A Study on Challenges of Tax Revenue Assessment and Collection in Ethiopia with Reference to Custom and Revenue Authority

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Abstract - Tax is a compulsory payment for the government without the expectation of direct benefit or return from tax payers. The world country's tax revenue is characterizing by high tax rates and narrow tax base, complex and outdated tax law, unrevised and weak tax administration this leads to challenges on the assessment and collection of tax. Tax system complexity has been an issue of concern for stakeholders in developing and advanced countries (Misrak Tesfaye 2014). This paper focuses on to identify on challenges of tax revenue assessment and collection in Ethiopia with reference to custom and revenue authority. The study was employed by using both descriptive and explanatory research design with quantitative and qualitative methods. The quantitative aspect of the data focused on description of socio- economic variables, tax and business related variables and analysis of relationship among the dependent and explanatory variables of the authority. Explanatory research study is most appropriate because it is more efficient, economical and flexible enough to minimize bias and maximize reliability of the collected data. From this study it is found that the factors regarding the tax collector's the major one, that faced is lack of experience, lack of motivation, unfairness, partiality, and corruption are some of them(Identified through questionnaire). Regarding tax payers were lack of motivation, lack of adequate knowledge, confidence, willingness, are the major ones. Also the model shows the relationship among the dependent and independent variables are significant.
Keywords: Ethiopian Tax Revenue and Authority, Ethiopian Custom Authority, Ethiopia Tax Revenue Assessment and Collection

I. INTRODUCTION

Throughout the history of the world country's tax revenue is characterizing by high tax rates and narrow tax base, complex and outdated tax law, unrevised and weak tax administration this leads to challenges and prospects of tax revenue assessment and collection. All civilized countries need to collect taxes for several reasons, such as to meet their day to day expenses related to maintenance of a free and fair society, social security protection and other services of public utilities like electricity, water supply, rail ways etc. Under this view, the role of the tax system is to raise an amount of revenue that is tied to the level of government services. Government common expenditure programs include health and welfare programs, defense spending, social security, interest and repayment of principal on government debt.

A government is responsible for the provision of infrastructure like schools, electric, health services, water supply, road, etc., Administrative justice, peace, and security. To provide these facilities a government requires huge amount of fund. The fund for financing such activities can gain from different sources such as taxes, donation, aid etc. but tax revenue has become a vital source of revenue for government treasury to enhance development efforts.

Weak tax administration is one of the factors that can influence efficient and effective tax revenue assessment and collection. Shalizi and squire (as sighted by Meaza, 2008: 17), states that capacity to administer taxes varies considerably throughout sub – Saharan Africa.

The major causes for the assessment and collection problems are summarized as the bureaucracy of offices, inefficiency and ineffective organized computerized system in tax administration were lack of adequate skills and absence of willingness and poor understanding about the concept of tax by tax payers, frequent change of taxpayers address without acknowledgement of the office, lack of willingness to provide information by third party, corruption, lack of motivation, frequent change of the business are the major ones.

II. OBJECTIVES

This paper focuses to identify on challenges of tax revenue assessment and collection in Ethiopia with reference custom and revenue authority.

The specific objectives of the study are
1. To identify the challenges of tax assessment.
2. To examine the impact of poor tax revenue assessment and collection on public service delivery.
3. To identify practical solution to the problems attributed to the Gondar city.

III. SCOPE OF THE STUDY

The scope of the study covers the conceptual, geographical and the time scope.
A. Conceptual Scope: the study was focus on examining issues related to identify on challenges of tax revenue

assessment and collection in Ethiopia with reference custom and revenue authority.

B. Geographical Scope: the research was carried out geographically Gonder Ethiopia.

C. *Time Scope:* The study used the most recent year data from the fiscally year of 2006 up to 2010 Ethiopia calendar.

IV. RESEARCH GAP

The review of literature has shown some theoretical and empirical gaps that necessitate this study. Haile Eyesus Sisay (2008) descriptive statistics and a sample of 150 was used for the study and the result shows that main factors that affect the collection of tax revenue is corrupt practice of the governmental official's, un revised and outdated tax low are the main one on the another hand Mulatu (2009) revealed that the main factors that affect assessment of tax revenue is lack of motivation, and poor knowledge of government official's. Based on the above study's the direct link between effects of tax charged by custom and revenue authority office and the challenges of tax collection and assessment did not come out clearly under the studies reviewed. Therefore this study aims at focus on examining issues related to identify on challenges of tax revenue assessment and collection in Ethiopia with reference custom and revenue authority.

