An Empirical Analysis on Effects of Internal Control System on Tax Revenue Audit Performance; Evidence from Ethiopian Ministry of Revenue South and Southwestern Districts

Ganfure Tarekegn
05 kebele, Jimma, Oromia
(Corresponding Author)
tganfure@gmail.com

Beyene Yosef
Accounting and Finance department, Jimma University, Ethiopia
beyeneyo@gmail.com

Endalew Gutu
Accounting and Finance Department, Business and Economics College, Jimma University, Ethiopia
egutu2013@gmail.com

ABSTRACT

This study analysis the effects of internal control system on Tax revenue audit performance in Ministry of Revenue South and southwestern districts under explanatory research design. The study employed primary data sources and analyzed it using a multiple regression analysis on SATA 14 software. The regression analysis results exhibited that control activities, control environment and information and communication components were significantly affecting tax revenue audit performances of Southern and south western regions of ministry of revenue main offices in Ethiopia. Based on the findings of this study, the researchers recommended that it is better if Ethiopian ministry of revenue strengthen its control activities in strategic manner because good control activities easily responds to the dynamic situation with the full potential and prevent frauds & misappropriations of public assets. Moreover, organizational structures need to be integrated and coordinated by establishing effective information and communication dissemination systems because tax auditors need relevant, timely and persuasive evidences that really reflects the fairness of the organizations' position and promotes reporting reliable financial reporting.

Keywords:

Audit performance, Internal control system, Multiple regression, Tax Revenue, and Ethiopia.

1. Introduction

A current change in economic and competitive business environment increases social infrastructure demands and extensive organizational internal controls restructurings especially in public institutions. For the provision of basic facilities social services, based on their nation's economic and business situations, governments undertake huge public expenditure that requires ample amount of funds and taxes are the most significant and consistent contributing sources of fund than others (DeLong et al., 2012). Funding public expenditure and other items, tangibly expressing the common efforts of the public(Samuel & De Dieu, 2014). Tax revenue is defined as the revenues collected from taxes on income and profits, social security contributions, taxes levied on goods and services, payroll taxes, taxes on the ownership and transfer of property, and other taxes. To achieve the economic growth objectives, governments are expected to design and implement more dynamic internal control that assume continuous progresses in revenue generation and collection aspects. However, most African countries, including Ethiopia, tax revenue generation collection capability shows slow growth and, in some countries, even it is below their annual goal due to rigid and weak internal control systems especially in public sectors. For example, as a percent to Gross Domestic Product (GDP), statistics indicated that tax contributes 15% for low-income African countries, 22.5% for medium income and over 29% for high-income countries (Fuest & Riedel, 2009). Internal control is the responsibility of the management of organization and internal audit division assists management in discharging its responsibilities in terms of the implementation and monitoring stated in regulation manuals or directives as much as possible. The federal Inland Revenue Service of Ethiopia, has been put in place different reforms and structures to enhance government revenue by restructuring an internal control system in the form of return and payment processing unit, Information communication and technology unit, Bank Collection Services unit, tax refund processing unit, procurement & due process unit and finally, the more recently restructured and reformed operations was audit department operation. A tax audit is an examination of whether a taxpayer has correctly assessed and reported their tax liability and fulfilled other obligations (Mebratu, 2016). In contrary, these new processes and units faced serious challenges due to existence of fraud syndicates, unpleasant phenomenon of tax evasion, and the absence of a secured electronic system that can be solved good internal control system.

1.1. Statement of the problem

Tax revenue audit involves the gathering of information and processing it for determining the level of compliance of an organization with tax laws and a way that the assignments of public institutions were accomplished completely and efficiently(Nwaiwu & Okoro, 2018). In this context developing countries are in difficulty to collect taxes efficiently, because of many serious challenges they face as to tax design and administration(Damme et al., 2008). The recent statistics indicated that 16% of India, 15.9% of Ghana, 27% of South Africa while most developed nations (32% up to 35% of GDP ratio) revenue were from tax (Adeosun, 2010). The Ethiopian tax revenue to GDP ratio was 12.7%, which is much bellow from sub-Saharan Africa average of about 20% (Kubkomawa, 2017). A study conducted by (Mihret, 2011) revealed that scarcity of audit resources, absence of proficient and experienced tax auditors and absence of compliance risk-based audit case selection strategy makes tax audit program in Ethiopia remains undeveloped with slight range of tax audit activities performed targeting rightly specific risks. These absences of resources to be audited and lack of selection strategy of compliance audit and proficient auditor are mostly related with internal control structure of ministry of Revenue. Though (Birhanu, 2018), the Director of Planning and Performance at Ethiopian Revenue and Custom Authority, made a statement on strengthening, enforcing and expanding the tax base, Ethiopia ministry of revenue expect to meet its target of increasing the tax revenue, but he did not stated anything on what structure, by what mechanism their internal control techniques will be strengthen and enable them to achieve their target. The main aim of this study was to analyze the effects of Internal Control System on Tax Revenue Audit Performance a Case of Ethiopian Ministry of Revenue particularly on Hawassa and Jimma Districts.

