

Ababa: Pathfinder International/Ethiopia Determinants of Tax Compliance Behavior in Category “C” Business Income Tax Payers in Gozamen District, East Gojjam Zone, Ethiopia

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Abstract

The main purpose of this paper is to investigate determinants of tax compliance behavior in category “C” business income tax payers in Gozamen woreda / district/. To this end, the researcher follows quantitative research approach and descriptive research design. The researcher used cross sectional primary data collected from 318 category C business income tax payers selected with simple random sampling techniques. The study employed both descriptive statistics, and inferential statistics methods of data analysis. The descriptive statistics was summarized using average, minimum, maximum, standard deviation, percentage and frequency, and it was also presented in the form of multipurpose table, bar graph and histo-graph inferential statistics Binary Logit model was applied. The study finding reveled that tax compliance behavior is negatively affected by the influence of referent group and experience on business activity at 1 percent level of significance but positively influenced by legal sanction and penalty which is statistically significant at 1percent level of significance. Based on the above findings, the researcher recommends that, to improve the probability of tax compliance behavior of category “C” business income tax payers, Gozamen Woreda Revenue office should create awareness in reducing the influence of referent group on tax payer, create awareness of experienced business man to rise tax compliance behavior and finally after awareness creation, impose legal sanction and penalty or enforcing tax laws and regulation to rise tax complaine behaviour of category C business income tax payers in the study area .

Keywords:-Determinants, Tax compliance behavior, Gozamen district, Binary logit model.

DOI: 10.7176/RJFA/10-17-02

Publication date:September 30th 2019

1. Introduction

Tax is a compulsory contribution collected by the government to finance spending in performing government functions of defending a country, infrastructure development for economic activities and, peace keeping (Bhatia, H.L.1976). The amount of revenue collected alone could not explain the best tax administration. A poor quality of tax administration may also collect large amount of revenue from easy to tax sectors such as wage earners, while unable to enforce taxes on business enterprises and professionals. Hence, measuring the effectiveness of the tax administration by the size of tax collected is unsophisticated judgment. Considering the size of the compliance gap is rather a much stronger criterion to the effectiveness of tax administration (FIRA, 2000). In many under developed countries like Ethiopia, the low revenue yield of taxation can only be attributed to the fact that the tax provisions are not properly enforced, either on account of the inability of the administration to cope with them, or on account of straightforward corruption. But factors on the other side of the system get little attention, i.e. minor attention is given to the cultural background of tax payers, their awareness level, compliance behavior and its determinants when designing a given tax system(ibid ,2000).

It is argued that improved tax compliance boosts the revenues available for supporting public services without increasing the current tax burden on compliant tax payers the taxpayers today are demanding more assistance and fair treatment from the tax authorities to promote equitable distribution of income (Lemessa , 2007).

For voluntary system to work successfully, the people must be confident that the taxes are levied fairly and that everyone pays his share. If the feeling becomes widespread that the tax system is a collection of loopholes and evasions, if people see their equally prosperous neighbors paying substantially less or enjoying tax free expense account living, taxpayer morale declines. Once this attitude prevailed in the public it is difficult to rectify it and costs the authorities a huge compliance and collection costs.

Raising more domestic revenue is a priority for most sub-Saharan African countries (Drummond *et al.*, 2012).

Mobilizing revenue is a way for governments’ to create fiscal space, provide essential public services, and reduce foreign aid and single resource dependence. However, the domestic tax bases in most African countries are undermined by widespread tax avoidance an evasion (IMF 2011).Although taxpayer non - compliance is a continual and growing global problem (McKerchar and Evans, 2009). Many indications suggest that developing countries, many of them in Sub - Saharan Africa, are the hardest hit (Cobham 2005;Fuest and Riedel 2009).

Dealing with the problem of tax evasion requires at least some understanding of the factors underlying the

individual taxpayer's decision whether to pay or evade taxes. However, little is known about tax compliance behavior in developing countries (Andreoni *et al.*, 1998; D'Arcy 2011; Fjeldstad and Semboja,2001).

And hence, this study aims at identifying factors that affect the tax payer's voluntary compliance i.e. what factors motivate taxpayers to comply with the tax system or what factors influence tax payers not to comply with tax system. The output of this study helps the tax authority to incorporate measures that address these pitfalls while designing a tax system or policy. Recognizing this study attempts to explore factors that determine citizens' tax compliance behavior in Gozamen district.

