Determinants of Tax Compliance of Micro and Small Business Enterprise (MSE) Category “C” Taxpayers, the Case of Southwest SHOA Zone, Ethiopia

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Abstract: This study sought to identify the determinant of tax compliance in Ethiopia, specifically focusing on Micro and Small business enterprises operating in South west Shoa zone. The researcher outlined a detailed literature review and identified the variables for this research to be tax rate, tax knowledge, tax compliance cost; attitude of MSE’s and tax system. The research employed both descriptive and explanatory research design. A sample size of 325 were used from a population of 1726 micro and small business enterprises category “C” taxpayers in south west Shoa zone. Data was collected using questionnaires and structured interview. The collected data was consequently analyzed using Statistical Package for Social Scientist software (SPSS V.22) and the findings of the research presented using tables, various chart types and graphs. The results showed that tax rate, tax knowledge, tax compliance cost, attitude of SME’s and tax system significant determine tax compliance of taxpayers. Tax rate, Tax system and compliance cost predominantly affect tax compliance. With regard to cost of tax compliance, the study result revealed that Micro and Small businesses incur different costs such as salary of accountants, fees to tax consultants, cost of stationeries, etc. that contributed for their non-compliance and estimation of Micro and Small Enterprises tax is another problem related tax system. However, the taxpayers do feel and strongly agree that the taxation system in Ethiopia is in great need of improvement. The study then recommended that the current tax law should be amended to incorporate provisions that grant special tax incentives to MSEs in order to improve voluntary tax compliance by MSE taxpayers. The study also recommended that the ERCA should disseminate information on tax rate and tax system more frequently in order to improve the levels of tax knowhow for voluntary tax compliance.

Index Terms: Government revenue, Micro and Small Enterprises, tax compliance, tax system

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I. Introduction

Taxes and tax system are essential in nation building. They are required for state capacity building for meaningful economic development. The fundamental goal of any revenue authority is to collect taxes and duties payable according to the law. However, taxpayers are not always willing and ready to comply when it comes with the obligations imposed on them by law. Tax compliance is the ability and willingness of taxpayers to comply with tax laws, declare the correct incomes in each year and pay the right amount of taxes on time. Kirchler (2007) define Tax compliance as the taxpayers’ willingness to obey tax laws in order to attain economic development and goal. From a wider perspective, tax compliance requires a degree of honesty, adequate tax knowledge and capability to use this knowledge, timeliness, accuracy, and adequate records in order to complete the tax returns and associated tax documentation.

A key component of any tax system is the manner in which it is administered. No tax is better than its administration, so tax administration matters a lot. An essential objective of tax administration is to ensure the maximum possible compliance by taxpayers of all types with their tax obligations. Unfortunately, in many developing countries, tax administration is usually weak and characterized by extensive evasion, corruption and coercion. In many cases, overall tax compliance levels are low and large proportion of the informal sector of the economy escapes the tax net entirely (James S., and Nobes, C. 2004).

Tax compliance is a major problem for many tax authorities. It is not an easy task to persuade taxpayers to comply with tax requirements even as the tax laws are not always precise in some respects. Taxpayers are inherently disposed to reducing their tax liability either through tax evasion or tax avoidance. This may give rise to incorrect filling of their tax returns and loss of revenue to the government. An unduly complex regulatory system and tax regime enforcement makes tax compliance unduly burdensome and often has a distortion effect on the development of micro and small business enterprises (MSEs) as they are tempted to change intoforms that offer a lower tax burden or no tax burden at all and as such results in a tax system that
imposes high expenses on the society. A poorly executed tax system also leads to low efficiency, high collection charges, and waste of time for taxpayers (Alm, at al., (2007).

The compliance costs of MSEs are higher than the larger businesses. This leads to limited capacity of developing countries to raise revenues for development purposes. A lot of factors affect the low level of tax compliance in developing countries, such as attitudes, penalty, education, knowledge (awareness), lack of availability of tax information, Tax system (no declaration of tax by MSE to ERCA but Estimation of tax system by ERCA), tax rate, compliance cost and the ineffectiveness of tax administration (proclamation 202/2009).

The objectives of this paper therefore are to identify the determinants of tax compliance of micro and small business enterprises taxpayers and find out the effects of tax knowledge and tax penalty over tax compliance.

The main source of revenue for public expenditure in Ethiopia is taxation. Tax plays an important role in the growth of any economy so tax evasion is harmful to the economy. Tax evasion hampers government revenue collection thus inefficiency in Government spending because it diminishes the capacity of the state to mobilize domestic revenues, resources that are needed for investments and also construction of infrastructure like roads, power, Education, water and other public infrastructures have favorable results on many facilities, business enterprises, industries and the general public. Government intervention in the supply of public goods is therefore inevitable and can only be done if the public pays taxes for the production and supply of such goods (ERCA, 2015.)

Tax compliance is currently a topical policy issue, especially in developing countries, as governments are seeking ways to improve efficiency in tax revenue collection to finance their budgets. MSEs are the majority business taxpayers in most developing countries and as such their compliance levels directly impact on government tax revenue collections. Since each country has its own approach to manage tax compliance levels and each has different tax laws and regulations, the factors influencing tax compliance behavior appear to vary among countries (Palil, 2011). Ethiopia, like any other developing countries, faces difficulty in raising revenue to the level required for the promotion of economic growth. Hence, the country experienced a consistent surplus of expenditure over revenue for sufficiently long period of time. (Shina, 2014). To address this problem, the government introduced a number of rules, systems and methods aiming tax collection as a major source of public revenue. However, this all efforts couldn’t still bring the required result due to a number of reasons (ERCA, Customer Charter, 2015).