1.2. Specific objectives

➢ To examine the influence of control environment on tax revenue audit performance in Ministry of Revenue.

➢ To analyze the effect of control activities on tax revenue audit performance in Ministry of Revenue.

➢ To Analyze how information and communication affects tax revenue audit performance in Ministry of Revenue.

➢ To investigate the impact of risk assessment system on tax revenue audit performance in Ministry of Revenue.

➢ Evaluate the effects of monitoring system on tax revenue audit performance in Ministry of Revenue.

2. Literature Review

Tax audit is an inspection of a taxpayer's business records and financial affairs to ensure that are the amount of tax reported and paid are in accordance with tax laws and regulations. Tax audit bodybuilding is a very important compliance tool in most tax authorities all over the world(Okonkwo, 2014). It has contributed immensely in creating awareness amongst stakeholders, strengthening of the self-assessment tax system, bringing of more taxpayers into the tax net, increased generation of tax revenue and checking of various abuses in the tax system. On the other hand, a sound internal control helps an organization to prevent frauds, errors and minimize costs or wastage. Internal controls lead to the promotion of adherence to laws, regulations, contracts and management directives and the development and maintenance of reliable financial and management data, and accurately present that data in timely reports (Kaplan, 2008). Internal control structure is a plan determining how internal control, a combination of interrelated components, such as control environment effecting behavior of employees, information and communication necessary in control, and control activities(Thabit et al., 2017). The simplicity of tax regulations reduces the time to undertake the audit, frequent check and prosecution for ensuring adequate compliance level(Salzman, 2005).

2.1. Theoretical literatures

The objective of a control theory is to extend solutions for corrective action from the manager that result in system stability, that is, the system will hold the set point and not waver around it (Mohammed, 2018). Control built within a process is internal in nature means it is an internal Control System of the firm designed it. Setting how much to generate tax revenue objectives, planning, budgeting for those implementors of the plan, and other expectations establish criteria for ministry of finance internal control. Control itself exists to keep performance or a state of affairs within what is expected, allowed or accepted. Agency theory is applicable to this study because internal control is one of numerous mechanisms used in both public and private organizations and businesses to address the agency problem by reducing agency costs that affects the overall performance of the relationship(Jensen & Payne, 2003). Internal control enhances the provision of additional information to the principal about the behavior of the agent, reduces information gap and reduces risk and finally it promotes revenue collection performances.

The theory posits that inadequate information about the relationship, interests or work performance of the agent described could be adverse and a moral hazard (Muhunyo & Jagongo, 2018,Hannah, 2013). Moral hazard and adverse selection influence the output of the agent in two folds, lack of knowledge about what should be done and failure to do exactly what the agents appointed to do. The Reliability theory assumes that an internal control system comprises of components that are interrelated and each component has a defined measure of success or not success in its outcome measurement (SIGILAI, 2017,Gavrilov & Gavrilova, 2001). According to (Kinney Jr, 2000), the primary purpose of internal control systems is to provide reliable information about the assets, evidence-based work done on one hand and prevent assets loss and that failure to detect or prevent material error on a timely basis by the system on the other hand. Under the umbrella of ministry of revenue, according to reliable theory, weak internal control systems bring greater cost to ministry revenue in particular and a country in general. It is also great burden to auditors if the institution is unable to provide reliable evidences.

2.2. Empirical literatures

Internal control and audit are key components of public financial management systems for increasing

