



## **Analysis of Tax Compliance and Its Determinants: Evidence from Kaffa, Bench Maji and Sheka Zones Category B Tax Payers, SNNPR, Ethiopia**

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### **Jel Classification**

H25, H26.

### **Abstract**

Despite the fact that tax is an important stream of revenue for government of any country, there is tax avoidance and tax evasion which are constraints serving as a bottlenecks for efficient tax collection performance. Therefore, this study examines tax compliance and its determinants in Kaffa, Bench Maji and Sheka Zones category 'B' business income tax payers, Ethiopia. To do this, data was collected with the aid of structured questionnaires, administered to 311 respondents using proportionate simple random sampling procedure. The data was examined with the use of descriptive statistics and econometric model particularly ordered logit model. The result of ordered logistic regression showed that, among different variables tested, tax compliance was positively affected by education level of tax payers, tax knowledge and awareness of tax payers, simplicity of the tax system, attitude of tax payers towards tax, perceived role of government expenditure, and rewarding scheme for loyal tax payers. It is therefore recommended that the tax authority ought to conduct effective and sustainable awareness creation programmes and tax education to the general public in general and to tax payers in particular through printed and electronic medias and face-to-face sessions. The tax authority should also simplify the tax system particularly the tax return, tax forms and tax laws so that they become easily and clearly understandable to tax payers. Moreover, the government should consider provisions of trophy in terms of tax rewards and inducements to honest and dedicated tax payers. Lastly, the government shall maintain accountability and transparency on how the revenue collected from taxation was being disbursed and provide social services efficiently and effectively to the society so that tax payers will have trust and positive attitude towards the tax that they pay and become loyal to the tax system.

## **1. Introduction**

### **1.1. Background of the Study**

The economic development of any country depends on the revenue generated for the availability of infrastructure and alternative social services in their given country. For these services to be adequately provided, governments ought to have enough revenue to finance them. One most significant means governments raise funds to finance its operations is through taxes (Ndekwa, 2014). Osundina & Olanrewaju (2013) argued that tax could be a major player in each society of the globe and tax system place is a tool for government to gather extra revenue required in discharging its pressing obligations. Taxation is so, a serious commercial enterprise tool in mobilizing income for economical and effective designing and leading investment and for that matter proper running of the economy (Napari Seidu et.al., 2015; Ozen et.al. 2014). But, a core challenge for African countries is finding the optimum balance between a tax regime that is business and investment friendly, and one which may leverage enough revenue for public service delivery to boost the attractiveness of the economy (Vadde and Gundarapu, 2012). Even though the two things certain in life are death and taxes, most individuals become reluctant when it comes to paying tax in the right amount, time and place. Individuals do not like paying taxes and they take a variety of action to reduce their tax liability (Ahmed and Kedir, 2015). Despite various administrative reforms, levels of tax collected has remained quite low due to low tax compliance (Abdixhiku, 2013; Baldacchino et. al., 2017). Tax disobedience could be a substantive universal development that transcends cultural and political boundaries and takes place in all societies and economic systems. Notwithstanding time and place, the most issue moon-faced by all tax authorities is that it is never been simple to influence all taxpayers to befit the rules of a tax system (Peter,2013. Most Less Developing Countries (LDCs) are presently captivated with external money resources to fund their development activities. Unlike developed countries, developing and emerging countries are particularly prone to tax evasion and avoidance activities of individual taxpayers and firms. Tax compliance is that the temperament of taxpayers to adjust tax laws so as to get the economy equilibrium of a country (Andreoni, et al 1998 cited in Ahmed and Kedir (2015); Grima, 2012).

Taxpayers' behavior towards tax system has induced noticeable attention among several revenue authorities within the world particularly in developed countries. However, it is debatable on what has been done towards the study of taxpayers' behavior towards tax system in developing countries as they concentrate more on studies which might increase their budgets "bottom-line" in terms of enormous revenue assortment and social control efforts at the expense of studies on taxpayers' behavior which might build increase during this government income to be complete and social control efforts work (Marti, et al., 2010). Following the increasing cases of tax disobedience, particularly nonpayment and its consequences on the capability of a government to lift public revenue, large amount of attentions are paid to the difficulty of tax compliance globally by public policy makers and

researchers for the past few decades. In line with on top of realities, the aim of this study is to depict level of tax compliance and its determinative factors: evidence from Kaffa, Bench Maji and Sheka Zones Category B Tax Payers, SNNPR, Ethiopia.

### **1.2. Statement of the Problem**

Tax is that the main part of government revenue that may be accustomed to finance all the government expenditure to stabilize the economy. In Ethiopia, the government imposed tax (direct and indirect), among others; as major and vital sources of public revenue for the promotion of its economic process. However, this imposition of tax could not still bring the desired result due to variety of reasons such among that the main reason is tax payers do not comply with their tax obligation (Tesfaye, 2015). Among different things, the challenges facing tax collectors are existence of taxpayers 'culture to evade and avoid taxes, social disapproval among taxpayers against tax offences and taxpayers' delay in tax declaration (Mpambara, Byiringiro & Donatille, 2013). Agbi (2014) expressed out that tax evasion could be an important downside moon-faced by most of the countries around the world. In developing countries, income tax evasion could be a serious challenge facing tax administration and obstructive government revenue performance. The number of expected revenue from tax might not be collected due to tax evasion and tax avoidance which are existing behaviors in all economies in all century (Zandi & Rabbi, 2015). Tax avoidance and evasion area unit pervasive over all countries of the world, and tax structures are unit beyond any doubt skew by this reality (Slemrod & Yitzhaki, 2002). In recent years, the Ethiopian government has been creating substantial efforts in reforming and modernizing the revenue administration with the aim of simplifying the income tax system and increasing government revenue (Temtime, 2014). Despite the efforts taken by government, Ethiopia like several developing countries suffers from government revenue loss due to tax noncompliance (Ahmed and Kedir, 2015). Ministry of Finance and Economic Development of Ethiopia (MOFED) (2010), African Economic Outlook (2012) and International fund (2013) as cited in the study of Temtime (2014) revealed that the government revenue as a share of the gross domestic product was achieved 11.6 % that was not up to the ratio of tax to gross domestic product magnitude in 2003/4 (i.e.12.6). It is additionally highlighted within the study of Temtime (2014) that the ratio of tax to gross domestic product targeted by the top of the five-year Growth and Transformation set up in 2015 is 15.3% which is below the Sub-Saharan average (18%) in 2005. Temtime also expressed that as compared to some selected Eastern African countries, the Ethiopian tax performance is extremely low and even under the averages of the these chosen African countries.

The study of Mesele & Tesfahun (2016) in Desse town depicted that among the main challenges the tax authority of town faces principally was taxpayers' delay in tax declaration. Reducing noncompliance can be effective if the reason for noncompliance by tax payers is well understood which can be constructive tool to tax authority by providing them information and helping them which strategy is appropriate and effective to increase tax compliance. Still now, to the very knowledge of the researchers, no studies have been

made on the identification of factors influencing tax compliance behaviors of tax payers in the study area. Therefore, this study was undertaken with the aim of analysis of level tax compliance behavior of tax payers and its determinants: evidence from Kaffa, Bench Maji and Sheka Zones Category B Tax Payers, SNNPR, Ethiopia.

