Determinants of Tax Compliance Attitude with Taxation: Evidence from Category “A” Taxpayers in Gedeo Zone, SNNPRS, Ethiopia

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Abstract
Tax compliance attitude is influenced by demographic, individual, social, institutional and economic factors. Thus, the objective of this study is to identify the determinants of tax compliance attitude with taxation, case of category ‘A’ taxpayers in Gedeo Zone. To this end, the author used mixed research approach. The target population of the study was category “A” tax payers of Gedeo Zone, SNNPRS, and Ethiopia. A sample of 291 Category “A” tax payers were randomly taken from the total of 1069 Category “A” tax payers in Zone. Both primary and secondary data were collected. Binary logistic regression model and Pearson correlation matrix were employed to analysis the data through Stata software application version (12.0) and SPSS version (23.0) to interpret the results of this study. Then, the result of this study showed that out of ten explanatory variables incorporated in the model, eight variables such as gender, age, lack of tax knowledge, simplicity of tax system, perception on fairness and equity, awareness on penalty, probability of being audit, and perception on tax rate were found to be determinants of tax compliance attitude with taxation in the zone. Whereas, education level and tax authority efficiency have no impact on tax compliance attitude. Finally, the findings of the study may inform policymakers about the determinants of tax compliance attitude towards tax system in the Zone, supports to formulate constructive policy and make decisions related to tax compliance issues in order to achieve the goal of raising required tax revenue to promote the economic development of the country.

Keywords: Taxation, Determinants, Compliance Attitude, Binary Logistic Regression model

1. Introduction
Tax revenue is powerful resource in the world to finance the public expenditures of developed, developing and underdeveloped countries. But the amount of revenue to be generated by a government from taxes for its expenditure program depends on the willingness of the taxpayers to comply with tax laws of a country; Fjeldstad et al (2012). Moreover, in developing countries many problems like poor administration, failing to collect sufficient tax revenues, tax structures where tax horizontal and vertical equity considerations are not integrated, lack of government and economic stability Tesfaye (2015). Ethiopia, like any other developing countries, faces difficulty in raising revenue to the level required for the promotion of economic growth through making different tax reforms for improving revenue generation, enhancing the efficiency of tax administration and improving equity in the tax system. To this effect, Study done by (Belay, 2015) on determinants of tax revenue from time series of (1992-2013) declared that the trend of tax collection in Ethiopia is inconsistent, changing upward and downward.

1.1 Statement of the Problem
Even though tax revenue is the powerful instrument in the hands of the government for transferring purchasing power from individuals to government to finance the public expenditure, most citizens become unwilling to pay their tax obligation in the correct amount, time and place due to presence of negative attitude. Then they take a variety of actions to reduce their tax liability (Amina and Saniy, 2015). Tax negative compliance attitude is individuals’ failure to comply with their tax commitment. Hence, Loo, (2006) broadly categorized negative compliance as failing to file a tax return; under reporting of taxable income; overstating tax claims such as deductions and exemptions and failing to make timely payment of tax liability. In contrary, positive tax compliance attitude is the willingness of taxpayers to comply with tax laws. To this effect, Das Gupta and Chattopadhyay (2002) stated that compliance attitude with tax laws involves true reporting of the taxable income; correct computation of the tax liabilities; timely filling of tax returns and timely payment of the amount owing as tax obligation.

Tax negative compliance attitude is burning in developing countries, which reduces revenue generation capability to amount planned to be collected and leads to budget deficit. To this end, Giulia M et al., (2014) and Ahlerup et al., (2015) argued that now the governments of developing countries, especially sub- Sharan Africa countries collect much lower proportions of their GDPs of tax revenue which is less than average is 16% even if they have high capacity to raise tax revenue to promote their economic development. Ethiopia, like any other developing countries, faces difficulty in raising tax revenue to the level required for the promotion of economic growth. Hence, according to FDRE National planning commission (2016, pp. 108)
tax to GDP ratio which was collected in GTP I is 13.3% even though the government has been planned to raise 15.3% tax-to-GDP which is less than average for developed countries (25% -35%), (18%-25%) for developing countries and even less than (16%) average that of sub-Saharan African countries. The main reason of this low revenue collection performance is due to tax noncompliance attitude of business income tax payers’ tax payers and poor tax administration (IMF, 2015) and this is why tax compliance attitude topic is an important agenda in Ethiopia and needs an examination.

