

# Determinants of Tax Compliance Behavior in Presumptive Taxation: The Case of Dire Dawa City Administration

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## Abstract

In attempt to reverse the gap between public revenue and public good spending, many researchers had identified multi-faceted factors using Variety of tax compliance methods. However the issue is not yet clearly known in many countries including Ethiopia due to the limited and inconclusive results. To further the understanding of tax compliance behavior in Ethiopia, this study examined the determinants of tax compliance behavior found in Dire Dawa Administration using behavioral model. The information randomly collected from 299 was analyzed using both descriptive statistics and multiple regressions Model. In the study, we found that majority of the respondents have settled their tax liabilities without any penalty. However, poor services of tax authority, lower level of tax knowledge, and poor perception to government spending were challenges to tax compliance behavior. Thus we suggested improving tax knowledge and increasing the attitude of government spending help to raise the tax compliance behavior of individuals.

**Keywords:** Tax compliance; CDQ; Presumptive taxation; and Dire Dawa

## 1. Introduction

In this study we adopted an indirectly phrased questions developed both from behavioral theories together with practical determinants factors. For the purpose of controlling the real behavior of respondents, we also used the Choice Dilemma Questioners Approach (CDQ) during the process of measuring factors that affect the compliance behavior of small business tax payers. This is because the use of CDQ do not allow respondents to think a lot and thereby mistakenly report (MOHD, 2010); Cartwright, 1971), and Nutt .1986)).

Since tax avoidance and tax evasion undermine the ability of developing countries to finance their public sectors, characterizing and explaining the observed patterns of compliance problem and ultimately finding ways to improve it are of obvious importance to the nations especially in developing countries (Asante and Baba, 2011).

However understanding of the factors underlying the individual tax payer's decision whether to comply with the rules or not comply are different and have unique nature across Sub-Saharan countries including Ethiopia. Measuring the magnitude of non-compliance behavior especially in small business sectors is difficult because tax is collected based on the Assessment Approach within which estimating the levels of uncollected tax is complex or impossible (Asante and Baba, 2011). As a result of this, many tax authorities, including Ethiopia, throughout the world have become increasingly reliant on standard assessment system as a means of improving the administrative efficiency with regard to small business classes.

In Ethiopia more than 85% of the tax revenue is collected using the assessment approach from the small businesses (Mamo Abdi, 2012). All businesses with annual turnover of less than Birr 100,000 are grouped into Small business of category "C. Mamo also indicated that there was a rapid increase (7%) of formal and informal Small businesses in all spheres which they benefited with a reduced tax rate of 30%.

This was true after the tax reform of 1992 which planned to raise tax revenue of the country. The reform makes paying taxes much easy for small business enterprises by avoiding a frequent filling requirements and book keepings. Though the government of Ethiopia set an increasing size of tax collection since 2010, its achievement was very small compared with sub-Saharan countries. Werkinah A. (2013) showed that the average tax revenue of Ethiopia during 1999/2000-2011/12 was 4.8% of GDP. But its income tax was 3.7% of GDP while the average income tax of Sub-Saharan countries was 4.79 (International monetary Fund, 2013).

In Dire Dawa Administration, the tax revenue from small business also takes the larger share (87%) out of the total tax subjected business groups with annual mean contribution of 62% (Yohannes M & Zerihun T, 2013). This raises a question why tax revenue is low-where its work and efficiency is determined by different socio-

economic and behavioral factors.

Therefore, examining determinants of tax compliance behavior depends on identifying factors that affect tax compliance behavior and hence understanding the rationale for low level of tax revenue of the small business sector pose remedial mechanisms to correct the prevailing problems of tax revenue collection in Dire Dawa Administration.

Following the increasing of tax non-compliance in Sub-Saharan countries, including Ethiopia, many researchers and policy makers are attracted to deal with it (Indris et al, 2011). The tax compliance behavior of these small business sectors, which do not declare their income or keep book accounts, was examined by many researchers. For instance, in Sub-Saharan countries including Ethiopia, most tax compliance studies of small businesses have given less attention to the sector and capture the real behavior of tax payers that affect tax compliance behavior using comprehensive tax compliance measurements.

In Ethiopia little is known about the individual tax compliance behavior to the small business in which the largest government revenue is based up on.

