed industry, TOSCI in particular.

Thus, the purpose of this descriptive mixed method study was to assess the impact of internal controls on revenue collection at TOSCI in Morogoro Municipality.

2.1.0 Theoretical Literature Review

The theories that underpin the study included; the reliability theory, agency theory and control theory.

2.1.1 The Reliability Theory

Reliability theory simply describes the probability of a system completing its expected function during an interval of time (Gavrilov and Gavrilova, 2001). It was originally a tool used to help nineteenth century maritime insurance and life insurance companies in computing profitable rates to charge their customers.

According to the reliability theory, an internal control system comprises of components that are interrelated and each for component, there needs to be a defined measure of success. As such, the state of a component is determined by

whether the component is successful or not successful. The reliability of a component is defined as the probability of the component being found in the success state. In addition, the reliability of the entire internal control system is a binary combination with two possible values, success and failure.

This study considered the part of the reliability theory which relates the internal control system to component reliabilities.

The tractability of reliability theory to the evaluation and design of internal control systems have appeared in the professional literature but no applications have been reported that draw upon the substantial power of the theory of reliability (Kenney, 2000). The two potential users of the reliability theory are the external auditor and organization management. (Kenney 2000) states that; during the external audit, evidence is gathered to support a professional opinion. Internal control systems have a primary purpose of assessment and control of risks; that a material error was not be prevented or detected on a timely basis by the system leaving to losses. Weak internal control systems result in more substantive work and hence greater cost.

According to (Gavrilov and Gavrilova, 2001), the determination of the "weakness" of any internal control system is primarily judgmental. Upon the formulation of the process and system reliability estimates, comparison with data from the organization's past performances or other firms may provide a more solid basis for judgment of the impact of an internal control system on the firm's income risk and hence provide for more rational allocation of the auditor's time and effort. (Messier Jr. and Austen, 2000) state that one of the primary advantages of the reliability theory is its close relationship to the auditor's needs regarding understanding the internal control system and control risk assessment.

According to (Stratton, 2007), recent developments have increased the value to management of objective methodologies for the evaluation of internal control systems. Firm managers are therefore required to assure the accuracy of these systems. (Stratton, 2007) also adds that the process of evaluation of the internal control system by both management and external auditors is judgmental in nature. However, the few attempts at modeling internal control systems have not been implemented by firms due to the lack of realism, difficulty of modeling behavioral systems, lack of cost effectiveness, and lack of understanding by practitioners.

2.1.2 Agency Theory

Agency theory was designed by Jensen and Meckling in 1976 and as proposed by Adam who attempts to explain and resolve disputes over priorities between principals and their agents. Principals appoint agents and delegate some decision-making authority to them. In so doing, principals place trust in their agents to act in the principals' best interests. However, as a result of information asymmetries between principals and agents and differing motives, principals may lack trust in their agents and may therefore need to put in place mechanisms, such as the audit, to reinforce this trust. Principals rely on agents to execute certain transactions, particularly financial, resulting in a difference in agreement on priorities and methods. The difference in priorities and interests between agents and principals is known as the principal-agent problem. Resolving the differences in expectations is called reducing agency loss. Performance-based compensation is one way that is used to achieve a balance between principal and agent. Common principal-agent relationships included in agency theory include shareholders and management, financial planners and their clients, and lessees and lessors.

A simple agency model suggests that, as a result of information asymmetries and self-interest, principals lack reasons to trust their agents and will seek to resolve these concerns by putting in place mechanisms to align the interests of agents with principals and to reduce the scope for information asymmetries and opportunistic behavior. Whilst agency theory would suggest that principals do not trust their agents, it is known that there must be some trust in agents because of the volume of unaudited information that directors provide to shareholders. Agency theory is a useful economic theory of accountability, which helps to explain the development of the audit. A general description of an agency relationship states that it is a contract under which one or more principals engage another person or persons as their agent(s) to perform some service on their behalf. To enable this performance, delegation of some decision-making authority to the agent is needed. Agency theory focuses on resolving two problems occurring in the agency relationship: agency problems and the problem of risk sharing. An agency problem occurs when the interests of the principal and agent conflict and it is difficult or expensive for the principal to monitor the agent's actions. On the other hand, a problem of risk sharing occurs when the principal and agent have different attitudes towards risk.