### **1.3. Objectives of the Study**

This study tried to seek the following objectives:

1. To assess the level of voluntary tax compliance among the tax payers in the study areas.
2. To depict the prevalent factors affecting the tax payers' tax compliance behavior.

## **2. Review of Literature**

### **2.1. Concept of Tax compliance**

Taxes are vital sources of public revenue that are a little of personal wealth exacted from people by the state for the aim of meeting the expenditure essential to completing the functions of government. Taxes are outlined to be burdens or charges obligatory by the legislative power of a state upon persons or property to raise revenue for public functions. It is an influence inherent in sovereignty without which constitutional government cannot exist. It is unconditional within the legislative assembly by the overall grant of the legislative power whether or not specially enumerated within the Constitution among the powers to be exercised by it or not. Once taxes are levied, the subject is answerable for their payment at the time and within the manner needed and provided by the law authorizing their assessment and collection. Taxation is that the processes of levying, collecting, and paying taxes (Yohannes & Sisay, 2009). Tax collection is a dynamic subject which develops with the steady in the financial condition in which it works that is the most reason the arrangement managing it should be investigated always (Feyitimi, 2014). Agbadi (2011) stated that taxation is one in every of the necessary components in managing value, particularly in developed countries and has compete an awfully necessary role in civilized societies since their birth thousands years past.

Tax compliance is produced by several tax authorities as a result of the power and temperament of taxpayers to regulate to tax laws, declare the right income in annually and pay the right amount of taxes on time (Palil, 2010). This refers to adherence to the executive rules of reporting and paying taxes on time. This includes compliance with the coverage requirements, procedural rules and laws. This entails filing tax returns on time, coverage all the income and claiming the right deductions and making tax payments on time. As cited in Muoki and Peter (2014), Mohd et al, (2011) stated that the tax compliance is a person's act of filing their tax returns, declaring all nonexempt financial gain accurately, and disbursing all collectable taxes at intervals the stipulated amount while not having to attend for follow-up actions from the authority. As cited in the study of Akhand & Hubbard (2016), Brown and Mazur (2003) stated that tax compliance is composed of three mutually exclusive elements: filling, reporting, and payment. Filing compliance refers to the proportion of returns submitted by registered taxpayers; reportage compliance measures

the accuracy of financial gain reportage, and payment compliance measures the share of taxes paid on reportable financial gain.

In African countries, like Kenya, the tax compliance needs consistency with the tax laws regarding keeping of up books of account by businessmen, holding of private Identification Numbers (PIN) by all potential taxpayers, declaration of financial income consistent with the stipulated rules and regulation, correct determination of liabilities, filing of returns on financial gain by the prescribed date, paying of tax dues by the prescribed date, payment of fines and penalties for due taxes and admitting of audit by tax collectors if deemed necessary (Marti, et al., 2010).

## **2.2. Determinants of Tax Compliance of Tax Payers**

### **1. Demographic Factors**

#### **A. Age**

Age is considered as a factor affecting the level of tax payers' compliance behavior. The logit result of Widiyanto (2015) shows that age is statistically significant negative influence in explaining tax compliance. This means that older taxpayers are less likely to comply than younger taxpayers. Tadesse & Goitom (2014) on their study also found a negative association implying that older taxpayers were less compliant. Whereas, the study of Adimassu & Jerene (2016) and Manchilot (2018) stated that age of tax payers has positive but no significant impact on compliance level of tax payers.

#### **B. Gender**

It is considered one of the important demographic factors when studying the determinants of tax compliance level of tax payers. For example, Widiyanto (2015) depicted that gender variable has a statistically negative significant marginal effects. In other words, female taxpayers have more likely to comply by abiding tax laws than male taxpayers. This finding is consistent with the finding of Tadesse & Goitom (2014) that female taxpayers are more compliant in comparison with males in the study area. But, the study of Aronmwan, Imobhio & Izedonmi (2015), Manchilot (2018) and Adimassu & Jerene (2016) stated that gender of tax payers has positive but no significant impact on compliance level of tax payers.

#### **C. Education**

This is also another issue that has to be dealt while examining the factors affecting tax compliance behavior of tax payers. The finding of Adimassu & Jerene (2016) showed that tax compliance is positively related with education level of tax payers. But, the study of Tadesse & Goitom (2014) conducted in Mekele city showed that education level of tax payers is insignificant for the improvement of tax compliance level of tax payers.

### **2. Fairness and equity of tax system**

Ahmed & Kedir (2015) express as tax fairness square measure typically seen from two angles: equity of trade, that's expounded with the profit received from paid tax and also the alternative is equity in reference to burden of liabilities compared to alternative tax payers. Perceived tax fairness referred to as those activity aspects that utterly have an impact on

the taxpayers' decision to conform. A remunerator of United Nations agency perceives the taxes to be truthful is predicted to obey diligently (Mukasa, 2011). Tilahun & Yidersal (2014), Maseko (2015), Gerger, et al (2014), Aemiro et al. (2014), Desta (2010), Sawyer et al. (2014), Barineka Gberegbe, idornigie, & Okorite Nkanbia-Davies (2015) and Paper et al. (2016) also confirmed that perception on equity and fairness of the tax system is the factor that significantly affect tax compliance behavior equity and fairness of the tax system is statistically significant to affect tax compliance levels. But, in the studies conducted by Ahmed (2013), Benk, Cakmak & Budak (2011), Tadesse and Goitom (2014) and Agbadi (2011) it was indicated that the relationship between the equity perceptions of the taxpayers and their tax compliance intention is not statistically significant.

Perceived tax fairness was found to have a positive and significant relationship with tax compliance. These findings imply that positive improvement of perceptions of fairness about taxes will lead to improved tax compliance (Mukasa, 2011). Therefore, the foremost obvious demand of equity or fairness is to treat equal individuals in equal circumstances in an equal method. Similarly, the studies conducted by Paper et al. (2016) in Rwanda and Geletaw (2017) in Addis Ababa City revealed that the equity and fairness of the tax system is positively and statistically important to have an effect on tax compliance levels in formal sector.

### **3. Tax audit**

Tax audit is an exercise undertaken by tax authorities to determine if a taxpayer paid the correct amount of tax (Muoki et al., 2014). Tax audit can play a major role in improving tax administration and overall taxpayer compliance by impacting on taxpayer behavior. The contribution of tax audit on improving tax payer's compliance is significant among other measures taken by revenue authorities of the country (Agumas, 2016). Tax audit towards achieving target revenue is that tax audit reduces the problems of tax evasion (Badra, 2012). Tadesse & Goitom (2014), Modugu & Anyaduba (2014), Inasius (2015), Daba (2017) and Palil & Mustapha (2011) depicted that the probability of being audited was found to be the significant factor that positively affecting level of tax compliance. This suggests that the compliance rate rises if the tendency of being tax-audited is high. Insufficient tax auditing is most crucial factors associated with low level of tax compliance (Helhel & Ahmed, 2014).