There are few researches done on determinants of tax compliance attitude and related issues in Ethiopia. For example, the researches have done by (Desta 2010; Amina and Saniy 2015; Tilahun and Yidersal 2014; Mesfin 2016); and Yonas, 2016) on the same issue by on incorporating nine explanatory variables in their study and made different suggestions about tax compliance attitude of taxpayers on different study areas. But, this research different from the above reviewed researches by taking into account one more additional factor, perception on tax rate which was not incorporated and tested in previous researches. And also unlike the previous studies, current study employed logit model and tried to fill time gap that the studies have been conducted earlier time does not disclose the current impact that determinants of tax compliance attitude in Gedeo Zone.

Therefore, aforementioned problems necessitate this study to be carried out and doing this research fills the methodology and other gaps mentioned above about determinants of tax compliance from the taxpayers’ perspective.

1.2 Objectives of the Study
The major objective of this study is to identify the determinants of the tax compliance attitude of taxpayers with tax system in Gedeo Zone.

In line with above general objective, the specific objectives of the study are:
1. To test whether the demographic factors such as gender, age and education level have impact on tax compliance attitude of category “A” taxpayers.
2. To examine effect of individual factors such tax knowledge and awareness on penalty on compliance attitude of taxpayers.
3. To investigate the influence of social factor, perception on fairness and equity of tax system on compliance attitude of taxpayers.
4. To see the effect of institutional factors like simplicity of tax system and organizational efficiency of tax authority on tax compliance attitude.
5. To confirm the impact of economic factors such as the probability of being audit and perception on tax rate on tax compliance.

1.3 Research Hypotheses
After adequately reviewing the literature, the researcher has proposed the following hypothesis that will be tested. These are:
H1: Female taxpayers have positive attitude on tax compliance than male
H2: Elder taxpayers are more compliant than young taxpayers
H3: Education level of taxpayers is positively correlated with tax compliance attitude
H4: Tax compliance attitude is positively correlated with tax knowledge
H5: Simplicity of tax system is positively related with tax compliance attitude..
H6: Perception on fairness and equity of tax system is positively associated with compliance attitude.
H7: Tax compliance attitude is positively related with awareness on penalty on of taxpayers
H8: Organizational efficiency of tax authority is positively correlated with compliance attitude
H9: Probability of being audit is positively correlated with compliance attitude of taxpayers
H10: The perception on tax rate is negatively related with tax compliance attitude

2. Determinants of tax compliance with taxation
According to Nicoleta (2011) Factors that affecting tax compliance of taxpayers can be divided to two major categories such as (1) Economic factors such as income level, fines, tax rate, audit probabilities, tax benefits, tax audit, penalties, and (2) Non- Economic factors such as attitudes towards tax, personal norms, and perceived fairness of tax. Besides, studies done by (Kichler, 2007), (Loo, 2006), (pail, 2010) factors that affecting tax compliance attitude of taxpayers can be divided to five major categories such as (demographic factors like age, gender and education) (individual tax knowledge, personal financial constraints and awareness of offense and penalty), (social variables includes perception on equity and fairness of tax system institutional, change in government policy and referent group) and finally (economic factors consists of tax rate income level, tax audit and perception on government spending).
2.1 Demographic factors

Demographic factors like age, gender and education have long been researched by different authors. With regard to the impact of age on tax compliance attitude findings are difference along the different studies. Tittle (1980), Warner and Walerud (1982) and Wahlund (1992) postulate negative association between tax compliance attitude and age; older people are less compliant. In contrast, Dubin, Graetz and Wilde (1987), Chung and Trivedi (2003) and argued that age was positively related with tax compliance attitude of tax payers. However, there have been asignificant number of studies which found no relationship between age and compliance (Porcaro, 1988; Mohani, 2001) also found that older people are more compliant than young people. Concerning the gender of tax payers’ study done by Hasseldine and Hite (2003), Tittle (1980) found that female taxpayers were more compliant than males. In difference, Richardson (2006), Amina and Sanjiv (2015), Niway and, Wondwossen (2016) suggested that gender has no significant impact on compliance attitude of taxpayers. Foregoing literature supports the direct, positive relationship between educational level and taxpayer compliance attitude (Jackson and Miliron 1986) (Chan, Troutman, and O’Bryan, 2000), Niway and, Wondwossen (2016) also suggested that education level is directly linked to a likelihood of compliance attitude. Educated taxpayers are more compliant than uneducated taxpayers.