2.1.3 Control Theory

Control theory has been described as an interdisciplinary branch of engineering and mathematics that deals with the behavior of dynamical systems with inputs. The external input of a system is called the reference. When one or more output

variables of a system need to follow a certain reference over time, a controller manipulates the inputs to a system to obtain the desired effect on the output of the system.

The objective of a control theory is to calculate solutions for the proper corrective action from the controller that result in system stability, that is, the system will hold the set point and not oscillate around it. Systems have inputs and outputs to bring a product after processing and so inputs and outputs of a control system are generally related by differential equations.

2.2.0 Empirical Literature Review

There are different schools of thoughts that guide a researcher to concentrates much on this study. This aspect is focused on literary works like previous research, facts, etc. These literary materials discussed herein to portray an assessment of the impact of internal controls in improving revenue collection at TOSCI.

2.2.1 Risk Management

According to (Keitany, (2000) the objective of internal control in risk management is to help, identify and document the organization's risks in critical business processes and the internal controls within each process to mitigate those risks. For all businesses, there are risks that exist and need to be identified and addressed in order to prevent or minimize losses Risk assessment system is divided into three steps: risk identification, risk analysis and evaluation, risk control and report. Risk identification asks the enterprise to judge and analyze risks, including its nature, types and reasons of the occurrence, etc. Risk analysis and evaluation needs quantitative analysis of digital information collected by mathematical method in order to make the risk management based on scientific basis. The result of risk analysis and risk evaluation is the probability of occurrence and size of the risk so as to provide a dependable basis for decision making. Risk control and report should consider how to control risk. The method of controlling risk usually is to transfer risk, adverse risk and disperse risk

(Pickett, 2003) argued that, Organizations want to understand risk and need appreciating the importance of risk management to an organization. An organization cannot get smaller its way to magnitude. It must develop, and one of the keys to successful growth is effective risk management. Risk assessment, as defined by The IIA Standards for the Professional Practice of Internal

Auditing is a systematic process, for assessing and integrating professional judgments about probable adverse conditions or events. Risk impacts an organization's ability to compete and to maintain its financial strength and the quality of its products and services. It's the internal auditor's job to identify all auditable activities and relevant risk factors and to assess their significance.

2.2.2 Laws and Regulations

A compliance audit determines whether the organizational unit or function is following particular rules or directives. Such rules or directives can originate internally or externally and can include one or more of the following: organizational policies; performance plans; established procedures; required authorizations; applicable external regulations; relevant contractual provisions; and federal, state, and local laws.

The overall design of the internal controls function should be geared to the specific priorities of a country. For those countries with governance problems, the first and foremost objective should be to ensure compliance with the financial laws and regulations. For those developing and transitional economies faced with a high degree of fiscal stress, the need to ensure macroeconomic objectives will be paramount. For those countries that can ensure compliance with the law and have reached a fair degree of macroeconomic stability, more attention can be paid to ensuring efficiency and effectiveness of resource use.

(Adams, 2004) defined financial control as "the steps taken to ensure maximum safe custody of financial resources in order to avoid waste, misuse, embezzlement, misappropriation or illegal disposal of public finance". Government enforces financial control through the use of such instruments like civil service rule, financial instrument, financial memorandum, treasury accounting manual, financial regulation, etc.

