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## Effect of tax audit on the taxpayers' compliance: a case of Ethiopian Ministry of Revenue, Hawassa and Jimma branches

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### Abstract

Objective of the study is to investigate effect of tax audit on the taxpayers' compliance by employing quantitative research method. Sample size were 156 by using simple random sampling technique and 135 were returned back. Primary data has been collected through questionnaire during 2019 and analyzed using Statistical Package for Social Science Version 20.0. Study revealed that detection of noncompliance, probability of being audited and awareness of taxpayers are positive factors that are affecting compliance of taxpayers significantly. Whereas, changes in government policies, complexity of tax laws and weak and arbitrary penalty are negative factors that affecting compliance of taxpayers significantly. Study conducted by using tax officials who are working in Ministry of revenue in Hawassa and Jimma Branch, but taxpayers were excluded. Future investigators can add taxpayers' view and widen scope of study. Recommended to the concerned authority to simplify complexity of tax laws that causes inconsistency to interpret and decision, hinders detecting noncompliance, discourage voluntary compliance, and government to add educative penalty scheme to smooth tax administration and to encourage voluntary compliance. Previous studies didn't consider effect of penalty on compliance of taxpayers and emphasis on the determinants of taxpayers' compliance on the category "C" taxpayers. Also, previous studies were undertaken based on only category "A" taxpayers, category "C" taxpayers and secondary data from Ethiopian Revenue and Customs Authority (ERCA) rather than Tax Authority. Moreover, the study conducted so far were before the issuance of the current Income Tax Proclamation No 979/2016 and Tax Administration Proclamation No 983/2016.

**Keywords:** Compliance of taxpayers, Tax audit, Self-assessment, Penalty, Interest, Business income tax, Value added tax

### 1. Introduction

Fiscal policy decreases the pecuniary variations of income and wealth which can be attained by tax and public distribution actions. The first duty of fiscal policy in under developed and developing countries is to assign more funds for investment and to restrain consuming. It reduces economic inequalities of income and wealth and try economic growth of the socially unfortunate to bring about nationwide harmony. Private unit is uninterested in participating in social and economic expenditures. Investments in social and economic expenditures like education, health services, infrastructure, dams etc. are important to speed the degree of economic development [1].

Compliance activity of tax authority is predominantly to improve overall compliance with tax law of a given country and building confidence in the public that the tax system and its administration are fair. Occasions of failure to comply with the law are unavoidable whether due to taxpayers' ignorance, carelessness, recklessness and deliberate evasion, or weaknesses in administration. To the extent that such failures occur, governments, and in turn the publics they represent, are denied the tax revenues they need to provide services to citizens [2].

Auditing has the objective of finding reliability of balance sheet and income statements to guarantee the financial records accuracy and reasonable view of economic events of the business. Also, it has the aim of verifying and establishing true and fair interpretation of financial position of the business and the income statement account gives the accurate and reasonable view of income statement for the accounting period. It is to be recognized that accounting reports satisfy certain level of trustworthiness. Therefore, the vital purpose of inspecting is to form an autonomous decision and view about the trustworthiness of accounting records and fact and impartiality of pecuniary state of matters and employed outcomes [3].

This article is organized in six main topics and different sub topics that clearly addresses the objective of the study. Accordingly, it starts with the presentation of the introduction and ends with the presentation of acknowledgment. An article addresses materials and methods that briefly informs relevant literature review, hypotheses formulation, development of conceptual framework and the research method employed. Following this, the result and discussion of our study are presented. Final part of the article comprises conclusion, recommendation and acknowledgment.

## **2. Materials and methods**

### *2.1 Statement of the problem*

Successful compliance of tax payers necessitates continuing improvement efforts, beginning with strengthening the organization and administration of the revenue agency and executing robust collection systems [4]. The basic objective of a tax authority compliance endeavor is to advance general compliance with their tax laws, and in the procedure encourage confidence in the community that the tax system and its administration are fair. Occurrences of failure to comply with the laws, rules and regulations are expected whether due to taxpayers' ignorance, carelessness, recklessness and deliberate evasion, or weaknesses in administration. To the extent that such failures occur, governments, and in turn the communities they represent, are denied the tax revenues they need to provide services to citizens [2].

In Ethiopian tax proclamations, the tax will be paid to the Tax Authority by a specified time shall be payable on that date. Fail to make on time payment will result in the imposition of interest and the delay payment penalty. Administrative penalty on late payment, penalty for late filing or non-filing, penalty for understatement of tax, late declaration for income tax, Value-Added Taxation (VAT) and Terms of Trade (TOT) are different in the amount of income [5], Income Tax Proclamation No. 286/2002 (Art 86-91); VAT Proclamation No. 285/2002 (Art 45 & 46) and TOT Proclamation No. 308/2002 (Art 23 &24) [5]. On the other hand, criminal offenses may be committed by taxpayers', tax officials and other persons, the offenses include not limited to, TIN violation, tax evasions, making false or misleading statements and obstruction of tax administration (Art 95-98), (Art 49-52) & (Art 26-29) of the aforementioned proclamations respectively. Misrepresentation of tax may occur intentionally or unintentionally that causes either administrative or criminal penalty on the taxpayers. An intentional misrepresentation of tax liability leads to higher criminal and administrative penalty when compared to unintentional misrepresentation to the taxpayers.