V. RESEARCH DESIGN

The study was employed by using both descriptive and explanatory research design with quantitative and qualitative methods. The quantitative aspect of the data focused on description of socio- economic variables, tax and related variables, and business related variables and analysis of relationship among the dependent and explanatory variables of the authority.

VI. POPULATION AND SAMPLING TECHNIQUE

Currently the number of tax payers registered by Gondar city tax and revenue office has reached 18,146. (Data from office) Out of this 330 of the tax payers are selected randomly from all categories of tax payers for the study. The type of sampling techniques applied is Stratified sampling, which is used to select sample tax payers if the population is not homogeneous, and then stratified sampling technique is applied so as to obtain a representative sample. It involves dividing the population into homogeneous subgroups and then taking a simple random sample from each subgroup from category A, B, and C. There are 18146 tax payers the researcher was used by Yemen's 1963 formula. The formula to determine the sample size of the target population is shown below.

$$N = n/1 + N(e)2$$

Where $=N$ total population
$N=$ sample size
$$e = \text{margin of error}$$
$$n = 18146/1 + 18146(0.1)2 = 330$$
$$n = N/(1 + (Ne^2))$$

Where
1. n is the size of samples,
2. N is the size of the population and
3. e is the margin of error which ranges from 3 percent to 5 percent.

Therefore, to draw a representative sample, the research will apply this formula with five percent margin of error (The maximum amount of error expected). According to the Officials of Finance and Economic Development, the current business taxpayers of Gondar City Administration as of October 2015 are 18,146.00 then through this formula the target group/sample size from business taxpayers are 330 respondents.

$$= \frac{18,146.00}{1 + (18,146(5\%)^2)}$$
$$= 330$$

To distribute the questionnaires to this respondents (330 taxpayers), the study will be further conducted proportionate stratified random sampling (taxpayers will be classified into strata and respondents will be selected randomly from each strata according to the proportionate sample calculated). The sample size according to the proportionate strata will be calculated through the formula

$$ni = n(Ni/N)$$

Where

1. ni represents sample size of sub population,
2. Ni denotes the size of sub population i,
3. N represents total population size, n indicates sample size of the population and
4. i =A, B, C. Based on this formula, table3.1 indicates the sample size of each stratum of taxpayers.

TABLE I STRATIFIED SAMPLING FOR BUSINESS TAXPAYERS

Stratified sampling for business taxpayers			
Category of taxpayers	Number	ni = n(Ni/N)	Sample
A	1,660	330(1,660/18146) = 30	30
B	1,520	330 (1,520/18146) = 28	28
C	14,966	330 (14,966/18146) = 272	272
Total	N =18,146		330

VII. METHODS OF DATA COLLECTION

Data were collected using primary data gathering tools of questionnaire, personal interview, and the researcher's onsite observation.

Questionnaires that contain both open and closed ended questions are prepared and distributed to staff members and to tax payers selected randomly. Interview is also prepared and administered again to both employees and managers.

1. Primary Data: This is system of data collection tool that was directly from the field. It was collected using questionnaires and interview guides.

2. Secondary Data: The researcher was read related literature relevant to the subject before and during the study (tax assessment and tax collection) obtained from previous studies, text books, internet, journals and reports from the authority itself.

A. Methods of Data Collection and Instruments

Administered interviews were given to a selected sample of the authority staff and questionnaires to the tax payers regarding the assessment and collection of tax revenue. Questionnaires ensured increased response rate due to their clarity and simplicity. The study collected data from a cross-section of respondents using a combination of study instruments.