2.2.3 Internal Audit

Internal audit is an additional safeguard for proper financial control in the public sectors. Each ministry, parastatals and local government is expected to establish an Internal Audit Unit. The internal audit unit is responsible for the audit of all financial transactions by carrying out a continuous examination of all accounting books and records maintained in the organization with a view to checking or detecting fraud and correcting errors. It is concerned with the examination of the system and procedure in place so as to ensure their conformity with the regulation, as the case may be, that the system of internal control is adequate and that it is

continuously operating in accordance with government regulations. It is the job of internal auditor to ensure that all financial transactions are in accordance with the approved regulations and that adequate system of security exists in the establishment (Momoh, 2005).

Internal control systems including internal audits are intended primarily to enhance the reliability of financial performance, either directly or indirectly by increasing accountability among information providers in an organization (Jensen, 2003). Internal control therefore has a much broader purpose such that the organization level of control problems associated with lower revenues, which explore links between disclosure of material weakness and fraud, earnings management or restatements (Doyle et al., 2005). Internal controls provide an independent appraisal of the quality of managerial performance in carrying out assigned responsibilities for better revenue generation. An effective internal control system unequivocally correlates with organizational success in meeting its revenue target level. Effective internal control for revenue generation involves a regular a review of the reliability and integrity of financial and operating information, a review of the controls employed to safeguard assets, an assessment of employees' compliance with management policies, procedures and applicable laws and regulations, an evaluation of the efficiency and effectiveness with which management achieves its organizational objectives.

2.2.4 Supervision

It is believed that an effective supervisor can be a business most valuable asset. The well trained supervisor who excels at managing employees can make everyone around him or her more effective and efficient. Several supervisory skills directly affect employee's development, helping them to achieve their potential while gaining skills that are valuable to the organization. If certain aspects are performed by one individual there is a chance that person can fraudulently convert the assets of the organization to own self and also manipulate the accounting records. In accounting for revenue in KRA the three aspects underlying any revenue transaction which are authorization, execution and recording are performed by different individuals. There must be a clear separation between those initiate records and those who are responsible for the collection of the money. This does not completely remove the possibility of fraud. This is just a control measure. Other measures also have to be instituted within the organization like strict follow up on people's backgrounds when hiring. Adequate screening of prospective employees

before hiring them and management supervisory checks should minimize this risk, or detect collusion if it has indeed occurred. (Havers, 2012)

Most organizations no longer set up internal control system as a regulatory requirement but also because it helps in ensuring that all management activities are appropriately carried out (Ewa and Udoayang 2012). Further, organizations are making it a point of duty to train, educate, and sensitize their employees on how to use these internal control systems since its effectiveness depends on the competency and dependability of the people using it. All these control actions ensure that any risks that may affect the company's ability to achieve its goals are appropriately avoided and should occur at all levels and in all functions of the organization. Further, there are three major classifications of internal controls; preventive, detective, and corrective. Preventive controls predict potential problems before they occur, make adjustments, and prevent an error, omission or malicious act from occurring. The detective controls are used to detect and report the occurrence of an omission, an error or a malicious act. Finally, the corrective controls help in ensuring that the impact of a threat is minimized, identify the cause of a problem as well as the correct errors arising from the problem. Corrective controls correct problems discovered by detective controls and modify the processing system to minimize future occurrence of the problem.

3.0 Methodology

The study applied mixed approach that utilizes both qualitative and quantitative methods to obtain the required data. Quantitative approach presents statistical results represented by numerical or statistical data while qualitative approach presents data as descriptive narration with words and attempts to understand phenomena in natural settings. Purposive sampling procedures were used in this study and the sample size of this study were 41 respondents.

> **Comment [u1]:** the working hypothesis to be tested has not been stated

Data were collected through questionnaire, interview and documentary review. Moreover, both qualitative and quantitative data were interpreted through discussion and inferences drawn in an effort to answer the questions that raised after setting the research objectives. The obtained findings were analyzed in a systematic way in order to have good conclusions and recommendations.

