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Factors Affecting the Value Added Tax (VAT) Administration Effectiveness: Evidence South Gondar Zone, Ethiopia

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Abstract

Good tax administration can provide effective and efficient service and enhancing voluntary compliance. The study mainly focused on assessing VAT administration and enforcement practice, and factors affecting the effectiveness of VAT collection. Survey has been conducted with casual survey research design among 249 (190 taxpayers and 59 employees) participants from Debre Tabour and Woreta towns. Data were collected using a pre-tested and structured interviewer with administered questionnaire which utilize both quantitative and qualitative methods. The result found that VAT registration effect in the effectiveness of VAT administration effectiveness was significant at standardized beta

value ($B=0.159$, $p = 0,025 < 0.05$). VAT enforcement and VAT collection effect in the effectiveness of VAT administration effectiveness were significant at standardized beta value ($B =.321$, $p = 0,000 < 0.05$) and ($B =0.346$, $p = 0,000 < 0.05$), respectively. And it is concluded that VAT registration, enforcement and collection were found to be the predictors of VAT administration effectiveness. Thus, enhancements of VAT administration effectiveness shall be conducted on all the dimensions, especially the dimensions of VAT enforcement, registration and collection.

Keywords: 1. Value Added Tax 2. Administration Effectiveness 3. Factors Affecting the Value Added Tax 4. VAT Administration Effectiveness and VAT administration South Gondar Zone

Introduction

In most developing countries, tax administration is in poor situation and condition. Tax bases were grossly under-assessed, collection rates were low, and penalties existed more in law than in fact. In some countries, tax evasion was seen to be more a badge of honor than a crime. In addition, low tax morale combined with inadequate and unwilling enforcement to produce an adverse tax culture (Carlene B. Wynter, 2014).

Ethiopia has introduced VAT beginning from January 2003 as a replacement for sales tax. It is becoming the principal source of revenue for the country. Some countries consider seizures too extreme and/or unfeasible because of the political consequences that may arise or because of the attitude that tax payers may have. However, in Ethiopia, though studies try to indicate VAT administration (Kassu T. 2011, Hailu A., 2013 and Abahodie, 2008) they have failed to study and research on the enforcement of VAT and related challenges.

Like other regions of Ethiopia, in Amhara regional state there are different sector bureaus at regional, zonal and woreda level. Amhara region revenue office is one of the regional bureaus which are responsible to control, supervise and administer tax and related issues in the overall. Therefore, the main objective of this study is to examine value added tax administration and enforcement in south Gondar zone.

Value added tax is the principal source of revenue for Ethiopian government. The revenue generated from VAT is increasing year after year. However, due to weak administration and enforcement which increases the probability of compliance and revenue in the end, the revenue is not growing as planned and expected (ERCA, 2016).

The findings of a research carried out in Nigeria on tax law enforcement practice and procedure has stipulated that tax law enforcement remains inevitable in the tax system and administration in an effort to administer all the tax laws in Nigeria because it has the effect of punishing offenders by either distraintment or prosecution and act as a deterrence for

other members of the public while engendering voluntary compliance to the tax (Muhamed B. 2015).

South Gondar revenue which is delegated to assess and collect both direct and indirect taxes performing different types of business activities in 18 tax centers and 13 rural woredas found in South Gondar zone revenue branches. From all these areas VAT is collected in 5 city administration woredas of the zone. This is because the remaining woredas are not accessible to capital and as a result they are not matured enough for VAT generation.

Although there have been studies on VAT administration in some developing countries, in Ethiopia there are no comprehensive studies that examine the administrative practices. In addition, it is not well known that VAT administration is according to the legislation or not. There are also other researches conducted by Teklu Kassu, (2011), which recommends further studies on tax enforcement and administration to increase government revenue. Most researches and investigations conducted on VAT (Bisrat Alemayehu, Teklu Kassu, 2011) have given much attention VAT administration excluding and giving very low attention for enforcement.

Moreover, when the researcher observe taxation in Amhara region, particularly South Gondar Zone administration, tax payers informally express the situation with the features of poor provision of quality service, un equal imposition of taxation, lack of active participant of different stakes holders and societies as large in tax issues, low institutional capacity to collect VAT efficiently and effectively.

