Does Audit Quality Matter? Evaluating Tax Audit Quality's Impact on Tax Compliance

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Abstract

Tax audit is an activity performed by Tax auditors to determine at taxpayer's correct tax liabilities for a particular tax period. The aim of this study is to assess the effect of tax audit quality and effectiveness on tax compliance perception of taxpayers, on tax auditor's perspective, since the number of the population to be studied is small and there are 94 tax auditors and team leaders the study was applied census approach. The response variable of interest is ordinal in nature then the data was analyzed using ordered logistic regression model. The findings from the study results exposed that both tax audit quality and tax audit effectiveness have a positive significant effect on tax compliance behavior of the taxpayer. Being 16.7% more likely to be highly compliant and 6.32% less likely to be low compliant are correlated with every one point increase in tax audit quality. Additionally, a unit increase in tax audit effectiveness is related to an 11.8% rise in highly compliant behavior. Accordingly, the tax office ought to have paid periodic attention to the quality of the tax audit file, because higher-quality tax audits will result in higher rates of tax compliance, and the tax office could increase the quality of their audits by providing auditors with ongoing training, improving IT usage, educating taxpayers, and encouraging all necessary voluntary compliance.

Keywords: tax audit, compliance, audit quality, effectiveness

1. Introduction

Tax is a mandated payment or contribution to the government that does not result in a direct return for taxpayers. If a person is liable to pay a tax, they are personally obligated to do so. Ethiopia, like other developing nations, faces challenges in generating sufficient revenue to expand its development efforts. For a considerable amount of time, Ethiopia has maintained a constant expenditure surplus over revenue. As a result, a revenue body's effective tax audit program serves several important functions and can significantly improve tax administration (Engida, T.G and Baisa, GA., 2014).

A tax audit is a systematic examination process to assess whether the reported tax liability in the financial statement of taxpayers complies with tax laws, regulations, and other obligations. To achieve a balanced program of tax audits such as audit coverage, audit quality, and deterrent are the aim of the revenue authority (Organization for Economic Co-Operation and Development (OECD, 2006). According to (Rick, 2005), an audit is a systematic and scientific process to obtain objective evidence and examination of several books of accounts by independent auditors. It aims to ascertain the accuracy of financial statements provided by an organization based on established criteria and reports the result to interested users.

One indicator that causes tax avoidance is the audit quality factor. Audit quality is a performance auditor in the auditing process that is guided by the Professional Public Accountant Standard. The more qualified audit results carried out by auditors in providing services to the company; the more the action of profit manipulation for tax interest tends not to be done by the company (H. Chai, and Q. Liu,, 2010).

Audit quality can be defined in general from two perspectives: first, an auditor discovers a breach in the client's accounting report and system and second, an auditor should report independently the discovered breach to the users of the information (Chadegani, 2011)

The difference in interest between the government and taxpayer body triggers non-compliance by the management of the organization. Such disobedience is the company's effort to conduct tax avoidance that impacts the diminishing of state treasury receipts. Tax avoidance activity is a transaction made by the company to reduce the burden of taxation by utilizing gaps in the tax rules. One indicator that causes tax avoidance is the audit quality factor. The more qualified audit results carried out by auditors in providing services to the company; the more the action of profit manipulation for tax interest tends not to be done by the company (H.Chai, and Q. Liu, 2010).

This study main aim is to investigate the effect of tax audit quality on tax compliance behavior of taxpayers in the case of the Ethiopian Ministry of Revenues, with the perspectives of tax auditors of the tax office.

2. REVIEW OF LITERATURE

Theoretical Review

According to the (OECD, 2006), a tax audit is an examination to determine whether a taxpayer has met other obligations and accurately assessed and reported their tax liability. However, according to (ERCA, 2010), a tax audit is defined as "an activity or a set of activities performed by tax auditors to determine a taxpayer's correct tax liabilities for a specific accounting or tax period, by examining a taxpayer's organization products and financial records to assess compliance with tax laws and verifying the true, fair, reliable, and accuracy of tax returns and financial statements."