The study conducted of Aff (2018) attempted to examine the impact of audit productivity and tax investigation on improving voluntary taxpayer's compliance using multiple regression model and the result shows the level of voluntary tax compliance is significantly related with audit productivity. But, a study conducted by Ahmed & Kedir (2015) and Ahmed (2013) revealed that audit has negative and significant effect on tax payers compliance behavior. The findings of the study show that the higher the probability of detection, the lower the tax compliance level. If the tax payers are informed that their fillings will be closely examined, there is a tendency for the tax payers behaviour to change in response to an increased probability of tax audited. In contrary, the study of Tilahun &

Yidersal (2014) revealed that the chance of being audited does not have any important impact on tax compliance behavior.

#### **4. Tax Penalties and Enforcements**

A fine or penalty is money paid usually to a government authority, as a punishment for a crime or other offence (Muoki et al., 2014). Increases in tax deterrence sanctions pertaining detection likelihood and the severity of penalties resulted in lower non-compliance among tax payers (Sawyer et al., 2014). Fines and penalties had positive effect on level of tax compliances; the greater the penalty and therefore the potential audit chance the higher discouragement for potential tax evasion (Paper et al., 2016; Muoki et al., 2014)). The level of penalty rate is statistically significant to affect tax compliance levels (Paper et al., 2016). This is similar with the study of Palil & Mustapha ( 2011) and Yunus, et.al (2017) which shows that the rate of tax penalties has a positive effect on the tax compliance behaviour. Furthermore, Benk, et al. (2011), Helhel & Ahmed (2014), Aemiro et al. (2014) and Ahmed & Kedir (2015) showed that the penalty magnitude is significantly positively related to tax compliance intentions; that is when taxpayers perceived that there is high penalty rate for any non-compliance, the level of non-compliance will decrease. However, the study of Tilahun (2016) studied conducted on factors influencing tax compliance attitude in Ethiopia in Bahir Dar City Administration indicated that offences and penalties are not important variables in explaining tax compliance attitude.

Further, the study of Waithira (2016) and Oladipupo & Obazee (2016) showed that there exists an insignificant negative effect between fines and penalties and residential rental income tax compliance by property owners. In addition, in Nigeria, despite the penalties put in place to ensure tax compliance, that taxpayers still may not fully comply. This means that penalties do not deter tax evasion (Pambudi, Restianto & WK, 2015). Moreover, the study of Modugu & Anyaduba (2014) in Nigeria revealed that the tax penalties and enforcements have a tendency to negatively and significantly influence tax compliance. This implies that an increase in penalty will have a tendency to decrease tax compliance.

#### **5. Simplicity of the tax system**

Tax system ought to be as easy as possible for the rationale that taxpayers are from varied background, with totally different level of education, earning level, various culture and different tax awareness. In serving to taxpayers to complete the tax returns accurately, the tax authority need to have a simple, but sufficient, tax return (Ahmed & Kedir, 2015). This is because simplicity of tax returns and administration has positive and significant relationship with tax compliance (Agbadi, 2011). Tax payers' levels of understanding of tax laws is positively correlated to a significant degree with their tax compliance decisions (Razak & Adafula, 2013). In contrary, complexity of tax system negatively affecting tax compliance decision (Jayawardane & Low, 2016) and upsurges the possibility of misreporting of tax burden (Alstadsæter, et al., 2013; Sawyer et al., 2014). Therefore, reduced complex filing procedures had a positive marginal coefficient which suggested that an increase in this variable marginally increases the probability of a tax payers being tax

compliant (Nelson, 2015). The study conducted by Agbadi (2011) at investigating the tax compliance level among traders in the Accra Metropolis indicated that simplicity of tax returns and administration has positive and significant relationship with value added tax compliance. However, a study conducted by Ahmed & Kedir (2015) on investigation of the determinants of tax compliance at Jimma zone category 'A' taxpayers using multiple regression analysis showed that simplicity of tax system has positive and insignificant effect on tax payers compliance behavior.

#### **6. Tax Rewards and Incentives**

A tax incentive is a side of the tax code designed to incentivize or encourage an explicit form of tax payers' compliance behavior (Muoki et al., 2014). Rewards could be an effective tool to increase tax compliance. The study made by Ndekwa (2014) on determining the magnitude of relationship of factors for improving tax compliance among SMEs in Tanzania using multiple regression analysis revealed that tax reward system strongly helps to improve level of tax compliance among SMEs in Tanzania. There was also a study conducted by Daba (2017) to assess rental income tax payer's compliance with tax system in case of Hawassa city administration, Ethiopia using Ordinary Least Squares (OLS) regression model and the finding indicates that there is positive and significant relationship between government incentive and tax compliance. Feld, et al. (2006) proposed design mechanism to investigate the impact of rewards on compliance with field experiments and these experiments showed that tax compliance increases significantly when individuals found to be compliant are rewarded for their honesty.

#### **7. Attitude of people towards tax**

Ahmed & Kedir (2015) stated that attitudes are the positive and negative evaluation an individual have about objects, concepts or living things. It is assumed that attitudes encouraged people to act according to them. Like their view for other things, taxpayers can have a positive or negative attitude towards tax in general and tax compliance in particular. Paper, et al. (2016) depicted that attitudes towards taxes is statistically significant to affect tax compliance levels. The study of Palil & Mustapha (2011) in Malaysia and the study of Waithira (2016) in Kenya indicated that attitudes towards tax would be positive and this can in turn increase compliance and scale back the propensity to evade taxes. Aronmwan, et al. (2015), Chebusit et al. (2014), Paper et al.(2016), Beza (2014), Aronmwan et al. (2015) and Jayawardane (2015) confirmed that the attitude of taxpayers to the tax system has a significant positive impact on personal income tax compliance. The authors tell that irrespective of the efforts put in by the government to encourage tax compliance; individual taxpayers have their part to also play. It also shows that the environment, culture, behaviour, background, peer influences, which helps to shape an individuals' attitude cannot be downplayed if compliance must be achieved. Study in Sri Lanka by Jayawardane & Low (2016) revealed that taxpayers' attitudes encourage level of tax compliance.

#### **8. Organizational Strength of the Tax Authority**

Organizational strength of the tax authority can be taken as one factor which can affect tax compliance behaviour of tax payers. The perceptions of small and medium enterprises operators about tax service quality greatly affect their tax compliance decisions (Maseko, 2015). Efficiency and effectiveness of the authority in improving the tax assessment and procedures of tax collection, building of awareness, enforcement of the tax law influence positively the voluntary tax compliance behavior of tax payers (Mehari et al., 2017 and Daniel and Pasha, 2017). The study conducted by Feyitimi (2014) on the level of the effectiveness and efficiency of tax administration and voluntary tax compliance in Nigeria indicated that the level of effectiveness and efficiency of tax administration affects taxpayers voluntarily compliance with the relevant tax laws. But, the studies of Tadesse and Goitom (2014) and Olatunji Olaoye (2017) on determinants of tax compliance behaviour of tax payers indicated that the roles of the tax authority was not significantly correlated with tax compliance.