Non-compliance may take the lion share on the poor revenue performance. (ERCA, 2014) A number of taxpayers including MSE tax payers which are important source of revenue for Ethiopian government fail to fulfill income tax requirements and a number of them face prosecution for failing to pay taxes on time. (ERCA, 2014). Even if the government advocates voluntary compliance, the tax system in the country mainly stresses on legal enforcement as a remedy to ensure its proper functioning. (Proclamation, 286/2002).

This clearly shows that using traditional policies such as audits and fines (stick approach) may not work always and forever. Hence, there is a clear need for more empirical research on the factors that affect tax compliance, since a better understanding of these factors can yield strategies that improve compliance. However, to the best of the researchers’ knowledge the factors influencing tax compliance is not well understood and studies have not been carried out especially on Micro and small Business enterprises tax payers in south west shoa zone, Ethiopia. It is therefore, the focus of this study is to identify determinants of Micro and small business enterprises taxpayer’s compliance behavior with the tax system of Ethiopian Revenues and Customs Authority in south west shoa zone.

**General Objective**

The general objective of the study is to identify the determinants of tax compliance of Micro and small business enterprises taxpayers in south west shoa zone.

**Specific objectives**

1. To assess the effect of tax rate on tax compliance of Micro and small Business enterprises.
2. To investigate the extent to which the cost of tax compliance determine tax compliance of Micro and small Business enterprises.
3. To determine how Micro and small Business Enterprises attitude about tax influence tax compliance.
4. To assess tax knowledge of small & micro business enterprise taxpayers as a factor of tax compliance
5. To assess how the tax estimation system in influence tax compliance among Micro and small Business Enterprises.

**II. Literature Review**

2.1. Theoretical Literature
This study borrowed heavily from existing research that is increasing. It was influenced by the following theories which have been put across by various scholars with regard to adoption of technology in society:

2.1.1 Theoretical Approaches to the Evolutions of Micro and Small Enterprises

Different approaches and theories were forwarded for the evolution of small enterprises at different times. There are two perspectives that are mentioned for the emergence of small enterprises. The first perspective view it as an outcome of improved opportunities for people (including the poor and disadvantaged) to participate in “ways that empower and nourish” them while the other perspective consider it as an indication of failure of an economy to provide jobs, forcing people to “take refuge in activities that provide only minimal subsistence support” (Liedholm&Mead, 1999). Similar to this view, Ozcan (1995) considers small firms as the function or outcome of underdevelopment that exists in developing countries. Moreover, classical and recent views on MSEs have also conflicting outlooks on the emergence and importance of the sector. Hence, the following sections present these different outlooks.

2.1.2. Definition of Micro and Small Enterprises

Small business has often been seen as a narrowly defined development activity, with little or no connection to broader development priorities. However, this misrepresents the role this large and dynamic sector can play, and has the effect of limiting the potential contribution of micro and small enterprises to national development objectives (Simon W., 1999). Moreover, there is no generally accepted definition for Micro and Small Enterprises. The definitions given to MSEs vary from country to country and even within the same country. All use a range of terms to describe MSEs like for example, small businesses, small manufacturing enterprises, small enterprises, small scale industries, micro enterprises, the informal sector, cottage and handicrafts, tiny businesses, other income generating activities and the like (Wolday, 2002). The lack of consistent definition of MSEs lead to confusion to distinguish between one segment and another; and bring significant implications on the structure of interventions and promotional supports that could be provided to the sector.

2.1.3. Definition of Tax compliance

Tax compliance is defined as taxpayers’ willingness and ability to comply with tax laws, declare the correct income, claim the correct deductions and pay all taxes on time. (Bezamuche, taken from Jackson and Milliron (1986) and Kirchler (2007), as cited in Mohad& Ahmed, 2011)). Tax compliance has been defined in various ways by various authors. As stated by Kirchler (2007) compliance might be voluntary or enforced compliance. Voluntary compliance is made possible by the trust and cooperation between tax authority and taxpayer and it is the willingness of the taxpayer on his own to comply with tax authority’s directives and regulations.

However, in the presence of distrust and lack of cooperation between authority and taxpayer, which creates tax hostile climate, authorities can enforce compliance through the threat and application of audit and fine. According to McBarnett (2003), cited in (Mohad,R. et al.,2011) compliance may take three forms, which include committed compliance, capitulative compliance and creative compliance. Committed compliance is the willingness to discharge tax obligations by taxpayer without complaining. While capitulative compliance is the reluctant in discharging of tax obligations by taxpayer and creative compliance (tax avoidance) refers to any act by taxpayer aimed at reducing taxes by redefining income and deductible expenditure within the confines of the law. As stated by Marti (2010) cited Felix N. (2015) tax compliance is a complex term to define. Simply put, tax compliance refers to fulfilling all tax obligations as specified by the law freely, willingly and completely. He also believes that high compliance costs can result in tax avoidance, tax fraud, and inhibit investment by way of diminishing competitiveness of the country in terms of taxation attractiveness.