According to ((Okonkwo, 2014) cited in (Amah, et.al., 2018)), critical evaluation of tax audit & investigation processes in enhancing tax compliance; tax audit bodybuilding is a very important tool for compliance in the majority of tax authorities worldwide. It has significantly contributed to enhancing the self-assessment tax system, increasing the number of taxpayers, generating more tax revenue, and preventing various cases of abuse of the tax system. On the other hand, a solid internal control system helps an organization cut costs and waste while also preventing errors and fraud. A tax audit, according to ((Kirchler, E., et.al., 2007) cited in (Dauda, et.al., 2018)), is a look at a taxpayer's accounts to see how well they comply with a state's tax laws, procedures, and standards. It is an essential component of a tax system that ensures taxpayers comply with their obligations. According to (Modugu, K. P., & Anyaduba, J. O. , 2014), a tax audit is a process of examining a company's profits and returns under relevant tax laws. Most of the time, tax audits focus on areas where there is a high risk of overpaying or underpaying taxes. However, determining the correct amount of tax to be paid is the primary goal of an audit.

The primary principles of the Ethiopian Ministry of Revenues, tax audit policy, and strategy are facilitation vs. control, taxpayer relationship, improved tax audit management, and auditor professionalism. Ethiopia's revenue administration system relies on taxpayers assessing their liability under the law and paying the correct amount of tax (ERCA, 2010).

Objectives of Tax Audit

The overall objective is to improve the compliance of taxpayers whether they declare the correct amount of tax and paid at the right time. The expectation by a taxpayer of an audit should have a deterrent effect and encourage the taxpayer to declare as far as possible a credible tax return, it also improves the taxpayer's understanding and awareness of the relevant taxes (MOR, Compliance Risk Management Strategy, 2019). The main purposes of tax audit in Ministry of Revenues are: Establish the extent of risks and quantify any errors which may have arisen as a result, improve future compliance, support those who wish to comply and deter noncompliance.

As (Biber, 2010) noted, the role of an audit program in a modern tax administration must extend beyond merely verifying a taxpayer's reported obligations and detecting discrepancies between a taxpayer's declaration and supporting documentation. Most of taxpayers declare and pay their tax liabilities precisely, if they believe that the tax administration can detect any unreported tax and that weighty punishments might be applied when they are identified. Thus, tax audit results in increased tax revenue in two ways: first, directly through assessment of additional taxes; and secondly, indirectly by discouraging underreporting of liabilities by all taxpayers.

The purpose of tax audits is to check the evasion of tax and ensure compliance with the laws and regulations (Micci-Barreca, D., & Ramachandran, S., 2004). According to the OECD, tax audit would serve the following purposes: Firstly, Ensure that the books of accounts and other records are properly maintained, Secondly, Faithfully reflect the income of the taxpayers and claims for deduction correctly made by him, thirdly, help in checking fraudulent practices, and lastly, facilitate the administration of tax by a proper presentation of accounts before the tax authorities and considerably saving the time of assessing officers in carrying out routine verifications like checking correctness of totals and verifying whether purchases and sales are properly vouched or not, thereby their time could be utilized for attending to more important investigational aspects of the case (OECD, 2006).

Audit Quality

Audit quality has been a big topic of discussion since the financial crisis (Neri, L., & Russo, A., 2014). In recent years, significant efforts have been made to make audit firms and their services more transparent and to provide tools for evaluating auditors. Academic researchers have measured the factors that influence audit quality in a variety of ways. Some of the factors that influence audit quality include tenure, client size, prior experience, auditor size (Pitkänen, 2016), audit team-related factors, audit environment, and audit office-related factors. However, little attention is paid to the quality of tax audits.