2.2 Individual factors

Decisions regarding either to evade or not to evade taxes are heavily reliant on taxpayer’s personal judgment (Mohani 2001). Personal circumstantial factors like tax knowledge, personal financial constraints and awareness of penalties and offences are therefore likely to have a significant impact on taxpayers’ compliance attitude. The influence of tax knowledge on compliance behavior has been described in various researches. Previous studies have evidenced that tax knowledge has a very close relationship with taxpayers’ ability to comply (Singh and Bhupalan, 2001), Ermias (2014) Mesfin (2016) Redae and Sekhon (2016) concluded that tax knowledge have significant impact on tax compliance attitude of the tax payers. Personal financial constraints are believed to have an impact on tax evasion as financial distress faced by an individual and may encourage him to prioritize what has to be paid first as basic survival needs such as (foods, clothing, housing etc.) People who face personal financial problems are likely to be more disposed to evade tax. When compared to people with less financial distress (Mohani and Sheehan, 2004; Mohani, 2001). With regard to Awareness of offense and penalties a theoretical economic model introduced by Allingham and Sandmo (1972) has clearly indicated that penalties as well as audit probability have an impact on tax compliance behavior. The higher the penalty and the potential audit probability the greater the discouragement for potential tax evasion. If the taxpayers are aware of the offences they are committing when evading tax and the consequences of being non-compliant taxpayers, they might reduce their tendency to evade tax.

2.3 Social factors

Besides to demographic and individual factors affecting tax compliance attitude of citizen, social life of taxpayers has its own impact on compliance attitude. To this end, Lemessa (2005) stated that the issue of noncompliance is not only a question of state-society relationships but also a question of relationship between citizens or groups of citizens within local communities. There is an existing social bond between the society and this bond influences the members of the society in complying with the tax. These factors are perceptions of equity and fairness, changes to current government policy and referent groups. Perceptions of equity or fairness: one of the main principles of the taxation system design is equity or fairness, which can be perceived through three dimensional views horizontal equity (people with the same income or wealth brackets should pay the same amount of taxes), vertical equity (taxes paid increase with the amount of the tax base or taxable income) and Exchange Equity (expectation the same share of public service from government for paying tax) (Wallschultzyky 1984; Richardson, 2006). The perceived fairness of the tax system also has an influence on the inclination towards tax evasion (Jackson and Milliron, 1986; Richardson, 2008). With regarding to changes to current government policies as one factor that affect tax compliance attitude of taxpayers, studies have disclosed that the government decisions and changes to policies in accordance with the economic and political situation have a significant impact on compliance. For example, a positive move made by political situation has a significant impact on compliance attitude. For instance, a positive move made by the government such as an increase in tax rebate (Hasseldine and Hite, 2003) is likely to increase taxpayers’ compliance. A referent group has its own impact on compliance attitude of taxpayers. Ajzen and Fishbein (1980) (in their Theory of Reasoned action (TRA) and Theory of planned Behavior (TPB) hypothesized that referent groups play a significant role in determining people’s intentions and behavior regarding tax compliance. Decisions either to evade or not to evade tax sometimes are influenced by family members or friends (Allingham and Sandmo (1972). Therefore, the influence of referent groups is seemingly important in making a decision, particularly involving monetary aspects and the obedience to laws.
2.4 Institutional factors
The evidence suggests that institutional factors role of the tax authority, simplicity of tax system and probability of detection also play vital role in their compliance decisions Palil, (2010). The role of the tax authority in minimizing the tax gap and increasing voluntary compliance is clearly very important. Hassel dine and Li (1999) exemplified that tax compliance is placing the government and the tax authority as the main party that need to be continuously efficient in administering the tax system in order to decrease tax evasion. Besides, the study of Richardson (2008) also suggested that the role of a government has a significant positive impact on determining attitudes toward tax. Concerning the simplicity of the tax system Amina and Sinay (2015); Silvani and Baer (1997) discuss the importance of the tax authority having a simple tax return and system from the taxpayers’ point of view encourages the taxpayers to comply with tax law. In addition, Silvani and Baer (1997) again added that simplifying the tax return will encourage tax payers to complete the tax return on their own rather than employing a tax agent and thus reducing compliance costs as the main feature of SAS. Probability of detection by audit also plays a significant role in reporting behavior of tax payers. Taxpayers will declare the whole thing if they perceive that they will be one of the taxpayer to be audited in a particular year (Riahi-Belkaoui, 2004; Richardson, 2008). On other hand, Slemrod et.al (2000), (Slemrod, Blumenthal and Christian (1998) investigated the relationship between the probability of being audited and the taxpayers’ attitudes recommended that as the probability of detection increased, taxpayers are encouraged to comply with tax laws and accurately report their income.

2.5 Economic factors
The effect of tax rate on tax compliance is mixed. According to (white and Woodbury (1985) raising marginal tax rates will be likely to encourage taxpayers to evade tax more. Park and Huy (2003) in their empirical study also find that the increase in tax rate strengthens the incentive to report less income to compensate the reduced income. Another study in 1980 by Tanzi used an econometric model to explain the relationship between marginal tax rates and noncompliance by using aggregate data in the United States, demonstrated that tax rates were negatively correlated with tax compliance according to his data. Opposite to the view there are some researchers who found out there is positive relationship between tax compliance and tax rate. For instance, Yitzhaki (1974), Alm, et al., (1995) fined a positive relation between the tax compliance and high tax rate. In their experimental research fined respondents to be more compliance when the tax rate was increased. Put differently, Porcano (1988) and Baldry (1987), in their study find out there is no relationship between tax compliance and tax rate.