This is due to the fact that the existing few studies (Lemessa T. (2007), Zelalem B. (2011) , and Selamawit W.(2012)) marginalized the issue of real behavior of tax payers using comprehensive technique like Choice Dilemma Questioner approach and also most are descriptive/assessment studies. The inconsistent results forwarded by such few studies also hardly affect Policy makers in the understanding of individual tax compliance behavior in the sector.

Thus, this study attempts to explore the tax compliance behavior of small businesses in which standard Assessment of presumptive taxation is applied as a method of tax collection in Dire Dawa City. The study examined what reasons motivate tax payers to comply & not to comply with the tax laws and what determinant factors are important in influencing their tax compliance behavior. To manage the real behavior of tax payers by minimizing the wrong doing responses, we framed our model using behavioral model of tax compliance and adopt *Choice Dilemma Questionnaire Approach* to control determinate factors. In the study, the attitude of tax payers' to government spending, horizontal equity and service of tax authority are addressed using indirectly phrased questions.

The reminder of this paper is structured as follows: the next section provides a brief presentation of literature review to tax compliance behavior. Section three presents research materials and research design. Section four and five provides the result and conclusion respectively.

## 2. Literature Review

### 2.1. Model of Tax Compliance Behavior; Theoretical Background

Scholars like Alm (1991) and Jackson and Milliron (1986) also defined tax compliance as the reporting of all incomes and payment of all taxes by fulfilling the provisions of laws, regulations and court judgments. However, we adopted the definition of Sarker (2003), MOHD (2010), Cartwright (1971), and Nutt (1986) as "the degree to which a taxpayer complies or fails to comply with the tax rules of their country".

In this study we attempted to use the Neoclassical Behavioral model of tax compliance variables such as institutional factors, Economic factors and Social factors.

In the Ethiopian context, institutional issues such as perceptions to government spending and services of tax authority have been missed by many researchers.

The models of tax payer behavior which explain the decision whether to pay or not to pay taxes according to the tax laws and procedures reflect certain theories. Economic theories of tax compliance behavior which reflect tax payers' decision to settle tax liabilities are either the classical Economic deterrence or its extension of Behavioral tax compliance behavior model.

In the Classical Economic deterrence theory, tax payer's behavior is influenced by economic factors (such as tax rate) that determine the benefit of evasion, probability of detection and penalties for fraud (Merima Ali et al.2012). The model assumes rational behavior among tax payers. The model predicts that an increase in probability of detection and penalty lead to higher level of tax compliance. Several studies including Alm et al (1992); Allingham, M. & Sandmo, A. (1972); Andreni, J, Erard, B. & Feinstein, J. (1998) and Olandipupo, A.O. & Obazee, U.(2006) showed that the tax rates, penalty and probability of detection affect tax payers' behavior.

Despite the great contribution to the development of tax compliance literature, the model faces many critics. Mostly the model fails to address the level of tax compliance besides the assumption of rational utility maximization (Joana, M. (2014). The classical economic models generally conclude that most people are tax evaders. However, many empirical evidences suggest that many people are honest tax payers. Even with low level of deterrence some people will report the totality of their income There are some people who never paying tax even then the risk is sufficiently low to encourage cheating behavior (Coricelli et al.,(2003) and Merima Ali et al.2012)).

The study of Joana, M. (2014); Siqueira and Ramos (2005); Frey and Feld (2002)) argue that tax evasion cannot be fully explained by financial determinants and economic incentives. Thus Following the limitation of

the classical's approach of tax compliance model, this study adopt the behavioral aspect of tax compliance decision model which it has gained ground in the literature.

This is because the Tax Compliance Behavioral model of Neoclassical, as it is explained by Jackson and Milliron, 1986 ; Bordignon, 1992 ; wenzel, 2003; Mumford, 2001, is built based on the basis of sociological and psychological determinants. In the model tax payers are seen to no longer selfish utility maximizes like the classical Economic Deterrence of tax compliance behavior. Tax Payers act as human beings motivated to pay taxes on the bases of different attitudes, norms, beliefs, perceptions, feelings, social characteristics, cultural backgrounds like age, gender, race, religion, and etc.