Therefore, all these issues have initiated the researcher to investigate VAT administration and enforcement practice and factors affecting the effectiveness of VAT collection in Debera Tabor and Woreta towns.

Objectives of the Study:

General Objective

- ❖ The general objective of the study is to assess factors affecting VAT administration effectiveness in Debera Tabour and woreda towns.

Specific Objectives

- ✓ To examine the extents of VAT registration, collection, enforcements and administration practices in Debera Tabour and woreda towns
- ✓ To evaluate the effects of VAT registration practices ineffective VAT administration.
- ✓ To investigate the impacts of VAT enforcement practices in effective VAT administration.

- ✓ To evaluate the role of VAT collection practices in effective VAT administration.

Research Hypothesis

The following hypothesis are developed for the purpose of this study

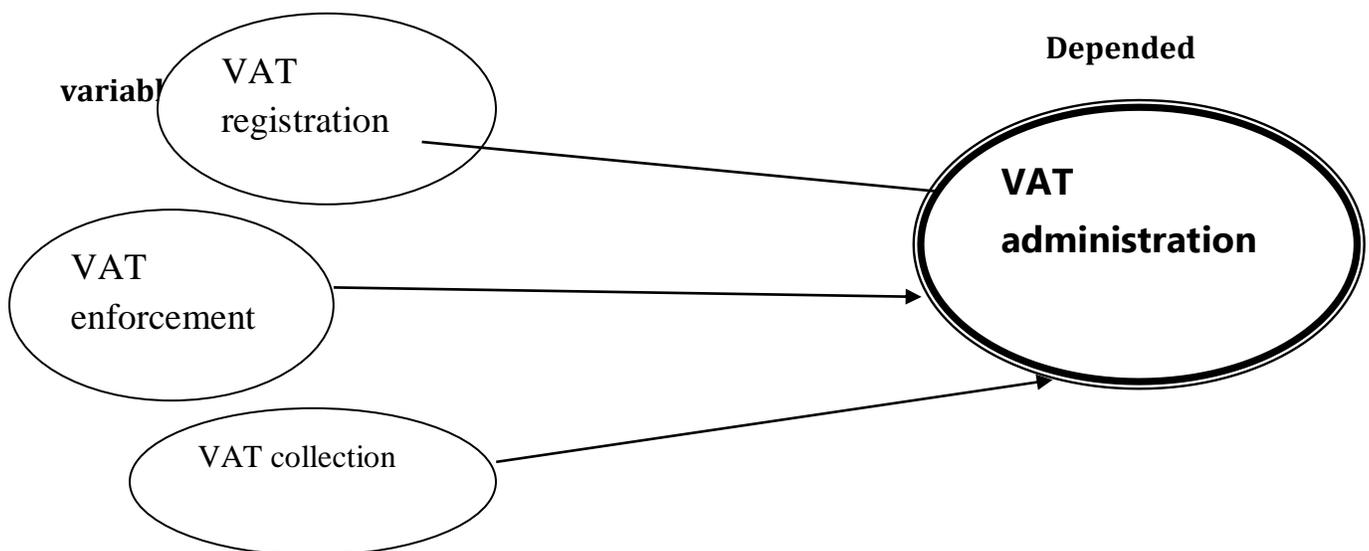
- H1. The practices of VAT administration effectiveness in DebereTabour and woreta towns are low
- H2. VAT registration has a significant effect in predicting the effectiveness of VAT administration performance.
- H3. VAT enforcement has a significant effect in predicting the effectiveness of VAT administration
- H4. VAT Collection has a significant effect in predicting the effectiveness of VAT administration

Conceptual Framework

This frame work can be shown in the following way.

Effective and efficient VAT administration is the cumulative effect of different activities and tasks that are related with registration, collection, invoicing etc. In addition, VAT administration has a deep relationship and connection with enforcement. All this will increase compliance of VAT payers and lastly,they will contribute to revenue incensement. In general, a country`s revenue will be affected by its VAT administration capacity and this can be determined by the different types of challenges that may encounter VAT administration. All this pointis summarized below

Independent variable



Source: Developed From The Literature.

RESEARCH METHODOLOGY

Research Design

The study is conducted using analytical survey design which is relevant to answer research questions.