The non-compliance of taxpayers (a performance or wrong doing entails both administrative and criminal liabilities at the same time, the person committing the crime shall not be relieved from criminal liability by the mere fact that he/she is held administratively liable [6], Federal Tax Administration Proclamation No. 983/2016.

In Ethiopia, structural reform has been undertaken to the Tax Authority at different time. The breakup of Ethiopian revenue and customs authority (ERCA) into customs agency and Federal Ministry of Revenue is one of the structural reforms undertaken in 2019. The issuance of tax proclamations and amendment of such proclamations have been made before issuance of Federal Tax Administration Proclamation No. 983/2016 and Federal Income Tax Proclamation No. 979/2016. These reforms have an intention of improving the tax system by collecting appropriate tax from the taxpayers to finance the social development and economic development activity of the government by ensuring the horizontal and vertical equity of taxpayers without affecting the investment activity of them. These reforms give clue for the pioneer researchers to undertake the study in the area of tax in general and compliance of taxpayers in particular.

In Ethiopia, limited numbers of studies have been undertaken in the study area, at different sceneries [7] have undertaken study on the tax compliance and its determinant in the case of Jimma Zone by employing quantitative research design to the category "A" taxpayers [8] have studied factors influencing taxpayers' compliance with the tax system in Mekelle City by using cross-sectional survey method of research design to the category "C" taxpayers [9] has undertaken study impact of tax audit on improving taxpayers' compliance by employing secondary source of

data from Ethiopian Revenue and Customs Authority (ERCA). As far as our knowledge is concerned and literatures indicates, the effect of tax audit on advancing taxpayers' compliance is not so far widely studied in Ethiopia.

Moreover, those studies undertaken so far are before the issuance of new income tax proclamation (Income Tax Proclamation No 979/2016) and tax administration proclamations (Tax Administration Proclamation No 983/2016) as well as the first two aforementioned studies are undertaken based on only category "A" taxpayers and category "C" taxpayers respectively and the third study is undertaken by taking secondary data from ERCA rather than Tax Authority (currently ERCA restructured into Tax Authority and Customs Agency). Assuming aforementioned research gap, composed with the reality of enhancing taxpayer compliance is among very vital, nevertheless least investigated part, which is substantial area to undertake study. Thus, the intention of this study is to investigate the effect of tax audit on taxpayers' compliance in Ethiopia.

## *2.2 Theoretical concepts of tax compliance*

Promotion of voluntary compliance with tax laws, regulations and directive is the key objective of the tax audit scheme, that can be achieved by undertaking tax audit on taxpayers who conceal their actual transaction revenues and overstate expenses. Tax audit aims on the detection of non-compliance taxpayers and to encourage voluntary compliance of the taxpayers. Researchers have determined that a number of factors affect compliance of taxpayers. Therefore, there is no single theory that wholly elucidate the condition of tax non-compliance behavior of taxpayers. So, it is recommended that theories from sociology, psychology and economy are useful to elucidation taxpayers compliance behavior [10]. These theories fall into but not limited to the optimal tax theory, political legitimacy theory, tax moral theory and Allingham and Sando theory (AS theory).

The theory of optimal taxation commonly has the theory of optimal product and service (indirect) taxes and the theory of optimal income (direct) taxes. The theory has often been complained for being of slight real-world policy importance, due to an absence of robust theoretic outcomes [11]. It is argued that the primary sources of political legitimacy are placed on the yield side of the political party and done with the excellence of régime. It can be characterized by the absence of bribery, discrimination and disobey of the principle of independence in exercising political power that serves to make political legitimacy. The means that society managements are organized is not just an enquiry of economic justifiability and managerial competence. Moreover, residents appear to have solid customs about what to suppose when they encounter government representatives implement public rules [12]. Payment of tax is considered as moral responsibility of taxpayers which is justifiable reason besides the legislative binding issues. Tax supposed that nobody wants the payment of taxes, however everyone distinguishes that taxes are vital to the government to fulfill the need of the citizens. Taxpayers have no willing to pay tax if there is no enforcement strategy that needs the cost of collection and deterrence. Researchers have worried that tax morale, perceived as the essential drive to pay taxes, is a primary tool that contributes to elucidate compliance of tax. But, ax morale itself has a number of sides, that are affected by a cultural aspect, official procedure in which the government functions and a policy and administration aspect [13]. According to Allingham and Sando theory (AS theory), as penalty rate rises, the amount of income declared also rises in turn the increment of penalty rate increases the amount of revealed income. The higher the probability of tax audit matches to higher level of taxpayer's trustworthiness. The key parameters of the model are individual income, the tax rates, penalty and probability of tax audit. Some assumptions of AS model differ from tax guidelines in practice, on the other hand, the model's conclusions don't go in line with the actual taxpayers' behavior [14].