The model is framed using socio-psychological determinants and works with "slippery slip" framework of Kirchler, Hoelzl and Wahl (2008). Having two dimensions; trust in authorities and power of authorities. Trust in authorities is the opinion of individuals and social groups that the *tax authorities* benevolent and work beneficially for the common good without any kind of inequality. The power of authority is concerned with tax payer's perception of potential of tax officers to detect illegal tax evasion and to punish tax evasion.

Even though the behavioral model of tax compliance have received an increasing attention from researchers, there is still a lot to explore in order to develop a model that can fully explain tax compliance behavior in developing countries like Ethiopia. Based on the two dimensions, we identified important factors that affect tax payers' compliance behavior specially the socio-psychological determinants. Economic, social, demographic, institutional and individual factors are also involved using empirical evidences and contextual issues.

This study contribute to the development of tax compliance /behavioral model of tax compliance with its view of crucial behavioral policy variables such as tax payers' perceptions to government spending, and change in governmental policies. It also adds knowledge on methodology of tax compliance study of Sub-Saharan countries by using Choice Dilemma Questioner Approach for the measurement/control of tax payers' influential factors and use of Behavioral Tax Compliance model.

## **2.2. Determinants of Tax Compliance in Ethiopia: Empirical Evidences**

Tax compliance behavior is not simple phenomena. It is affected by economic determinants, institutional factors, social factors, psychological factors and individual and demographic factors (MOHD (2010); Joana, M. (2014); and Alm, Jackson and Mckee (1992)). The study of Kidst M. (2013) on "tax assessment problems and collection procedure in Category C tax payers of Addis Ababa Nifas Silk sub-city" was aimed to identify problems in the process of tax collection procedure. Using a descriptive method of analysis, the study found that the method of collection is too vulnerable to unfair treatment of tax payers and created a loop hone for corruption. It also found that tax payers do not know the rules and regulations of different types of taxes they pay. This led them to delay for tax payments and evasion.

Similarly the study of Selamawit W. et al. (2012) indicated that lack of awareness about tax procedures, problem of equity and simplicity of paying taxes and lack of objective tax estimation are the main problems happenings on collection of category C tax payers.

The study of Suresh V. and Sirinvas G. (2012) made on rental tax payers of Mekelle city aimed to identify the influential factors that affect tax compliance behavior. Using a descriptive method, it indicated that lack of awareness and inability in capturing the tax laws & regulations raised from little education and lack of trainings to tax payers are main obstacles to comply positively to the tax laws. The study of Lemessa T. (2007) also aimed in assessing the factors that affect voluntary tax compliance behavior in Dire Dawa City category C tax payers. Using purposive sampling and descriptive method, it found that fairness & equity, knowledge gap of tax payers and provision of social services by the governments were the main factors which influence tax compliance behavior.

The study of Zelalem B(2011) which targeted to examine whether education can influence respondents' compliance behavior in Addis Ababa city. Using survey and experimental approach, the study found that tax compliance behavior is influenced by education.

On the other side Yohannes M. and Zerihun A. (2013) assessed challenged by business community tax payers of Dire Dawa Administration using qualitative information gathered through a survey and focus group discussions with the city's chamber of commerce and sectoral association, tax and revenue authority and federal custom and internal revenue authority. Using descriptive statistics, the study found that most C tax payers face problems related to taxation system, and tax rate is reported as it is beyond their ability to pay.

## **3. Research Materials and Method**

### **3.1. Materials**

#### **3.1.1. Measuring of dependent variable: Tax Compliance behavior**

In measuring tax compliance behavior /attitude, respondents were asked Variety of 26 questions if they have non-compliant behavior to pay taxes to the government during the period of payment. In general individuals were required to respond their perceptions, using the five likert scale choice, regarding the statements about the

efficiency of tax authority, government's policy and spending pattern, and tax policy. However, many studies indicated that individuals are tend to hide the truth when they are asked about some sensitive but important questions such as fairness of tax authority and perception about government spending. Obtaining valid quantitative information about tax compliance is practically impossible with such kind of direct method.

To solve the problem, other researchers like Kaufman (1997) and Reinikka (2006) adopt indirectly phrased questions to measure tax compliance so as to avoid the direct implication of wrong doing by respondents. However, this method is limited to address the wider scope of individuals' behavior to the governments' procedures.

We adopted the works of MOHD (2010), Cartwright (1971), and Nutt (1986) to measure tax compliance attitude using a 5 likert –scale, based on questions extracted from practical as well as theoretical frameworks. In the questionnaire respondents were asked to identify among the pushing factors that lead them to comply or/and not comply. We asked them 11 varieties of questions to directly measure why they pay tax according to the rules.