2.1.4. Determinants of tax Compliance

Kirchler, (2007) provides a thorough description of the determinants of tax compliance, dividing them into three categories. He states there are social psychological determinants comprising attitudes, different types of norms, fairness perceptions, as well as motivational features relating to tax compliance, political determinants such as complexity of law and tax system, or fiscal policy, and economic determinants like the rational decision-making process and the effect of audits, fines, tax rates, income on tax behavior.

According to Jackson & milliron(1986) cited in Desta(2010) they examined determinants or factors that have influenced tax compliance as discussed by various researchers. These factors are age, gender, education, income, occupation or status, peers’ or other taxpayers’ influence, ethics, legal sanction, complexity, relationship with taxation authority (IRS), income sources, perceived fairness of the tax system, possibility of being audited and tax rate. For the research elaboration tax payer service, Tax audit, Tax compliance cost, Tax
knowledge, perception of fairness/equity fines and penalties and strength of the organization were discussed under.

2.1.5. Tax Audit

According to kricher (2008) cited in Badara (2012), tax audit is defined as the checking or examining of an individual or organizations’ tax return and assess MSE enterprises by any concerned tax authorities so as to achieve the compliance with the proper tax laws, regulations, and directives of a country. In addition, he also defines it further that tax audit is a process whereby tax authorities give the confirmation to their stated tax returns whether these reports are prepared based on the consent of the tax laws or not.

In a similar fashion, OECD (2006) also defines tax audit as an examination of tax payer if the books of accounts are correctly reported and whether these reports correctly reflect the liability of the tax payer. Further, tax audit is primary activities of the tax authorities under the self assessMSEEnterprise system in enhancing and encouraging voluntary compliance with the tax laws and regulations.

2.1.6. Tax Payer Service

Service quality provided to tax payers in tax department becomes our concern because it is related to society as service users (Nunung, 2015) The National Taxpayer Advocate believes quality taxpayer service is a fundamental taxpayer right, and Congress should fund taxpayer services at a level that enables the internal revenue service’s to provide the quality service taxpayers need to comply with their tax obligations. Services to taxpayers include taxpayer registration, customer service, tax collection, taxpayer education on tax laws, providing tax related information, tax appeals and claims resolution, etc. Tax authorities need to provide timely and quality services to taxpayers by helping the taxpayers understand the tax laws and meet their tax responsibilities (IRS, 2010). By doing these, the tax authority can help the taxpayers to understand the tax laws, determine & report their tax liabilities and pay conveniently. These also can reduce the administrative costs of the tax authority and the compliance costs borne by taxpayers. The tax authority should also offer clear, understandable, and current tax information and make this information available to the taxpayers through various media and in written forms that one can rely on to questions and requests for tax information (Asian Development Bank, 2001). According to Internal Revenue Service (IRS) of America, performance in tax administration can be measured using the following variables:

2.1.7. Tax Knowledge

As stated by Lewis, (1978) cited in Hofman et.al (2008) people not only have difficulties to understand tax law, they also show poor knowledge about tax rates and basic concepts of taxation. Studies on knowledge and evaluation have addressed people’s understanding and acceptance of tax phenomena as well as relevant associations towards taxation held by different groups of taxpayers. While from the perspective of the community, tax avoidance, tax evasion, and tax flight all have similar negative consequences, people evaluate these phenomena differently.

Palil (2012), states that in addition to tax education, knowledge about tax laws also plays a major role in determining taxpayers’ compliance behavior. Therefore a step ahead, for example continuous education programmes and effective monitoring mechanisms must be taken into account by tax authorities to ascertain that taxpayers have a good and reasonable knowledge and understanding of tax matters. On the contrary, awareness and attitude of the taxpayer himself is more important since the effectiveness of tax education depends on the readiness, acceptance and honesty of taxpayers.

From the literatures we can understand that taxation knowledge is necessary to increase public awareness especially in areas concerning taxation laws, the role of tax in national development, and especially to explain how and where the money collected is spent by the government. More importantly, it is necessary that current and future taxpayers are exposed to the roles that they could play in developing the country. This exposure could be given through seminars, dialogue sessions, or collaboration with the Ministry of Education to introduce the subject of Taxation at secondary schools.

2.1.8. Fairness and Equity

Perceived fairness of the tax system is an important factor that is likely to affect individuals’ tax compliance decisions. Equity theory helps explain how individuals make fairness judgments. Equity theory suggests that individuals continuously evaluate their inputs, and outputs they receive (Walster et. al. 1978). If individuals perceive that outputs do not properly align with inputs, they experience distress. The distress could be related to either an underpayment inequity or an overpayment inequity. Underpayment receives. This theory is often used in organizational research to examine the influence compensation has on employees’ behavior. In an organization this occurs when an individual believes he is not paid enough for the work he does. Perceptions of distributive fairness have been shown to affect tax compliance (Wenzel, 2003 and Kirchler, 2007). People who experience their tax burden to be higher than others tend to be less compliant with tax laws. Likewise, the
more people believe that the government takes good care of their paid taxes and spends it carefully; the more compliant they tend to be. Equity theory, organizational justice research, and social exchange theory all agree that perceptions of fairness can have a significant influence on individuals’ decisions (Deconinck, 2010). For instance, in an organization an employee’s perceptions of fairness can have a significant influence on behaviors, such as organizational citizenship behaviors (Masterson et al. 2000).

