

Determinant Factors of Tax Evasion in East Addis Ababa

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Abstract:

Most governments rely heavily on tax revenue as a source of income. Government budgets in most nations are unbalanced due to a lack of complete tax compliance, and as a result, the difference between revenue and expenditure is widening. What factors does shove taxpayers to evade taxes was the key topic that this research attempted to address. The goal of the study was to identify the factors that contribute to government tax evasion in East Addis Ababa, with a particular focus on category "A." A sample of 371 taxpayers was chosen using a non-random sampling technique, and data were collected from them using a structured questionnaire. The collected data was examined using a binary logistic regression model, and the study's findings showed a statistically significant correlation between evasion and eight determinant variables (tax education, service quality, tax rate, income level, fairness of legal system, financial Constraint, audit, and penalty). The rate, income level, audit, and justice of the legal system have all negatively affected evasion, whereas financial constraints, tax education, service quality, and penalties have favorably affected it. In order to ensure efficiency and quality delivery among other things, the government should lower the tax rate and automate the tax delivery system.

Keywords: taxpayers, tax evasion, tax compliance, logistic regression, Addis Ababa

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1. Introduction

Tax may be a system of payment that individuals and firms are legally required to form to the government. It is a compulsory transfer of cash from private individuals and groups or institutions to the government. Most people don't wish to pay taxes because, for this reason, it's hard for tax administrators to levy and collect taxes efficiently. In addition, taxing informal sectors may be a major challenge for tax administrations in both developed and developing countries and therefore the "fiscal gap" that arises from the failure to tax this sector can be quite large. (1)

Taxation in developing countries may be a challenging topic and has attracted increasing attention within the last 20 years. During this period, many problems were observed like poor administration, failure to collect sufficient tax revenues, and lack of government and economic stability. (2)

Due to the problems of tax avoidance and tax evasion inherent in all tax systems, tax compliance has become an increasing international concern for tax authorities and public policy makers as tax evasion seriously threatens the ability of governments to generate revenue. (3)

In developing countries, income tax evasion poses serious problems for tax administration and can impede government revenues. (4)

Several researchers have been conducted on issues related to tax evasion and tax compliance in Ethiopia (example (2), (6), (7), (9), (11), (12), (16), (17), (18) and (19)). They attempted a thorough review and most of the references dealt with most of the variables. However, factors such as marital status, industry, tenure, and quality of tax office service were not addressed. Therefore, this study includes these variables to identify key determinants of tax evasion in the Addis Ababa case and to examine control mechanisms to contain the problem.

2. Review of Literature

Taxes are obligatory payments or donations from citizens to the government, with no direct repayment to the taxpayer. This tax imposes a special obligation on individuals to pay the tax if they are the taxpayer. A key theoretical principle is that citizens should be judged on their ability to pay which is considered a fair share. People in the same economic situation should be tested in the same way without distinction. (5)

Ethiopia's tax history is related to the structure of the government and country. There is no credible Torquay reasoning to justify the relationship between administrative origin and taxation. Ethiopia's state-of-the-art tax system was introduced in the "early 1940s" when the government implemented tax reforms. (6)

The history of increasing government revenues in the period after 1941 dates back to the issuance of Proclamation No. 8 of 1942. In the first paragraph of the preamble of that proclamation, the Emperor stated that "to barter the establishment of Our Government, the substance of the country and therefore the well-being of Our People, land levies shall be levied." The revolutionary government changed the tax structure in 1976, replacing tax on land with a new tax on land use value for grazing and income from agricultural conditioning. The government only partially solved the problem of Homer-era tax collection, delegating the responsibility of

collecting agricultural numbers and taxes to farmers' unions. The gross profit soared to about 24% of GDP in 1988/89, while tax revenue stagnated at about 15% of GDP. Gross profit and taxable profit in 1974/75 were independently 13 and 11 percent of GDP, respectively. Despite changes to the tax structure in 1976, the government felt that the agricultural income tax was not being paid sufficiently. This was largely based on the estimates of farmers' unions. (7)

The current government, under the ratification of the 1995 Ethiopian Constitution, gave civil and indigenous governments the power to impose and collect taxes. As a result, structural changes have resulted in some changes to the country's tax and customs policies.