In this regard, they were asked to respond whether they think that government's spending pattern is not reasonable. They were also asked whether there is vertical equity in paying taxes and no close friendship with tax experts. They also required to state whether government public service provisions are satisfactory. Finally they were required to state whether tax authority is capable of detecting fraud and punishing. In this regard, the high value represent is implied that tax payers are more compliant. Because high value is given to strongly agree option.

On the other side, 14 questions were also provided to evaluate individual's response why they did not comply. In this part, we asked respondents to state whether lower penalty, lower earnings due to market condition, lower motivation of tax authority, priority is to personal liability before taxes led them for their non-compliant behavior. They were also asked to respond whether observing of no individual is penalized not to comply.

The order value of questions was presented in such a way that they reflect tax compliant behavior though the questions directly reflect why they became non-compliant.

In both part of the questionnaire, respondents were asked to mark their opinion in the ranges provided from strongly disagree to strongly agree. This arrangement of scaling/measurement/ helps respondents to immediately respond what they think without taking much time. If they moderately agree, it was scored four points and if they strongly disagree they scored 1. Once all the twenty five questions are measured and summed, the tax compliance score or behavior is known. Based on this, individuals are said to be compliant if their compliance score is above the mean of total compliance score (85 points) and non-compliant if their score falls below the total mean score.

### **3.1.2. Measuring of independent variables**

The principal source of data for this study was the 2014/15 survey collected from small businesses or Schedule "C" tax payers registered in Dire Dawa city, Ethiopia. The survey was conducted using Choice Dilemma Questioner (CDQ) approach to collect information about tax payers' attitude on auditing/re-checking, governmental spending, equity & fairness, penalty, financial constraint, change in government policies, and referent groups. However, variables such as service of tax authority, ethics, and tax knowledge were measured using indices arisen from 1 to 5 likert scales.

The variables were measured using CDQ approach was made in a way that the Yes/No responses were initially weighted as 40% ("yes" =1 mark, "No"=2 marks) while the PROB was weighted as 60% (1=5 marks and 5=1 mark). We adopt this technique because of its ability in controlling respondents' biasness. The YN technique did not require respondents to think a lot rather helps them to tick simply either "Yes" or "No". But the PROB part lead respondents to determine which scale (out of five scales) they were on.

Here we prefer to use 40:60 weighting ratio instead of using other ratios like 70:30 due to the nature and different rigorousness of the questions we used.

During CDQ approach, the first respondents were required to respond both Yes/No questions and to check whether they had been in place of others as a tax payer, from "very low probability to "very high probability", using a likert scale of 1 to 5.

For instance, if the respondents replied "yes" and ticked "very high probability", it indicated that he/she was highly non-compliant. The score for him/her would be 1 ((1\*0.4 + (1\*0.6)). All the seven variables were measured with the same techniques of YN and PROB (CDQ).

Based on the score values of these variables, the high value the variable has the more non-compliance score of the tax payers. This is due to the fact that the variables were measured indirectly in a way that the high value was attached if tax payers strongly disagree and low value if they strongly agree.

Other factors such as ethics of tax payers, general service of tax authority and level of tax knowledge were measured using indices of likert scale of 1 to 5. The score value of each of these variable implied that the value above their respective mean is considered as high value and tax payers believed to be more tax complaint.

Because such variables were measured directly using likert scale of 1 to 5, strongly disagree (1point) to

strongly agree (5poits). Once important information was collected, the determinants factors for tax compliant behavior were explored Using Simple Ordinary Least Square regression (OLS). But the objectives of examine reasons for compliance/ non-compliance attitude was addressed using descriptive statistics like ANOVA and T-test.