According to D.Jimenez(2013)Studies suggest that procedural fairness influences the acceptance of decisions made by the tax authority and builds trust in the tax authority among private taxpayers (Braithwaite, 2003; Murphy, 2004). Procedural fairness is important for tax authorities, since by enacting fair procedures authorities support their legitimacy and trust (Tyler, 1997; 2006). Kirchler, Niemirowski and Wearing (2006) found that perceived supportiveness of advice by tax officers was associated with self-reported compliance and studies by Pommerehne and Frey (1992) and Torgler (2005) show that if taxpayers have a say in political decisions with regard to financial issues tax morale is stronger, as cited in (OEC,2011). According to James (2000), the most obvious requirement of equity or fairness is to treat equal people in equal circumstances in an equal way. The problem here is in deciding who is equal to whom. Similarly, Due and Friedlander (1981), as cited int Solomon(2014),also argue that what is fair or equitable in taxation is inevitably a value judgment; no scientific specification of an equitable distribution pattern is possible, or people may be equal income wise while they may be unequal regarding their expenditure, wealth, total utility and so on. Such a pattern can be specified only on the basis of a consensus of attitudes of persons in the contemporary society.

2.2. Empirical Literature

2.2.1. A review of empirical studies

Taxpayer’s attitude on compliance may be influenced by many factors, which eventually influence taxpayer’s behavior. Those factors that influence tax compliance and/or non-compliance behavior are different from one country to another and also from one individual to another (Kirchler, 2007). Study made on ‘Evaluating taxpayers’ attitude and its influence on tax compliance decisions in Tamale, Ghana’ (Abubakari& Christopher, 2013) can be summarized as follows:

The above study focused on individual self-employed/petty traders and individuals engaged in micro and small scale enterprises. After analyzing the survey responses from questions administered to operators of micro and small enterprises, in Ghana, the results indicated that individuals are highly concerned with the amount of taxes they pay. The rates of income taxes in Ghana are generally perceived to be high. Furthermore, the burden of taxes paid affects the attitudes of individuals and this informs how they evaluate the tax system and consequently their compliance decisions. According to this study, other important factors contributing for tax non-compliance of individuals were found to be the perception level of benefits derived from the provision of public goods and services particularly physical infrastructure, problems of understanding the tax laws, and levels of accountability and transparency in governance are matters that tax payers have less regard for their tax compliance issues.

Another study made on ‘Factors that influence rental taxpayers’ compliance with the tax system’ an empirical study of Mekelle City, Ethiopia, (Suresh &Sriniva, 2012) identified tax compliance issues as follows: The researchers used structured questionnaires to collect data from a respondents of 140. And the responses were analyzed using SPSS software to summarize the findings of the study. Accordingly, the major problems of rental tax compliance in Mekelle City, Ethiopia were found to be intentional tax avoidance (presence of dishonest taxpayers), that means some rental taxpayers intentionally underestimate their taxable income, and also there are some who entirely do not report their taxable income to the concerned body. Consequently, this result is affecting the attitudes and tax compliance of genuine taxpayers towards the tax system. In addition to this, lack of knowledge of the tax system, especially how the taxable income is calculated and low awareness creation by the Revenue and Tax Authority by Mekelle City to taxpayers were found to be the major factors for tax compliance issues.

Similarly, a study by Ojochogwu& Stephen (June 2012) on ‘Factors that affect tax compliance among micro and small enterprises’ in Northern Central Nigeria revealed some of the issues of tax compliance. Data for this research was collected from primary sources using survey method (questionnaire and personal interview with 150 respondents of micro and small enterprises). The sample was obtained using a combination of non-probability (judgmental) and probability (random) sampling methods. Data analysis was made by using Microsoft Office excel 2007 using the one sample-size z-test. Thus according to this study, it was found that high tax rates and complex filing procedures are the most crucial factors causing non-compliance of micro and small enterprises. Other factors like multiple taxation and lack of proper enlightenment affect tax compliance among micro and small enterprise taxpayers to a lesser extent.

Study made by Nelson Maseko (2014) on ‘Determinants of tax compliance by micro and small enterprises’ in Zimbabwe can be summarized as follows: The main objectives of the study were to investigate how the unique business conditions of micro and small enterprises, the perceptions of micro and small operators towards taxation, levels of tax knowledge and compliance costs affect tax compliance of micro and small

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enterprise taxpayers. To achieve these objectives, the researcher stated research propositions: the current tax system in Zimbabwe does not cater for the special business needs of micro and small enterprises and that strong correlation do exist among tax knowledge, compliance costs, and tax compliance. The study adopted a chiefly qualitative research design. Methodological triangulation was employed, utilizing the interview method and questionnaire survey to collect primary data from small and medium enterprises in Harare. Interview responses were analyzed through summative content analysis and questionnaire responses were analyzed using SPSS software (V.16.0). The results indicated that micro and small enterprises face different business conditions from large companies which cause them to bear high tax compliance burdens. The results also indicated that the perceptions of micro and small enterprise operators about tax fairness, tax service quality and government spending priorities greatly affect their tax compliance decisions. Tax knowledge was discovered to have no correlation with tax registration compliance but week negative correlations with filing compliance.

### III. Methodology

The primary data were collected through questionnaire and structured interview. The questionnaire consisted close-ended and open-ended questions to understand Micro and small business enterprises opinions about the determinant tax compliance. Along with some of the closed ended questions are five score Likert scales to provide respondents a wider range of alternative with end points where “5” the level of agreements are represented by 1 to 5.