The Ministry of Revenue's TAQA (Tax Audit Quality Assurance) program's objectives are to determine whether the audit teams adhere to the Ministry's tax auditing standards and procedures (MOR, Tax Audit Quality Assurance Review Manual, 2019) and (ERCA, 2010); The auditors are keeping accurate records of the audit procedure; high standards of professional conduct are being displayed by the auditors, basic infrastructure facilities have been provided to the audit formation, the staff allocated is adequate, and senior staff involvement is proportional to the complexity of the audit.

Auditor's Experience (AC)

An auditor's unique knowledge, skills, and abilities are derived from their work in the auditing profession. According to Paithun, 2010 cited (Yeshiwork, 2021), auditing experiences enhance the auditor's capacity for information processing, alternative solution comparison, and subsequent action-taking. They are more likely to develop the consistency and consensus of risk judgments, assessments, and evaluations in auditing practices under different conditions, situations, and circumstances as a result of audit experience (Ayalew, 2014). According to (Fleming, 2014), a strong audit specialization can be achieved by auditors who have relevant practical experience, education, and training in a particular industry. They reasonably facilitate the refinement of the elements of audit knowledge, which can assist in anticipating potential misstatements, detecting anomalies, effectively verifying consistencies, and explicitly improving audit risk assessments.

Information Technology (IT)

The use of information technology can shorten work time and make work more efficient. (Tarek, M., et.al. , 2017), in their research concluded that the use of information technology can increase the productivity of auditors in carrying out each stage of the audit task. Thus, there is a relationship between the use of information technology and the quality of audit results.

Task Complexity (TC)

Task complexity can be experienced by individuals in their interactions with tasks, such as the difficulty level of the task, cognitive abilities, unclear task procedures, and individual capacity to complete the task, (Campbell, 1988). According to (Huey, B. M., & Wickens, C. D., 1993), explain that complex tasks will make individual performance relatively lower compared to simple tasks. Task complexity in the context of auditing (Abdolmohammadi, M., & Wright, A. , 1987), explains that complex tasks are closely related to the structure of the audit task, which in turn can affect the auditor's judgment in resolving audit cases.

Auditors' Training

For auditors to improve their abilities, training is an essential component. For audits to be effective, new methods must be learned. According to (Masood, A., & Afzal, M. , 2016), auditor training institutes have been established, but they fall short of the mark. Therefore, assert that auditor training enhances audit efficiency. According to (OECD, 2006), auditors must receive both initial trainings (in the classroom and on the job) to bring them up to the required level and ongoing training to keep their skills current and relevant to maintain auditing standards.

Audit effectiveness

The word effectiveness has been defined by different researchers, for instance (Dittenhofer, 2001), views effectiveness as the ability toward the achievement of objectives and goals. An effective tax audit can improve deterrence measures by increasing the probability of being detected, rather than imposing sanctions. According to the Tax audit manual (MOR, Tax Audit Quality Assurance Review Manual, 2019), audit performance evaluation should consider Audit quality, Audit yield, and Audit coverage.

Effective tax audit program provides valuable support in gathering information on the health of the tax system, improving future compliance, and identifying areas of the tax law that require clarification (Sarfo, 2015). When tax audit practice becomes ineffective, it may result in the deterioration of tax compliance and a loss of credibility of the tax administration (Tesfaye, 2018). Audit effectiveness starts with selecting high-risk taxpayers for audit and ends with rising taxpayer compliance. The common audit case selection methods include a random selection of cases, manual screening/case review by auditors, and risk-based case selection (Bank, 2011).

The Ministry of Revenues Tax Audit Quality Assurance (TAQA) program's objectives are to determine whether the audit teams adhere to the Ministry tax auditing standards and procedures (MOR, Tax Audit Quality Assurance Review Manual, 2019) and (ERCA, 2010).

We say that the audit result is effective if the tax audit quality assurance accepts an effective report; based on this, the audit effectiveness work will be dependent on the audit quality; The auditors' knowledge and experience, support from senior management, organization structure, and other factors that can lower audit quality all affect the quality of the tax audit and will affect the quality assurance of the tax audit.