## *2.3 Compliance of taxpayers*

Compliance auditing is made by evaluating whether events, economic activities and information are in all material respect, in obedience per the ruling classes that administer the audited unit. It is an independent assessment of whether an assumed substance matter is in obedience to appropriate with the ruling classes known standards. The basic objective of tax authorities' compliance endeavor is improving overall compliance with the tax laws, and in the procedure instill self-assurance in the public that the tax scheme and its management are reasonable. Occurrences of noncompliance with the standards are unavoidable whether due to taxpayers' ignorance, inattentiveness, irresponsibility and thoughtful evasion, or weaknesses in management. Tax audit is a core instrument for tackling non-compliance and found the largest placement of capitals for management of the various tax legislation [15]. Addressing non-compliance necessitates the clear strategies of businesses and individuals. Strong strategy is important to manage the compliance of the taxpayers. It comprises the understanding the behavior of the taxpayers', classifying key compliance risks and how they rise, clearness on responsibility, and acceptable resourcing of compliance activities and stipulating performance pointers and possible remedial arrangements [16].

Either deliberate or undeliberate, not whole tax payers file timely incomes or pay the accurate amount of tax payable. The tax audit procedure encompasses employing accessible evidence to detect taxpayers' who may be fail to comply with tax legislation. That evidence comprises such things as tax return figures, evidence reports from monetary institutes, company salary reports, and related evidence of a given country's tax return information. Accordingly, conditional on kind of tax and nature of the fault the tax audit division try to notice, it practices a different of audit procedures to find and correct faults in a taxpayers' declared tax obligation [17].

Registration for tax purposes; timely filing of tax returns; appropriately declaring tax liability; and pay tax on the specified period of time are worldwide parts of responsibility possibly occur for virtually whole taxpayers [18]. Tax audit is a main instrument that tackles fail to comply with tax legislation of Tax Authority in the utmost organizations for economic cooperation and development countries constitute the major placement of capitals for the management of legislations [2].

#### *2.4 Probability of being audited*

When taxpayers have information about the probability of investigation of their financial performance submitted to tax authority through self-assessment system, there is a shifting of their conduct to change in response to an increased probability of being audited [19]. A high probability of being audited could encourage compliance of taxpayers [7]. The probability of being audit positively significant factor that affects compliance of taxpayers according to the study undertaken in Mekelle City. Probability of being audited affects the compliance of taxpayers' positively [8].

Hypothesis 1: Probability of being audited has positive significant effect on the compliance of the taxpayers.

#### *2.5 Weak and arbitrary penalty*

Upon submission of the tax return, for any subsequent amendments tax via tax audit will result in additional tax liabilities. Penalty will be computed based on the additional tax liability. According to [6], taxpayer who fail to be compliance with tax proclamation, regulation and directive is subject to the either criminal penalty or administrative or both criminal penalty and administrative based on the misconduct committed by the taxpayer. [19] found that penalty and enforcement significantly affect the compliance of the taxpayers in Nigeria. [20] pointed out that fine and penalties on the non compliance taxpayers influence level of tax compliance in kenya.

The pecuniary method, typically limited to forfeits, may be essential to implement compliance by individual taxpayers who would otherwise refuse to discharge their responsibilities as citizens. Though, there are risks in employing this method more extensively [21]. Low and affordable penalty to pay; the weak enforcement actions; penalty which is inferior than tax saving due to fail to comply with tax legislations and inconsistent penalty among taxpayers negatively affect the compliance of the taxpayers' [22].

Hypothesis 2: Weak and arbitrary penalty has negative significant effect on the compliance of taxpayers.

#### *2.6 Changes in government policies*

The condition of the government policy with regard to the fluctuation of the price of goods and services. Taxpayers give concentration for the change in govnrment and angry when little changes emerge along with a considerable economic condition occurrence. They remain observant about changes in government policies, and believe the most favourable condition from the government policies, they continue non-compliant to the tax system as far as the changes in government policies do not consistent with their views [8]. Multifaceted and often unpredictable tax proclamations, regulations and directives cause misperception and doubt among tax authorities and taxpayers. Addressing deficiencies in the tax scheme is therefore probably as vital as process orientated reform activities that improve the user-friendliness and transparency of the taxation procedure [23].

Government's political instability of countries affect the monetary system and also diminishes nationals' faith on the ruling party. Confidence on durability of the government of countries undesirably disturbs the taxpayers' compliance [21].

Hypothesis 3: Change in government policies have negative significant effect on the compliance of taxpayers.

## 2.7 Detection of non-compliance

It is not costly to undertake tax audit to taxpayers who are required to maintain books of account and record, therefore, tax authority set criteria based on risk level. The risk measurement standards measures the fundamentals of a taxpayer's compliance that can be measured within tax returns and the past performance of their responsibilities. According to [24], taxpayes compliance has significant positive relationship with the audit ditection. [7] pointed out that the probability of detecting non compliance depends on the capacity of the tax auditors who engaged in the audit endeavor. When auditors are professionally capable and competent to detect the non compliance the compliance of taxpayers increase.

Hypothesis 4: Detection of non-compliance has positive significant effect on the compliance of taxpayers.

## 2.8 Awareness of taxpayers

Citizens of a given country can be informed about the tax system and know their rights and responsibility that assist taxpayers to comply with tax system [23,25] in Somaliland found that, responsibility of ruling prty to conduct sensitization package which is intended at supporting the business possessors advance their knowledge on tax system and its importance for them to comply more willingly. The disappointment of the government to do this endeavor will result to the continued failure by tax payers to comply voluntarily in payment of taxes to the government which results losses that affects the social development and economic developmen activities of the government.