Research Approach

The research approach is a mixed one which has employed and utilized both quantitative and qualitative types of data collection methods which is advantageous to overcome the limitation of a single research approach. The justification behind is that, since both quantitative and qualitative approaches have their own strengths and weakness, the usage of mixed methods approach in this study has enabled to utilize and overcome the strength and weaknesses of one approach to the other which is expected to give a better understanding of the research questions. In addition, literally speaking using two approaches is better than using a single approach.

Population of the Study

According to Babbie (2004) the population of a study refers to a set of objects which are the focus of the research and about which the researcher wants to determine some characteristics. It has also been referred to as theoretically specified aggregation of the elements in a study and from which a sample is selected. The study was using the explanatory research methodology to assess the determinant factors affecting VAT administration effectiveness. Thus the population of the study is all VAT registered taxpayers and employees of in Woreta and Debretabor town. There are 504 taxpayer and 155 officers in the two towns there for the total populations of the study were 659.

Sampling Technique and Sample size

The target population of the study was Woreta and Debretabour taxpayer and officers and the sample was taken from taxpayers and employees. Stratified random sampling was used as sampling technique and the study was used functional based stratification and each function taken as stratum. The study was used systematic random sampling to select respondents; this is because the researchers have the name list of the respondents. So, it is suitable in this research. Therefore, all taxpayers and officers were having equal chance of being selected as respondents according to their proportion in their respective function. The researcher was used the sample size determination formula, which is developed by Yamane (1967), to determine the sample size of employees for the study.

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

Where, N=population size

n= desired sample size

e= precision level valid for 95% confidence level

Therefore, N= 4500 and e= 0.05, then the sample become calculated as:

$$n = \frac{659}{1 + 659(0.050)^2} = 249$$

From the above results for total population of 659, 249 is representative sample. The sample proportion will be

$$\frac{249}{659} \times 100 = 37.78 \%$$

659

Sample taken from each process department

S.no	Function	Size of stratum	Proportion	Sample (s)
1	Taxpayers	504	37.78%	190
2	Officers	155	"	59
	TOTAL	659		249

Sources and Types of Data

To conduct this research, the study was used both primary and secondary sources of data. Primary data will gather through distributing structured and self-administered questionnaires to taxpayers and employees. Because of more numbers of samples were used the research conducted only questionnaires as a source of primary data and the questionnaire was tested before the actual data collection is made. According to Black (1999), questionnaire for quantitative research in social sciences are usually designed with the intention of being operational definitions of concepts, instruments that reflect strength of attitudes, perceptions, views and opinions.

Secondary data in relation to Value Added Tax collection registration and enforcement which was obtained from different sources like reports, published and unpublished materials, internet sites and from south Gondar zone revenue agency annual as well as quarter reports.

Data Collection Instruments

A questionnaire was designed to assess factors affecting VAT administration effectiveness. In order to realize the target, the study used well-designed questionnaire as best instrument. The questionnaire was adopted from different sources which were found to be

appropriate for the study. The questionnaire method as instrument of data collection was used because it provides wider coverage to the sample and also facilitates collection of a large amount of data.

The questionnaire consists of three sections. The first section requests on the demographic information on the respondent's sex, qualification and types of business. The second section determinants of VAT administration (VAT registration, enforcement and collection) question to assess the influence of each factor on VAT administration effectiveness and the third section is VAT administration effectiveness questions. The questionnaires were prepared in English language and to make it easily understandable by the respondents the researcher interpreted in to Amharic. The questionnaire contained closed ended questions with 5 Likert Scale from "Strongly Disagree" =1 to "Strongly Agree" =5 and it was administered by the researcher.

Reliability and validity of the Research instrument

In this study, in order to test the reliability of the research instruments, a pilot test was carried out before the final survey commenced. The testing of the research instruments was an important step in the study in order to establish the content validity of the questionnaires as well as the reliability of instrument. The sample size for the pilot study was used about 20 respondents. The overall closed questionnaires were tested by using cronbach's alpha.