Audit attribute

Audit attributes with implications on audit effectiveness include the auditors' proficiency to efficiently and effectively meet organizational sub-goals, their attitude towards tax Audit, the cooperation or support of taxpayers at the time of auditing provided to the tax auditor, to have full and unrestricted access to all activities, records, and properties, and be provided with cooperation from the audit.

Organizational setting

According to the findings of studies carried out (Abera, 2016) and (Ayalew, 2014), the relationship between the organizational setting and tax audit effectiveness is thought to be a factor that influences tax audit effectiveness. It describes the setting in which a tax audit takes place. As a result, the organizational environment may affect the level of efficiency that a tax audit might achieve. The audit's ability to achieve its intended goals is reflected in its attributes.

Management support

According to (Abera, 2016), (Ayalew, 2014), and (Mihret, D. G., & Yismaw, A. W., 2007), top management support for tax auditing is a significant factor in its effectiveness. One of the two most significant influences on audit efficiency is management support, along with tax audit quality. (Leung, P., et.al., 2011), discovered in a survey of Australian internal auditors that chief audit executives generally have very high praise auditors performance. They think they can have an impact on decisions and see themselves as an essential member of the management team; in their jobs, maintain a sufficient level of objectivity, integrity, and competence; and give their employees good support. More importantly, they believe that upper management's support is essential to their role's effectiveness.

Tax compliance

The practice of adhering to tax laws and regulations in a particular state, nation, or international community is known as tax compliance. According to (Verboon, P., & Van Dijke, M. , 2007) stated that tax compliance is the willingness of individuals to comply with relevant tax authorities by paying their taxes. Others like (OECD, 2008), all residents and organizations would fulfill their commitments under the expense regulation to enroll where explicitly required and to intentionally proclaim and pay on time their tax liabilities, all determined completely and precisely adhering to the law. Citizens and businesses are required to comply with four fundamental tax compliance obligations, which are governed by each revenue body's respective tax laws: to register for tax purposes, correctly report tax liabilities (including as withholding agents), and pay taxes on time (i.e. by the date stipulated in the law). Also, the compliance model from the Ethiopian Ministry of Revenues (MOR, Compliance Risk Management Strategy, 2019) shows that taxpayers who do not intend to be non-compliant tend to take action in the form of services and counseling (voluntary compliance), while taxpayers who intend not to comply to be supervision, inspected, and enforced by law.

The tax audit quality is a deterrent effect that will increase enforced compliance, it can also increase taxpayers' trust in the state so that voluntary compliance can also be increased (Kirchler, E., et.al., 2007)). Various internal and external factors can influence the quality of examination results that are not yet optimal. Internal factors come from the tax auditors' quality, while external factors can come from situations influenced by the audit rules. Regarding the quality of human resources, audits are carried out by a tax auditing team called the Tax Auditor Functional, which consists of a supervisor, team leader, and team members.

Empirical Review

In 2020 the study (Laykemaryam, 2020) looks into the factors that affect the effectiveness of tax audits on taxpayers in categories "A" and "B" as well as tax auditors in the North Shewa Zone Revenue Office. Explanatory and descriptive research designs, as well as qualitative and quantitative research methods, descriptive statistics, linear regression analysis, and Pearson's correlation were used to conduct a quantitative analysis of the data. Quality of tax audits, organizational independence, top management support, staff auditors' competence, and information systems all had a positive and statistically significant effect on tax audit effectiveness. However, the organizational setting has no statistically significant effect on tax audit efficiency. Study by (Tesfie, D. S., et.al., 2021), investigate factors affecting the effectiveness of tax audits; Tax auditors and tax officers (such as tax assessment and collection, taxpayer education, job process owners, and the head of the revenue administration office) made up the study's population. The study evaluated the relationship between the variables using the binary Logit model to accomplish the preceding goals. The conclusion was that the South Gondar zone revenue office's tax audit effectiveness was statistically significantly improved by factors such as audit case selection, audit experience, and audit types performed.