A study done on assessment of tax payers' attitude on factors that affect voluntary compliance of category 'C' taxpayers' in Arba Minch City, Ethiopia by Mehari et al. (2017) found that efficiency and effectiveness of the tax authority in improving the tax assessment and collection positively affect voluntary tax compliance of tax payers. Desta (2010) conducted a study on assessment of taxpayers' voluntary compliance with taxation in Mekelle City, Tigray, Ethiopia using factor analysis and multiple regressions showed that organizational strength of tax authority was found to be the cause of impelling voluntary compliance behaviors of taxpayers.

#### **9. Perception of the government Spending**

Government's legitimacy, the government's efficiency and the government's credibility influence taxpayers' compliance and thus determine the tax revenue the government can raise. Taxpayers can estimate the fair terms of trade between their private consumption and government provision of public goods (Ahmed & Kedir, 2015). Tax service quality and government spending priorities greatly affect tax payers compliance decisions (Maseko, 2015). In other words, taxpayers' assessment of the government in terms of accountability, probity, proper management, transparency and others virtues equals the level of compliance that should be expected.

Similarly, Paper et al. (2016), Palil & Mustapha (2011), Tilahun & Yidersal (2014), Ahmed & Kedir (2015) and Jayawardane & Low (2016) revealed that perception on government spending is factor that positively and significantly affect tax compliance behavior. But, the study of Razak & Adafula (2013), Agbadi (2011), Ahmed (2013) and Tadesse and Goitom (2014) discovered that the level of governmental accountability and transparency and perception of government spending did not significantly impact taxpayers' attitudes. This means that the levels of accountability and transparency in governance are matters that taxpayers have less regard for in their compliance decisions. The findings of Diana et al. (2015) indicated that goal congruence influences taxpayer compliance decisions in that those with higher goal congruence (i.e. larger support for a way tax bucks are spent) report

higher amounts of taxable income. The study conducted by Aronmwan, et al. (2015) and Modugu & Anyaduba (2014) in Nigeria showed that the positive perception of taxpayers' towards the government of the day has a significant positive impact on how they comply with personal income taxation.

#### **10. Tax rate**

Tax rate refers to the rate at which a business or person is taxed on income and it also refers to the rate of tax on goods and services (Muoki et al., 2014). Helhel & Ahmed (2014) pointed out that high tax rates is one of the crucial factors associated with low compliance. This implies that high tax rate reduces taxpayer compliance level. This is confirmed with the finding of Abdulsalam Mas'ud (2014) that states there is significant negative correlation between tax rate and tax compliance in Africa. Ahmed (2013) studied determinants of tax compliance in Jimma town, Ethiopia using binary logistic regression analysis and the result suggests that tax rate found to be a significant determinant of tax compliance and have a negative relationship with tax compliance. This implies that a tax rate which is perceived as heavy, unfair, and inequitable discourages taxpayers to comply with the tax rules and regulation. This is similar with the study of Inasius (2015) which was conducted on tax compliance of small and medium enterprises Indonesia and the result demonstrated as the income tax rate is negatively correlated with tax compliance.

The findings of Ali (2018), Aronmwan, et al. (2015), Alstadsæter, et al. (2013) and Waithira (2016) found that tax rate has positive and significant influence on income tax compliance. This implies that when taxpayers develop a positive affinity for tax administrators (likely because of proper fund management and utilization), they are likely to comply when there is increase in tax rate because they have or receive value for the taxes paid. But, the study of Mansor (2016) on the factors affecting tax evasion in Gombe state, Nigeria showed that tax rate positively but not significantly influence tax evasion. This is similar with the finding of Agbadi (2011) that tax rate was not significantly correlated with tax compliance.

#### **11. Tax knowledge and awareness**

Tax knowledge as one of the factors influencing tax compliance is related to the taxpayers' ability to understand taxation laws, and their willingness to comply. Through taxpayer education, the taxpayer is aware of the rights, obligations and the procedures of paying taxes as well as the consequences of non-compliance (Machogu & Amayi, 2013). The level of education received by taxpayers is an important factor that can contribute to the understanding of tax requirements, especially regarding registration and filing requirements (Maseko, 2015). Therefore, understanding tax payers' knowledge and compliance behavior is an important issue for any government and tax collecting authority particularly in a self-assessment environment (Redae & Sekhon, 2016). There is significant negative effect of tax awareness and the likelihood of misreporting (Alstadsæter et al., 2013). Furthermore, studies conducted by different researchers such as Ahmed (2013), Palil (2010), Beesoon, et al. (2016), Ndekwa (2014), Geletaw (2017), Lemessa (2007) and

Saad (2014) showed that tax knowledge and education has a negative and significant impact on tax compliance; when there is an improvement in educational background of the taxpayer, a decline in tax compliance attitude could be expected. However the study of Tadesse and Goitom (2014), Ahmed & Kedir (2015) and Ahmed (2013) indicated that tax knowledge was not significantly correlated with tax compliance.

According to different findings, there exists a significant positive relationship between tax knowledge and tax compliance which implies that positive improvement of taxpayers' knowledge will lead to improved tax compliance (Mukasa, 2011; Agbadi, 2011; Oladipupo & Obazee, 2016; Palil & Mustapha, 2011; Waithira, 2016; Inasius, 2015; Razak & Adafula, 2013; Mansor, 2016; Oladipupo & Obazee, 2016; Muoki et al., 2014; Osebe, 2013; Tilahun, 2016; Ali, 2018; Daba, 2017). This suggests that taxpayers' higher understanding of tax matters can compel them to satisfy their tax obligation and thence do away with nonpayment tendencies. But, the study of Ahmed (2013) in Jimma town suggested that tax knowledge found to have a negative effect on compliance. This implies that those who have high tax knowledge found to be less compliant.

### **2.3. Research Hypothesis**

After careful review of empirical studies presented in the literature review section on how tax payers compliance behavior is influenced, the researcher developed the following general hypotheses.

- H<sub>1</sub>: Being male, age and education level of tax payers have positive and significant effect on tax compliance.
- H<sub>2</sub>: Fairness and equity of tax system has a positive and significant influence with tax compliance.
- H<sub>3</sub>: Tax audit has a positive and significant effect tax compliance.
- H<sub>4</sub>: Tax penalties and enforcements have a positive and significant influence on tax compliance.
- H<sub>5</sub>: Simplicity of the tax system has a positive and significant impact over tax compliance.
- H<sub>6</sub>: Perception of the government spending has a positive and significant effect with tax compliance.
- H<sub>7</sub>: Tax rewards and incentives have a positive and significant impact on tax compliance.
- H<sub>8</sub>: Positive attitude of tax payers towards tax has a positive and significant effect with tax compliance.
- H<sub>9</sub>: Tax knowledge and awareness has a positive and significant effect on tax compliance
- H<sub>10</sub>: Organizational strength of the tax authority has a positive and significant influence for tax compliance.
- H<sub>11</sub>: High tax rate has a negative and significant impact on the level of tax compliance.

## **3. Materials and Methods**

### **3.1. Source of Data and Method of Data Collection**

Descriptive and explanatory type of research designs were employed for this study. To get the required primary data, well-defined self-administered questionnaires consisting of

close-ended questions with five Linkert-scale (1- strongly disagree to 5- strongly agree) was implemented to sampled category B business income tax payers (those having annual turnover of Birr 500,000-Birr 1,000,000) to identify the factors influencing tax compliance behaviors of tax payers. In addition, for conducting the study, secondary data were gathered from researches related to the topic dealt.