The skill and awareness of tax regulation and legislations of taxpayers enhance to compliance of taxpayers. Skill and awareness of tax laws and regulation by the taxpayer gives an understanding of taxpayer's rights and obligation, and gives an understanding of the importance of paying taxes to government [26]. Taxpayers awareness on the tax issues has significant positive relationship with compliance of taxpayers' [27].

Hypothesis 5: Awareness of taxpayers has positive significant effect on the compliance of taxpayers.

## 2.9 Complexity of tax laws

According to [28] complexity of tax system viewed as contributing factors towards non-compliance behavior among taxpayers. When the tax system is understandable, easily comply with and acceptable by the business which reduces the cost of compliance. The simplicity of tax regulations reduces the time to undertake the audit, frequent check and prosecution for ensuring adequate compliance level [29]. Simplifying of tax legislations and implementation of tax procedure codes (TPCs) can simplify management and enhance compliance. Tax regulation and directives reinforces the decision-making powers of audit and collection of tax arrears while protecting privileges of taxpayers' [16].

Hypothesis 6: Complexity of tax laws has negative significant effect on the compliance of taxpayers.

## 2.10 Methodology of the study

This research is designed to identify the effect of tax audit on the compliance of taxpayers by employing quantitative research design to accomplish the objective of the study. To achieve the objective of the study primary data has been collected through questionnaire during 2019. Further, the research design adopted to the study was both explanatory and descriptive. Ministry of Revenue branches selection undertaken by using convenient sampling technique. Whereas, purposive sampling technique has been applied for data collection through questionnaires to address the tax officials who have participation in the tax audit practice.

Sample size is expected to be optimum that satisfies the requirements, represents and uniformity. While, computing sample size from the population, the researcher should decide the expected correctness as similarly a tolerable confidence level for estimate [30]. The target population of the study was 255.

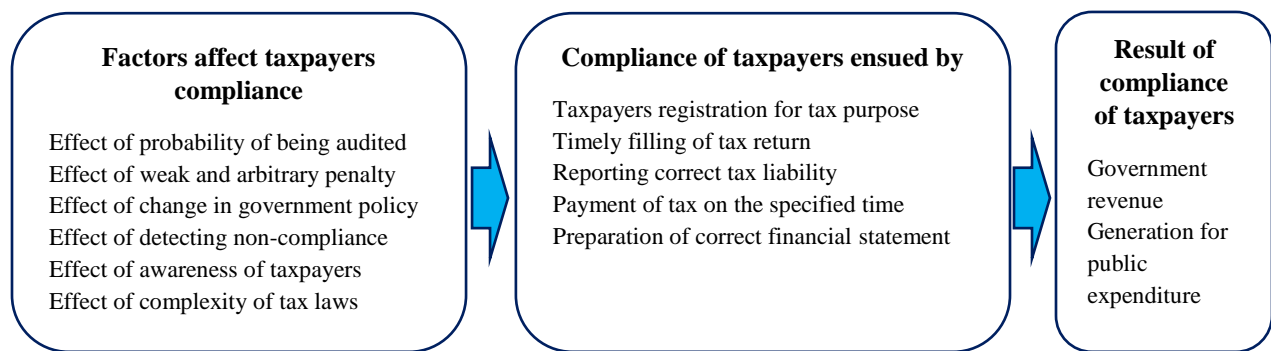
Sample size computation can be made using the method: 
$$n = \frac{N}{1+N(e^2)}$$

Where, n= Sample size

N= Population size of the study

e= Level of precision

Sample size for the study computed as:  $n = \frac{255}{1+255(0.05^2)} = 156$ . Response rate of 86.54% (135) from distributed questionnaire of 156 sample respondents. Research can't be generalized repetitively to the related studies sample with small sample size [31]. Taking sample size of eight times number of predictor variables plus fifty to the study, thus, to this study sample size is greater than fifty plus eight times number of predictor variables. The sample size is adequate to conclude to the study, since a number of independent variables are six. Each item of dependent variable and independent variables are measured on a 5-point Likert scale ranging from (1) "Strongly Disagree" to (5) "Strongly Agree". It is vital to establish structure of the explained variable and independent variables with their dimensions in order to infer the results. The following conceptual outlines designates the replication of explanatory variables on the explained variables through instruments and accomplishment of tax audit. As per theoretical as well as empirical literatures in the study, the conceptual framework depicted below established to indicate the relationship between explanatory and explained variables in the study.



**Figure 1** Conceptual framework.

The model is specified from both dependent variables, represented by compliance of taxpayers (CTP) and independent variables, represented by probability of being audited (PBA), weak and arbitrary penalty (WAP), change in government policy (CGP), detection of non-compliance (DNC), awareness of taxpayers (ATP), and complexity of tax laws (CTL). Symbolically, it is represented as follows:

$CTP = \beta_0 + \beta_1 PBA + \beta_2 WAP + \beta_3 CGP + \beta_4 DNC + \beta_5 TPA + \beta_6 CTL + \epsilon_i$ , Where:

CTP=Compliance of taxpayers

ATP= Awareness of taxpayers'

PBA= Probability of Being Audited

CTL= Complexity of tax Laws

WAP= Weak and Arbitrary Penalty

$\epsilon_i$ = Random Error

CGP= Changes in Government Policies

DNC= Detection of Noncompliance

$\beta_0$  = Constant

The coefficients  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  and  $\beta_6$  represent coefficients of the independent variables.