1=strongly agree, 2=agree,3=Neutral, 4=disagree and 5=strongly disagree. The primary data sources were collected from Micro and small business enterprises of South west shoa zone and from tax department of Ethiopia revenue and customs authority staffs.

The population of the study consisted all of the Micro and small business Enterprises level “C” tax payers in south west shoa zone. South west zone consists of 11 woredas. From the selected woredas MSE category C tax payers were identified, which serve as a target population by using random sampling method. The sample size would be determined according to Yamane (1967:886). The formula the researcher would select and obtained from Yamane (1967:886) for sample determination is presented below. The sample size for the survey questionnaire is determined from tax payers and this is because of the fact that, the issue of compliance is better related to tax payers. However, tax authority staffs are also included not in the survey but to share their opinions through interview in the factors that influence business tax payer compliance.

\[
n = \frac{N}{1 + Ne^2}
\]

Then the sample =\(1726/1+1726(0.05^2) = 325\)

N. B. Here the error is assumed to be 5 percent.

The researcher used a sampling size determination formula developed by (Yamane, 1967:886). Therefore, the researcher has taken 325 samples of Micro and Small business Enterprises from the branch and 5 tax department office staffs.

The method of proportional allocation under which the sizes of the samples from the different woredas /strata/ are kept proportional to the sizes of the strata. That is, if \(Pi\) represents the proportion of population included in stratum \(i\), and \(n\) represents the total sample size, the number of elements selected from stratum \(i\) is \(n\). \(Pi\). Therefore, a sample of size \(n = 325\) to be drawn from a population of size \(N = 1726\) which is divided into four strata of size Wolisoworeda=571, Wonchiworeda=453, Ilu woreda=384 and Ameyaworeda = 318 Micro and small business enterprises. Adopting proportional allocation, the sample sizes as under for the different woreda level:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of selected woreda (strata)</th>
<th>Population size ((p))</th>
<th>Proportion to the size of the strata ((P= pN))</th>
<th>Proportional allocation of the sample sizes ((= n.Pi ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wolisoworeda</td>
<td>571</td>
<td>571/1726</td>
<td>325 (571/1726)=108</td>
</tr>
<tr>
<td>2</td>
<td>Wonchiworeda</td>
<td>453</td>
<td>453/1726</td>
<td>325 (453/1726)=85</td>
</tr>
<tr>
<td>3</td>
<td>Ilu Woreda</td>
<td>384</td>
<td>384/1726</td>
<td>325 (384/1726)=72</td>
</tr>
<tr>
<td>4</td>
<td>Ameyaworeda</td>
<td>318</td>
<td>318/1726</td>
<td>325 (318/1726)=60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1726</strong></td>
<td></td>
<td><strong>325</strong></td>
</tr>
</tbody>
</table>

Accordingly, the researcher used both probability and non probability methods of sampling. Among the probability sampling methods, the researcher employed the simple random sampling using random lottery method. The non probability sampling methods would help in the case of selecting tax authority for an interview purpose only. Here, it is logical and practically impossible to collect data from significant number of staffs through interviews. Therefore, the purpose of the researcher in getting the accurate data is the initiative
factor in selecting the interviewee. It is therefore the judgmental or purposive method of sampling that was employed in the study. Accordingly, the researcher interviewed a total of 5 tax staffs from tax departments of the study area.

After the necessary data collected from the primary and secondary sources, then, these data would be grouped, coded and tabulated. Data presented using tables, various chart types and graphs. All these data presenting techniques implemented based on the nature of the data. The researcher employed descriptive method of data analysis and multiple regression analysis using SPSS version 22 together with excel spreadsheets

3.5.1. Conceptual Model

\[ Y = f(x_1, x_2, x_3, x_4, x_5) \]

(1)

Where \( y \) is the tax compliance level; and \( Xs \) are the independent variables i.e.
- \( X_1 \): Knowledge of tax payers about tax laws and rules
- \( X_2 \): Tax estimation by tax authority that affect tax compliance of micro and small enterprise
- \( X_3 \): Tax rate
- \( X_4 \): Taxpayers’ attitude - this is the willingness of the taxpayer to be tax compliant
- \( X_5 \): Low compliance cost - penalty of taxpayers for not to pay tax.

\( n \): Is the total number of variables in the study

Analytical Model

The analytical model for this study is as explained below;

\[ Y = \beta_0 + \beta_jX_{ij} + \varepsilon \]

Where
- \( Y \): dependent variable - value of the firm
- \( \beta_0 \): is the constant (y intercept)
- \( X_{ij} \): measure of independent variable \( i \) for company \( j \)
- \( \beta_j \): regression coefficient \( i \) for variable \( j \)
- \( \varepsilon \): the stochastic error term

In relation to the objectives of the study the researcher will uses multiple regression analysis:

\[ T_0 = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \varepsilon \]

(2)

Where \( T_0 \): Tax compliance by Micro and Small Enterprises.

\( \beta_0 \) is the intercept; and reflects the constant of the equation.

\( \beta_j \) is the sensitive coefficient of each independent variable \( (i=1,2,3,4,5) \).

\( \varepsilon \) is the error term.

The study will use the T-test to analysis the relationship of the factors that affect tax compliance of Micro and small Business Enterprises in south west shoa zone. These tests will be conducted at 95% level of confidence \( (\alpha=0.05) \).