**3.2. Sampling Procedures and Sample Size Determination**

Both purposive and simple random sampling techniques were implemented for this study. First, woredas which have larger number of business income tax payers were purposively selected from each zones. Accordingly, four woredas and one city administration namely, Bonga city administration, Gimbo, Gesha, Saylem and Chena from kaffa zone; four woredas and one city administration namely, Mizan Aman city administration, Guraferda, Sheko, Dehub Bench and Shey Bench from Bench Maji zone and Tepi (Yeki) Woreda from Sheka zone have been taken in which the majority number of business income tax payers were concentrated. Secondly, the samples were proportionately assigned from each woredas of the three zones. Finally, individual tax payers were random taken from each selected woredas and city administrations.

The total target population of the study was 1397 category ‘B’ business income tax payers as of 2018. But, for this study, 312 sample respondents of category “B” tax payers in the selected Woredas and city administrations were determined using Yamane (1967) formula as cited in Singh and Masuku (2014) and by Jaro (1989) as cited by Esay (2014). A 95% confidence level and e = .05 are assumed.

$$n = \frac{N}{1+N(e)^2} , \quad \text{Where: } n = \text{sample size; } N = \text{population; } e = \text{permitted error}$$

$$\text{Tax payers (n)} = \frac{1397}{1+1397(0.05)^2} = \underline{\underline{311}}$$

**Table 1:** Number of respondents included in the sample

Zones	Woredas and City Administrations	Population	Proportion	Samples
<b>Bench Maji Zone</b>	Mizan Aman	360	0.258	80
	Guraferda	37	0.026	8
	South Bench	35	0.025	8
	Sheko	31	0.022	7
	Sheyibenchi	29	0.021	6
	<b>Total</b>	<b>492</b>	<b>100.000</b>	<b>109</b>
<b>Kaffa Zone</b>	Bonga city	132	0.094	29
	Gawata	40	0.026	8
	Chena	174	0.125	39
	Saylem	88	0.063	20
	Ginbo	214	0.153	48

	<b>Total</b>	<b>648</b>	<b>100.000</b>	<b>144</b>
<b>Sheka Zone</b>	Tepi (Yeki)	260	0.186	58
<b>Overall sample size</b>		<b>1400</b>		<b>311.00</b>

Source: Researchers' own computation (2018)

### 3.3. Methods of Data Analysis and Interpretation

Descriptive and econometric data analysis methods were employed for this study. In this study, the data was analyzed and interpreted using descriptive methods such as frequency tables, mean, standard deviation and Chi-square tests; and econometric methods particularly ordinal logistic regression analytical model with the help of statistical package (Stata 14).

### 3.4. Theoretical Framework of the Study

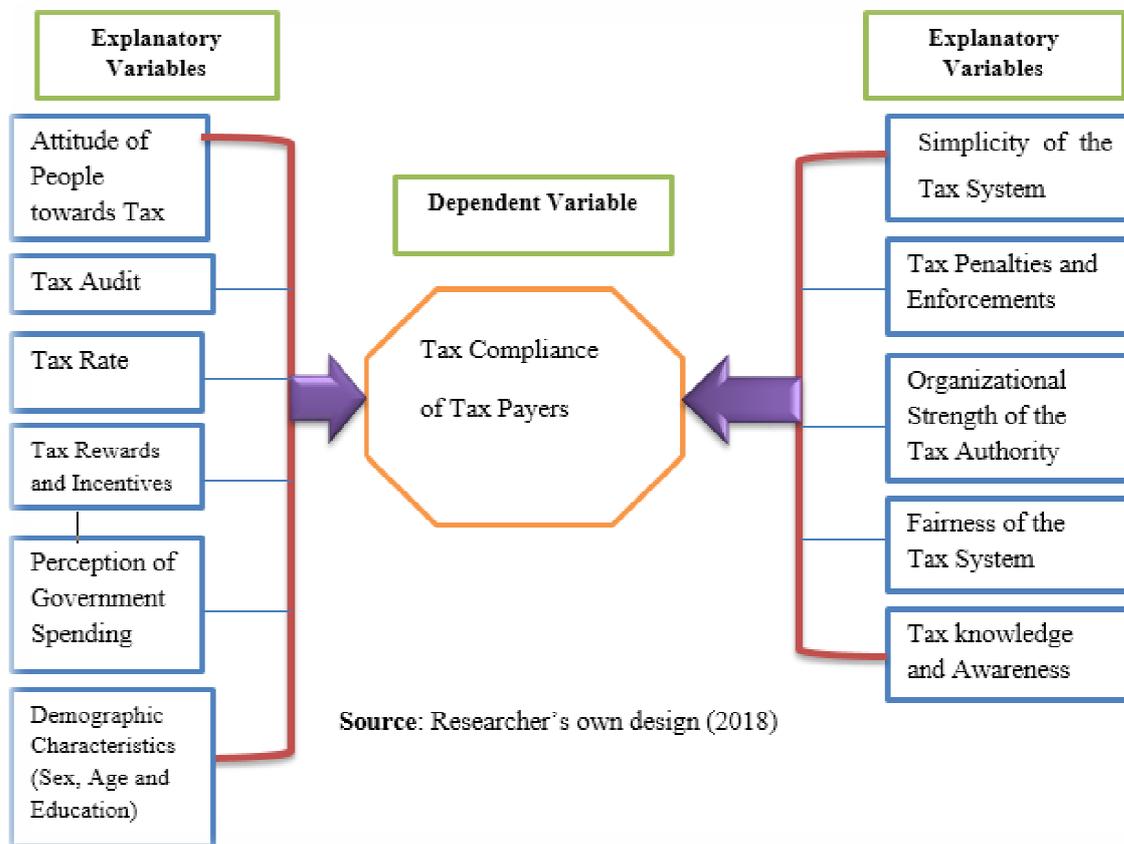


Figure 1.1 Determinants of tax compliance level of tax payers

### 3.5. Model Specification of the Study

For investigating determinants of tax compliance level of tax payers, ordered logit model was employed for this study. Ordinal logistic regression model is used to explain the relationship between an ordinal polychromous dependent variables and categorical and /or

continuous independent variable (Ababio, Aidoo, Korankye, Saeed, & Louis, 2012). In these circumstances, i.e. the best commonly used model is proportional odds model (POM) for ordinal logistic regression where the dependent variable (DV) is ordinal (Fuks & Salazar, 2008). Studies with an ordered outcome are commonly analyzed with the most popular method called the logistic regression proportional odds model Maximum Likelihood (ML) is a classical technique for estimating the unknown parameters of this model (Havi Murad, et al., 2003). To meet what is aimed for, the researchers consulted the variables used in different studies stated on the review of the literature and formulated the model as follows.

$$Y_i^* = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \dots + \beta_k X_{ki} + \epsilon_i$$

Where  $Y_i^*$  is latent outcome variable measure of tax payers;  $X_1, X_2, X_3, \dots, X_i$  are vectors of independent variables of  $i^{th}$  case;  $\beta_0$ , threshold values;  $\beta_1, \beta_2, \dots, \beta_k$  are parameter vectors to be estimated (regression coefficients);  $\epsilon_i$  is a random error term;  $k$  is the number of regression coefficients.