### 3.2. The Method

#### 3.2.1. The Econometrics model of tax compliance

For the purpose of capturing the factors that influence tax compliance attitude, we framed our tax compliance study using Behavior *model of Tax compliance* adopted from Krichler, Hoelzl and Wahl (2008). The model gave attention to the sociological and psychological determinants due to the reason that tax payers are seen no longer as selfish utility maximizes (as of the classical view) but as human being motivated to pay tax on the basis of different attitudes, norms, beliefs, perceptions, feelings, social characteristics, cultural backgrounds (Wenzel, 2003; Wenzel, 2004a; Wenzel, 2004b; Wenzel, 2005a; Wenzel 2005b). Based on this context, the tax compliance behavioral model was framed using Gujarati, D. (2004):

$$Y_i = \alpha_0 + \beta_i X_i + \gamma_i Z_i + e_i \dots\dots\dots 3.1$$

Where  $Y_i$  the dependent variable (standing for individual tax compliance behavior). It is continuous as we measure in section 4 below.  $X$  is vector of individual characteristic such as education, monthly income, and age of respondents;  $Z_i$  is a vector for variables that capture factors which affect tax compliance attitude. It includes factors such as economic, institutional, social, cultural and demographic issue.  $\beta_0$  is the constant and  $\gamma$  &  $\beta_i$ , = are Regression parameters that is  $i=1, 2, \dots, n$  whereas  $e_i$  regression residuals.

The factors specified as determinants are grouped in Economic, social, demographic, institutional and individual factors.

**Economic factors:** These are factors related to the cost and benefit of performing the business. Tax payers attempt to minimize their tax liability by intentionally under reporting their income and enjoy tax saving if they were not detected by the tax authority. On the other hand, they are also willing to pay more, including penalty, if they were caught (Joana, M. (2014); and Alm, Jackson and Mckee (1992)).

Thus we used perception of tax payers about probability of auditing/rechecking, income constraint or lower earnings, perception of equity & fairness and perception of government spending as factors that influence tax compliance attitude among the many economic factors. Since tax rate is common to all tax payers, we did not consider it in this study.

**Social factors:** These factors that help to examine individuals tax compliance behavior in view of others people's behavior and their social-environmental context tax payers including friends, family and others referent groups. The dimension of social factors as a determinant of tax compliance can be extended to the psychology of tax payers such as ethics and individual's attitude towards tax compliance. In this study referent group (family and friends), change in current government policy, and ethics were taken as social determinants of tax compliance.

**Institutional factors;** While tax payers are influenced by the economic and social issues to comply or not to comply to the tax rules, many studies suggest that institutional factors also play an important role in challenging tax compliance decision.

In this study, we measured efficiency of tax authority using Varsity of 10 questions. Since simplicity of taxation is assumed to be solved by the system of standard presumptive taxation, we only focused on efficiency of tax authority. During the measurement of efficiency of tax authority, we considered issues like awareness creation about the new procedures, provision of incentives and counseling, solving complaints timely and justly, and equal service to customers.

**Individual factors:** Personal background about tax Knowledge and ethical manner of tax payers is believed to be important determinants factors. In this study, the knowledge base of tax payers is measured by asking them whether they really knew the tax duties and rights during the process of settling their tax liabilities. It incorporated issues about period of payment, punishment at time of delay, and system of appealing.

These are most critical to tax payers in the Ethiopian case study because most research studies recommend measuring the knowledge base of tax payers.

For this study, we include the variable whether it is true to Dire Dawa tax payers' compliance behavior.

Ethics of tax payers are also included as a repressor. It is measured using tax payer's feeling about reporting of deducted income, hiding of salient commodities at time of assessment, perception about reporting actual/approximate income during assessments.

**Demographic factors:** These constitute essential elements that affect the tax compliance behavior of tax. As control variables, we used age, income, education and gender of respondents to capture issues emanating from personal demographic characteristics.

The major data limitation of this study was that we faced many incomplete questionnaires due to the sensitivity of the issue. However we attempted to manage the incomplete responses using respondents' ID and

their geographical units. On the other side, we did not use triangulation using experimental approach due to budget constraint.

#### 4. The Result

##### 4.1. Descriptive Analysis

###### Reasons to comply and not comply;

The result of descriptive analysis showed that majority of respondents, 90.66%, paid their taxes on time and of which 71.24% of them did not pay penalty. We found that majority of tax payers have better education, low income, poor ethics and low level of tax knowledge. However, 38.46% of the respondents did not understand the tax laws and policies due to the fact that tax laws and policies did not written in local language such as Afan Oromo and Somali languages.