B. Data Analysis Method

Data from the field was carefully collected, classified, edited, and basing on clarity, completeness, accuracy and consistence to ensure reliability. Data analysis was based on the objectives of the study and done by use of Statistical Package for Social Sciences on collected data to draw meaningful interpretation and conclusion to give findings and suggestions findings, which reflect a high magnitude of the problem, were selected from interview, observation and questionnaires.

And, the raw data are analyzed, presented, and interpreted to give solutions for the research problem. Some of the data were summarized and presented in tables and graphs.

Percentages for these data are calculated in order to facilitate the analysis and to make it presentable for the readers. Since the data collected is more of qualitative in its nature; it is presented by using descriptive analysis. The model's description was fashioned to capture the relationship between the dependent and independent variables as stated below.

$$TR = f(ISE, EDUC, IUD)\ldots\ldots\ldots\ldots\ldots (1)$$
$$= f(X_1, X_2, X_3,)$$

TABLE II OPERATIONAL DEFINITION OF VARIABLES

Operational definition of variables	
Symbol	**Variable**
Y	A Constant term
TR	Tax revenue
X1 ISE	informal structures of the economy
X2EDUC	collection without well-educated and well trained staff,
X3 IUDE	income tends to be unevenly distributed
E	Error term normally distributed about a mean of 0
T	Period between 2006 to 2007

$$Y_t = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \ldots\ldots\ldots (2)$$

Where
TR- to begin at the beginning the most basic and essential characteristics of good tax system is that it raises sufficient revenue to fund government operations and programs.

$X_{1\ ISE}$ − (bitew 2006) informal structures of the economy the shadow economy is essentially unrecorded therefore a number of people who earn incomes are not taxed, creating significant gaps in the tax base.

$X_{2\ EDUC}$- hailuterefe (2007) efficient tax assessment and collection without well-educated and well trained staff, lack of modern technology like computers and adequate and very well trained employees to facilitate the taxation process is another impediment to effective tax administration. Developing countries had to rely on manually entering taxpayer data into record books, and keeping a voluminous amount of tax information in print.

$X_{3\ IUD}$- Assefa (2007) income tends to be unevenly distributed the major constraint of tax revenue assessment and collection. But here the major factor here is that individuals they simply conceal their income by means the loopholes of the proclamation and misrepresentation of their accounting statement more those tax payers they are grouped in tax payer A and B.

VIII. DESCRIPTION OF THE MODEL

Many of the individual enjoyed their own business in informal sectors (like tela, teji, areki) business are according to the Ethiopian government those individuals exempt from paying of tax. For the proper collection of tax employees must have been well educated and very well technical. But if the office did not have well educated and technical employees so it is difficult to the assessment and collection of tax. The other very important aspect of for the proper collection of tax revenue unevenly distribution of income, this very important obstacle for the collection it is clear that if there is imbalance between income of individual then tax cannot be collected effectively and efficiently. Generally the above listed important factors affect challenges of tax

revenue assessment and collection then the government must be solve by establishing appropriate rules and mechanisms that must address the problems stated above. That is why this pepper tries to assess the challenges of tax revenue assessment and collection problems.

IX. ANALYSIS AND DISCUSSION

This paper focuses to identify on challenges of tax revenue assessment and collection in Ethiopia with reference custom and revenue authority. Majority(51.2%) of tax payers their level of education was grade 10 and 12 completed, 26.9% of them was below grade 10, also 20.9 of the respondents was diploma holders the rest 1% was degree, extent to getting service from office 74.54% were deals that there is very low and poor service delivered from the department, enforcement taken by the office majority 91.2% of the respondents were they respond that there is an enforcement taken by the authority and the rest was otherwise, Majority 37.8% of the respondents were said that the Kind of service problems that we face is discrimination, followed by 31.6%,the kind of service problems that we face is absence of collectors, and the rest 30.6% the respondents was inefficient tax collectors. There is poor tax revenue assessment and collection the reason behind to this (29.5%) is lack of knowledge, (51%) corruption, (15%) lack of awareness, (4.5%) poor controlling and assessment procedure, weak tax administration, and lack of confidence among employees are the major problem facing in tax collection office.