IV. Descriptive Statistics results

The descriptive statistics (such as mean of distribution and standard deviation of the distribution) were employed to investigate and present an overview of both dependent variable (Tax Compliance) and independent variables (Compliance cost, Attitude of tax payers, MSE Knowledge of the tax payers, Tax rate and MSE Tax System) used in the study. Table shows the descriptive statistics output summary of all variables.

Table shows the descriptive statistical results of corresponding 315 total observations of each variable in the study. It also describes the overall nature of variables employed in the study and their interpretation is presented as follows.

<table>
<thead>
<tr>
<th>Descriptive statistics output of all variables,</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Observation</strong></td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td><strong>Std. Deviation</strong></td>
</tr>
</tbody>
</table>

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1. According to Best, (1977), standard deviation of the score from 1-1.80 is lowest, from 1.81-2.61 is lower, from 2.62-3.41 is average/moderate, from 3.42-4.21 is good/high, and 4.22-5 is considered very good.

2. Besides, the decision rules used in the analysis were average mean less than 3 was considered as low, average mean equal to 3 was considered as medium and average mean greater than 3 was considered as high. (Best and khan 1995).

The mean distribution of the dependent variable (TC) of the study is 14.3365 which is greater than 3 and standard deviation statistics for TC is 3.53343, which is greater than 1. It shows the as per the Micro and Small business enterprise perception tax compliance in ERCA is greater than its moderate level.

The mean distribution of attitude of tax compliance was 15.5175 which are greater than 3 and the standard deviation of attitude of tax compliance 2.76042 which is greater than 1, indicates there is attitude of tax compliance affect tax compliance in MSE tax payers.

Cost of Tax compliance is determined by the penalty due to not paying tax, cost stationeries, cost of cash register machine, cost of hiring staff and cost of tax consultant. The mean value of Cost of tax compliance was 12.0254, which is greater than 3. This implies that MSE perception on cost of tax compliance in MSE tax payers in its planning up to working paper preparation, the tax compliance is affected by cost tax compliance. The variation of cost tax compliance measured by standard deviation was 2.91809 which is greater than 1 of its moderate score, it can be understood that the MSE tax payers have highest cost of tax compliance.

The mean value of Tax rate was 12.2381 which is more than its moderate level 3 and its standard deviation was also 2.69296 it is more than its average. So its implication is MSE tax rate determine tax compliance. The average mean value of tax system/tax estimation of MSE tax payers was 13.4476 which is more than 3 and its standard deviation was 3.15516 which is also more than its moderate level. So the MSE tax system influences tax compliance.

**Correlation Analysis**

Correlation analysis is a statistical tool which is used to measure the strength or degree of linear association between two variables. The correlation coefficient, which always lays between -1 and +1, was used to measure the strength and magnitude or degree of linear association between two variables. A correlation coefficient of +1 shows a strong and positive linear relationship between two variables. On the contrary, a correlation coefficient of -1 indicates a strong and negative linear association between two series. A correlation coefficient of 0 shows that there no linear relationship between two variables.

The correlation table below shows that the independent variables have a positive and negative significant relationship with the dependent variable. The result of correlation analysis is discussed in detail as follows:

**Correlation matrix between variables**

<table>
<thead>
<tr>
<th></th>
<th>TC</th>
<th>ATP</th>
<th>CTC</th>
<th>TPK</th>
<th>TR</th>
<th>TS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC</td>
<td>1</td>
<td><strong>.121</strong></td>
<td><strong>.881</strong></td>
<td><strong>.874</strong></td>
<td><strong>.881</strong></td>
<td><strong>.730</strong></td>
</tr>
<tr>
<td>ATP</td>
<td><strong>.121</strong></td>
<td>1</td>
<td><strong>.881</strong></td>
<td><strong>.874</strong></td>
<td><strong>.881</strong></td>
<td><strong>.730</strong></td>
</tr>
<tr>
<td>CTC</td>
<td><strong>.881</strong></td>
<td><strong>.881</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TPK</td>
<td><strong>.874</strong></td>
<td><strong>.874</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TR</td>
<td><strong>.881</strong></td>
<td><strong>.881</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TS</td>
<td><strong>.730</strong></td>
<td><strong>.730</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

The coefficient of correlation between attitude of tax payers and tax compliance was 0.121. It shows that there is weak and positive relationship between them. The relationship is significant at 0.05 level of significance. This implies that attitude of tax payers' during tax payment have weak or low effect on tax compliance.

Another variable employed in the study was cost of tax compliance. The coefficient of correlation between tax compliance and cost of tax compliance is 0.170, which indicates that there is positive correlation between TC and CTC and the relationship, is significant at 0.05 level of significance. The relationship between tax compliance and cost of tax compliance is higher than the relationship between tax compliance and attitude of tax payers'. This implies that if the cost tax compliance (cost of stationary, cost of tax consultant, the penalty due to not paying tax, cost of cash register, cost of hiring staff) were improved in the process its compliance will be affected significantly.

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The coefficient of correlation between tax compliance and tax payers’ knowledge is 0.102. This figure reveals that there is a weak and positive relationship between tax compliance and tax payers’ knowledge in MSE tax payers. The relationship is significant at 0.05 level of significance. This implies that the organizations independence from giving awareness about tax laws and rules have a low impact on tax compliance.

Tax compliance is positively correlated to tax rate with correlation coefficient of 0.130. The relationship is strong and significant at 0.05 level of significance. This implies that any change in tax rate positively and significantly affects its tax compliance in ERCA.