2. Statements of the problem

There are many studies on determinates of tax compliance behavior in sub -Sahara Africa including Ethiopia. The research finding revealed that taxpayers' perception about tax service quality and public governance quality significantly related to the compliance behavior. In addition, the effect of taxpayers' financial condition strengthened the capacity of the compliance model in predicting taxpayers' behavior better and significantly moderated the influences of tax system structure, moral reasoning and occupation (James O.2012).

It is also found that tax payer's voluntary compliance behavior with the tax system influenced by economical, institutional, social, individual and demographic variables (Niway, 2015).

An increase in the perception of individuals about the difficulty of evading taxes is found to increase the likelihood of tax compliant attitude in Kenya and South Africa. They also found that individuals who are more satisfied with public service provision are more likely to have a tax compliant attitude in all the four countries. However, frequent payment to non - state actors, e.g. to criminal gangs in exchange for protection, reduces individual's tax compliant attitude. Furthermore, those individuals who perceive that their ethnic group is treated unfairly are less likely to have a tax compliant attitude in Tanzania and South Africa (Merima et al,2014).

A study conducted in Dire Dawa city found that taxpayers' voluntary compliance behavior were determined by, tax fairness and equity, organizational strength of the tax authority, awareness level of the taxpayers, socio-cultural factors, and provision of social services by the government(Lemessa Tulu , 2007). However, evidence from the literature reviewed shows that, no homogeneity in the determinants of tax compliance behavior as stated in literature review part and in addition, to the knowledge of the researcher there were no study in similar topic in Gozamen district hence, the researcher is motivated to investigate factors which are determining tax compliance behavior in Gozamen district.

3. Research Method

The research approach is quantitative research design to investigate determinates of tax compliance behavior in Gozamen woreda and the type of research is descriptive research type.

This study used primary data collected from category "C" business income tax payers. The population reference of the study consists of 1, 352 category "C" business income tax payers in Gozaman district. The study employed simple random sampling techniques and the source of the data is primary data collected from category C business income tax payer's individual in Gozaman district which can be taken as the sampling units. In order to determine the appropriate sample size, since the population finite and know population size the study used the following formula;

$$n = \frac{1 + N(e)^2}{1352} \quad (\text{Yeman, 1967}).$$
$$= \frac{1 + 1352(0.05)^2}{1352} \approx 318.$$

Where e is the marginal error (commonly use e=5%), n sample size and N population of the study.

In simplest way the dependent and independent variables which will be included in the model are the following:
Dependent variable: compliance behavior of tax payers (**COMP**) i.e. 1 if the tax payer behavior in compliance and 0, otherwise. It is convenient to divide compliance behavior into compliance and non compliance based on paying on time adopted from OECD, 2001.

Independent variables are:

Age of the business (age):- It is a continuous variable i.e year of stay of an individual in the business.

Religious status of the individual (relg):-It is a Categorical variable 0. Islam 1. Christian

Marital status of household heads (marts):- It is 1. Single 2. Married 3. Divorced 4. Widowed

Educational status of household head (eduhh):-It is measured as ordinal scale 0, for illiterate, 1 primary, 2 Secondary and 3 higher educations complete

Sex of a business owner (sex):-It is measured as categorical variable male 1 female 0

Tax knowelde (taxkno):-It is measured by proxy variable frequency of training obtained by tax payers in a year.

Taxpayers' perceptions of tax penalties and sanctions (penal):- It is measured by 5 scale likert sacle

Tax paying ability (incom):-It is a continues variable measured by amount of gross income earned within a year and it is continuous variable.

Probability of tax audit (audit):-It is a dummy if, and Yes 1 and 0 other wise.

Perception of tax payers on government spending on infrastructure (govexp):- It can be taken as dummy variable labeled as Yes 1 other wise 0.

Probability of detecting mistake by tax authority can be taken as dummy variable Yes 1, otherwise 0.

Referent group (refra):-Measured the influence of referent group in compliance behavior by 5 scale liker scale 0 for strongly agree, 1 for agree, 2 no opinion, 3 disagree 4, for strongly disagree

Household family size (hhfsize):-number of people live in a household.

Experience on business activity (expbus):-The year of a person stay in the business activity which is continuous variable.