The cumulative result of each variable the cronbach's alpha shown in Table 3.2, below, above 0.7, the reliability for VAT registration is 0.770, enforcement is 0.765, collection 0.822, and VAT administration effectiveness 0.787 represent. It is supported by Nually (1978) pointed out that the reliability above 0.70 is sufficient for basic research. Thus, the item used in measuring the variable were acceptable

Table 1: Reliability Measures Using Cronbach's α for Tested Variable

Measures	No. of items	Cronbach's alpha coefficient value
Registration	5	0.770
Enforcement	4	0.765
Collection	5	0.822
VAT administration	6	0.742

(Source: researcher survey, 2020)

According to Black (1999), the validity of a scale is the extent to which the scale captures all aspects of the construct to be measured. It focuses on whether a scale truly measures the construct of interest and not something else. Validity is an explanatory research design that can be tested through: content validation and face validity.

The study was also testing the validity of the instruments, the researcher tested content and face validity. In the content validity, the researcher received comments and suggestions before final questionnaires were distributed and corrected the questionnaire. The face validity is the simple form of content validity. So, the researcher, in this study, asked few peoples from administrative and academic functions to check the tool covers all areas.

Data analysis Technique

To determine the level of VAT administration effectiveness, registration, enforcement and collection the study was used descriptive statistic mean and standard deviations while for the purposes of testing the research hypotheses, the research was used inferential statistical techniques.

According to Sekaran (2000, p. 401), “inferential statistics allow researchers to infer from the data through analysis the relationship between two variables; differences in a variable among different subgroups; and how several independent variables might explain the variance in a dependent variable

For the purposes of determining whether a statistically significant relationship exists between VAT registration, enforcement and collection within VAT administration effectiveness, the study was used the Pearson Correlation Coefficient and to determine the effects of each determinants on VAT administration effectiveness the study was used multiple liner regression analysis.

The collected data were processed with the help of SPSS Version 20.0 software package. This is due to the fact that the software package will reduce time, cost and the researcher’s burden. The necessary steps such as questionnaire checking, editing, coding, transcribing, and data cleaning statistically adjustment of data will be made before analyzing the data

Ethical Consideration

The researcher will observe fundamental issues in social research ethics. Hence confidentiality will be guaranteed for all respondents and their names will not written on the questionnaire. Permission shall be sought from the necessary authorities. Authorization letters will be attached at the appendices.

Data analysis, discussion and results

Demographic Information of the Respondents

The demographic data of respondents of tax payers collected and analyzed includes the personal data such as their gender, educational status and type of trade engaged. The following tables show the general demographic characteristics of the respondents. Here the analysis hasdonebased on 245 respondents.

Demographic information of respondents

Demographic variable	Categories	Frequency	Percentage (%)
Gender	Male	148	59.4
	Female	101	40.6
	Total	249	100
Educational Qualification	Illiterate	10	4.0
	Primary school	48	19.3
	Secondary school	69	27.7
	Diploma	61	24.5
	Degree	61	24.5
	Total	249	100
Business types	Hotel	27	14.2
	Retail	55	28.9
	Café	50	26.3
	construction	50	26.3
	Electronics	8	4.2
	Total	190	100

Source: own survey 2019

Gender: The overall profile of the participating respondents’ demographic characteristics is presented in the result of sex distributions in Table 2, above. Among the 249 respondents who participated in the survey, 148 respondents (59.4 %) were male, and 101(40.6%) respondents were female. This finding indicates that the malerespondentsmore than female respondents.

Education qualification: The educational qualification of taxpayer’s respondents shows Table 2, above. Among the 249 respondents who participated in the survey, majority of respondents are secondary school levels which accounts 69 (27.7%), 61 respondents (24.5%) are diploma holder, similarly 61 respondents (24.5%) are degree holder While the remaining 48 (19.4%) respondents and 10 (4.0%) respondents are primary school level

and illiterates respectively, this finding indicates that more respondents of this research are above secondary school levels to degree holders. This data indicates that majorities of people who involve in trade activities specially in “VT registered” are literate.

Business types: As the business types of respondents are engaged, shows in Table 2, above Among the 190 taxpayer respondents who participated in the survey, 27 respondents (14.2 %) are engaging Hotel business, 55 respondents (28.9%) are retail business owner, 50 respondents (26.3%) cafe and similarly 50(26.3%) are construction business owner, while the remaining 8 respondents (4.2 %) are engaging in Electronics related business. This finding indicates that majority of the respondents are retail business, café as well as construction business owner.