### 3. Results and discussion

#### 3.1 The correlation of variables

Correlation describes the strength of a linear relationship between two variables. Pearson's correlation coefficient is a numerical quantities that shows the strength of a linear relationship between paired data, its value fall in between -1 and +1. Correlation result may be positive or negative that shows the direct relationship of the variables or indirect relationship of the variables, accordingly, when the coreletion result sign is positive that shows the rise of one variable rises the other variable. On the other hand, when result of correlation is negative which indicates the rise of one variable declines the other variable and vise-versa, whereas, inexistence of correlation elucidates the impact of a variable has no impact on the other variable by either increase or decrease and vise-versa.

**Table 1** Pearson correlation on the effect of tax audit on the taxpayers compliance.

The compliance of taxpayers	Coefficient	CTP	PBA	CTL	WAP	CGP	ATP	DNC
CTP	Pearson correlation	1						
PBA		0.436**	1					
CTL		-0.439**	-0.286**	1				
WAP		-0.534**	-0.313**	0.401**	1			
CGP		-0.389**	-0.218*	0.270**	0.390**	1		
ATP		0.444**	0.364**	-0.261**	-0.385**	-0.289**	1	
DNC		0.147	-0.237**	-0.032	-0.064	-0.012	-0.300**	1

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

The correlation result shown in the Table 1 above shows the association between explained and explanatory variables, Complexity of Tax Laws (CTL), Weak and Arbitrary Penalty (WAP) and Changes in Government Policies (CGP) variables have indirect relation to the Compliance of Taxpayers (CTP). On the contrary, Probability of Being Audited (PBA), Awareness of Taxpayers (ATP) and Detection of Noncompliance (DNC) have direct relation to the Compliance of Taxpayers (CTP).

The association value between DNC and CTP is 0.147 and the association values between CTP and other predictor variable are in the value of between 0.389 to 0.534. According to [31] the association of variables between  $r=0.10$  to  $0.29$  or  $r=-0.10$  to  $-0.29$  small,  $r=0.30$  to  $0.49$  or  $r=-0.30$  to  $-0.49$  medium and  $r=0.50$  to  $1.0$  or  $r=-0.50$  to  $-1.0$  large. Among independent variables the only DNC is in the small correlation value, whereas, the association between other explanatory variables and CTP were in the range of medium and large. Thus, the correlation values indicates that DNC is weak direct relationship to the CTP and PBA, CTL, CGP and ATP are medium relationship and WAP has high positive relationship with CTP. Also in the Table 1 above, the highest correlation value between two independent variables is 0.401, that is very smaller than the boundary of multicollinearity diagnosis value of 0.7.

Multicollinearity can be checked through correlation between independent variables, tolerance and variance inflation factor (VIF). It occurs when there is high inter-correlation among independent variables. The two predictor variables with a bivariate correlation of 0.7 or more in the same analyses indicate the existence of multicollinearity [31]. As it has been shown in the correlation table above, the correlation between independent variable is in the range of small to moderate which is below 0.401, this indicates inexistence of multicollinearity between two independent variables.

### 3.2 Analysis on the effect of tax audit on taxpayers' compliance

The main purpose of the customer service, compliance intervention, inspection and prosecution package are to encourage taxpayers' compliance with tax and responsibility of duty. Tax audit and intervention packages are primarily concerned with detection and preventing fail to comply.

**Table 2** Model summary<sup>b</sup> of effect of tax audit on the compliance of taxpayers.

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	0.713 <sup>a</sup>	0.509	0.486	0.48280	0.509	22.086	6	128	0	2.032

<sup>a</sup> Predictors: (Constant), Detection of noncompliance, Changes in government policies, Complexity of tax laws, Probability of being audited, Awareness of taxpayers', Weak and arbitrary penalty

<sup>b</sup> Dependent variable: Compliance of taxpayers.

The overall fitness of the model can be outlined by the model summary. It designates the total of variance in the dependent variable by the explanatory variables. Table 2 above indicates the compliance of taxpayers and independent variables having the significant correlation with the correlation coefficient  $R=0.713$ . The Table 2 also

shows the model of compliance of taxpayers to the coefficient of determination  $R^2 = 0.509$ . It indicates, 50.9% of the variation in taxpayers compliance for the sample of 135 tax officials can be explained by the changes in practices of Detection of Noncompliance, Changes in Government Policies, Complexity of Tax Laws, Probability of Being Audited, Awareness of taxpayers' and Weak and Arbitrary Penalty while 49.1% is remain unexplained by the predictor variables included in the study. Adjusted  $R^2$  greater than 75% is very good; between range of 50 to 75% is good; between range of 25 to 50% is fair and less than 25% is poor. In this specific study, an adjusted  $R^2$  is 48.6% that is between the range of fair but it approximately in the range of good [32].

Autocorrelation has been defined as adjacent residuals of any two observations not being independent of each other or correlated. For any two observations the residual terms should be not correlated (or independent). This eventually is sometimes described as a lack of autocorrelation. This assumption can be tested with the Durbin-Watson (DW) test, which a statistic used to test for first order serial correlation in the errors of a time series regression model under the classical linear model assumptions. So, to restate, the null hypothesis is rejected and the existence of positive autocorrelation presumed if Durbin-Watson is less than the lower critical value; the null hypothesis is rejected and the existence of negative autocorrelation supposed if Durbin-Watson is greater than 4 minus the lower critical value; the null hypothesis is not rejected and no significant residual autocorrelation is presumed if Durbin-Watson is between the upper and 4 minus the upper limits [33].