Tax compliance level ( $Y_i^*$ ) is the dependent variable measured by overall average score of the three items: filing tax returns on time, reporting all the income and claiming the right deductions and where taxes are due making tax payments on time and this overall score of taxpayers (which were individually measured from 1= strongly disagree to 5= strongly agree) (Tadesse and Goitom, 2014; Adimassu & Jerene, 2016). Accordingly, the probability of each tax compliance level (low-y1, medium-y2, and high-y3) was computed as:

$$\begin{aligned} y=1 & \text{ if } y_i^* \leq \mu_1 \\ y=2 & \text{ if } \mu_1 < y_i^* \leq \mu_2 \\ y=3 & \text{ if } y_i^* > \mu_2 \end{aligned}$$

Where  $y$  is an observable variable which shows different levels of tax payers' compliance level,  $\mu$  is a set of threshold of tax compliance level to be estimated with the parameters vector of  $\beta$ s. Based on the above general equation, the following model was established to estimate the parameters for the study.

$$COMP = \beta_0 + \beta_1 SEX + \beta_2 AGE + \beta_3 EDUC + \beta_4 FAIR + \beta_5 SIMP + \beta_6 TaxKNW + \beta_7 GOVSPE + \beta_8 TaxAUD + \beta_9 PEN + \beta_{10} ATTIT + \beta_{11} TaxREW + \beta_{12} ORGSTR + \beta_{13} TRATE + \epsilon$$

Where: COMP = Compliance of Tax Payers;  $\beta_0$ , Constant (Y intercept);  $\epsilon$ , Error term;  $\beta_1, \beta_2, \beta_3$  and  $\beta_4$  Coefficient indicating rate of change of tax compliances as of the independent variables; EDUC, Education level of tax payers; ATTIT, Attitude of people towards tax; TaxREW, Tax rewards and incentives; TaxKNW, Tax knowledge and Awareness; TaxAUD, Tax Audit; PEN, Penalty and Enforcement; SIMP, Simplicity of the tax system; FAIR, Fairness or equity of tax system; GOVSPE, Attitude towards government spending; TRATE, Tax rate; ORGSTR, Organizational Strength of the Tax Authority.

#### **4. Result and Discussion**

##### **4.1. Demographic Characteristics of Respondents**

The total target population of the study was 1397 of which 311 sample tax payers were taken for this study. A total of 311 questionnaires were distributed to sample respondents randomly and finally in the course of collection, 296 valid questionnaires were retrieved that accounted 95% response rate.

**Table 4.1.** Demographic Characteristics of Respondents

S.NO	ITEMS		FREQUENCY	PERCENTAGE
1	Sex	Male	240	81.10
		Female	56	18.90
		Total	296	100
2	Age	18-20	9	3
		21-30	90	30.40
		31-40	115	38.90
		41-50	67	22.6
		51-60	13	4.4
		Above 60	2	0.7
		Total	296	100
3	Education	Below grade 12	188	63.5
		Grade 12 completed	61	20.6
		College Diploma	42	14.2
		BA/BSc degree and Above	5	1.7
		Total	296	100

**Source:** Survey Questionnaire, 2018

Item 1 of table 4.1 shows that there were more male respondents (81.10%) than female respondents (18.90%). As it was also depicted on the same, the age distribution of the respondent was 18-20 (3%), 21-30 (30.4%), 31-40 (38.9%), 41-50 (22.6%), 51-60 (4.4%) and 61 and above (0.7%) years of old. This implies that majority of respondents were at the range of 31-40 (38.9%) years of age. The same table also showed that 63.5% of respondents had below grade 12 educational background whereas 20.6% of them completed grade 12; 14.2% of respondents held college diploma and the rest (1.7%) of respondents have above BA/BSc degree of educational level. Therefore, the implication to these findings indicates that the majority of business taxpayers were not well educated to know the need for taxation and they couldn't understand and interpret the tax law as well.

#### 4.2. Tax compliance level of tax payers

The responses of the respondents for the variables indicated below were measured on five point Likert scale with: 1= strongly disagree, 2= disagree, 3 = neutral, 4= agree and 5= strongly agree. But, while making interpretation of the results of standard deviation, mean and chi-square, the scales were reassigned as follows to make the interpretation easy and

clear; 1 - 1.8= Strongly Disagree, 1.81 - 2.6 = Disagree, 2.61 - 3.4= Neutral, 3.41 - 4.20= Agree and 4.21 - 5 = Strongly Agree (Daba, 2017).

**Table 4.2.** Tax compliance level of tax payers

S.No	Item	Mean ( $\bar{x}$ )	Standard deviation ( $\sigma$ )	Chi square ( $\chi^2$ )
1	Filling of tax returns on time	3.6351	.94348	$\chi^2 = 159.743$ df=4; Sig=.000
2	Reporting of tax liability accurately.	3.8108	.99729	$\chi^2 = 124.169$ df=4; Sig=.000
3	Paying of the full amount that is reported as tax liability on time.	4.1250	.89892	$\chi^2 = 231.196$ df=4; Sig=.000

**Source:** Survey Questionnaires, 2018

As it was shown in table 4.2, the respondents generally agreed that they have been filling their tax returns on timely basis ( $\bar{x} = 3.6351, \sigma = 0.94348$ ) which was significant at 5% ( $\chi^2 = 159.743, df=4, Sig=.000$ ). The result also demonstrated that tax payers have reported their tax liability accurately ( $\bar{x} = 3.8108, \sigma = 0.99729$ ) and the result is supported by the chi-square test ( $\chi^2 = 124.169, df=4, Sig=.000$ ). Besides, tax payer respondents agreed as they have been paying of full amount on time that is reported as tax liability ( $\bar{x} = 4.1250, \sigma = 0.89892$ ) and this result is supported by the chi-square test ( $\chi^2 = 231.196, df=4, Sig=.000$ ).

#### 4.3. Overall level of tax compliance among tax payers

Furthermore, the overall tax compliance level of tax payers was computed using the mean score category of low = 1.00 to 2.25; medium = 2.26 to 3.75 and high = 3.76-5 ( Palil & Rusyidi, 2013).

**Table 4.3:** Overall level of tax compliance

S.No	Level of tax compliance	No	Percentage	Chi-square
1	Low	7	2.35	$\chi^2 = 138.939; df=2; Sig.=0.000$
2	Medium	121	40.88	
3	High	168	56.77	
	Total	296	100	

**Source:** Survey Questionnaires,2018

Table 4.5 indicated that 2.35% of respondents have low level of tax compliance while 40.88% of respondents have medium tax compliance level and the remaining (56.77%) of them have high level of tax compliance. This denoted that majority of respondents of tax payers were highly complied to the tax system. This signifies that the level of tax compliance is encouraging though still there is a potential for further enhancement of this compliance level by considering different factors affecting the tax compliance behavior of tax payers.

#### 4.4. Reliability analysis of the study

Reliability is a measurement too that can be used to test the stability, consistency, or dependability of items of the questionnaires. It will be tested by calculating a Cronbach's

alpha. As stated by Daba (2017) and Masdia (2009), the closer the reliability coefficient to 1.00 is the better. In general, reliabilities below 0.60 are considered weak; those ranged from 0.60 to 0.80 are considered good and acceptable.