efficiency and effectiveness in local government operations. Internal controls only provide reasonable assurance to an organization's management and board of directors that the organization's objectives will be achieved(Hannah, 2013). The impact of internal control system on revenue generation control at local government level and the descriptive analysis findings showed that internal control system plays a major role in prudently managing the resources and funds entrusted to public sector managers (Hannah, 2013). An inferential study by (Ochoge, 2011) on Limited Industries revealed that there is a significant positive relationship between internal control system and management of public funds; hence an ineffective control system promotes fraud in organizations. A study to establish the impact of internal control design and bank's ability to investigate staff fraud and staff life style and fraud detection in 13 Nigerian banks, using questionnaires, (Ewa & Udoayang, 2012), the study found a strong internal control mechanism but it is in difference to staff fraud while a weak one expose the system to fraud and create opportunity for staff to commit fraud. But, (Brennan & Solomon, 2008) argued that internal control only provides reasonable assurance to the firm's leaders regarding achievement of operational, financial reporting and compliance objectives; promoting orderly, economical, efficient and effective operations; safeguarding resources against loss due to waste, abuse, mismanagement, errors and fraud. Reliable and relevant and realistic information from both internal and external sources must be identified, captured, processed, and communicated to the people who need it in a form and timeframe that are useful. In his study, (Edmead et al., 2013) found the use of computers and other electronic appliances that enhances service delivery and increases administration efficiency of the government and customers also believe that the modern system can restore confidence and trust as well as transparency. In the contrary, (DEČMAN et al., 2010) examined whether the use of computers improves cost-effectiveness of the government administrative procedures and indicated that ICT expenditure is higher than the cost saving for both the taxpayers and tax administration. ICT increases innovation, productivity, and efficient practices and improves the overall performance of the public sector. Management should establish control activities to effectively and efficiently accomplish the organization's goals. Control activities are the policies and procedures that help ensure that necessary actions are taken to address the risks involved in the achievement of the entity's objectives (Karagiorgos et al., 2009).

3. Methodology

To what extent an internal control system supports organizational revenue generation and collection performance needs a research. Thus, in order to analyze the effect of internal control systems on tax revenue of internal audit performance of ministry of revenue, the researchers designed and used explanatory research approach. To fulfill the objective of the study, primary data, through the questionnaire and interview techniques, were collected and analyzed. The data were collected from 124 employees; specifically, from employees, officers of each sub-department, tax audit officers and top management of Ethiopian Ministry of Revenue Jimma and Hawassa Branches who are currently working in in Ministry of Revenue at southern and south western regions. Census method for questionnaires and judgmental sampling for interview were applied.

3.1. Method of data analysis

To analysis the data, researchers used inferential statistics specifically multiple regression analyzing tool. Under inferential, Pearson correlation was used to measure the relationship between independent and dependent variables of the study and STATA 14 software program was also used.

1.2. Model specification

$$TRIAP = \alpha_{ij} + \beta_1 ca_{ij} + \beta_2 ra_{ij} + \beta_3 ce_{ij} + \beta_4 ics_{ij} + \beta_5 monitor_{ij} + e_{ij}$$

Table1: Description of variables

Variable	Definition
TRIAP	Tax Revenue internal Audit Performance
ca	Control activities
ra	Risk assessment
ce	Control environment
ics	Information and communication system
Monitor	Monitoring system
e	Error term
i,j	Hawassa and Jimma town districts

Source: Researchers Design, 2019

4. Results

In most Sub-Saharan African countries, the level of public expenditure is 75 percent greater than the volume of public resources mobilized characterized by a budget deficit and highly dependent on foreign aid is as result of weak internal control system of their revenue generating responsible public sectors (Tadesse, 2016). Thus, to what extent internal control components stated by Committee of sponsoring organization (COSO) affects the efficiencies and collection performances of ministry of revenue in Ethiopia is the aim of this study. Accordingly, after ordinary least squares assumptions were checked separately, the results of inferential statistics were discussed.

4.1. Correlation Analysis Result

The Pearson correlation analysis result showed that the components of each internal control system of ministry of revenue organization positively contributed to tax revenue audit performance even though the degree of each impact was different from one to another. Among the existing components of the internal control system, control the environment (59.13%) control the activities (49.03%) and information and communication system (41.39%) showed the two highly correlated variables with tax revenue audit performance.

```
         triap       ca        ce        ra        ics      monitor
---------+------------------------------------------------------------
triap|   1.0000
   ca |   0.4903    1.0000
   ce |   0.5913    0.5787    1.0000
   ra |   0.4595    0.4299    0.6328    1.0000
  ics |   0.4139    0.2264    0.4607    0.4919    1.0000
monit |   0.0122    0.0062    0.0808    0.0982    0.0181    1.0000
```