Tax payers' knowledge, ethics of tax payers and efficiency of Tax authority were among the motivating factors for compliance behavior. The non-compliant behavior of tax payers are due to the probability of being auditing/rechecking, unfair treatment, reduction of business earnings, change in government policy, and efficiency of tax authority. Equally important, low level of penalty (78%), poor motivation of the tax authority (61%), and absence of penalty to friends when they do not pay (58%) are also challenges to their non-compliance behavior.

##### 4.2. The Regression Result

###### 4.2.1. Robustness of the model

As it can be seen from Prob< F test (0.000) indicate, the overall fit of the model is significant which implies that the variables included in the regression create a statistically significant improvement in the fit of the model. The R-square and adjusted R-square also supplements the good fit of our mode with R-squared (0.4136) and Adj R-squared (0.3569).

We also conducted Post estimation of link test to check whether the dependent variable (tax compliance behavior) is specified correctly. Accordingly, we found that the *hat* is significant and the *hats square* is not-which implies that the model is correctly specified -no omitted variable bias. To ensure the reliability and validity of the regression, some diagnostics test like hetroskedasticity and multicollinerity was conducted. While the issue of hetroskedascity was found to be problem (tested via white test) but the VIF test of multicollinerity was no problem to the model. To avoid the problem resulted from hetroskedacity, we regressed our model with robust regression.

###### 4.2.2. Determinants of tax compliance behavior

Source	SS	Df	MS	No obs.		294
Model	11945.8824	15	796.392163	F (15 , 278)		11.98
Residual	18483.5636	278	66.4876387	Prob > F		0
Total	30429.446	293	103.85476	R- squared		0.3926
				Adj R-square		0.3598
				Root MSE		8.154
TOTAL TAX COMPLIANCE SCORE	Coef.	Std. Err.	t	P>t	[95% Conf. Interval	
GENDER OF TAX PAYER	-0.3171483	1.04329	-0.3	0.761	-2.3712	
EFFECT OF BEING AUDIT	-1.139405	1.652094	-0.69	0.491	-4.39208	
CHANGE GOV'T SPENDING	1.905595	1.109337	1.72	0.087**	-0.27849	
UNFAIR TREATMENT	1.513504	0.9626251	1.57	0.117	-0.38173	
EFFECT REFFERENT GROUPS	1.759672	1.041425	1.69	0.092**	-0.29071	
BEING PENALIZED	-0.0249485	0.5636599	-0.04	0.965	-1.13469	
EFFECT REDUCTION INCOM	1.108012	0.5018964	2.21	0.028*	0.119867	
EFFICIENCY OF TAX AUTHORITY	1.004208	0.1003503	10.01	0.042**	0.806636	
ETHICS OF TAX PAYERS	0.9471375	0.2111585	4.49	0.024**	0.531404	
LEVEL OF TAX KNOWLEDGE	0.6063092	0.1947272	3.11	0.002***	0.222926	
cons		45.10773	8.393501	5.37	0	28.58242

N.B. \*, \*\* and \*\*\* indicate the variable is significant at 1%, 5% and 10% level of significance

As it is shown from the regression result table, individual level of tax knowledge and efficiency of tax

authority strongly and positively influence tax compliance behavior at 5% level of significance. A unit increase in these variables cause tax compliance behavior to increase strongly by almost equal proportion, 1 by 1. The increase in tax knowledge enforce tax payer to comply strongly. Because these groups know the value being tax compliant.

Similarly tax compliance behavior increases by 0.99 for a unit increase in the efficiency of tax authority.

Tax payers comply more if they are satisfied with the efficiency/service of the authority including provision of trainings and advising, fair treatment, and increase in capacity of the authority to resolve appeals timely and fairly.

Ethical manner of tax payers (which indicate fraud is perceived as immoral or wrong) is another variable that positively affect tax compliance behavior. Those who have good tax ethics (those who are truthful in declaring their income, do not hide sales goods at time of assessment and those who shay when they evade) are more compliant than otherwise. This indicated that as tax payer's ethics increase by one unit their compliance score increase by 0.908.

Change in market condition (especially fall in income) also influence tax payer's compliance attitude. In the study we found that individuals attempt to compensate the reduction of their earnings through untruthfully declaring their earnings. The result of this study assure that tax payers who face reduction of income, as a result of market variation, tend to reduce their compliance behavior by 1.108 for a one unit decrease in business income.