The problems that associated with taxpayers and tax collectors regarding to assessment and collection of tax included the small number of tax collectors specialized in the field of finance, poor tax payers' perception on the relevance of tax payment, taxpayers 'culture to evade and avoid taxes, social disapproval among taxpayers against tax offences, taxpayers' delay in tax declaration, starting business activity without trading license, and traditional mode of tax payment. To collect lack of experience, not that much motivated, unfairness, partiality, they don't have a good behavior, need of some money (corruption) are some of them.

According to the respondents replay the major causes of inefficient and ineffective tax revenue assessment and collection are poor data base management system, large informal sectors, discrimination by tax authorities, poor accounting system, poor appeal committee, inefficient tax administration, lack of accountability and transparency, lack of skilled manpower specialization and lack of taxing power (autonomy) are the major ones.

TABLE III REGRESSION ANALYSIS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.967	.9350	.362	.967

TABLE IV ANALYSIS OF VARIANCE

Model	Sum of Squares	Degree of freedom	Mean Square	F	Sig.
Regression	1.618	99	.138	.746	.004
Residual	.183	1	.185	NA	NA
Total	1.801	100	NA	NA	NA

From this study it was evident that at 95% confidence level, the variables produce statistically significant values for this study (high t-values, $p < 0.05$). A positive effect is reported for all the variables under study hence influence the tax assessment and collection of Gonder city administration is positive. The major factor that faces or affects the poor tax revenue assessment and collection is that employed in small informal sectors of the economy, in efficient tax assessment and collection without well trained and well educated staff members. And the model shows that in such a way that:-

$$TR = f\,(ISE, EDUC, IUD)\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$
$$= f\,(X_1, X_2, X_3,)$$
$$= f\,(\beta X1 + \beta X2 + \beta X3)$$

Where

1. TR- tax revenue
2. $X_{1\,ISE}$ - informal structures of the economy
3. $X_{2\,EDUC}$- efficient tax assessment and collection without well-educated and well trained staff,
4. $X_{3\,IUD}$- income tends to be unevenly distributed

From this the result of regression shows that tax revenue is affected by sum of informal structures of the economy, efficient tax assessment and collection without well-educated and well trained staff, and income tends to be unevenly distributed.

TABLE V INTERPRETATION OF THE RESULT ON SOFTWARE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.967	.9350	.362	.967

TABLE VI INTERPRETATION OF THE RESULT ON SOFTWARE

Model	Sum of Squares	Degree of freedom	Mean Square	F	Sig.
Regression	1.518	99	.138	.746	.004
Residual	.176	1	.185	NA	NA
Total	1.694	100	NA	NA	NA

At the .01 level of significance, the *F* value of 15.81 and its corresponding *p*-value of .004 indicate that the relationship is significant; Note that the same conclusion is obtained from the t value of 3.98 and its associated *p*-value of .004. Thus, we can conclude that the relationship between the tax revenue and the four independent variables are significant; with a coefficient of determination (expressed as a percentage) of R *Squared* =93.5%, we see that 93.5% of the

variability in the four independent variables can be explained by the linear effect of the number of tax revenue collected. This finding is fairly good, (by upcoming the independent expression of all of the independent variables in general).

A. *Residuals*: (.176) as previously stated the values y-y is called residuals (sometimes called the prediction errors). These values can be plotted with the x values, and the plot, called a residual plot,

$$Y = B_0 + B_1 X + e$$

can be used to determine how well the regression line can be used to make predictions. In other words, the *i*th residual is the error resulting from using the estimated regression equation to predict the value of the dependent variable. A residual plot can be used to determine if the regression line equation can be used for predictions. The coefficient of determination is a better indicator of the strength of a linear relationship than the correlation coefficient. It is better because it identifies the percentage of variation of the dependent variable that is directly attributable to the variation of the independent variable.

B. *The Coefficient of Determination* (r^2) is a measure of the variation of the dependent variable that is explained by the regression line and the independent variable. Of course, it is usually easier to find the coefficient of determination by squaring rand converting it to a percentage.

Therefore, r = 0.967, then r^2
= 0.9350, which is equivalent to 93.35%.