Source: STATA result, 2019

4.3. The Regression Result

The most common fraud technique highlighted in the COSO Study involved improper revenue recognition and this statement underscores the importance of devoting proper audit attention to assessing and responding to fraud risks associated with revenue (PCAOB, 2014). Therefore, this analysis aims to identify which components of COSO determines tax revenue audit performance and the analysis result was presented below

```
  --------------------------------------------------
  icrcp |     Coef.    Std. Err.      t     P>|t|
--------+-----------------------------------------------
     ca |   .2147398   .0833317     2.58    0.011
     ce |   .3454675   .1039042     3.32    0.001
     ra |   .0585581   .0866116     0.68    0.500
    ics |   .1695766   .076339      2.09    0.039
  monit |   .1440854   .0610399    -0.72    0.472
  _cons |   1.038287   .3495725     2.97    0.004
  --------------------------------------------------
```

| F(5, 119) | Prob > F =0.0001 | N = 124 | Adj.R-square =0.6242 |

Source: STATA Result, 2019

According to (Aikins, 2011) control activities involves policies, procedures and mechanisms that ensure management's directives are properly carry out. In another term a good control activity easily responds to the dynamic situation with the full potential and prevent frauds and misappropriations of public assets. The Pearson correlation analysis of control activities and tax revenue audit performance showed positive that indicates when control activities are strong on accessing of assets, properly completing of transactions, timely recording transactions and appropriate documentations of evidences, thing remain constant, a performance of tax revenue audit will be better obtained. The statistical result of this study also reveals that control activity is one of the most significant variables at 1% significant level that affects

the revenue collection performances of the ministry of revenue in Ethiopia specifically, both at Jimma and Hawassa sub- regions. The control environment pronounces a set of standards, processes, and structures that provide the basis for carrying out internal control across the organization that strives to operate its business efficiently and effectively, safeguard its assets and provide reliable financial reporting to internal and external stakeholders (Chiduwa, 2015). The statistical result also showed found that control environment is positively collected to tax revenue audit performances in Ethiopian ministry of revenue by 59.19 percent and significant at 1 percent. According to an interview with managers of both southern and southwestern region districts of ministry of revenue branches, the proper design of well elaborated organizational structure enables the institution to reduces frauds, corruptions and misappropriation of organizational and public assets. Tax auditors need relevant, timely and persuasive evidences that really reflects the fairness of the organizations' position and promotes reporting reliable financial reporting for better decision making. Therefore, this study analyzed the effects of information and communication component on tax revenue audit performance and the statistical result reveals significant at 1 percent that is 0.0033. The Pearson correlation analysis also showed that information and communication is positively correlated to tax revenue audit performance by 41.39 percent. Tax revenue generation and collection is subject to business cycles and economic growth information flows especially at firm level. Monitoring is a way of assess and re-evaluate the already designed and implemented internal control system with responsible bodies for better organizational performance. The statistical analysis result shows that monitoring component is moderately influencing tax revenue audit performance.

5. Discussion & Conclusions

The Pearson correlation analysis of internal control system on tax revenue audit performance showed that all components of internal control system showed positive correlation with tax revenue audit performance. But, the degree of their correlation is different from one variable to another. Similarly, the regression analysis results exhibited control activities, control environment and information and communication components were significantly affecting tax revenue audit performances of Southern and south western regions of ministry of revenue main offices in Ethiopia. Based on the findings of this study, the researchers recommend that it is better if Ethiopian ministry of revenue strengthen its control activities in a well-structured and integrated manner because good control activities easily responds to the dynamic situation with the full potential and prevent frauds & misappropriations of public assets. Similarly, Ministry of revenue should upgrade its information and communication system using technologies at each branch level, established channels of communication for individuals to report suspected breaches of tax regulations. Because tax auditors need relevant, timely and persuasive evidences that really reflects the fairness of the organizations' position and promotes reporting reliable financial reporting for better decision making. Therefore, to foster a tax revenue audit performance, organizational structures need to be integrated and coordinated by establishing effective information and communication dissemination systems. Finally, it is advisable if the organization continuously assess and re-evaluate the already designed and implemented internal control system with responsible bodies for further collection and audit performances of tax revenue.

References

1) Adeosun, O. (2010). Quality basic education development in Nigeria: Imperative for use of ICT. Journal of International Cooperation in Education, 13(2), 193–211.

2) Aikins, S. (2011). An examination of government internal audits' role in improving financial performance. Public Finance and Management, 11(4), 306–337.

3) Baltaci, M., & Yilmaz, S. (2006). Keeping an eye on Subnational Governments: Internal control and audit at local levels. World Bank Institute, Washington, DC.

4) Birhanu, S. (2018). Contribution and challenges of indirect taxes In case of large taxpayers' branch office'. AAU.

5) Chiduwa, A. M. (2015). Evaluation of the impact of internal control environment on financial management of the Air Force of Zimbabwe (AFZ).