In most researches income level is classified as one of demographic factors affecting tax compliance but in current study it classified as economic factor because, income earning capacity of a Person or corporate citizen is depending on economic aspect citizens. Even if Jackson and Milliron (1986) found that income level has a mixed and unclear impact on compliance, but they did not clearly too inconsistent findings. For instance, progressive tax rates might encourage the higher income group to evade rather than the lower income group because of high tax rates which makes their taxable income high, consequently, making the tax liabilities much higher than lower income group. In a country where income redistribution is not satisfactory, the higher income group tends to evade more Mohani, (2001). According to Palil (2010), tax audit could be an important stimulant to increase tax compliance. This indicates that tax audit influence tax compliance. Audits rates and the diligence of the audits could encourage taxpayers to be more prudent in completing their tax returns, report all income and claim the correct deductions to ascertain their tax liability (Palil et al. 2011). Tax audit increases tax compliance because of deterrent effect of audit on the noncompliance of taxpayers. Some studies by (Jackson and JAoue (1989); Shanmugam (2003); Dubin, (2004) claimed that tax audits have a positive impact on tax evasions. Citizens will be sensitive to what the government spends their money on. If the government is wisely spending the national revenue, for example, for basic facilities like education, health and safety and public transportation tax payers feel positive and comply but, if it is spending too much on something considered unnecessary or unbeneﬁcial to them or general public, then taxpayers will feel betrayed and attempt to evade. To this end, (James, 2000) states that taxation is one method of transferring resources from the private to the public sector. The role of taxes as an instrument that stabilizes the economy, and reduces private demand so that resources can be released for public sector use. Generally, governments levy taxes for multiple of purposes, but mainly to raise funds in order to cover public expenditures and on the other hand to properly allocate resources.
2.6 Conceptual Framework of Determinants of Tax Compliance Attitude

Figure: 2.1 source: own construct (2017)

NB: The variable in the circle at the middle (tax compliance attitude) is dependent variable and the other variables (economic, social, institutional, individual and demographic factors) that listed in the rectangles surrounding the dependent variables are independent variables.

3. Research Methodology

3.1 Research Approach and Designs

According to (Abiy et al., 2009: 77) there are two research approaches. These are quantitative and qualitative research approaches. Quantitative research approach involving numerical or statistical data and emphasis is on the quantifiable observations of the research which is mainly objective. Whereas, qualitative research approach is an approach to gather non-numerical data in which Words and observations are used to express the reality where ‘getting close to the data’ and an ‘in-depth’ approach are key concerns. This type of research is mainly subjective.

In current study the author employed both approaches with Cross-sectional Survey research design to achieve the objective of the research.

3.2 Data type and Methods of data collection

In this research, the author used both primary and secondary data. To collect primary data structured questionnaires and direct personal interview were used. The questionnaire was prepared in both Amharic and English languages that helps to reduce language understanding barriers. The questionnaires were adopted and developed with some modification from previous similar studies such as (Pali (2010); (Tillahun and Yiedersal) (2014); (Niway and Wondwossen (2016).  Closed ended questionnaires were prepared in the form of five Likert-Scale, Where; Strongly Agree (SA) = 5; Agree (A) = 4; Neutral (N) =3, Disagree (D) = 2; and Strongly Disagree (SD) = 1; the use of Likert scale is to make it easier for understanding, reduce confusion in reading and answering the questionnaire by respondents.

3.3 Target Population and sample size determination

The total population of this research is Category A tax payers in selected cities in Gedeo Zone, SNNPRS, Ethiopia. According to “Federal Income Tax Proclamation 979/2016” category “A” taxpayers are business entities that have an annual gross income of Birr 1,000,000 (one million Birr thousand Birr) and more. The inspiration of considering Category “A” tax payers is that taxpayers in this group are required by the law to declare their income or keep books of account. According to “Federal Income Tax Proclamation 979/2016” there are three categories of business income taxpayers. These are category “A” taxpayers have an annual gross income of Birr 1,000,000 and more, category “B” taxpayer, having an annual gross income of Birr 500,000 or more but less than 1,000,000 and finally category “C” taxpayers, having an annual gross income of less than Birr 500,000. The researcher considered three categories of taxpayers as clusters then selected category ‘A’ business income taxpayers of out of three clusters using cluster sampling because in scenario of selecting sample from clusters “the groups are termed clusters in this form of sampling and can be based on any naturally occurring grouping.”
According to Gedeo Zone Revenue Authority first quarter report of the year 2016, there were total of 1,069 category taxpayers “A “business income tax payers which considered as target population. To determine the sample size from target population, mathematical formula of Yamane (1967) was used by taking in to account the total population, the sampling error and the level of reliability. It is assumed that the sample would have 95% reliability about population and a sampling error was 5%. This simplest formula is:

\[ n = N/1 + (e)^2 \times N \]