The coefficient of correlation between tax compliance and tax system is 0.424. It shows that there is strong and positive relationship between them. The relationship is significant at 0.05 level of significance. This implies that any improvement on tax system to the Tax compliance have a positive significant impact on tax compliance in ERCA.

### Collinearity diagnostics using VIF

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>6.127</td>
<td>.523</td>
<td>11.720</td>
</tr>
<tr>
<td>CTC</td>
<td>.396</td>
<td>.100</td>
<td>.394</td>
</tr>
<tr>
<td>TPK</td>
<td>-.219</td>
<td>.103</td>
<td>-.216</td>
</tr>
<tr>
<td>TR</td>
<td>-.603</td>
<td>.145</td>
<td>-.579</td>
</tr>
<tr>
<td>TS</td>
<td>.761</td>
<td>.071</td>
<td>.760</td>
</tr>
</tbody>
</table>

*Dependent Variable: TC, Source: Output of SPSS 22*

### Test of normality assumption \(\{u_t \sim N(0, \sigma^2)\}\)

The last diagnostic test for CLRM assumption of normality assumption was tested by this study. The assumption says that disturbances are normally distributed. Frequency distributions come in many different shapes and sizes. It is quite important, therefore, to have some general descriptions for common types of distributions. In an ideal world our data would be distributed symmetrically around the center of all scores. As such, if we drew a vertical line through the center of the distribution then it should look the same on both sides. This is known as a normal distribution and is characterized by the bell-shaped curve. This shape basically implies that the majority of scores lie around the center of the distribution (so the largest bars on the histogram are all around the central value).

### Table 4.8. Residuals Statistics

<table>
<thead>
<tr>
<th>Residuals Statistics</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>4.8598</td>
<td>17.1811</td>
<td>9.2444</td>
<td>1.81277</td>
<td>315</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-2.419</td>
<td>4.378</td>
<td>.000</td>
<td>1.000</td>
<td>315</td>
</tr>
<tr>
<td>Residual</td>
<td>-4.4606</td>
<td>9.17209</td>
<td>.00000</td>
<td>2.79235</td>
<td>315</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-1.587</td>
<td>3.258</td>
<td>.000</td>
<td>.992</td>
<td>315</td>
</tr>
</tbody>
</table>

*Dependent Variable: TC*
Table 4.9: Reliability analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. Of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC</td>
<td>5</td>
<td>0.699</td>
</tr>
<tr>
<td>TPK</td>
<td>5</td>
<td>0.706</td>
</tr>
<tr>
<td>TS</td>
<td>5</td>
<td>0.704</td>
</tr>
<tr>
<td>TPA</td>
<td>5</td>
<td>0.703</td>
</tr>
<tr>
<td>TR</td>
<td>5</td>
<td>0.674</td>
</tr>
<tr>
<td>CTC</td>
<td>5</td>
<td>0.695</td>
</tr>
</tbody>
</table>

From the above table, it is seen that the reliability value was estimated to be a 0.674 - 0.706 between the scale. If the above calculated reliability values are compared with the standard value alpha of 0.5 advocated by Cronbach’s, then it can be safely assumed that the scales used by the research are reliable for data analysis.

**Multiple regressions**

In this study, multiple regression analysis was carried out to get the predictive value of the variables considered. This was basically made to determine the linear combination of the constructs.

Regression of tax compliance (TC) on Tax payers’ knowledge (TPK), Tax system (TS), Tax rate (TR), tax payers’ attitude (ATP) and Cost of tax compliance (CTC).

The econometrics model employed in this study was the following:

\[ TC = \beta_0 + \beta_1 (TPK) + \beta_2 (TS) + \beta_3 (TR) + \beta_4 (ATP) + \beta_5 (CTC) + \varepsilon \]

**Table 4.10: Model summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.545&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.296</td>
<td>.285</td>
<td>2.81485</td>
</tr>
</tbody>
</table>

<sup>a</sup> Predictors: (Constant), TS, ATP, TR, CTC, TPK

**Table 4.11: Anova**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1031.845</td>
<td>5</td>
<td>206.369</td>
<td>26.045</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Residual</td>
<td>2448.332</td>
<td>309</td>
<td>7.923</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3480.178</td>
<td>314</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Dependent Variable: TC

<sup>b</sup> Predictors: (Constant), TS, ATP, CTC, TPK, TR

*Source: Output of SPSS 22*
Table 4.12: Coefficient of linear regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>6.190</td>
<td>.524</td>
</tr>
<tr>
<td>ATP</td>
<td>-.208</td>
<td>.153</td>
</tr>
<tr>
<td>CTC</td>
<td>.546</td>
<td>.149</td>
</tr>
<tr>
<td>TPK</td>
<td>-.063</td>
<td>.154</td>
</tr>
<tr>
<td>TR</td>
<td>-.710</td>
<td>.165</td>
</tr>
<tr>
<td>TS</td>
<td>.765</td>
<td>.071</td>
</tr>
</tbody>
</table>

After running this equation using SPSS 22, the regression model was as follows.

\[
TC = 6.190 - 0.208\text{ATP} + 0.546\text{CTC} - 0.063\text{TPK} - 0.710\text{TR} + 0.765\text{TS}
\]

The regression model output was presented in table-4.10; it shows the coefficients, standard errors, t-values, and p-values for explanatory variables. The model in table-4.10, summary shows R-squared, Adjusted R-squared, and standard error of the estimates.