6) Damme, L., Misrahi, T., & Orel, S. (2008). Taxation policy in developing countries: What is

the IMF's involvement. DV406 Consultancy Project.

7) DEČMAN, M., Stare, J., & Maja, K. (2010). E-government and cost-effectiveness: E-taxation in slovenia. Transylvanian Review of Administrative Sciences, 6(31), 48–57.

8) DeLong, J. B., Summers, L. H., Feldstein, M., & Ramey, V. A. (2012). Fiscal policy in a depressed economy [with comments and discussion]. Brookings Papers on Economic Activity, 233–297.

9) Edmead, N., Ngwu, C., Oqua, B. I., & Pichel, F. (2013). Streamlining land administration and governance in Cross River State. Nigeria.

10) Ewa, E. U., & Udoayang, J. O. (2012). The impact of internal control design on banks" ability to investigate staff fraud, and life style and fraud detection in Nigeria. International Journal of Research in Economics & Social Sciences, 2(2), 32–43.

11) Fuest, C., & Riedel, N. (2009). Tax evasion, tax avoidance and tax expenditures in developing countries: A review of the literature. Report Prepared for the UK Department for International Development (DFID), 44.

12) Gavrilov, L. A., & Gavrilova, N. S. (2001). The reliability theory of aging and longevity. Journal of Theoretical Biology, 213(4), 527–545.

13) Hannah, N. (2013). The effect of internal controls on revenue generation: A case study of the University of nairobi Enterprise and Services limited. Egypt to Evaluate the Effect of Internal Controls on Revenue Generation in UNES.

14) Jensen, K. L., & Payne, J. L. (2003). Management trade-offs of internal control and external auditor expertise. Auditing: A Journal of Practice & Theory, 22(2), 99–119.

15) Karagiorgos, T., Drogalas, G., Eleftheriadis, I., & Christodoulou, P. (2009). Efficient risk management and internal audit. International Journal of Management Research and Technology, 3(2), 429–436.

16) Kinney Jr, W. R. (2000). Research opportunities in internal control quality and quality assurance. Auditing: A Journal of Practice & Theory, 19(s-1), 83–90.

17) Kubkomawa, H. I. (2017). Indigenous breeds of cattle, their productivity, economic and cultural values in sub-saharan Africa: A review.

International Journal of Research Studies in Agricultural Sciences, 3(1), 27–43.

18) Mebratu, A. A. (2016). Impact of Tax Audit on Improving Taxpayers Compliance: Emperical Evidence from Ethiopian Revenue Authority at Federal Level. International Journal of Accounting Research, 42(3968), 1–19.

19) Mihret, G. (2011). Tax audit practice in Ethiopia: the case of the Federal Government. Addis Ababa University.

20) Mohammed, A. (2018). Effect of internal control on revenue collection in Kintampo Municipal Assembly. University of Cape Coast.

21) Muhunyo, B. M., & Jagongo, A. O. (2018). Effect of internal control systems on financial performance of public institutions of higher learning in Nairobi City County, Kenya. Doctoral dissertation, Kenyatta University.

22) Nwaiwu, J. N., & Okoro, I. (2018). Government regulations on tax audit and government tax revenue in Nigeria. International Journal of Advanced Academic Research/Accounting and Economic Development, 4(2), 74–93.

23) Ochoge, J. (2011). On Internal Controls and Organizational Performance: A case of Medipont Industries. Published MBA Thesis. Makerere University, Uganda.

24) Okonkwo, A. I. (2014). Critical evaluation of tax audit & investigation processes in enhancing tax compliance. Being a Paper Presented at the CITN MPTP in Uyo on October, 8–9.

25) Salzman, J. (2005). Decentralized administrative law in the Organization for Economic Cooperation and Development. Law and Contemporary Problems, 68(3/4), 189–224.

26) Samuel, M., & De Dieu, R. J. (2014). The impact of taxpayers' financial statements audit on tax revenue growth. International Journal of Business and Economic Development (IJBED), 2(2).

27) SIGILAI, D. K. (2017). Assessment of Internal Control Systems Effects on Revenue Collection at Nakuru Level Five Hospital. COHRED-JKUAT.

28) 28) Tadesse, A. (2016). The Challenges of Internal Revenue Generation and administration in The Ethiopian Public Higher Education Institutions: A Case Study of Addis Ababa University.

29) Thabit, T., Solaimanzadah, A., & Al-abood, M. T. (2017). The Effectiveness of COSO Framework to

Evaluate Internal Control System: The Case of Kurdistan Companies. Cihan International Journal of Social Science, 1(1), 44.