As it has been revealed in the model summary in Table 2, the DW test statistic value for the model was 2.032 for a total observation of 135 responders with 6 repressors. The lower and upper Durbin-Watson statistics (dL and dU) at 1% critical values for Durbin-Watson statistic observation of 100 and repressor of 5 were 1.44 and 1.65 respectively. Observation of 100 and repressor 5 were taken because the maximum number of observation and repressors' are limited to 100 and 5 respectively in the lower and upper at 1% critical values for Durbin-Watson statistic. Thus, the decision values for the test are dL= 1.44, dU= 1.65, 4-dU = 2.35 and 4-dL = 2.56. As it has been shown, the test statistic is clearly higher than the lower critical value (2.032>1.44), hence the null hypothesis of no autocorrelation is accepted and it would be concluded that the residuals from the model seem to be not autocorrelated. Therefore, the assumption of autocorrelation was not violated in the study.

**Table 3** ANOVA<sup>a</sup> of effect of tax audit on the compliance of taxpayers.

Model	Sum of squares	df	Mean square	F	Sig.	
1	Regression	30.889	6	5.148	22.086	0 <sup>b</sup>
	Residual	29.837	128	0.233		
	Total	60.726	134			

<sup>a</sup> Dependent variable: compliance of taxpayers. Predictors: (Constant), Detection of noncompliance, Changes in government policies, Complexity of tax laws,

<sup>b</sup> Probability of being audited, Awareness of taxpayers', Weak and arbitrary penalty.

The ANOVA result in the Table 3 above, reports the analysis of summary of variance and F-values, which elucidates the value of  $F(6, 128) = 22.086$ ,  $p < 0.0005$  is significant at the 0.0001 level. The value of F is high enough because calculated F value is higher than Table value of  $F(6, 128) = 2.29$  which can be concluded that the predictor variables (Detection of Noncompliance, Changes in Government Policies, Complexity of tax Laws, Probability of Being Audited, Awareness of taxpayers', Weak and Arbitrary Penalty) overall contribution for the variance of compliance of taxpayers and therefore, the model signifies an actual practice of tax audit on the taxpayers compliance under study.

**Table 4** Coefficients<sup>a</sup> of effect of tax audit on the compliance of taxpayers.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.	Correlations			Collinearity statistics	
	B	Std. error				Zero-order	Partial	Part	Tolerance	VIF
(Constant)	2.115	0.515		4.102	0.000					
PBA	0.299	0.081	0.260	3.698	0.000	0.436	0.311	0.229	0.775	1.290
CTL	-0.200	0.084	-0.166	-2.385	0.019	-0.439	-0.206	-0.148	0.791	1.265
WAP	-0.201	0.070	-0.218	-2.880	0.005	-0.534	-0.247	-0.178	0.668	1.498
CGP	-0.129	0.073	-0.122	-1.770	0.079	-0.389	-0.155	-0.110	0.810	1.235
ATP	0.257	0.071	0.267	3.595	0.000	0.444	0.303	0.223	0.694	1.440
DNC	0.247	0.063	0.268	3.944	0.000	0.147	0.329	0.244	0.831	1.203

<sup>a</sup> Dependent Variable: Compliance of taxpayers.



Econometric Model from SPSS Result:

$$CTP = 2.115 + 0.260PBA - 0.166CTL - 218WAP - 0.122CGP + 0.267ATP + 0.268DNC$$

Where, PBA= Probability of Being Audited, CTL= Complexity of Tax Laws, WAP= Weak and Arbitrary Penalty, CGP= Changes in Government Policies, ATP= Awareness of taxpayers' and DNC= Detection of Noncompliance.

To investigate the effect of Detection of Noncompliance, Changes in Government Policies, Complexity of Tax Laws, Probability of Being Audited, Awareness of taxpayers' and Weak and Arbitrary Penalty to predict levels of compliance of taxpayers multiple regressions was employed. Using multiple regression model require variables to fulfil the econometric assumptions [34].

Introductory analyses were conducted to ensure violation of the multiple regression to check normality of data, existence of multicollinearity and autocorrelation. Furthermore, the associations between the explanatory variables added in the research were investigated. All predictor variables were correlated statistically with taxpayers compliance that indicates the data is suitably correlated to the explained variable for examination through multiple regressions. Table 4 above revealed that, independent variables are statistically significant at  $p < 0.01$ ,  $p < 0.05$  and  $p < 0.1$ , ( $\beta_1 = 0.260$ ,  $p = 0.000$ ), ( $\beta_2 = -0.166$ ,  $p = 0.019$ ), ( $\beta_3 = -0.218$ ,  $p = 0.005$ ), ( $\beta_4 = -0.122$ ,  $p = 0.079$ ), ( $\beta_5 = 0.267$ ,  $p = 0.000$ ) and ( $\beta_6 = 0.268$ ,  $p = 0.000$ ).