In this study, ethical issues were considered through confidentiality. The respondents' views and comments were only used for this research. In addition to that, permission from the required authority was adhered to before starting the

study. Furthermore, the researcher acknowledged all data and scholarly work consulted from journals, field data, dissertations and books.

4.0 Results and Discussion

This study set out to assess the impact of internal controls on revenue collection with reference to Tanzania Official Seed Certification Institute (TOSCI).

4.1 Response rate

The researcher distributed 41 questionnaires and received a total of 40 questionnaires back for analysis.

4.2 The Analysis of Effectiveness of Internal Controls in Improving Revenue Collection

Reliability analysis test explores the regularity and uniformity of the given feedback of respondents. The more consistency among the result will be, the high reliability of the scales. It is assumed that if Cronbach's Alpha is equaled to 0.7 up to 1, the internal consistency of the result is acceptable Farahiyah, A. et all (2020). In this study, Cronbach's Alpha was computed for each scale and the results were used as a test of the reliability of the scales with regard to the internal consistency of the scale items. The table 2 below show the reliability statistics of the variables in this study.

Scale: Risk Management, Laws and Regulation, Supervision and Internal Audit.

Table 1 Reliability Statistics

Independent variables	Cronbach's Alpha	Cronbach's Alpha based on standardized items	N of items
Risk Management	0.872	0.889	6
Laws and Regulations	0.925	0. 958	7
Supervision	0.969	0.968	7
Internal Audit	0.893	0.910	5

Source: Field data

From this perspective, the value of Cronbach's Alpha was found as 0.872 for the risk management, 0.925 for the laws and regulation, 0.969 for the supervision and 0.893 for the internal audit which were in the acceptable range.

4.2.1 Multiple Linear Regression

$Y = ß_0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + ß_4X_4 + м.$ Whereby;

Y= Dependent Variable (Efficiency of Revenue Collection)

$B_i = ß_0, ß_1 ………. ß_4$ = Parameter to be estimated

$X_1 – X_4$ = Independent Variables/Explanatory Variables

X_1 = Risk Management

X_2 = Laws and Regulation

X_3 = Supervision

X_4 = Internal Audit

м = Error term

4.2.2 The Regression Results

Table 2   **Coefficient[a]**

	Unstandardized Coefficients		Standardized Coefficients	t	p-value	Collinearity	
	ß	Std error	Beta			Tolerance	VIF
constant	-33.833	57.122		-.592	0.468		
Law & regulation	.667	.667	1.069	1.000	0.001	.156	6.400
supervision	1.167	1.190	1.247	.980	0.005	.110	9.067
Internal audit	.167	.289	.373	.577	0.005	.429	2.333

[a] Dependent variables: Efficiency of revenue collection

Table 3 Excluded variables[a]

Model	Beta in	t	Sig.	Partial correlation	Collinearity statistics		
					Tolerance	VIF	Minimum tolerance
Risk management	.[b]	.	.	.	.000	.	.000

Source: Field data

Laws and Regulation; With respect to hypothesis two, the regression results as shown in Table 2 indicate a t-value of 1.000 which is below the critical t-value of 2.028094. Thus, the hypothesis that there is no relationship between laws and regulations and revenue collection is rejected and the alternative hypothesis that there is a significant relationship between laws and regulations and revenue collection is accepted.

Supervision; In response to our third hypothesis by referring to table 2, it indicates that the t value is 0.980 showing that it is less than the critical t value, hence the hypothesis that there is no relationship between the supervision and revenue collection is rejected and accept the hypothesis that there is relationship between supervision and revenue collection.

Internal Audit: Similarly, the relationship between Internal Audit and Revenue Collection in table 2 shows the t value of 0.577, this t value is less than the critical value, hence the hypothesis that there is no statistical significant relationship between internal audit and efficiency of revenue collection is rejected and accept the hypothesis that there is a statistical significant relationship between internal audit and efficiency of revenue collection.