**Table 4.4:** Reliability coefficient statistics of variables

Variables	Obs	Cronbach's Alpha
Level of tax compliance	296	0.7507
Sex	296	0.7904
Age	296	0.7882
Education level	296	0.7908
Tax knowledge and awareness	296	0.7516
Tax audit	296	0.7513
Tax rate	296	0.7622
Tax fairness or equity of tax system	296	0.7364
Simplicity of the tax system	296	0.7378
Tax penalties and enforcements	296	0.7493
Attitude people towards tax	296	0.7605
Attitude towards government spending	296	0.7624
Tax rewards and incentives	296	0.7516
Organizational strength of the tax authority	296	0.7338
<b>Overall Test scale</b>		<b>0.7727</b>

**Source:** Researchers' own computation (2018)

As it was depicted on table 4.4., the overall Cronbach's Alpha of variables in the model equals 0.77 for the entire questionnaire which indicates very good reliability. So, the test the results are reliable.

#### 4.5. Multicollinearity test of the model

One of an important step in ordinal logistic regression model is determining whether there exist multicollinearity among independent predictors. Multicollinearity occurs when two or more explanatory variables are highly correlated each other. In this assumption, there should not be perfect collinearity between or among independent variables. Therefore, variance inflation factor (VIF) can be customized to detect the multicollinearity diagnostic for independent variables. Accordingly, VIF less than 10 (as cut off VIF), it is an indication of

absence of multicollinearity (Addis, 2015 cited on (Abdu, 2018)). Since the variance inflation factor is less than the cutoff point (table 4.5), there is no multicollinearity in the model.

**4.6. Model fitting information**

It became very important to determine whether the model improves the predicting ability of the outcome before evaluating the effect of each explanatory variables in the model. The statistically significant chi-square statistic ( $p < 0.05$ ) indicates that the Final model gives a significant improvement over the baseline intercept only model. If the values of chi-square ( $\chi^2$ ) is statistically significant ( $p < 0.05$ ), the null hypothesis is rejected; means that the variables assumed enable the model to make better predictions than the model without variables (Kavade, 2009). Thus, as table 4.5 indicates, the likelihood ratio chi-square statistics (136.939) is high and statistically significant at 1% level of significance which indicates that parameters included in the model gives better predictions as compared to the null model with no predictors.

Moreover, the analysis result obtained from ordered logit model in the table 4.5, the associated pseudo R-square value was 0.298; it implies the rejection of the null hypothesis that all the coefficients in the model are equal to zero. Therefore, as per Hensher et al. (2005) criterion for best fit model (values of Pseudo R2 between 0.2 and 0.4 are considered to be extremely good fits), the overall fit of the ordered logit model was found to be worthy.

**4.7. Determinants of Tax Compliance Level of Tax Payers**

In the ordinal logistic regression model, the direction and impact of a unit changes in different explanatory variables on the variance of the level of tax compliance of tax payers was estimated using maximum likelihood which corresponds different well-known estimation methods in statistics.

**Table 4.5:** Ordinal Logistic Regression statistics of parameters

Variables	Coef.	St. Err	t-value	p-value	Marginal effect			VIF
					Low	Medium	High	
Sex	-0.043	0.367	-0.12	0.907	0.00019	0.01021	-0.01040	1.030
Age	-0.225	0.158	-1.42	0.155	0.00102	0.05342	-0.05444	1.115
EDUC	0.351	0.194	1.81	0.070*	-0.00159	-0.08358	0.08517	1.083
TaxKNW	0.931	0.236	3.96	0.000***	-0.00422	-0.22151	0.22574	1.302
TaxAUD	-0.033	0.249	-0.13	0.895	0.00015	0.00783	-0.00798	1.528
TRATE	-0.116	0.236	-0.49	0.622	0.00052	0.02762	-0.02814	1.376
FAIR	0.033	0.307	0.11	0.914	-0.00015	-0.00789	0.00804	2.043
ORGSTR	0.031	0.312	0.10	0.921	-0.00014	-0.00733	0.00747	2.220
SIMP	0.609	0.266	2.29	0.022**	-0.00276	-0.14495	0.14772	2.257
PEN	-0.332	0.254	-1.31	0.191	0.00151	0.07905	-0.08055	1.745
ATTIT	1.473	0.406	3.63	0.000***	-0.00668	-0.35042	0.35710	1.391
GOVSPE	0.786	0.293	2.68	0.007***	-0.00356	-0.18692	0.19048	1.315
TaxREWR	0.849	0.277	3.06	0.002***	-0.00385	-0.20182	0.20567	1.498
_cons	8.159	1.710						
_cons	13.193	1.892						

Pseudo r-squared	0.298	Number of obs	296.000
Chi-square	136.939	Prob > chi2	0.000
Log likelihood	- 161.1387		
Akaike crit. (AIC)	352.277	Bayesian crit. (BIC)	407.633
*** p<0.01, ** p<0.05, * p<0.1			

**Source:** Researchers' own computation using Stata 14 (2018)

**Level of Education(EDU):** as expected, education level plays an important role in enhancing compliance level of tax payers. It has positive and significant effect on tax compliance behavior at less than 10% level of significance. The output of the model also denoted that being other factors held constant, in a one level change in education of tax payers, their probability of tax compliance of low and medium category decreases by about 0.16% and 8.36% respectively whereas that of high tax compliance category increases by about 8.52%. This implies that the higher the education level tax payers have, their probability of being in higher tax compliance level is induced. This finding is consistent with the finding of Adimassu & Jerene (2016) who stated that tax compliance is positively related with education level of tax payers.

**Tax Knowledge and Awareness (TaxKNW):** consistence with the hypothesis of the study, tax knowledge and awareness level of tax payers was another determinant of tax compliance level. It was found to have positive and significant effect on the tax compliance behavior of tax payers at less than 1% level of significance. In terms of marginal effects, being other factors held constant, in a change in level awareness and tax knowledge of tax payers, the likelihood of tax compliance occurs in low and medium compliance category decreases by about 0.42% and 22.15% respectively while for that of high tax compliance category increases by about 22.57%. This denotes that if tax payers have good awareness and knowledge about the tax system, their probability of being in higher tax compliance level is anticipated. This finding is tandem with the finding of Adimassu & Jerene (2016), Oladipupo & Obazee (2016), Desta (2010), Pambudi, et al. (2015), Mehari, et al. (2017), and Palil & Mustapha (2011) who identified that high tax knowledge would increase voluntary tax compliance. However, this result is in paradox with the result of Manchilot (2018) who claimed that awareness level of tax payers have negative and insignificant effect with tax compliance level of tax payers. The study of Tadesse & Goitom (2014) conducted in Mekele city also revealed that this variable is insignificant for the improvement of tax compliance level of tax payers.