The study by (Tesema G. and Teklu K., 2020), used descriptive statistics to investigate the performance of tax audits in the case of the Western Addis Ababa Small Taxpayer Branch office. The population consists of all 62 risk-based tax auditors and 10 team leaders. The study findings show that most audit cases were not conducted as per the audit manual and weak performance in detecting non-compliant taxpayers. Further tax auditors give less attention to audit awareness creation during the audit process and tax auditor's professional advice and recommendations were not given in written form to the taxpayers.

Study on the effectiveness of tax audit on revenue collection by (Gizaw, 2017), the target groups for the study were 85 tax auditors for questioners and six managers and supervisors for interview by census method used and

data was analyzed on quantitative basis using Pearson's correlation, linear regression analysis, and descriptive statistics. The result of the study revealed that tax audit effectiveness was determined by the legal framework, audit selection process, and auditors' performance and management support.

Jara Nasir, (Jara, 2020) studied the impact of tax audits on improving the compliance of taxpayers: the case of the Jimma city administration revenue authority office. To achieve the objective of the study, he used both qualitative and quantitative research methods. The Sample of respondents selected for the study was all tax audit staff members and descriptive statistical tools and multiple linear regression analysis were used in analyzing the data collected. The result of study findings showed that the probability of being a tax auditor and taxpayer attitudes and awareness has a positive effect on the level of tax compliance.

A study by (Mersha, S. Z., et.al., 2022), investigated the factors that influence the quality of tax audits in Ethiopia using the audit procedure as a mediator, with particular attention paid to the Ministry of Revenues. The study employed a mixed research design and concurrent triangulation. The results showed that the quality of the tax audit was positively impacted by audit input factors, audit process, and contextual factors.

Further, the majority of previous studies on tax compliance issues attempted to investigate the factors that influence fraud detection and improvement in compliance. However, as far as the researcher is aware, it is possible to conclude that, even though there have been several studies on issues related to tax audits in both developed and developing nations, Ethiopia in particular, there are not sufficient studies that thoroughly examine the relation between audit quality and tax compliance. In a similar vein, no study has been able to examine the level of taxpayer compliance from the perspective of a tax auditor. It leaves a void that this study aims to fill empirically by examining some studies on tax audit practice, effectiveness, and quality in Ethiopia. The study (Jara, 2020) mainly focused on the impact of tax audits on improving a compliance level of taxpayer compliance. This study did not thoroughly examine issues regarding tax audit quality and its effect on tax compliance attitudes. The following research question is formulated based on these gaps in the literature: What is the relationship between tax audit quality and tax compliance?

3. RESEARCH METHODOLOGY

The researcher used both primary and secondary sources of data to achieve the objective of the study. This study was focused on the tax audit quality effect on tax compliance in Ministry of Revenue, which has 94 senior tax auditors, tax audit team leaders, and tax audit work process owners which is the required number the study has drawn. The study has used a stratified random sampling techniques to collect data from branch offices. The data was collected through quantitative types of data using primary and secondary sources of data. These collected data instruments are standardized questionnaires and a review of relevant documents. Then, before the real dissemination of the instruments for a full-scale survey, a pilot test was made and data was collected from 7 senior tax auditors at the tax office, which is selected through the population of the study. The study administered 94 questionnaires out of which 87 questionnaires were completed and returned.

Before presenting the data analysis methods adopted, the study was try to specify the variables and models used in the study. Accordingly, the study used a total of two independent variables tax audit quality (proxies by auditors experience, task complexity, IT and training) and tax audit effectiveness (by using proxy variables like organization structure, management support and audit attribute), that measure the practice of tax compliance in the branch office. In the research, logistic regression models were employed to examine the tax audit quality and tax audit effectiveness, using Stata-15 software.

Model Specification

Ordered logit model depends on the total probabilities of the reaction variable: In particular, the regression coefficients are assumed to be constant across response categories and the logit of each cumulative probability is assumed to be a linear function of the covariates (Agresti, 2010).