The model can be put as follows;

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_n X_{in} + U_i \dots \dots \dots (1)$$

Where Y_i is the dependent variable compliance behavior for business income tax payers individual i , X_i is a vector of explanatory variables, β_i is a vector of coefficients; β_0 denotes unobserved tax compliance behavior and U_i is the error term. The probability of the business income tax payer individual has non -tax compliance behavior is given by;

$$P(Y_i=0) = \frac{\exp(X_i \beta_i)}{1 + \exp(X_i \beta_i)} \dots \dots \dots (2)$$

The business income tax payer individual has tax compliance behavior (1-P) is given by;

$$P(Y_i=1) = \frac{\exp(X_i \beta)}{1 + \exp(X_i \beta)} \dots \dots \dots (3)$$

The average marginal effect of a given independent variable X_i

$$\frac{\partial P(Y_i=1)}{\partial X_i} = \frac{\exp(X_i \beta_i)}{1 + \exp(X_i \beta_i)} \dots \dots \dots (4)$$

The study employed both descriptive statistics, and inferential statistics methods of data analysis. The descriptive statistics was summarized using average, minimum, maximum, standard deviation, percentage, and it was also presented in the form of multipurpose table, bar graph and histo -graph. For inferential statistics, marginal effect of the logit model is used to show factors affecting tax compliance behavior. Data analysis was done with the help of STATA 14 software package.

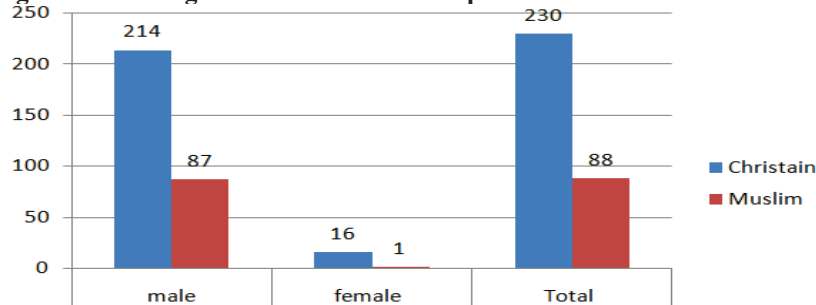
4. Discussion and Results

In this part of this study the researcher would like to discuss the descriptive as well as inferential statistics clearly. The descriptive statistics will be analyzed mostly using percentage and to some extent by using, mean, minimum, maximum and standard deviation. Additionally, the inferential statistics will be analyzed with correlation.

4.1 Descriptive Statistics

From the total of 318 questioners distributed 100 percent of them filled properly and returned well hence, the analysis were made based on the data obtained from all the sampled category C business income tax payers in Gozamen woreda .The analysis were summarized as follows ;

Figure 4-1-1 Religious classification of respondents based on sex



Source: own survey, 2019.

The above graph shows that from the total of 318 category C business income tax payers 88 of the respondents are followers of Muslim religion of this subtotal 87 of them were male and only 1 female and 230 of them follows Christian religion of this subtotal 214 were males and the remain 16 were females .

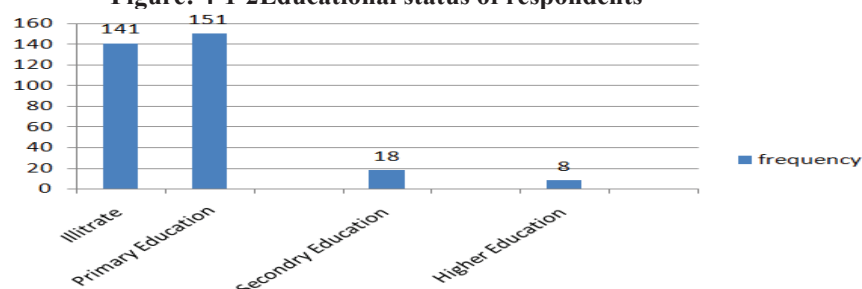
Table: 4-1-1 Classification of Tax compliance behavior of respondents by sex

Compliance behavior	Sex		Total
	Male	Female	
Non compliance	98	31	129
Compliance	132	57	189
Total	230	88	318

Source: own survey, 2019.

The above table shows that from the total of 318 sampled respondents 129 (98 male and 32 female) are non-compliance where as more than half (189) of this subtotal 132 are male and 57 are females are compliance category C business income tax payers.