**Simplicity of the tax system (SIMP):** the tax rules and regulations and proclamation simplicity is an important determinant of tax compliance level which has positive and significant influence on tax compliance behavior of tax payers at less than 5% level of significance. The marginal effect also signposted that being other factors held constant, an increase of simplicity of the tax system of tax payers, the probability of tax compliance of

low and medium compliance category decreases by about 0.28% and 14.5% respectively whereas for high tax compliance category increases by about 14.77%. The implication is that if the tax system is clear and simple to understand to tax payers, their probability of being in higher tax compliance level is realized. This finding is tandem with the finding of Manchilot (2018) that whenever the tax system is going simple and simple to understand, compliance level will be improved. It is also supported by the finding of Adimassu & Jerene (2016) who stated that tax compliance has positively significant relationship with simplicity of the tax system.

**Attitude of people towards taxation (ATTIT):** in line with prior expectation, it was found to be positively and significantly affecting the tax compliance behavior of tax payers at less than 1% level of significance. The marginal effect indicated that being other factors held constant, in a positive change of tax payers' attitude towards tax, the probability of their tax compliance level of low and medium compliance category decreases by about 0.67% and 35.04% respectively while for high tax compliance category increases by 35.71%. This connotes that if the tax payers' attitude towards tax becomes positively changed, their probability of being in the higher tax compliance level is upsurges. This finding is tandem with the finding of Aronmwan, Imobhio & Izedonmi (2015) and Jayawardane (2015) that the attitude of tax payers to the tax system has significant and positive impact on personal income tax compliance.

**Perceived government spending (GOVSPE):** the perceived nature of government expenditure was also found that it has positive impact on tax compliance behavior of tax payers at less than 1% level of significance. The output of the model also showed that being other factors held constant, in a positive change in perceived role of the government, the likelihood of tax payers' tax compliance level of low and medium compliance category decreases by about 0.36% and 18.69% respectively, while for high tax compliance category increases by about 19.05%. This implies that if the tax payers perceived that the government wisely utilizes the budget collected from tax payers for different public goods, their probability of being in higher tax compliance level is attained. This finding is in line with the finding of Adimassu & Jerene (2016) who stated that tax compliance is positively significantly affected with the perception of tax payers towards government spending. This also agrees with the result of Modugu (2014), Desta (2010), Aemiro et al. (2014) and Palil & Mustapha (2011) who stated that whenever the taxpayers perceive that government spends tax money wisely for the development of a country, their level of their tax compliance will be enhanced. But, the study of Tadesse & Goitom (2014), conducted in Mekele city, shows as it has insignificant influence for the improvement of tax compliance level of tax payers.

**Rewards and incentives (TaxREWR):** giving positive recognition and incentives to loyal and honest tax payers positively and significantly enhance tax compliance behavior of tax payers at less than 1% level of significance. In terms of the marginal effect, being other factors held constant, an increase of a unit of tax reward and incentive provided, the

probability of tax payers' tax compliance level of low and medium compliance category decreases by about 0.39 and 20.18% respectively, while for high tax compliance category increases by about 20.57%. This implies that if the government recognition of loyal tax payers through different rewarding schemes, their probability of being in higher tax compliance level is achieved. This is similar with the study of Marziana & Ali (2017) that concludes as strong desire of taxpayers to comply with the tax obligations are determined by the tax incentives towards tax compliance.

## **5. Conclusion, Recommendations and Policy Implications**

### **5.1. Conclusion**

This study was undertaken in examining of level of tax compliance of tax payers and its determinant factors in Bench Maji, Sheka and Kaffa zones of Southwest Ethiopia. For achieving what is aimed, primary data was collected using Linkert scale questionnaires and analyzed using descriptive statistical tools such as mean, standard deviation, percentages, tables and chi-square and econometric model particularly ordinal logistic regression model. Thirteen potential determinants of tax compliance of tax payers were considered for this study namely demographic factors (age, sex, education level of tax payers), tax knowledge and awareness, tax rewards and incentives, tax audit, perception of government spending, fairness of the tax system, tax rate, simplicity of the tax system, tax penalties and enforcements, organizational strength of the tax authority and attitude of tax payers towards taxation. From these potential determinants, the findings of the investigation showed that tax compliance was positively affected by education level of tax payers, tax knowledge and awareness of tax payers, simplicity of the tax system, attitude of tax payers towards tax, perceived role of government expenditure, and rewarding scheme of for loyal tax payers. But, age, sex of respondents, tax penalties and enforcements, organizational strength of the tax authority, fairness of the tax system, tax rate and tax audit were not statistically significant factors influencing compliance behavior of tax payers.

### **5.2. Recommendations and Policy Implications**

Based on the findings of the study, the following possible suggestions and policy implications could be forwarded. As the study found that tax knowledge and awareness promotes tax payers' voluntary compliance behavior, the tax revenue authorities of each zone have to arrange continuous face to face awareness creation programs to tax payers pertaining how to fill tax returns, compute and pay tax liability to the tax authority timely. Besides, the tax authorities of each zone should educate tax payers on how to keep revenue and expenditure records, and complaining procedures during injustice. Moreover, by using different printed and electronic mass medias such as magazines, pamphlets, radio, TV, etc., the tax authorities ought to aware the rights and responsibilities of tax payers and the benefits of tax payment for the development of the country. Likewise, awareness creation should be extended to having consultative sessions with elderly, religious leaders, prominent personalities in the society or other influential individuals. Additionally, similar to civics and ethics, the government of the country should include taxation courses in the

curricula of schools at each levels of education. Therefore, students can be educated early in their career about tax responsibilities. So, ministry of education ought to take this assignment.

Another factor affecting the tax payers' compliance level in the study areas was perception of tax payers regarding government spending. Thus, the government should provide comparable and sufficient social services for the society for the tax levied. The government should fight corruption and try to spend the tax collected wisely for basic facilities such as education, health, safety and public transportations.

Moreover, tax payers' voluntary tax compliance behavior is affected by attitude of tax payers towards tax. Therefore, the tax authorities at different levels of the country have to build trust in the tax system, assessments and collection procedures in the mind of citizen as a whole and specifically to tax payers. The government should also create loyal and honest tax payers who feel guilty if they evade tax though they could not be noticed by the tax authorities. For this, accountability and transparency of government and tax education and awareness creation of tax payers should be imparted.

Simplicity of the tax system is also imperative for enhancing tax payers' compliance level. Thus, the tax authorities ought to simplify the tax returns and tax forms, tax calculation and paying dates that can encourage tax payers to complete tax returns and calculating tax liability by themselves other than seeking the help of tax agents. In other words, the tax return and system and tax forms should be less complex and the tax procedures should be clear to understand. The tax rules and regulations should also be presented to tax payers in the local language that they could understand.

Finally, rewarding faithful tax payers must be considered crucial. The tax authorities shall introduce rewarding schemes i.e. giving a trophy for loyal and patriotic tax payers. Likewise, the government should also consider tax incentives such as tax exemptions and tax holidays that can encourage voluntary tax compliance behavior of tax payers.

The outcomes of this study offer policy implications for tax authorities and other policy makers that give specific insights to enable them to achieve a stronger understanding of the key variables related to tax compliance behavior of tax payers and formulate remedial policy measures that can enhance government's revenue collections potential. It is also suggested that this type of study ought to be conducted at the national level by including additional variables to realize a stronger understanding on tax compliance predictors within the country for reducing tax gap.

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