Descriptive analysis of the level of VAT registration, collection enforcements and administration

The descriptive statistics was used as a way to examine the frequency, percentile, mean and standard deviation of the respondent. It was needed to determine the extents of tax registration, collection, enforcements and administration in selected cities. Table 3 below contains descriptive data (frequency, percentile, mean and standard deviations) for each variable's questions. In all cases, the distribution of scores for the sample contained reasonable variance and normality for use in subsequent analyses.

With reference to Best (1977) on a five point likert scale, responses ranging from 1 (very disagreed/ dissatisfied) through 3 (neutral) to 5 (very agreed/ satisfied) , the mean score from 1-1.8 is lowest, from 1.81-2.61 is low, from 2.62-3.41 is average/moderate, from 3.42-4.21 is good/high, and from 4.22-5 is considered very good/ very high.

- H1 The practices of VAT administration effectiveness in Debere Tabour and woreta towns are low

Thus, as depicted the table 4.2 below the levels VAT administration effectiveness are incline to average /moderate, which is $M= 3.165$ with $SD=1.0145$ and this result shows that, the above stated hypothesis the practices of VAT administration effectiveness in Debere Tabour and woreta towns are low is rejected.

Descriptive values of VAT administration effectiveness

Statement	SD		D		N		A		SA		Mean	sd
	Fre	%										
VAT administration effectiveness											3.165	1.0145
Low tax compliance cost and minimum EFD"S acquisition maintenance cost	8	3.2	110	44.2	28	11.2	102	41.0	1	.4	3.015	0.9961
High level of Tax knowledge of taxpayers			69	27.7	8	3.2	136	54.6	36	14.5	3.442	1.0461
Equally treatment of taxpayer and register all eligible traders in VAT	40	16.1	106	42.6			103	41.4			2.988	0.9179
Simplicity of VAT system	30	12.0	69	27.7			124	49.8	26	10.5	3.217	1.1198

Source: own survey 2019

In Q1, Majority of the respondents, precisely 110(44.2%) of the taxpayer tend to disagree with the statement while 102(41.0%) of the respondents are agree. 28(11.2%) respondents tends to neutral with statement, 8(3.2%) strongly disagree with the statement. Only 1(0.4%) of the taxpayers tend to strongly agree with the statement. The implication of the mean at 3.015 and S/D 0.9961 indicates that most of the respondents are leaning towards disagree about the statement.

In Q2, 136 respondents constituting a majority of 54.6% agree with the statement, and 36(14.5%) are strongly agree with the statement. while, 69(27.7%) of the taxpayers disagree with the statement and 8 (3.2%) respondents' response neutral. The implication of the mean at 3.442 and S/D 1.0461 indicates that most of the respondents are leaning towards agree.

In Q3 Majority of the respondents, precisely 106(42.6%) and 40 (16.1) of the taxpayers tend to disagree and strongly disagree with the statement. while 103(41.3) of the respondents are agree with the statements. The implication of the mean at 2.988 and S/D 0.9198 indicates that most of the respondents are leaning towards disagree.

In Q4, 124 respondents constituting a majority of 49.8% agree with the statement, while 69(27.7%) are disagree. Also 30(12%) of the respondents are strongly disagree with the statement. and 26 (10.5%) respondents' response strongly agree. The implication of the mean at 3.217 and S/D 1.119 indicates that most of the respondents are leaning towards agree.

Descriptive values of VAT Registration

Statement	SD		D		N		A		SA		Mean	sd
	Fre	%										
VAT Registration											3.053	0.9571
Tax officials are not skilled enough to register business in forced registration	88	35.3	34	13.7			116	46.6	11	4.4	2.9116	0.9961
Forced registration is a challenge for VAT collection	44	17.7	85	34.1			108	43.4	12	4.8	3.2008	0.9795
There are business people use forged invoices at the time of transaction	8	3.2	110	44.2	28	11.2	102	41.0	1	.4	2.9116	0.9674
There are traders who did not issue invoices	14	5.6	94	37.8			135	54.2	6	2.4	3.1888	0.9674
There are			105	42.2	2	.8	102	41.0	40	16.1	3.2187	0.9679

business operators who did not use electronic tax register machine												
It is easy for a tax payer to cancel registration	25	10.1	67	27.0	3	1.2	123	49.4	30	12.0	3.317	0.9478

Source: own survey 2019

In Q1, Majority of the respondents, precisely 116(44.2%) of the taxpayer tend to agree with the statement while 88(35.3%) of the respondents are disagree. 34(13.7%) respondents tends to strongly disagree with statement. Only 11(4.4%) of the taxpayers tend to strongly agree with the statement. The implication of the mean at 2.911 and S/D 0.9961 indicates that most of the respondents are leaning towards agree about the statement.