This result means that 93.35% of the variation in the dependent variable is accounted for by the variations in the independent variable. The rest of the variation, 0.065, or 6.5%, is unexplained. This value is called the coefficient of non-determination and is found by subtracting the coefficient of determination from 1.

Coefficient of non-determination = 1-0.935
Coefficient of non-determination = 0.065

As the value of r approaches 0, r^2 decreases more rapidly.

The standard error another statistic used in correlation and regression is the standard error of the estimate, which is an estimate of the standard deviation of the y values about the predicted y values. The standard error of the estimate can be used to construct a prediction interval about a specific value point estimate y of the mean of the y values for a given value of x. The standard error (.967) of the estimate is similar to the standard deviation, but the mean is not used. As we can see from the result, the standard error of the estimate is the square root of the unexplained variation— that is, the variation due to the difference of the observed values and the expected values—divided by n-2. So the

closer the observed values are to the predicted values, the smaller the standard error of the estimate will be.

A multiple regression correlation R can also be computed to determine if a significant relationship exists between the independent variables and the dependent variable.

$$Y = a + bx$$

Where a is the y_ intercept and b is the slope of the regression line. In multiple regressions, there are several independent variables and one dependent variable, and the equation is

$$Y = a + b_1 x_1 + b_2 X_2 + b_3 X_3 \cdots \_ bkxk$$
Where X1, X2, X3… Hk are the independent variables.
$$TR = f(X1 + X2 + X3)$$

In addition, relationships can be multiple. That is, there can be two or more independent variables and one dependent variable. A coefficient of correlation and a regression equation can be found for multiple relationships, just as they can be found for simple relationships.

C. *Multiple regression Analysis* is used when a researcher thinks there are several independent variables contributing to the variation of the dependent variable. This analysis then can be used to increase the accuracy of predictions for the dependent variable over one independent variable alone. Therefore, based on the values in the above values the independent variables are informal structures of the economy, efficient tax assessment and collection without well-educated and well trained staff, income tends to be unevenly distributed and employed in agriculture or in small informal enterprises were strong positive relationship between to that of the dependent variable of tax revenue.

D. *The Adjusted R2:* (.362) is smaller than R^2 (.9350) and takes into account the fact that when *n* and *k* are approximately equal, the value of *R* may be artificially high, due to sampling error rather than a true relationship among the variables. Hence, both R^2 and R^2adjusted are usually reported in a multiple regression analysis, the coefficient of determination is obtained by squaring the correlation coefficient and converting the result to a percentage.

TABLE VII INTERPRETATION OF THE RESULT ON SOFTWARE

R Square	Adjusted R Square
.9350	.362

This occurs because the chance variations of all the variables are used in conjunction with one another to derive the regression equation. Even if the individual correlation coefficients for each independent variable and the dependent variable were all zero, the multiple correlation coefficients due to sampling error could be higher than zero.

X. CONCLUSION

From the findings of the study results shows that authority encounter assessment and collection problems to assist the taxpayers, due to inefficient and insufficient number of tax assessment and collection officers, and due to weak management, the amount of tax revenue could not be collected. Officials and employees evaluation conducted every day to strengthen the team spirit, relationship and should improve weak sides. It was observed that Ethiopia revenue and custom authority should find a solution regarding the assessment and collection problems. In general, the tax reform program will continue to contribute to the capacity enhancement of the country through maximization of revenue, attainment of macroeconomic stability, and creating conducive environment for private sector development to promote economic growth and also combat corruption. Now the Government of the country should pay attention for implementing a more effective taxpayers' database, simplifying the tax system, creating adequate awareness and engaging taxpayers, frequent training and workshops. Creating awareness for both employees and customers must be more aggressive and frequent in approach using all the various methods for mass and continuously by using different media. Regular tax audits should be performed to in calculate in the minds of the tax payers that their activities are being monitored.

XI. LIMITATIONS OF THE STUDY

The researcher encountered quite a number of challenges related to the research & most particularly during the process of data collection, under constraints of finances and i.e. collected data from 330 individual taxpayers located in Gonder only. The study uses only random sample of the population making sampling restrictions a limitation. Some respondents were suspicious and hence giving inaccurate information.

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