In addition to checking multicollinearity via correlation between independent variable, the result presented in the table labelled coefficients indicates tolerance and VIF. Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula  $1 - R^2$  for each variable. If this value is very small (less than 0.10), it indicates that the multiple correlation with other variables is high, indicating the possibility of multicollinearity. The VIF is another value which just the inverse of the tolerance value. VIF values above 10 would be a concern here, indicating multicollinearity. As it has been shown in the table labelled as coefficient indicates the tolerances are far above the tolerance level of 0.1 and the VIF are between 1 and 2 which is far below the specified value of 10; therefore, the multicollinearity assumption was not violated. When the VIF value is above the specified limit, leads deliberate elimination of one of the extremely intercorrelated independent variables from the model.

### 3.3 Hypotheses test

Based on the multiple regression result, testing variables is important in the study.

#### 3.3.1 Probability of being audited (PBA)

When taxpayers have information about the probability of investigation of their financial performance submitted to tax authority through self-assessment system, there is a shifting of their conduct to change in response to an increased probability of being audited [19]. A high probability of being audited could encourage compliance of taxpayers [7,8] found that the probability of being audit positively significant factor that affects compliance of taxpayers.

Table 4 above elucidates that, the probability of being audited directly affects the compliance of taxpayers ( $\beta_1 = 0.260$ ,  $p = 0.000$ ), the result indicates, the anticipated hypothesis is supported to the variable. The outcome shows when other independent variables (Detection of Noncompliance, Changes in Government Policies, Complexity of Tax Laws, Awareness of taxpayers', Weak and Arbitrary Penalty) are constant, for every increase of Probability of being audited, the Compliance of taxpayers increases by 0.260.

#### 3.3.2 Complexity of tax laws (CTL)

Inflexible tax laws have the chance of causing the audit task more challengeable, that makes taxpayers to appeal on assessed tax and leads to claim procedural misappropriation of law, that may cause the delay in the legal appeal procedure. Primarily, legislation concerning the audit activities should be established in universal terms of authorities of access to all accounting transaction and records of the taxpayers and authorities to examine the operating endeavors of the taxpayers. Comprehensive process of audit endeavor should be established in the rules of the tax administration to enable the tax administration to make changes to procedures without amendments to the legal framework of tax as trends in business endeavor [35].

Coefficient in Table 4 shows that, complexity of tax law is negatively related to the compliance of taxpayer with ( $\beta_2 = -0.166$ ,  $p = 0.019$ ) hence, the result of expected hypothesis is supported to the variable ( $p < 0.05$ ). The

outcome shows that when other independent variables are (Probability of being audited, Detection of Noncompliance, Changes in Government Policies, Awareness of Taxpayers', Weak and Arbitrary Penalty) are constant, for every increase of Complexity of Tax Laws, the Compliance of taxpayers decreases by 0.166.

### 3.3.3 *Weak and arbitrary penalty (WAP)*

Upon submission of the tax return, for any subsequent amendments tax via tax audit will result in additional tax liabilities. Penalty will be computed based on the additional tax liability. According to [6], taxpayer who fail to be compliance with tax proclamation, regulation and directive is subject to the either criminal penalty or administrative or both criminal penalty and administrative based on the misconduct committed by the taxpayer.

(Kennedy Prince Modugu & John Obi Anyaduba, 2014) found that penalty and enforcement significantly affect the compliance of the taxpayers in Nigeria. [20] pointed out that fine and penalties on the non compliance taxpayers influence level of tax compliance in Kenya.

In the model, Weak and Arbitrary Penalty is significant at 1% significance level and indirectly related to the compliance of taxpayers at ( $\beta_3 = -0.218$ ,  $p=0.005$ ). The result indicates, the increase of implementing Weak and Arbitrary Penalty decreases the compliance of taxpayers. When other explanatory variables constant, the rise in Weak and Arbitrary Penalty by one unit decreases the compliance of taxpayers by 0.218.

### 3.3.4 *Changes in government policies (CGP)*

The condition of the government policy with regard to the fluctuation of the price of goods and services. Taxpayers give concentration for the change in government and angry when little changes emerge along with a considerable economic condition occurrence. They remain observant about changes in government policies, and believe the most favourable condition from the government policies, they continue non-compliant to the tax system as far as the changes in government policies do not consistent with their views [8]. Multifaceted and often unpredictable tax proclamations, regulations and directives cause misperception and doubt among tax authorities and taxpayers. Addressing deficiencies in the tax scheme is therefore probably as vital as process orientated reform activities that improve the user-friendliness and transparency of the taxation procedure [23].

As it has been shown in the coefficient Table 4 above, Changes in Government Policies was negatively related to the compliance of taxpayers with the ( $\beta_4 = -0.122$ ,  $p=0.079$ ) this infers the theory is supported at  $p<0.1$ . Thus, compliance of taxpayers is negatively influenced by the change in government policy, the higher the change in government policy, then the compliance of taxpayers will decrease. For every additional unit of change in government policy by controlling independent variables in the study, compliance of taxpayers declines by 0.122.

### 3.3.5 *Awareness of taxpayers*

Citizens of a given country can be informed about the tax system and know their rights and responsibility that assist taxpayers to comply with tax system [23]. Responsibility of government to conduct sensitization programmes which is intended at supporting the business possessors advance their understanding on tax system and its importance for themselves to be compliance willingly [25]. The disappointment of the government to do this endeavor will consequence to the continuous failure by taxpayers to voluntary compliance of paying taxes to the government which results losses that affects the social development and economic development activities of the government.