The most significant changes have been made in tax law. This includes a reduction in the income tax rate from 40% to 30% (Income Tax proclamation No. 286/2002) and an adjustment of the tax rate for small and large mining industries. Activities (Mining Declaration No. 23/1996, amended), exemption from capital gains tax on houses used for residential purposes. Tax incentives have been introduced as a result of policies to encourage new investments (Investment Declaration No. 280/2002). Changes within the law were followed by other measures such as the introduction of the Taxpayer Identification Number (TIN), the introduction of the tax credit system, and the replacement of the disruptive tax with the VAT, which has become the government's main source of revenue. Also introduced was a turnover tax, emphasis on taxpayers' education, strong enforcement mechanisms, substantial reforms, and amendments within the tax laws to stay in pace with time and therefore the changing economic environment. This has caused increased efficiency and effectiveness in reducing fraud and smuggling.

Tax non-compliance takes many different forms. It can be intentional non-compliance, in which the taxpayer intentionally violates tax rules and regulations for profit. The second concerns the type of unintentional non-compliance that would result from ignorance, negligence, or error in the application of tax laws. Any non-compliance by taxpayers leading to non-declaration / underreporting/taxable income leading to non-payment or underpayment of tax is considered tax evasion. (8)

2.1. Empirical Review

There is some research done in the area of determinants of evasion and its relationship. Due to tax evasion, tax revenues obtained from the government and public goods and services have been reduced every year in both developed and developing countries.

The problem of evasion can also be a serious concern for developing countries like Ethiopia; because economic development is often significantly hindered by low tax revenues due to tax evasion. (9) (10)

Ethiopia has the lowest tax/GDP ratio (10.7%) much lower than the average for sub-Saharan Africa and low-income countries in general, and tax evasion is a contributing cause. greatly on this inefficient performance. (11) (12)

An empirical study of evasion as a positive association between tax rates and tax evasion. (13) This observation is consistent with the result of (14) which distinguishes the causes of evasion. He found that the higher the speed, the greater the taxpayer's ability to evade taxes, as it increases their income.

Factors associated with evasion behavior in Turkey using survey data and correlation analysis, and using multi-correlation techniques. The results show that income level can have a negative effect on evasion. As income increases, taxpayers exhibit tax compliance behavior rather than tax evasion and avoidance behavior. (15)

Factors affecting the voluntary compliance behavior of taxpayers in the Southern Nation Nationalities People s` Regional State (SNNPRS), Ethiopia using a cross-sectional survey method research design and Pearson matrix and logistic regression model. The results of this study show that tax knowledge, simplicity of tax filing and administration, perception of justice and fairness, perception of government spending, auditability and so the influence of the reference group has determined the factors affecting the voluntary compliance behavior of taxpayers. (16)

Association between key tax compliance variables and thus attitudes and behaviors of selected individual taxpayers and tax evaders towards tax evasion in Ethiopia, Amhara region. The study used a mixed approach, collecting data from both survey tools and taxpayer interviews. The results show that tax morale, tax fairness, and to a lesser extent, tax law enforcement and tax perception all directly and indirectly affect taxpayer compliance. (17)

Furthermore, (18) examined tax compliance and its determinants in the Kaffa, Bench Maji and Sheka Zones category of "B" corporate income tax payers, Ethiopia. Information is checked using an ordered logit model. The results of the ordered logistic regression show that tax compliance is positively affected by the education level of the taxpayer, the taxpayer's tax knowledge and awareness, the simplicity of the system legislation, taxpayer attitudes toward taxes, the perceived role of state spending, and reward systems for loyal taxpayers. However, the audit probability is negligible, which is contrary to the work of 16.