Questions relating to tax compliance behaviors of taxpayers with tax audit quality and tax audit effectiveness are ordinal. The answer to the question on, how do you rate the quality of tax audits enable taxpayers to comply with the tax law: ranges from 1 to 3, with 1 being low compliant and 3 being highly compliant. The response variable for this study was compliance, which is categorized as:

$$compliance = \begin{cases} 1, low \\ 2, medium \\ 3, high \end{cases}$$

To accomplish the goals of this study ordered logistic regression model was used. The primary goal of this study's use of regression analysis is to assess the effect of audit quality on the tax compliance of taxpayers. Accordingly, a logistic regression model function is as follows:

$$logit(compliance) = log \frac{compliance}{1 - (compliance)}$$

To test the determinants of tax audit quality, tax audit effectiveness, and tax compliance (affected by tax audit

quality and tax audit effectiveness) this study considers the following model:

$$logit(compliance) = β0 + β1.TAQ + β2.TAE$$

Validity and Reliability

Reliability is the consistency of a set of measurements often used to describe a test. If Cronbach's alpha index is greater than 0.70, the questionnaires submitted to the study are considered reliable indicators (Hair, J. F.,et.al., 2014).

Table 1 Validity of Tax audit quality

Variables	Factors	Items	Factor loading	CR	AVE	CR	AVE	alpha
Tax Audit Quality	Auditors Experience	AE1	0.893	0.895	0.632	0.962	0.574	0.72
		AE2	0.763					
		AE3	0.742					
		AE4	0.818					
		AE5	0.749					
	Task Complexity	TP1	0.774	0.867	0.567			
		TP2	0.700					
		TP3	0.740					
		TP4	0.793					
		TP5	0.755					
	Information Technology	IT1	0.736	0.852	0.535			
		IT2	0.767					
		IT3	0.730					
		IT4	0.691					
		IT5	0.732					
	Training	TR1	0.735	0.834	0.557			
		TR2	0.743					
		TR3	0.776					
		TR4	0.730					
Tax Audit Effectiveness	Organization structure	OS1	0.740	0.849	0.585	0.957	0.629	
		OS2	0.768					
		OS3	0.780					
		OS4	0.771					
	Management Support	Mgs1	0.851	0.902	0.650			
		Mgs2	0.827					
		Mgs3	0.781					
		Mgs4	0.750					
		Mgs5	0.816					
	Audit Attribute	AT1	0.781	0.880	0.647			
		AT2	0.786					
		AT3	0.826					
		AT4	0.823					

Source: author compilation (2023)

The overall Cronbach's Alpha of variables in the model almost equals 0.72 for the entire questionnaire, which indicates very good reliability. Therefore, the responses generated from all variables in this study were reliable enough for data analysis.

A measure of the amount of variance that is captured by a construct regarding the amount of variance that is caused by measurement error is known as the Average Variance Extracted (AVE). Factor loadings from maximum likelihood regressions create these conventional indices. For each construct, the assessment of Average Variance

Extracted (AVE) greater than 0.50 (Hair, J. F.,et.al., 2014). Composite reliability (construct reliability) is a measure of internal consistency in scale items, much like Cronbach's alpha (Netemeyer, 2003). Thresholds for composite reliability can be from .60 and above.

As we see from Table-1 the average variance extracted (AVE) for tax audit quality (0.574) measure with four different factors contained 19 items, the AVE value of Auditors Experience was 0.632 with five items, task complexity 0.567, Information Technology 0.535 and Training 0.557. The tax audit effectiveness average variance extracted was 0.629, and it was measured in the proxy of organization structure, management support, and audit attributes with AVE values of 0.585, 0.650, and 0.647 respectively. Since, the composite reliability (CR) for tax audit quality was 0.962 and tax audit effectiveness 0.957; the CR for auditor's experience (0.895), task complexity (0.867), information technology (0.852), training (0.834), organization structure (0.849), management support (0.902) and audit attributes (0.880). This indicates that construct reliability is sufficient. The measurement model contained 32 items, all of which demonstrated an acceptable level of construct validity and construct reliability.