On the other side, referent groups strongly and positively influence compliance behaviors. Whenever tax payers get an increasing influenced from friends and family members, they surprisingly tend to increase their compliant behavior. This could be due to low level of tax knowledge. Similarly auditing/re-checking, and change in government spending policies (observing of government spending to luxury products of government officials) have also a positive effect on compliance behavior. It could be due to the fact that tax payers believe officials highly autocrat and have not excuse to the faults.

## 5. Conclusion and Recommendation

### 5.1 Conclusion:

The result of descriptive analysis showed that majority of the respondents, 90.66%, paid their taxes on time but significant number (38.46%) of the respondents did not understand tax laws and policies due to language problem. In the study, absence /low level of penalty is mentioned among the factors for non-compliant behavior. But this is statistically insignificant for compliance behavior.

The result of the econometrics model indicated that tax compliance behavior is significantly and positively influenced by tax payer's level of knowledge, referent group, ethics of tax payers, and change of market condition, unfair treatment and role of tax authority.

### 5.2. Recommendation and policy implication

Since tax payer's level of knowledge affect tax compliance, the authority has to increase its awareness creation through public relation program. Individuals need to be informed about the advantage of paying taxes regardless of any outside pressures at society's institutional set ups like Edir, equip and religious organizations. Additionally, we advised the authority to aware potential tax payers at time of registration and assessment through leaf lets and trainings. If information centers are established at kebele level, no doubt, tax compliance behavior would improve.

- As others countries the simplicity and efficiency of tax authority has significant correlation/ effect with tax compliance behavior, we recommend DIRE DAWA tax authority to improve its services at each department level through identifying which services of the tax authority are claimed by clients. We suggest the authority to increase its system of solving claims as it is now too poor.
- Equally important, the authority better design the assessment system both in assigning ethical and professional experts and increasing period of estimation. This is because unfair treatment is one factor for non-compliance behavior and business activities are now highly affected by fluctuation prices in the economy.
- Though tax compliance behavior is found to be negatively affected by spending pattern of the government, we believe that such spending pattern will no longer exist rather it will make tax payers non-compliant specially when they observe big inequality among residents. Thus we advised the authority to assure whether people's attention towards the government is positive. This could be done through arranging media workers about short and long term government's public infrastructure undertakings /projects. People need to know what has been done with their tax payments. The authority is expected to launch weekly regional media program together with tax experts and scholars.