Studies on the determinants of tax compliance behavior in the hypothetical tax system in the management

case of Dire Dawa. The results show that tax compliance behavior is positively affected by the level of information and unfair treatment of taxpayers. ⁽¹⁹⁾

The study investigated the determinants of tax compliance in the case of Class "A" taxpayers in the Jimma area. Data were collected using a structured questionnaire. The results of the analysis show that age, gender, penalties, audits, simplicity, fairness, and government perception have an impact on tax compliance. (9)

The general framework to be followed for reviewing the literature on the determinants of evasion is given by (13), (9), and (20). The researcher considers taxpayers' perception of tax evasion as a variable that is explained by many different factors; age, gender, status, education level, type of business, duration of business, income level, financial constraints, tax fairness, the complexity of tax system, probability of being audited, penalty, tax knowledge, quality of service delivery, tax rates.

3. Research Methodology

This paper has interested in considering the relationship between the dependent variable (tax evasion) and the independent variables (factors), the quantitative research method is typically used. The data for this study were collected from primary and secondary sources. Primary data was collected through structured questionnaires, during which respondents were taxpayers (category "A") of the branch office. Secondary data was obtained from the existing official documents of the tax office, proclamation, regulation, directives, and annual reports from 2010 to 2012 E.C.

3.1. Sampling Technique and Sample Size

The taxpayers who were under this investigation have similar characteristics and they belong to one group by nature of liability, they are in the "A" category and the "small taxpayers" are supported with their annual transactions. The selection of entities was based on a non-random sampling technique due to the difficulty of accessing all the taxpayers and the inconvenience to meet all within a specific time. Thus, a non-random sampling technique was employed to accumulate the needed information through a structured questionnaire from the taxpayers; the info was collected from them once they come to the branch office, at the end of the month for declaring their tax.

The target population for this study incorporated category 'A' taxpayers of the branch office in East Addis Ababa's small taxpayer's branch office. The sample size decided supported precision rate and confidence level for all categories of taxpayers as follows:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where: e is the desired level of precision (i.e. the margin of error), p is the (estimated) proportion of the population, which has the attribute in question, q is 1 - p. The z-value found in a Z table, 1.96.

$$n_0 = 385$$

Modification for the Cochran Formula for Sample Size Calculation in Smaller Populations: n_0

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Here n_0 is Cochran's sample size recommendation, N =study population, and n =sample size

$$n = 371$$

3.2. Data Collection Method

Given the large number of people required for the survey and the limited time available, the researcher used a questionnaire method to collect information from taxpayers. To collect primary data, researchers used a structured questionnaire that was pre-tested on seven taxpayers of the branch office.

Due to the sensitive nature of this topic, the survey will not directly ask about evasion. Instead, ask simple, indirect questions such as "Have you ever been punished?" No one is penalized for unintentional tax evasion, so use it as a basis for gathering information about tax evasion.

3.3. Model Specification

If the variable has a binary outcome (that is, yes or no, success or failure), the binary logistic regression model is the higher model Gujarati (2004).

Studies with ordered outcomes are commonly analyzed using the most common method called the proportional odds logistic regression model. Maximum likelihood (ML) is a classical technique for estimating the unknown parameters of this model. (21)

An evasion problem is that the two kind's attitudes matter in their nature; taxpayers may comply or evade. Taxpayers are perceived as evasive in their attitudes towards their tax obligations and in their willingness to comply with tax laws. Based on this, taxpayers were divided into two levels of compliance, taxpayers were penalized and forced to pay their liabilities during the fiscal year, and compliant taxpayers pay their tax liabilities according to the tax law without any enforcement.

Taxpayers are considered legally compliant when they assess themselves under tax laws and regulations without law enforcement by reporting their correct taxable income to the Internal Revenue Service. In contrast, taxpayers may become non-compliant, those who are unwilling to pay their taxes liability on time and correct amount, when tax authorities, through the application of tax audits, coerce those who are unwilling to pay their tax obligations on time.

Therefore, the variables (i.e., tax evasion) can be discrete and dummy variables measured by the binary outcome variable, so the researcher assumes zero (0) for compliant attitude (not penalized and forced to pay), otherwise one (1).