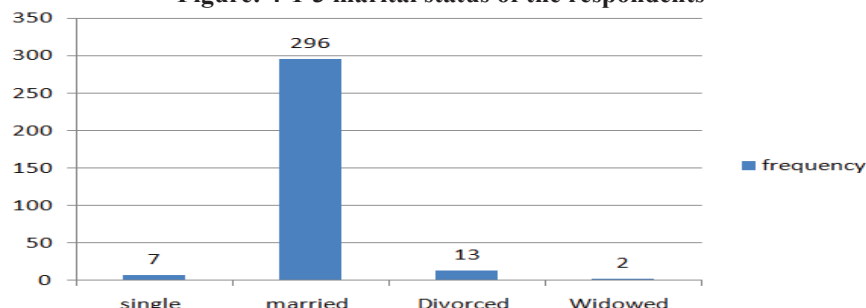
Figure: 4-1-2 Educational status of respondents



Source: own survey, 2019.

The above figure shows that from the total of 318 respondents 241(43.37%), 151(44.34%), 18(5.66%),8 (2.5%) of the respondents are illiterate , primary education ,secondary and higher education completes respectively

Figure: 4-1-3 marital status of the respondents



Source: own survey, 2019

The above Figure shows that from the total of 318 respondents 7(2.2 %) single, 296(93.08%) married, 13(4.08) divorced and remain 2(0.63%) of the respondents are widowed.

Table:4-1-2 Descriptive statistcs for continoius varaibles

Variable	Obs	Mean	Std. Dev.	Min	Max
Income	318	287919.1	112418.9	78090	455400
Age	318	42.8805	10.33896	19	83
Households family size	318	4.54717	1.911935	1	12
Year of Experience on the business	318	24.71384	11.6222	0	70

Source: own survey, 2019.

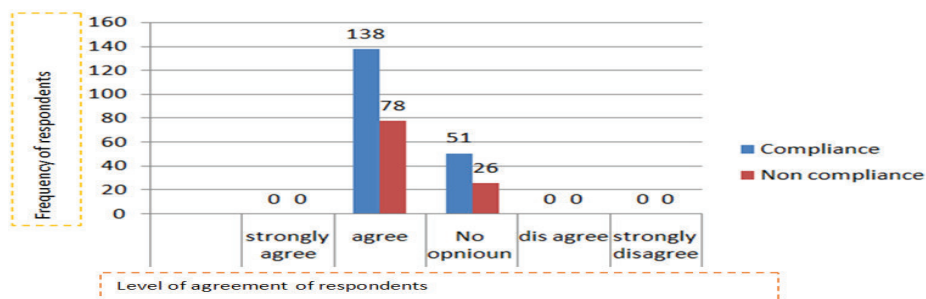
From the above table the mean taxable income of category C business income tax payers is birr 287919.10 per annum. It is also showed the maximum and the minimum amount of taxable income of category C business income tax payers is birr 78,090 and birr455,400 respectively with standard deviation of taxable income birr 112,418.90 in Gozamen woreda .

From the above table the mean age of category C business income tax payers is a round 42 years. It is also showed the maximum and the minimum age of category C business income tax payers is 19 and 83 respectively with standard deviation of 10.33 years in Gozamen woreda .

From the above table the mean household family size of category C business income tax payers is a round between 4 and 5 per household. It is also showed the maximum and the minimum family size of category C business income tax payers is 1and 12 respectively with standard deviation of around 10 years in Gozamen

woreda.

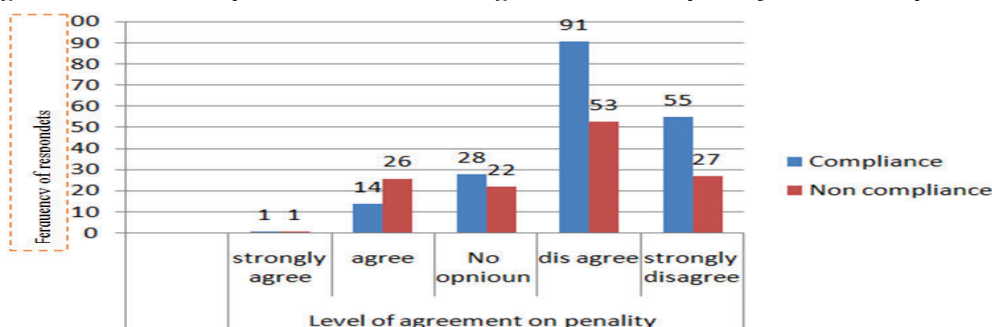
It can also be observed from the above table the mean year of experience stay on the business of category C business income tax payers is 24.71. It is also showed the maximum and the minimum year of experience stay on the business category C business income tax payers is 0 and 70 respectively with standard deviation of 11.62 years stay on the business in Gozamen woreda .