In Q2, 108 respondents constituting a majority of 43.4% agree, and 12(4.8%) are strongly agree with the statement. while, 85(34.1%) of the taxpayers disagree with the statement and 44 (17.7%) respondents' response strongly disagree. The implication of the mean at 3.2008 and S/D 0.9795 indicates that most of the respondents are leaning towards agree.

In Q3 Majority of the respondents, precisely 110(44.2%) and 8 (3.2) of the taxpayers tend to disagree and strongly disagree with the statement. Also 102(41.0) of the respondents are agree and 28 (11.2%) are neutral with the statements, while only, 1 (0.4%) of the respondent responded strongly disagree. The implication of the mean at 2.9116 and S/D 0.9960 indicates that most of the respondents are leaning towards disagree.

In Q4, 135 respondents constituting a majority of 54.2% agree with the statement, while 94(37.8%) are disagree. Also 14(5.6%) of the respondents are strongly disagree with the statement. and 6 (2.4%) respondents' response strongly agree. The implication of the mean at 3.188 and S/D 0.9674 indicates that most of the respondents are leaning towards agree.

In Q5, vast number of the respondents 105(42.2%) are disagree and with the statement, while significant number of respondents 102(41.0%) agree with the statement. Also 40(16.1%) of the respondents strongly agree, while 2 (0.8%) respondents responded neutral with the statement. The implication of the mean at 3.2187 and S/D 0.9679 indicates that most of the respondents are leaning towards agree.

In Q6, a greater number of the respondents 123(49.4%) elected to agree and 30 (12.0%) strongly agree with the statement. Although 67(27.0%) and 25(10.1%) of the respondents were disagree and strongly disagree with the statement respectively, while3(1.2%) of the respondents responds neutral, with the statement. The implication of the mean at 3.317 and S/D 0.9478 indicates that most of the respondents are leaning towards agree.

Finally, as depicted the table 4.3 below the levels VAT registration are incline to average /moderate, which is M= 3.053 with SD=0.9857 and this result shows that, VAT registration in DebereTabour and Woreta towns are moderate level

Descriptive values of VAT Enforcement

Statement	SD		D		N		A		SA		Mean	Sd
	Fre	%										
VAT Enforcement											2.6015	0.9941
Enforcement strategy and mechanisms of your city is strong	87	34.9	77	30.9	79	31.7	6	2.4			2.0161	0.9751
I know that penalties are passed on non-compliant peoples	6	2.4	65	26.1	108	43.3	40	16.1	30	12.0	2.9478	0.9254
Revenue officers are efficient in enforcing VAT laws and regulation	38	15.3	150	60.2			57	22.9	4	1.6	2.3534	1.0451