Logistic regression is therefore a good model for understanding how explanatory variables (factors that influence tax evasion) affect the probability of tax evasion for individual taxpayers.

Because a binary outcome variable violates some assumptions of linear regression models like (not normal). The logit function derived from the odds ratio is:

Equation 1 Model function:

$$\log(\text{odds ratio}) = \log\left(\frac{\text{penalized}}{\text{not}}\right) = \log\left(\frac{y_i=1}{y_i=0}\right) = \beta_0 + X_i'\beta \dots\dots\dots (1)$$

Equation (1) also can be expressed in terms of probability as follows:

$$\log\left(\frac{p(y_i=1)}{p(y_i=0)}\right) = \log\left(\frac{p(y_i=1)}{1-p(y_i=1)}\right) = \beta_0 + X_i'\beta + \mu_i \dots\dots\dots (2)$$

Where $p(y_i=1)$ is the probability of getting a non-compliance attitude (i.e. penalized) and $1 - p(y_i=1)$ is the probability of having a compliance attitude (i.e. not penalized by the tax office).

This model shows that an odd ratio does not only depend on variables incorporated in the model but also on other factors which are not included in the equation.

By taking the antilogarithm on each side of equation (2) and rearranging it we have got a logistic function as follows:

$$\frac{p(y_i=1)}{1-p(y_i=1)} = e^{\beta_0 + X_i'\beta + \mu_i} \dots\dots\dots (3)$$

$$p(y_i = 1) = \frac{e^{\beta_0 + X_i'\beta + \mu_i}}{1 + e^{\beta_0 + X_i'\beta + \mu_i}} \dots\dots\dots (4)$$

Equation (4) describes that the probability of being evasive depends on observed exogenous variables. The predicted probability of evasion attitude of taxpayers, therefore, is often expressed as:

$$p(y_i = 1) = \frac{e^{\beta_0 + X_i'\beta}}{1 + e^{\beta_0 + X_i'\beta}} \dots\dots\dots (5)$$

The predicted probability of tax compliant attitude of taxpayers can be expressed as:

$$p(y_i = 0) = \frac{e^{\beta_0 + X_i'\beta}}{1 + e^{\beta_0 + X_i'\beta}} \dots\dots\dots (6)$$

Therefore, the study used the following binary logistic regression model to examine the association between the determinant factors and taxpayers' tax evasion perception in the East Addis Ababa Small Taxpayers branch office. The model is as follows:

$$TE = \beta_0 + \beta_j X_i' \dots\dots\dots (7)$$

In this equation, TE is that the variable, called evasion (evade or not), and X_i represents the independent variables.

4. Results and Discussion

Before evaluating the effect of each explanatory variable in the model, it was very important to determine whether the model would improve its ability to predict outcomes. A statistically significant chi-square statistic ($p < 0.05$) indicates that the final model significantly improves the baseline intercept model.

As the model summary above shows, the likelihood ratio for the chi-square statistic (116.72) is high and statistically significant at the 5% significance level. This indicates that the included parameters provide better predictions compared to the null model with no predictors.

According to the (22) criteria for the best-fitting model (pseudo R2 values between 0.2 and 0.4 are considered to be a good fit), we found the overall fit of the logit model to be worthwhile. Because the regression results model shows that the pseudo R2 (0.26) satisfies the above assertion.

4.1. Multicollinearity test of the model

One of the important steps in a logistic regression model is figuring out whether or not there exists

multicollinearity amongst unbiased variables.

Multicollinearity happens while or greater explanatory variables are notably correlated to every other. Therefore, the variance inflation factor (VIF) can be customized to detect the multicollinearity diagnostic for independent variables.

VIF (variance inflation factor) is a hallmark of how much of the inflation of the standard error could be caused by collinearity. As stated by (23), if the value of VIF is less than 10, then no Multicollinearity problem exists.