Source: own survey, 2019

The above table shows that large number of respondents (138) of the sampled respondents agreed that is believed to make tax payers compliance but no respondents strongly disagree these statements. This means that referent group makes tax payers to have compliance behavior. This shows that faire treatment (vertical or horizontal equity) of taxation insure tax compliance behavior among category C business income tax payers.

Figure: 4-1-5 Tax compliance behavior and legal sanction and penalty status of respondents



Source: own survey, 2019

The above table shows that 91 of the sampled tax compliance respondents and 53 of non compliance disagreed that fear of penalty made by tax authority will make tax payers to have compliance behavior and 24 compliance behaviors and 26 non compliance behaviors agreed that penalty will make tax compliance behavior.

4.2 Inferential statistics Result

In order to investigate the determinates of tax compliance behavior of category C business income tax payers in Gozamen woreda the estimated binary logit marginal effect result will be summarized as follows . But before, accepting the estimated model result all important relevant tests were carried out and the test results are shown that no diagnostic problems in this study .

Table 3-2-1: The estimated marginal effect Result of the logit model

Variable	dy/dx	Z	P>Z
Sex	0.039335	0.55	0.583
HHfsize	0.0136795	0.77	0.456
Marts	0.1120585	1.01	0.315
Relg	-0.1813757	-1.48	0.138
Taxknow	0.0845357	1.12	0.263
Age	0.0044214	1.00	0.315
Govexp	0.1395042	1.55	0.120
sefra*	-0.2137977	-3.79	0.000
Income	-2.28e-08	-0.08	0.932
expbus*	-0.139708	-3.60	0.000
Penal*	0.1095942	3.37	0.001
Audit	-0.0298859	-0.96	0.340
Edu	-0.0336388	-0.73	0.464

*means significance at 1 percent level of significant.

Source: own survey, 2019.

The interpretation of the model results will be as follows;

1. **Referent group:**-Keeping all other factors constant, if the influence of referent group rise by one unit, the average marginal effect shows that, the probability of being tax compliance decreases on average by 0.213 percent and statistically significant at 1percent. This finding confirmend to the finding (Niway Ayalew,etal ,2015) which states that the influence of referral group were determinant factors that influence voluntary compliance behavior of tax payers.
2. **Year of Experience on the business:**-Keeping all other factors constant, if year of experience on business increased by one year , the average marginal effect shows that, the probability of being tax compliance decreases on average by 0.0139 percent and statistically significant at 1percent. This is explained as the year on business increase, business man clearly now how avoid tax, how to evade tax and under state income tax declare to Gozamen worda revenue office.
3. **Legal sanction and penalty:** Keeping all other factors constant, if the revenue office penalizes tax non complaints, the average marginal effect shows that, the probability of being tax compliance increased on average by 0.1095 percent and statistically significant at 1percent. This implies that if revenue office enfocre laws and regulation properly and penalize non compliants , due to the frear of the legal sanction and penalty tax payers ,and leraning from other and become compliant .

5. Conclusions and Recommendation

The research findings reveled that tax compliance behavior of category C business income tax payers of the sampled tax payers is significantly influenced by experience on business, legal sectional and penalty and the influence of referral groups of tax payers. Based on the study findings of this study the following policy implications are recommended by the searcher.

- Gozamen worda Revenue office should create awareness in reducing the influence of referent group on tax payer to raise tax compliance behavior of category C business income tax payers.
- Gozamen worda Revenue office should create awareness in reducing non compliance behavior of experienced business man to rise tax compliance behavior of category C business income tax payers and then ;
- Gozamen worda Revenue office should impose legal sanction and penalty as well as enfocing tax laws and regulation to ris tax complaince behaviour of category C business income tax payers.

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