Where \( N \) = study population, \( n \) = sample size and \( e \) = error margin

Accordingly, sample was determined by the above formula to randomly select sample from total 1,069 taxpayers in the zone as follow:

\[ 291 = 1,069/1 + (0.05)^2 \times 1,069 \]

Therefore, the maximum sample size from category “A” business income taxpayer was 291 taxpayers. The logic behind probability sampling technique to select sample is give equal chance to all taxpayers three categories and to select representative sample for the study.

### 3.4. Econometric Model Development

Tax compliance attitude is discrete random variable and dummy in nature that could be measured through logit or binary logistic regression model. Accordingly, the researcher has developed the model by driving logit function from odds ratio and incorporated fourteen explanatory variables which disclosed as follows: COM is Function of [GEN, AGE, EDUC, TAU, SIM, PFE, TAE, TKLDGE, PTR, and APEN]. Hence, the researcher has developed the logistic regression model to achieve the objective of this study.

Logistic regression is one of binary choice models (or dichotomous models), which is designed to model the ‘choice’ between two discrete alternatives. This model essentially describes the likelihood of observing success event \( (Y_i = 1) \) is directly depends on observed explanatory variables which are exogenous to the model. Tax compliance issues is the two kinds attitude matter in its nature; tax payers may comply (compliant) or (non-compliance).Taxpayers are assumed to be compliant if they assess themselves by reporting their correct taxable income to tax authority (at right time, place, correct amount and in appropriate manner) without any legal enforcement and it is their willingness to comply with directives and regulations of authorities. In contrary, taxpayers may have non-compliant if they are enforced by tax authority on those who are unwilling to pay their taxes at right time, place, correct amount and incorrect manner through the threat and application of audit and fine. Therefore, based on the above theoretical concept, the researcher developed the model. Since, dependent variable, (i.e., tax compliance attitude) is a binary outcome (dichotomous) variable and treated as qualitative data and the researcher assumes one (1) compliant attitude, otherwise zero (0). For this data, logistic regression is appropriate model to measure how explanatory variables (factors influencing compliance attitude) affect individual taxpayer’s likelihood of being compliant or non-compliant. Because the binary result variables violate some assumptions of linear regression models such as (heteroskedastic and non-normal). The Logit function can be derived from odds ratio as follow:

\[ \log(Odds\text{ratio}) = \log \left( \frac{\text{Success}}{\text{Failure}} \right) = \log \left( \frac{y_{i=1}}{y_{i=0}} \right) = \beta_0 + x_i' \beta \quad [3.1] \]

Where, \( y_{i=1} \) represents an individual “i” is being compliant (success), \( y_{i=0} \) represents an individual “i” is being non-compliant (failure), \( x_i \) is column vector of explanatory variables (GEN, AGE, EDUC, TKE, SIM, PFE, TAE, APEN, PTR, and TAE), \( \beta \) is column vector of parameters (coefficients) to be estimated and \( \beta_0 \) is the intercept term. Equation (3.1) shows that natural logarithmic form of odds ratio depends on observed explanatory variables.

Equation (6.1) can also be expressed in terms of probability:

\[ \log \left( \frac{P(y_i=1)}{P(y_i=0)} \right) = \beta_0 + x_i' \beta \quad [3.2] \]

Where, \( P(y_i=1) \) is the probability of having positive compliance attitude and \( 1 - P(y_i=1) \) is the probability of having negative compliance attitude. The stochastic version of equation (3.2) can be formulated by adding disturbance error term:

\[ \log \left( \frac{P(y_i=1)}{1-P(y_i=1)} \right) = \beta_0 + x_i' \beta + U_i \quad [3.3] \]

Where, \( U_i \) is stochastic error term which represents all unobservable factors of tax compliance, and this model shows that odds ratios is not only depends on variables incorporated in the model but also other factors which are not included in the equation. By taking exponential (antilogarithm) both side of equation [(3.3) and rearranging it we have logistic function as follows:
Equation [3.4] describes that the probability of being positive compliant attitude depends on observed exogenous variables. This probability is positive and limited between 0 and 1 because the underlying model follows logistic distribution. The predicted probability of positive tax voluntary compliance attitude therefore can be expressed as:

\[
P(y_i = 1) = \frac{\exp(\beta_0 + x_i' \beta + u_i)}{1 + \exp(\beta_0 + x_i' \beta + u_i)}
\]

\[
P(y_i = 1) = (1 - P(y_i = 1))\exp(\beta_0 + x_i' \beta + u_i)
\]