Table 1. Multicollinearity

Variable	VIF	1/VIF
SQ	2.20	0.454253
CTS	2.17	0.461503
TS	2.16	0.462141
Teduc	2.11	0.474329
TR	1.92	0.520032
FAIR	1.75	0.569875
AGE	1.71	0.583202
EDUC	1.64	0.608957
IL	1.60	0.623635
SEX	1.33	0.749455
DUR	1.32	0.759607
MART	1.29	0.773143
TAU	1.14	0.874348
FC	1.11	0.898077
PEN	1.08	0.927530
Mean VIF	1.64	

Source: Stata 15 output

As reflected in the table above, the result confirms that the VIF for all factors is less than 10. Since the variance inflation factor is less than the cutoff point, this indicates that all variables are relevant and multicollinearity is not there since the variance inflation factor (VIF) for each variable is less than the cutoff point 10.

4.2. Heteroskedasticity test

To test the Heteroskedasticity of variables of the research, the researcher used the Breusch-pagan test. This test tells us that the variance remains constant for all variables. The output result is reflected in figure (1) below; The Breusch-pagan test shows the absence of Heteroskedasticity since chi-2 is greater than 0.05.

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Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of TE

      chi2(1)      =      1.58
      Prob > chi2   =      0.2090
    
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Figure 1. Heteroskedasticity test

Source: stata 15 output

4.3. Regression Results

To test the hypothesized relationships between the independent variables (age, gender, marital status, education, income, business type, duration in the business, tax knowledge, tax fairness, complexity of tax system, tax rate, financial constraint, service delivery, penalties, audit) and the dependent variable (taxpayers' tax evasion perception), the binary logistic regression analysis was conducted.

The output from this analysis, a beta coefficient, provides an assessment of the significance, the impact of the explanatory variables on the dependent variable, level of likelihood, and the pseudo R squared which indicates the model fitness. In the regression result, the independent variables may have a positive or negative coefficient, which describes the nature of the effect that they exerted on the dependent variable.

The independent variable with negative coefficients implies that it hurts the dependent variable and vice versa.

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Iteration 0:    log likelihood = -223.75777
Iteration 1:    log likelihood = -166.60002
Iteration 2:    log likelihood = -165.40347
Iteration 3:    log likelihood = -165.39752
Iteration 4:    log likelihood = -165.39752

Logistic regression              Number of obs   =      329
                                LR chi2(15)      =     116.72
                                Prob > chi2       =     0.0000
Log likelihood = -165.39752      Pseudo R2       =     0.2608
    
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Figure 2. Coefficient of determination.

The first iteration (called iteration 0) is the log-likelihood of the "null" or "empty" model; that is, a model with no predictors. At the next iteration, the predictor(s) are included in the model. At each iteration, the log-likelihood increases because the goal is to maximize the log-likelihood.

Prob > chi2 is the probability of obtaining the chi-square statistic given that the null hypothesis is true. This is, of course, the p-value, which is compared to a critical value to determine if the overall model is statistically significant. The likelihood ratio chi-square of 116.72 with a p-value of 0.0000 tells us that the model as a whole is statistically significant.

Table 2. Regression Result.

TE	Coef.	Marginal effect	Std. Err.	z	P> z
SEX	-.3807322	-.0899275	.3152445	-1.21	0.227
AGE	-.2095392	-.0494923	.1479765	-1.42	0.157
MART	.2343165	.0553446	.1812703	1.29	0.196
EDUC	.2566447	.0606185	.1336001	1.92	0.055
FAIR	.427364	.1009417	.1521802	2.81	0.005
DUR	-.2260923	-.0534021	.1544366	-1.46	0.143
SQ	-.5091038	-.1202483	.1665873	-3.06	0.002
Teduc	-.4738096	-.111912	.2023156	-2.34	0.019
FC	-.6958697	-.1643617	.1424733	-4.88	0.000
CTS	.0047239	.0011158	.1654089	0.03	0.977
TR	.6524214	.1540994	.1627031	4.01	0.000
IL	.4139863	.0977819	.1270285	3.26	0.001
TS	-.0218883	-.0051699	.1472003	-0.15	0.882
TAU	.500048	.1181094	.15956	3.13	0.002
PEN	-.280243	-.0661923	.1440523	-1.95	0.048

Source: Author Compilation using Stata 15

The regression result shows that there are eight independent variables including the fairness of the tax system, income level, tax rate, tax education, financial constraint, audit, penalty, and service quality in the models that have a significant influence on tax evasion at a significance level of 5%.