## References

1. Alan H. Plumley. (1996). The determinants of Individual Income Tax Compliance: Estimating the Impacts of Tax Policy, Enforcement, and IRS Responsiveness. Publication 1916 (rev.11-96). Washington, Dc: 1996.
2. Alemayehu Geda and Abele Shimeles. (2005). Tax and Reform in Ethiopia, 1990-2003. United Nation University. UNU\_WIDER (2005). Pp 1-9
3. Allingham, M.G and Sandmo, A (1972). Income Tax Evasion: A theoretical Analysis. Journal of public Economics, Vol.3-4, pp 323-338.
4. Alm, J., Jackson, B., and Mckee, M. (1992). Institutional uncertainty and Tax Payer compliance. American economic Review, 82(4), 1018-26
5. Andreni, J. Erard, B. & Feinstein, J. (1998) and Olandipupo, A.O. & Obazee, U. (2006)
6. Andreoni, J., Erard, B. & Feinstein, J. (1998). Tax compliance. Journal of economic Literature, Vol, 36, no 2, pp.810-865.
7. Bordignon, M. (1993). A fair approach to Income tax Evasion. Journal of Public economics, vol.52, no.3, pp.345-362.
8. Cartwright, D. (1971). Risk Taking by Individuals and Groups: An assessment of Research Employing Choice Dilemmas. Journal of Personality and Social Psychology, 20(3), 360-380.
9. Gujarati, D.N. (2004). Basic econometrics, 4<sup>th</sup> edition, McGraw-Hill
10. Feld, L. and Frey, B. (2002). Trust Breeds trust: How Tax Payers are treated. Economics of Governance 3, 87-99. <http://dx.doi.org/10.1007/s101010100032>.
11. International monetary Fund, 2013. *The federal democratic republic of Ethiopia*, Article IV consultation. IMF Country Report No.13/308.
12. Jackson, B.R. and Milliron, V. (1986). Tax Compliance research: Findings, Problems, and Prospects. Journal of accounting Literature, Vol.5, no.1, pp.125-165.
13. Kidst, M. (2013). Tax assessment Problems and Collection Procedure in Category C tax payers of Addis Ababa Nifas Silk sub-city. A Thesis submitted to Department of Accounting and Finance, Addis Ababa University, Ethiopia
14. Kirchler, E., Hoelzl, E., and Wahl, I. (2008). Enforced Versus Voluntary Tax Compliance: The "Slippery Slope: Framework. Journal of Economic psychology, Vol.29, no.2, pp.210-225.
15. Larissa M., Ramona A., Loan B., and Bogda A. (2012). Tax Compliance Models From Economic To Behavioral Approaches. Transylvanian Review of administrative Sciences, No 36 E/2012, pp 13-26
16. Lemmesa Tulu. (2007). Determinants of tax Payers' Voluntary Compliance with Taxation: The case study of Dire Dawa City. Research thesis to Department of Management, Addis Ababa University, Ethiopia.
17. Mamo Abdi (2012). Taxation of SMEs in Ethiopia. Presentation paper for ITD conference, Rwanda, Kigali. -- (1-20).
18. Merima Ali et al. (2013). Factors Affecting Tax Complaint Attitude in Africa: evidence from Kenya, Tanzania, Uganda and South Africa. Bergen, Norway.
19. Munford, J. (2001). Taxing Culture, Aldershot: Ashgate.
20. Muuz Abraha. (2015). Evaluation of the Efficiency of Standard Assessment for Category C tax Payers in Ethiopia: the case of Tigray Regional State. HARAMAYA LAW REVIEW, Vol 4:1.1-7, 2015
21. MOHD RIZAL PALIL. (2010). Tax Knowledge and Tax Compliance Determinants in Self assessment System In Malaysia. Unpublished Doctoral Thesis (Department of accounting and Finance), Birmingham University. -- (243-252).
22. Nutt, P.C. (1986). Decision style and its impact on Managers and management. Technical Forecasting and Social Change, 29, 34139-366
23. Selamawit W. et al (2012). Category "C" Tax assessment and Collection Problems; The case of Kebele 01/18 of Lideta Sub-city. (Unpublished) Research Thesis submitted to department of Accounting and finance, St. Mary University, Ethiopia.
24. School of Business Economics (2013). Attitude of tax payers and Collection Problems in Dire Dawa. Research project by Dire Dawa University and Dire Dawa Tax administration.
25. Suresh V. and Sirinvas G. 2012. Factors That Influence Rental Payers' compliance With Tax System: An empirical study of Mekelle City, Ethiopia. Journal of Arts, Science & Commerce III-4(2), 5-9 October 2012 (41)
26. Yohannes, M. and Zerihun T, (2013). Assessment of Challenges by business community tax payers of Dire Dawa Administration. Research Project by Dire Dawa Custom and Revenue Authority.
27. Werkineh A. 2013. *Determinants of Tax Revenue in Ethiopia, Johansen Co-Integration Approach. Unpublished Project work, Wechamo University, Ethiopia.*
28. Wenzel, M. (2004a). An Analysis of Norm processes in Tax Compliance. Journal of Economic Psychology, Vol.25, no.6 pp.213-228.
29. Wenzel, M. (2005a). Misperceptions of Social Norms about tax compliance ; From theory to Intervention.



- Journal of Economic Psychology, Vol.26, no.6, pp.862-883.
30. Wenzel, M. (2005b). Motivation or Rationalization? Causal Relations between Ethics, Norms and Tax Compliance. *Journal of Economic Psychology*, Vol.26, no 6, pp.862-883.
  31. Wenzel, M. (2003). Tax Compliance and the Psychology of Justice: mapping the field in Braithwaite, V (ed), *taxing democracy: Understanding Tax avoidance and Evasion*, Aldershot: Asgate.pp.41-69.
  32. Wenzel, M. (2004b).The social Side of Sanction: Personal and Social Norms as Moderators of Deterrence. *Law and Human behavior*, Vol.28, no5,pp. 547-567.
  33. Wooldrige, J. (2004). *Introduction to Econometrics: A Modern Approach*, 2nd Ed.
  34. Zelalem Berhane (2011). The influence of Tax education on Tax Compliance Attitude. Master Thesis submitted to Department of Accounting and Finance, Addis Ababa University, Ethiopia.