3.5 Description of variables and their scale of measurement

From the theoretical and empirical literature, traditional observable characteristics that may influence the probability of being compliant were summarized with their respective unit of measurement in table below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Symbol</th>
<th>Unit of measurement</th>
<th>Expected sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td>COM</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>Independent variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender of respondent</td>
<td>GEND</td>
<td>Dummy</td>
<td>(+)</td>
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<tr>
<td>Age of respondent</td>
<td>AGE</td>
<td>Ordinal</td>
<td>(+)</td>
</tr>
<tr>
<td>Education status of tax payers</td>
<td>EDUC</td>
<td>Ordinal</td>
<td>(+)</td>
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<tr>
<td>Probability of being audit</td>
<td>TAU</td>
<td>Continuous</td>
<td>(+)</td>
</tr>
<tr>
<td>Simplicity of tax system</td>
<td>SIM</td>
<td>Continuous</td>
<td>(+)</td>
</tr>
<tr>
<td>Perception on fairness and equity</td>
<td>PFE</td>
<td>continuous</td>
<td>(+)</td>
</tr>
<tr>
<td>Organizational efficiency of tax authority</td>
<td>Tae</td>
<td>nominal</td>
<td>(+)</td>
</tr>
<tr>
<td>Tax knowledge of tax payers</td>
<td>TK</td>
<td>nominal</td>
<td>(+)</td>
</tr>
<tr>
<td>perception on tax rate structure</td>
<td>PTR</td>
<td>nominal</td>
<td>(-)</td>
</tr>
<tr>
<td>Penalty for tax evasion</td>
<td>APEN</td>
<td>Continuous</td>
<td>(+)</td>
</tr>
</tbody>
</table>

Source: own construct, (2017)

3.6 Methods of data Analysis

After accomplishment of data collection procedure, it should have classified as per each variable, the qualitative data was coded to be measured quantitatively. In this research data, were analyzed by inferential statistics (logistic regression) by the help of Stata Software package version 12.0 in order to get the reliable finding.

4. Results and Discussion

A total number of 291 questionnaires were administered and distributed to Category “A” taxpayers, of which 270 filled completely and returned. This made the return rate around 92.78%, indicates good response rate. After the data were collected, checked for errors and completeness. This study employed correlation matrix and binary logistic regression for data analysis.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COM</th>
<th>GEND</th>
<th>AGE</th>
<th>EDU</th>
<th>TKLDGE</th>
<th>SIM</th>
<th>PFE</th>
<th>APEN</th>
<th>TAU</th>
<th>PTR</th>
<th>TAE</th>
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<td>COM</td>
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<tr>
<td>GEND</td>
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<tr>
<td>AGE</td>
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<td>1.000</td>
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<td>-0.021</td>
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<td>0.143*</td>
<td>0.025</td>
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<td>PFE</td>
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<td>0.003</td>
<td>0.147*</td>
<td>0.043</td>
<td>-0.089</td>
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<td>0.125*</td>
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<td>0.035</td>
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<td>0.307**</td>
<td>0.187**</td>
<td>0.191**</td>
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</tr>
<tr>
<td>PTR</td>
<td>0.324**</td>
<td>-0.019</td>
<td>0.006</td>
<td>0.052</td>
<td>-0.172**</td>
<td>0.157**</td>
<td>-0.097</td>
<td>0.092</td>
<td>0.112</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>TAE</td>
<td>-0.154*</td>
<td>-0.024</td>
<td>-0.030</td>
<td>0.001</td>
<td>0.098</td>
<td>-0.165**</td>
<td>-0.122*</td>
<td>-0.027*</td>
<td>-0.156*</td>
<td>0.041</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Correlation is significant at 1 % significance level, * Correlation is significant at 5 % significance level (two tailed).

Source: Questionnaire (2017)

The table 4.1 shows the relationship between dependent variable (tax compliance attitude (COM) and
The previous studies done by (Singh and Bhupalan, 2001); (Palil, 2010); (Ermias, 2014); (Mesfin, 2016); and Redae have found that only 39.11 percent of the changes in tax compliance attitude (COM) could be explained by explanatory variables namely; positive perception on existing tax rate (PTR), lack of tax knowledge (TK), negative, simplicity of tax system (SIM) positive, awareness on penalty rate for evading tax (APEN) positive, probability of being audit (TAU) positive, perception on existing tax rate (PTR) positive were found to be significantly correlated with tax compliance (COM) at 1% significance level.(as P<0.01), while tax authority efficiency was found to be significantly positively correlated with tax compliance attitude at 5 % significance level (P<0.05).