The ANOVA result table shows F-statistics and probability (F-statistics) for the regression. The R-squared and Adjusted R-squared statistic of the model were 54.5% and 29.6% respectively. The explanatory power of independent variables such as attitude of tax payers, cost of tax compliance, tax payers knowledge, tax rate and tax system/tax estimation/ on the change in dependent variable (tax compliance) was 54.5%. The result of Adjusted R-squared shows that change on dependent variable (TC) was explained 29.6% by the independent variables employed in the study. Therefore, 70.4% of change on dependent variable (TC) was explained by other factors which are not included in the model. The null hypothesis of F-statistic (the overall test of significance) which says the Adjusted R-squared is equal to zero was rejected at 1% significance level. F-value of 0.0000 shows strong statistical significance which enhanced the reliability and validity of the model.

Table 4.12, shows that Cost of Tax compliance and Tax system had positive coefficients. The positive coefficient indicates that there was direct relationship between those variables and TC. The variables, cost of tax compliance, tax system and tax rate are significant at 1% and 5% significance level. Whereas Attitude of tax payers and tax payers’ knowledge had a statistical value more than 1%, 5% or 10% significance level, which means Attitude of tax payers and tax payer’s knowledge had negative coefficients with no significant impact on tax compliance of MSE tax payers. The negative coefficient indicates that there was an inverse relationship between Attitude of tax payers and tax payer’s knowledge with TC.

V. Conclusion and Recommendations

The primary objective of this study was to identify the determinant of tax compliance of MSE tax payers in South west shoa zone, Ethiopia. Based on objective of the study analysis of data and discussion of findings, the following are major conclusions of this study.

Four potential determinants of tax compliance were examined in this study, namely tax compliance cost, tax payers’ attitude, tax rate, tax system and tax payers Knowledge.

The results revealed that Tax compliance Cost, Tax Rate and tax System consistently influence the tax compliance of MSE tax payers’. Nonetheless, Tax payers’ knowledge, tax payers’ attitude have an insignificant relationship with tax compliance of MSE taxpayers. Tax Compliance cost, tax system and tax rate are significant determinants of tax compliance micro and small business enterprises tax payers’.
Most of the respondents’ from the taxpayers and interviewers from ERCA staffs believed the existence of the stated problems. The problems will be solved by regular training of the taxpayers on the tax rules and procedures especially, on changing proclamation and guidelines and making them available to the taxpayers timely.

The Ethiopian Revenues and Customs Authority of the branch should encourage the Micro and Small business enterprises taxpayers to use the web sites related to tax information, to improve their bookkeeping and filing of documents related to their businesses and they should be engaged on forums on how to reduce costs associated with the tax compliance. Similarly, the government should be transparent and wisely use the tax collected from the public and communicate with the taxpayers about tax programs to promote the benefits of paying taxes.

Based on the findings of this study, the researcher came up with several recommendations to encourage tax compliance among MSEs. These include:

1. Tax proclamation, guidelines and any changes therein should be available to micro and small business profit taxpayers’ timely and necessary tax training about tax rate and tax system should be given consistently and frequently by using different medias such as TV, Radio, different publications, Magazines and training activities by ERCA. So that it will enhance awareness of taxpayers, minimize gaps of tax compliance problems and it will also enhance timely payment of the tax by micro and small business profit taxpayers.

2. Since the presence of those who do not pay taxes negatively affect the taxpayers behavior towards tax compliance, ERCA should strengthen the tax enforcement team so as to monitor informal suppliers transacting without using legal receipts and to include all micro and small business in to the tax system. The frequency and coverage of supervision should be increased to ensure uniform application of tax rules and procedures and to ensure fair tax system among similar businesses.

3. The primary responsibility of tax authority is to ensure compliance with tax system. At the same time, they should ensure that the tax system is simple, transparent and minimize compliance cost. Thus, the authority should aim to simplify and clarify the tax policy to motivate taxpayers to pay taxes. Especially, while changing the tax law (system), consultations should be held with the MSE business taxpayers.

4. With regards to tax system of MSE, the study findings confirmed that most of the micro and small business enterprises taxpayers in Guragezone, Ethiopia are encouraged to pay taxes when they are satisfied with the public services. This factor can be exploited to improve tax compliance of micro and small businesses. Therefore, the government should use the taxpayers’ money wisely and in a transparent manner and communicate with the taxpayers about tax programs to promote the benefits of paying taxes to improve tax compliance.

5. Tax compliance can be developed only with the voluntary participation of the society. Merely relying on stick approach has no far reaching outcome. Hence, the tax authority have to cause taxpayers voluntarily discharge their tax obligations as much as possible.

6. Tax authority should come up with new techniques of enforcing tax compliance such as tax amnesty and strong supervision /guidance/, after careful analysis of its consequences rather than setting up heavy penalties which discourage taxpayers from being complaints.

7. Tax authority should step up to their duty of promoting awareness. The awareness should not be about laws and penalties alone but also on needs and justifications for tax. In addition, taxpayers are entitled to have up-to-date information on the operation of the tax system and the way in which their tax is assessed and tax rate. All the information provided to taxpayers should reflect the complexity of the situation, thereby enabling them to understand better their tax affairs. The authorities may use a variety of means to fulfill this obligation.

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