5.0 Conclusions of the Study

The conclusions are made on the basis of the literature review and research findings of the study. The related literature was reviewed involving the impact of risk management, laws and regulations, supervision and internal audit. Specifically this study makes the following conclusions:-

➢ The impact of risk management on collection of revenue at Tanzania Official Seed Certification Institute (TOSCI) in Morogoro Municipality. During quantitative analysis, it was realized that the presence of this variable led to some multicollinearity problem. Accordingly, it was dropped in the regression model. In qualitative data resulted worse because all staffs were not adequately involved in risk management process, revenue variance was not well identified easier by the management directly, and there was a tendency of not building risk awareness amongst staff by providing support and training. Furthermore, workers were not aware that there is a revenue leakage. In addition access of sensitive information had no security protocol in different levels and finally there was poor analyzing current risks and less or no identification of risks affecting the institution. Hence, this hypothesis was not tested.

Comment [u2]: I doubt the results of this data analysis
If the t value of 1,000 is below the critical t value of 2.028094, Ho should be accepted, Ha rejected. However, the P-Value value shows a value of <0.05 so that Ho is rejected and Ha is accepted.
Likewise for the third and fourth hypotheses
Please re-analyze.
The results of the analysis are not in accordance with the research objectives which state that: This study aims to assess the impact of internal control on revenue collection by referring to the Tanzania Official Seed Certification Institute (TOSCI)
Please revise

Comment [u3]: Does not match the test results. Contrary to the results of quantitative analysis

- The role played by the laws and regulation at Tanzania Official Seed Certification Institute on revenue collection. The regression analysis results as shown in Table 2 indicated a t-value of 1.000 which is below the critical t-value of 2.028094. Thus, the hypothesis that there is no relationship between laws and regulations and revenue collection is rejected and the alternative hypothesis that there is a significant relationship between laws and regulations and revenue collection is accepted. On the other hand, during qualitative analysis it was found that there were ineffective regulations and internal controls to promote the safety and soundness of their operation. Besides most TOSCI workers were not aware of laws and regulations, there was no punishment for the irresponsible TOSCI workers. In addition, top leaders, seed dealers and seed producers did not adhere to laws and regulations.

- The effect of supervision on revenue collection was analyzed quantitatively indicated that the t value is 0.980 showing that it is less than the critical t value, hence the hypothesis that there is no relationship between the supervision and revenue collection is rejected and accept the hypothesis that there is relationship between supervision and revenue collection. Furthermore, qualitative analysis revealed that there was no timely follow up of revenue collection, supervisors did not collaborate with subordinates in a manner that brings all partners together as a team. Furthermore, supervisors criticize negatively the poor work done by the subordinates as well as to give less opportunity to prove their worth and for aspiring higher. On the other hand in – service training, conferences and workshops were not well adhered to enhance revenue collection.

- The impact of internal audit on revenue collection indicated the relationship between Internal Audit and Revenue Collection in table 2 shows the t value of 0.577, this t value is less than the critical value, hence the hypothesis that there is no statistically significant relationship between internal audit and efficiency of revenue collection is rejected and accept the hypothesis that there is a statistically significant relationship between internal audit and efficiency of revenue collection. In addition, internal audit weakened revenue collection at Tanzania Official Seed Certification institute (TOSCI) in various ways like: the absence of control mechanisms designed to prevent or detect assets which were encouraged by the auditors, covering of the fraud, less obligation of the auditor to enhance revenue collection, poor direct

==communication to management when any suspects of fraud occur and the internal auditing was not an independent unit from audit clients.==

➤ Based on the findings of the study, it is concluded that there is a direct correlation between the level of internal controls and the amount of revenue collection by TOSCI. The level of internal controls can be measured by the effectiveness of those controls. Where there is an ineffective control system in place then revenue collection also goes down as demonstrated by the amounts collected when TOSCI had not put in place any controls with the time the organization started effecting controls.

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