Table 4 above revealed that, the awareness of taxpayers directly affects the compliance of taxpayers with ( $\beta_5 = 0.267$ ,  $p=0.000$ ), that supports stated hypothesis at  $p<0.01$ . Thus, the result infers that when awareness of taxpayer increased by one unit, compliance of taxpayers increased by 0.267 by controlling other independent variables in the study. On the other hand, that means the compliance of taxpayers is highly affected by the awareness of taxpayers itself, the higher the degree of taxpayers awareness, then the level of taxpayers compliance on the Ministry of Revenue of Jimma and Awassa branches will increase.

### 3.3.6 *Detection of noncompliance (DNC)*

A good audit package has significant broader effects than the increasing revenue directly from tax audit endeavors. By using risk-based selection criteria, professionally detecting noncompliance, applying proper sanctions, and publicizing audit results, taxpayers place on announcement that trying to evade tax results in a high

possibility of finding and imposing of significant penalty. Thus, a properly organized tax audit package provides the tax administration with significant leverage across the public rather than affecting on the taxpayers' selected for audit and collection of tax that should be paid in the first place. Moreover, a tax scheme which is supposed to be impartial and reasonably pushes taxpayers who fail to comply builds public trust and enhances voluntary compliance from the wider population as compliant taxpayers support the administration's efforts to deal with who fail to comply. The effect of an effective audit should be seen in terms of the corrective, deterrent and preventative [36].

The result in the Table 4 revealed that, detection of noncompliance direct relationship with the compliance of taxpayers at ( $\beta_6 = 0.269$ ,  $p=0.001$ ), that supports stated hypothesis at  $p<0.01$ . The outcome implies that when the detection of noncompliance taxpayers increases by one more unit, compliance of taxpayers will increase by 0.269 when other independent variables are controlled. On the other hand, compliance of taxpayers is strongly affected by detection of noncompliance, thus, higher the level of detection on noncompliance, the level of taxpayers compliance will increase.

### 3.3.7 Recommendation

Since the probability of being audited is positively affecting the taxpayers' compliance of Ministry of Revenue. Ministry of Revenue should increase the number of competent auditors that address the taxpayers' who engage in avoidance and evasion of tax and to facilitate fair competition among taxpayers. As per the analysis result, complexity of tax law negatively affects the compliance of taxpayers, concerned body (Federal House of Peoples Representative, Federal Council of Ministers, Federal Ministry of Finance and Economic Development and Ministry of Revenue) should issue simple and reasonably understandable tax law, tax regulations and applicable directives accordingly. Inexistence of strong penalty scheme to educate non-compliance taxpayers'', tax administration become inefficient and ineffective that leads in the reduction of taxpayers trust on the government.

Therefore, government should put strong and educative penalty scheme. Continuous change in the ruling party and its instability of the given country frustrates the society of a given country as a whole and taxpayers/traders in particular.

As a result, government should reduce continues change of government policies and procedures in general and tax legislations in particular before a reasonable time period.

Based on the analysis of the data, awareness of taxpayers' is positively affecting the taxpayers' compliance of Ministry of Revenue. Ministry of revenue should provide regular awareness creation about tax issues.

## 4. Conclusion

Probability of being audited is critical issue that expressed in terms of boosting filling actual return, encouraging declaration of actual administrative expense, reducing the tax evasion, reducing the overstatement of the administrative expense and discourage understatement of tax. The correlation analysis result indicates that probability of being audited is positively correlated with the compliance of taxpayers. Probability of being audited has positive significant effect on the taxpayers' compliance in the Ministry of Revenue. Complex tax law is confronting the detection of non-compliance, creates ambiguity for the consistent application of the tax audit practice, causes inability to address all traders subject to tax audit, gives option for subjective audit decision and discourage voluntary compliance. The result indicates the negative relationship of complex tax law and taxpayers' compliance. Complex tax law is significantly affecting the taxpayers' compliance negatively. Weak and arbitrary penalties scheme characterized by lack of detecting noncompliance, creates vagueness to compute administrative penalty and interest on unpaid tax and objectively computing penalty on noncompliance. Weak and arbitrary penalty scheme has the negative correlation with the taxpayers' compliance. It is significantly affecting the taxpayers' compliance negatively. Changes in government policies articulated with the trust on the ruling party doughty on the ruling party, expectation of the change policies of the ruling party, expectation of the continuity of existing government policy and expectation of change in tax laws and regulation. It has the negative correlation with the taxpayers' compliance. Awareness of taxpayers' expressed in terms of knowledge of taxpayers about legal consequence of having fake and unauthorized invoice, awareness of taxpayers' about the legal consequence of having more than one taxpayers identification number (TIN), awareness of taxpayers about legal consequence of failing to keep proper books of accounts and records, awareness of taxpayers' legal consequence of late filing and payment of tax and awareness of taxpayers about legal consequence of making misleading financial statements. Awareness of taxpayers of Ministry of Revenue is significantly affecting the taxpayers' compliance positively. Detection of noncompliance of taxpayers represents detection of additional return of taxpayers via audit, detection

falsified/illegal invoice via audit, detection of overstated administrative expense, detection of nonfilter via audit and detection of unpaid tax via audit. Detection of noncompliance of taxpayers of Tax Authority is significantly affecting the taxpayers' compliance positively.

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