### Table 4.2 Regression result: dependent variable (COM) through Stata Version 12.0

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef.</th>
<th>Std. Err</th>
<th>Z-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEND</td>
<td>-0.9501555 **</td>
<td>0.4712432</td>
<td>-2.02</td>
<td>0.044</td>
</tr>
<tr>
<td>AGE</td>
<td>0.5539186 ** *</td>
<td>0.2270371</td>
<td>2.44</td>
<td>0.015</td>
</tr>
<tr>
<td>EDU</td>
<td>-0.0000788</td>
<td>0.2088958</td>
<td>-0.00</td>
<td>1.000</td>
</tr>
<tr>
<td>TK</td>
<td>-1.092946 **</td>
<td>0.5039</td>
<td>-2.17</td>
<td>0.030</td>
</tr>
<tr>
<td>SIM</td>
<td>1.345927 ***</td>
<td>0.3066856</td>
<td>4.39</td>
<td>0.000</td>
</tr>
<tr>
<td>PFE</td>
<td>-0.7677269**</td>
<td>0.3191312</td>
<td>-2.41</td>
<td>0.016</td>
</tr>
<tr>
<td>APEN</td>
<td>1.446501 ***</td>
<td>0.3277764</td>
<td>4.41</td>
<td>0.000</td>
</tr>
<tr>
<td>TAU</td>
<td>2.340474 ***</td>
<td>0.419548</td>
<td>5.58</td>
<td>0.000</td>
</tr>
<tr>
<td>PTR</td>
<td>1.782676 ***</td>
<td>0.4761506</td>
<td>3.74</td>
<td>0.000</td>
</tr>
<tr>
<td>TAE</td>
<td>-0.5064371</td>
<td>0.4534209</td>
<td>-1.12</td>
<td>0.264</td>
</tr>
<tr>
<td>CONS</td>
<td>-13.82375</td>
<td>2.306153</td>
<td>-5.99</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*** Significant at 1%, **Significant at 5% respectively.

Source: Questionnaire (2017)

The result on Table 4.2 shows that the Pseudo R-square with a value of 0.6089 implies that about 60.89 percent of the changes in tax compliance attitude (COM) could only be explained by explanatory variables namely; that (gender of the respondent (GEND), age of the respondent (AGE), tax knowledge (TK), simplicity of tax system (SIM) awareness on penalty rate for evading tax (APEN), probability of being audit (TAU) and perception on existing tax rate (PTR). While 39.11 percent of the changes in tax compliance attitude (COM) could be explained by other exogenous factors. The likelihood ratio chi-square of 215.42 with a p-value of 0.0000 tells us that the model as a whole is statistically significant.

Accordingly, the result of this study, shows male tax payers (β = -0.950) has negative and significant relationship with tax compliance but positive for female taxpayers. Hence, hypothesis H1 is accepted. This result is consistent with finding of other studies results (Mohini, 2001, Tadsse and Goiton (2014), Amina and Saniya, (2015). This result provides evidence that the probability of having positive compliance attitude for female taxpayers is less than that of male i.e. women were found to have more compliant than men taxpayers.

With regarding to age impact of respondents the probability of having positive tax compliance attitude (β= -0.554) is positive and statistically significant. Therefore, hypothesis H2 is accepted. This finding is consistent with that of Dubin and Wilde (1988), Loo (2006), Torgler (2007), Tadsse and Goiton, (2014), and Amina and Sanay (2015) that more aged taxpayers has positive compliance attitude than younger tax payers. This indicate high the age of respondent, more positive compliance attitude and lower the age of the respondents’ lower, lower the positive compliance attitude. Because more aged people learn more thinks about taxation through their passage long life time. The finding provides that the government should educate the young generation about taxation for the reason that they are less compliant old taxpayers.

Concerning the impact that tax knowledge for not attending tax education (β= -1.093) has negative and significant with compliance but positive for attending tax education. So, the hypothesis H4 is accepted. The pervious study done by (Singh and Bhupalan, 2001); (Palil, 2010); (Ermias, 2014); (Mesfin, 2016); Redae and Sekhon (2016) have evidenced that tax knowledge has a significant impact on tax compliance attitude even though the level of tax knowledge varies significantly among respondents due to knowledge gap between them. This implies more the taxpayer knowledge about taxation, more the probability of having positive compliance attitude, Thus, providing more tax knowledge to a larger number of tax payers helps to prevent tax evasion and enhance voluntary tax compliance in Self-assessment system. On the other hand, poorer tax knowledge associated with negative attitudes toward taxation and increases the tendency to evading tax.