The results show that sex, age, marital, education, complexity, business sector, and duration are not important factors in determining tax evasion at a 5% significance level. Accordingly, financial Constraints, tax education, service quality, and penalty are negatively associated with tax evasion, while the fairness of the tax system, income level, audit, and tax rate are positively associated with tax evasion. That means, that tax knowledge, improved service delivery, and absence of liquidity (financial constraint) will reduce tax evasion; meanwhile, better income levels, high tax rates, unfair tax, and poor audit regime will increase tax evasion.

The variable that influences tax evasion perception of taxpayers are education level of taxpayers, which is positive and (p= 0.05) significant at a 1% level of significance, this indicates that a one-year increase in education will lead to 0.25 units increase in tax evasive holding all other variables constant. The other variable that influences tax evasion is the taxpayer's knowledge of tax rules and regulations ($\beta = -.47380$, p= 0.019). This means that; when the taxpayers' know-how and understandings of tax rules are relatively high then the tax evasion perception of the taxpayer decreases by 0.47 units, with other factors held constant.

Financial constraint is the other significant factor ($\beta = -.69$, p= 0.000, and marginal effect = -.1643617), for every financial constraint that happens, the probability of tax evasion perception of taxpayers decreases by 16.4 %, other factors being at their margin; when every financial constraint will go on, the taxpayer flight from evading tax. Tax fairness was found to have a significant impact on tax evasion. The result indicates that when the tax system is not fair, the probability of tax evasion perception of taxpayers increases by about 10.1%.

Another significant factor is quality service; when quality service is delivered to taxpayers, the Probability of the taxpayers being evasive is decreased by 12.0%, holding all other factors constant. The tax rate is one of

the factors that determine tax evasion. A regression table shows that a one percent increase in marginal tax rate will encourage tax evasion by 15.4%, other factors being constant.

Income level was found to be significantly determining tax evasion at a 5% level of significance with a marginal effect of .0977819. The result of the regression table tells us when an increase in the income level of taxpayers, the probability of taxpayers' tax evasion perception also increases by about 9.8%. The result of the tax audit was found to be positive and significantly determined tax evasion. Other factors remain the same when the probability of being audited is high the probability of tax evasion perception of taxpayers increases by 11.8%. The penalty of a taxpayer was also found that hurts the tax evasion behavior of taxpayers at a 5% level of significance.

Fairness of tax system

The logistic regression result shows that the relationships of tax evasion regarding attitudes toward the fairness of the tax system ($\beta=0.42$) with marginal effect (0.10094) are positive and significant, holding other explanatory variables constant when an increase in the perception of the tax system is unfair, the probability of tax evasion perception increase by about 10.1%. This means that when taxpayers feel the tax system is fair their willingness to pay taxes is also increased. The result is consistent with the study ⁽⁹⁾, ⁽¹⁷⁾, and ⁽¹⁹⁾.

Tax rate

Tax rate ($\beta=.65242$) and marginal effect (.1540994) have a positive and significant association with tax evasion perception. This result suggests that a one percent increase in marginal tax rate will encourage tax evasion by 15.4%. This implies that if the government increases the tax rate, the probability of being at a higher tax evasion level is realized. This result is consistent with ⁽²⁴⁾.

Income level

The coefficient of income level is .41398 and its marginal effect is (.0977819). This means that there is a positive significant relationship between the income level of taxpayers and tax evasion. This implies that holding other explanatory variables constant when the income level of taxpayers increases the probability of taxpayers' tax evasion perception also increases by about 9.8%. The result is contrary to the work of ⁽¹⁵⁾.

Tax office quality service delivery

The tax office's good quality service delivery has a statistically negative ($\beta= -0.51$) with a marginal effect of (-.1202483), the P-value is 0.002, which is less than 0.05 significant levels. This implies that improved service delivery decreases the probability of tax evasive behavior of individual taxpayers by 12.0%. This result is consistent with the finding of ⁽¹⁹⁾.