4. Result and Discussion

CLRM assumptions and Diagnostic tests

The diagnostic tests were undertaken to ensure that the data fit the basic assumption of the classical linear regression model. It is very important to determine whether the model improves the predicting ability of the outcome before evaluating the effect of each explanatory variable in the model. The test of the classical linear regression model assumptions was presented as follows.

The Breusch-pagan test was used by the researcher to determine the heteroskedasticity of the study's variables. The alternative hypothesis asserts that the error variances are a multiplicative function of one or more variables, whereas the test employs the null hypothesis, which states that the error variances are all equal (homoscedasticity).

Table 2 Heteroskedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of compliance
chi2(1)   =   2.91
Prob > chi2 =   0.088

Source: Stata-15 output result, 2023

As per the results, the null hypothesis suggests the presence of constant variance which means data is homoscedastic. The figure above shows that the probability value of the chi-square statistic 0.088 is greater than the significance value of 0.05, indicating a statistically insignificant Chi-square test. This result indicates there is no problem with heteroskedasticity.

One of the important steps in a regression model is determining whether there exists multicollinearity among independent variables. Multicollinearity happens when at least two illustrative factors are profoundly connected to one another. As stated by (Pallant, 2007), if the value of VIF is greater or equal to 10, then a multicollinearity problem exists. A tolerance (1/VIF) less than 0.1 also indicates the existence of multicollinearity between the variables.

Table 3 Multi-collinearity test

Variable	VIF	1/VIF
TAE	1.02	0.991385
TAQ	1.01	0.991399
Mean VIF	1.01	

Source: Stata-15 output result, 2023

As reflected in Table 3, the result confirms that the VIF for all the estimated parameters, TAQ, and TAE are 1.01 and 1.02 respectively. Since the variance inflation factor is less than the cutoff point, 10, and the tolerance (1/VIF) is greater than 0.10, this indicates that all variables are relevant and multicollinearity is not there.

A model specification error occurs when one or more than one relevant variable is omitted and/or one or more irrelevant variables are included from the regression model, and it substantially affects the estimate of regression coefficients. To ascertain the correctness of the regression specified in estimating the model, it is important to conduct a test for misspecification.

Table 4 Model specification test

Compliance	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
_hat	-1.521	3.515	-0.43	0.666	-8.512	5.469
_hatsq	.586	.815	0.72	0.474	-1.035	2.207
_cons	2.676	3.762	0.71	0.479	-4.805	10.158

Source: Stata-15 output result, 2023

The null hypothesis is there is no model specification error. The p-value of _hatsq is insignificant (0.474) then the researcher fails to reject the null hypothesis and concludes that the model is correctly specified. Therefore, the independent variables: tax audit quality, and tax audit effectiveness have been important factors for tax compliance.

Ordered logistics regression Result

The ordered logistic regression (logit) model is a regression model for an ordinal response variable, when the response variable has three or more possible outcomes, and these values do have a defined order. To answer the question: Does the quality of tax audits enable taxpayers to comply with the law, as a dependent variable the study used an ordered logistic regression model.

Table 5 Odds ratio

Compliance	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf. Interval]	
TAQ	2.503466	.7910346	2.90	0.004	1.347667	4.650512
TAE	1.908771	.4467949	2.76	0.006	1.20645	3.019942
/cut1	3.201714	1.525145			.2124854	6.190944
/cut2	7.031368	1.725828			3.648807	10.41393

Source: Stata-15 output result, 2023

The ordered logistic regression results show the existence of a statistically significant relationship between tax audit effectiveness and tax compliance perception of tax auditors, tax audit quality, and tax compliance. Regarding tax audit quality, the result of ordered logistic regression shows a positive and significant relationship with tax compliance with a p-value of 0.004.