The finding of this study with regard to simplicity of the tax system (β =1.346) has positive and more
significant relationship with tax compliance attitude. Thus, hypothesis H5 is accepted. This result is consistent with Silvani and Baer (1997); Amina and Sanid (2015); Niway nad Wondwossen (2016). The word ‘simple’ carries numerous interpretations; at least the majority of taxpayers require that the tax return should be as simple as possible. The tax authority may assume as tax return is simple and easy to complete but it may not equally simple for all taxpayers. This indicates that simplifying the tax return will encourage tax payers to complete the tax return on their own rather than employing a tax agent and thus reducing compliance costs as the main feature of self-assessment. Therefore, simplifying tax returns and administration system is the best way to ensure tax compliance. Because taxpayers should not spend much time in ascertaining the accuracy of the returns and calculating their tax liabilities if it is simple and it can facilitate efficient and enhanced administration and reduce compliance costs.

When it comes to perception on fairness and equity of existing tax system (β = -0.768) has negative and significant correlation with compliance attitude. Therefore, the hypothesis H6 is rejected. This result is contrary to that of Lemessa, 2007; Tilahun and Yidersal, 2014; Amina and Saniya, 2015 and Niway nad Wondwossen (2016). Both tax authority and tax payers accept as true that fairness in tax system is one of the determinant factor that affect tax compliance attitude. Tax payer’s think that tax system is unfair if their perception towards what they receive from government less than what they pay as tax. As per interview conducted with tax representatives the business income taxpayer’s thing that taxation is unfair among different category of taxpayers and tax authority is corrupted. The result suggests that there is fairness and equity problem in the tax system of the study area and it needs further investigation on why tax payers’ perception on fairness and equity is so become negative.

With regarding the awareness of penalty for evading tax (β = 1.445) has positive and significant association with compliance attitude. Thus, the hypothesis H7 is accepted. This result is also consistent with that of Allingham and Sandmo (1972); (Amina and Sanid (2015). This indicate that higher the penalty the greater the discouragement for potential tax evasion. If the taxpayers are aware of the offences they are committing when evading tax and the consequences of non-compliant taxpayers.

In the same time, the probability of being audit (β = 2.340) has positive and very strong significant relationship with compliance attitude. As a result hypothesis H9 is accepted. This result is consistent with that of Tadesse and Goitom (2014) and Tilahun and Yidersal, (2014). This finding suggests that more the probability of being caught by audit, more positive the tax compliance attitude of respondents. This implies that taxpayers comply with taxation for the reason that they fear may caught by tax audit.

Finally, perception on tax rate (β = 1.782) has positive and significant association with compliance attitude. Hence, the hypothesis H10 is rejected. This result similar with that of Alm et al. (1995). This result suggests that of raising marginal tax rates will be likely to encourage taxpayers to comply with taxation. In opposite, (Park and Hyun (2003) and Tanzi (1980) in their study find out that increase in tax rate strengthens the incentive to report less income to compensate the reduced income.

### 4. Conclusion

According to Pearson correlation Matrix result (see Table 4.1 ) gender of taxpayers, age, tax knowledge, simplicity of the tax system, perception on fairness and equity, awareness on penalty for evading tax, tax audit, perception on tax rate and the role of tax authority were significantly correlated with tax compliance attitude. Results of the Binary logistic regression analysis (see Table 4.2) also suggested that compliance attitude is significantly influenced by gender of taxpayers, age, tax knowledge, simplicity of the tax system, perception on fairness and equity, awareness on penalty for evading tax, tax audit, and perception on tax rate. This study similarly evidenced that, other variables such as education level and role and efficiency of tax authority were not significant determinants of tax compliance attitude.

### 5. Direction for Further Research

Since any study cannot be free from limitations, accordingly there are some limitations in current study. Originally, it focused only on determinants of compliance attitude of Category “A” tax payers in Gedeo Zone, SNNPRS. Consequently, the findings of this study may be difficult to generalize about all tax payers at others Zones, regional and national level. Hence, this study can be improved if it is done at regional and national level by comparing tax compliance attitude of different business sectors by changing sampling to other categories of business income tax payers in different economic sectors. Further researchers can also include other tax compliance attitude determinants that were not included in this study since current study only testes ten factors on the same area or at national and regional level. Another possible research topic that can be investigated is why the two variables such as education status of taxpayers and tax authority efficiency incorporated in the model have not significantly affecting the compliance attitude in the same area. Finally, other researchers can also make comparative study among taxpayers obliged to open book of account (category A&B) and that not obliged to open book of account to examine (category C taxpayers) if there may be similarity or differences in compliance attitude towards tax law among the groups of taxes payers.
6. Acknowledgments
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