Tax knowledge (Tax Education)

The binary logistic result shown in Table (above) revealed that tax evasion was influenced by taxpayers' knowledge ($\beta =-.47380$, $P <0.05$) with a marginal effect of (-.111912). It was found to have a negative and significant effect on the tax evasion behavior of taxpayers at a 5% level of significance.

This implies that as the individual's tax awareness improves, the tax evasive behavior of the individual decrease by 11.2%, other factors being constant. This result is also consistent with ⁽¹⁷⁾ and ⁽¹⁹⁾.

Personal financial constraints

As shown in the regression table, the explanatory variable financial constraint was found to be a negative and statistically significant relationship with tax evasion at a 5% significance level. The ordered regression result ($\beta= -.6958697$) with marginal effect (-.1643617) indicates that an increase in financial constraint causes tax evasion behavior of the taxpayer to decrease by 16.4%, other factors being constant. The result is at odds with the study of ⁽²⁵⁾ ⁽²⁶⁾ and ⁽²⁷⁾, people who face personal financial problems are likely to be more prone to evade tax.

Audit coverage

The regression analysis states that lower audit regimes have a positive ($\beta=.5000$) and very strong significant relationship with tax evasion perception of taxpayers at a 5% significance level. The marginal effect (.11810) indicates that other factors remain the same when the probability of being not audited increases by one unit the probability of tax evasion perception of taxpayer increases by 11.8%. This result is consistent with that of ⁽¹³⁾, ⁽²⁸⁾, and ⁽²⁹⁾ the probability of being audited, the more positive compliance attitude of taxpayers, and a higher audit regime reduce tax evasion significantly.

Penalties

Regarding penalty ($\beta=-.2802$), it has a negative and significant association with tax evasion at 5% significance. This implies that an increase in the penalty of tax non-compliant taxpayers and the likelihood of taxpayers' tax evasion perception decreases by about 6.6%. This result is consistent with that of ⁽¹³⁾, ⁽⁹⁾, and ⁽¹⁷⁾.

5. Conclusions and Recommendations

To achieve our goal, we collected primary data was collected using closed-ended and Likert-scale questionnaires and analyzed them using a logistic regression model.

A result of the Binary logistic regression analysis suggested that likelihood of tax evasion is significantly influenced by the tax rate, audit, penalty, tax knowledge, financial constraint, quality service, fairness of tax, and

income level. This study similarly evidenced that, other variables such as duration, complexity, trade sector; age, sex, and marital status of taxpayers were not significant factors of tax evasion.

The findings of the study showed that tax evasion has positively affected by the tax rate, income level, audit, and fairness of the tax system and is negatively influenced by financial Constraints, tax education (knowledge), penalty, and service quality of the tax office. The results of this study are in line with the finding of previous researchers like (6), (13), (25), (30), and (31).

To minimize tax evasion the government should focus on four issues, tax education, service delivery, law enforcement, and tax policy change. The tax office provides training to taxpayers and an ongoing face-to-face awareness program on the consequences of violating tax laws, using various means such as television, magazines, radio, and the use of other means. In addition, the tax office should educate taxpayers on how to keep records of income and expenses.

A trend of tax evasion by taxpayers is based on the perception that their branches are not providing good service to their customers. Branches, therefore, need to improve the efficiency and effectiveness of their service delivery to taxpayers.

Tax offices need to expand their tax networks by analyzing current tax rates and reducing existing tax rates to improve revenues, thereby absorbing more taxpayers into the tax system and ensuring tax compliance. Lowering the tax rate would help take the burden off the few taxpayers who feel that paying their taxes is an obligation to the public.

We recommend that tax authorities practice rigorous audit detection methods and detect fraud in tax authorities. The tax office must also impose penalties, there should be moderate and appropriate levels of penalties executed on a tax evader and publicized officially through television, radio, and magazines. This increases awareness of the consequences of tax evasion and encourages voluntary compliance.

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