The proportional odds ratio for a one-unit increase in TAE score on compliance level is given that the other variables in the model are held constant. Thus, for a one-unit increase in TAE score, the odds of high compliance versus the combined middle and low compliance are 1.91 times greater, given the other variables are held constant in the model. We would say that for a one-unit increase in TAE, i.e., going from 1 to 2, the odds of high compliance versus the combined middle compliance and low compliance categories are 1.91 greater, given that all of the other variables in the model are held constant. Likewise, the odds of the combined middle and high categories versus low compliance categories is 1.91 times greater, given that all of the other variables in the model are held constant.

To assess the quantitative effects of the independent variables, marginal effects are calculated. The table 6 below presents the marginal effect of ordered logistic regression for the five categories (strongly agree, agree, neutral, disagree, and strongly disagree).

Table 6 Marginal effect estimation

	Delta-method					
TAQ	**dy/dx**	**Std. Err.**	**z**	**P>|z|**	**[95% Conf. Interval]**	
_predict						
1	-.0632451	.027024	-2.34	0.019	-.116211	-.010279
2	-.1038077	.0390034	-2.66	0.008	-.180253	-.027362
3	.1670528	.0523709	3.19	0.001	.0644077	.269698
TAE						
_predict						
1	-.0445532	.0197569	-2.26	0.024	-.083276	-.0058304
2	-.0731276	.0284237	-2.57	0.010	-.1288371	-.0174182
3	.1176808	.0389882	3.02	0.003	.0412655	.1940962

Notes: 1= low, 2= medium and 3= high
Source: Stata-15 output result, 2023

In terms of marginal effects, a one-point increase in tax audit quality (TAQ) is associated with being 6.32% less likely to low with the statements related to tax compliance, 10.4% less likely to medium tax compliance with the statements, and 16.7% more likely high to the statements related to tax compliance or they were more compliant.

The marginal effects indicate that a unit increase in tax audit effectiveness is associated with a 4.45% less likely to belong to low and 7.3% less likely to belong to medium compliance and 11.8% more likely high with the statements of tax compliance perception.

5. Conclusion and Recommendation

Since tax audit is very crucial for the tax collection process for any tax authority, tax audit quality is the main means to ensure tax compliance of taxpayers. The existence of tax audit quality in the tax authority increases tax compliance and reduces tax evasion, hence improving the tax collection process. Giving attention to this aspect, this study investigated the effect of tax audit quality on tax compliance in the Ethiopian Ministry of Revenues; the following conclusions and recommendations were drawn.

As we understand from the logit regression results as shown in Table 5 and 6, the study finding provide evidence that tax audit quality has a significant effect on tax compliance. In this study tax compliance and tax audit quality was found to have a positive relationship, implying as the quality of tax audit increase tax compliance will increase and vice versa. The study also examined the effect of tax audit effectiveness on tax compliance. Accordingly, the findings show that there is a strong positive relationship between the two implying that enhanced tax audit effectiveness will in turn enhance tax compliance.

On the bases of the research findings and achieved results concerning the main objective of this study to determine the effects of tax audit quality on tax compliance in the Ethiopian Ministry of Revenues and also to demonstrate the hypotheses, the study provides the following recommendations to the tax office, the tax audit department and the tax policymakers.

Recommendations regarding the quality of tax audit as a result of findings on the effect of tax audit quality on tax compliance revealed a positive correlation, means that higher-quality tax audits will increase tax compliance levels. So the tax office should have stretched attention to the quality of the tax audit file from time to time.

Regarding the effectiveness of tax audit, effectiveness of tax audit, and tax compliance revealed a positive relation meaning that the effectiveness of tax audit has a significant positive effect on the level of tax compliance. This will be improved by giving management support, and by improving the organizational structure

Finally, the study suggests a series of measures, which could be taken by the tax authorities in improving the thoroughness of audit quality, provide continuous training to auditors, educate the taxpayers and conduct awareness creation, and provide all necessary, voluntary compliance will likely increase. The tax office should highly invest in information technology by making the information system more appropriate, simple, and easy to use for tax auditors.

Although the researcher believes that this study is deep, it is still believed that it can be further extended to include more respondents from externals like taxpayers and independent variables to make it more realistic and more reliable.

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