Source: own survey 2019

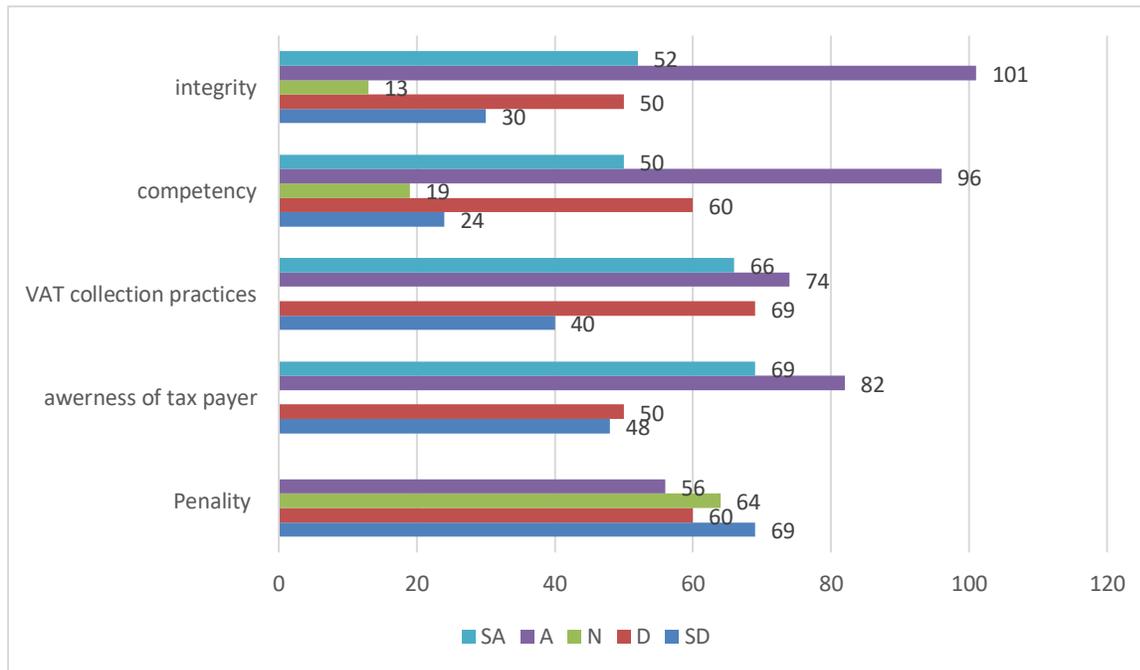
In Q1, 87 respondents constituting a majority of 34.9% strongly disagree, and 77(4.8%) are disagree agree with the statement. while, 79(31.7%) of the taxpayers neutral with the statement and 6 (2.4%) respondents’ response agree with the statements. The implication of the mean at 2.0161 and S/D 0.97951 indicates that most of the respondents are leaning towards disagree.

In Q2, Majority of the respondents, precisely 108(43.3%) of respondents are responded neutral with the statements, also40(16.1) of the respondents are agree and 30 (12.0%) are strongly agree with the statements, while 65 (26.1%) and 6 (2.4%) of the respondent responded disagree and strongly disagree respectively. The implication of the mean at

2.9478 and S/D 0.9254 indicates that most of the respondents are leaning towards disagree.

In Q3, 150 respondents constituting a majority of 60.2% disagree and 38 (15.3%) strongly disagree with the statement, while 57(22.9%) and 4 (1.6%) of the respondents are agree and strongly agree with the statement respectively. The implication of the mean at 2.3534 and S/D 1.0451 indicates that most of the respondents are leaning towards disagree.

Finally, as depicted the table 4.4 below the levels VAT enforcement are incline to low, which is M= 2.6015 with SD=0.9941 and this result shows that, the practices of VAT enforcement in Debera Tabour and Woreta towns are low level.



VAT collection

As shown in the above figure 2 majority of respondents are responded agree (101, 96, 74 and 82) and (52, 50, 66 and 69) are strongly agree for question related with integrities of employees, competencies of employees, VAT collection practices and Awareness of tax payers statements respectively, while (50, 60, 69 and 50) disagree and (30, 24, 40 and 48) strongly disagree with the statements related with integrities of employees, competencies of employees, VAT collection practices and Awareness of tax payers statements respectively. In addition, for penalty related questions majority of respondents 69 and 60 are strongly disagree and disagree with the statements respectively, while 56 agree and 64 respondents are neutral with the statements

Finally, based on the above figure results and analysis of overall Mean and Standard division valus the levels VAT collection are incline to average/ moderate which is M=

3.3241 with SD=1.2310 and this result shows that, the practices of VAT collection in Debera Tabour and Woreta towns are average level.

Correlation Analysis

Correlation analysis is to show the strength of the association between the dependent and independent variables involved. Inter-correlations coefficients (r) were calculated by using the Pearson’s product Moment. According to Guilford ‘rule of thumb’ as it is cited by Masri (2009) the interpretation of the strength of correlation coefficient is shown below in table 6.

Table 2 : Interpretation of strength of correlation coefficient

Value of coefficient	Relations between Variables
0.00-0.30	Very low relationship
0.30-0.50	low relationship
0.50-0.70	High relation ship
0.70-1.00	Very high relationship

Source: Masri M.B.(2009:64)

As it is shown in the conceptual frame work of this study, to test the relationship between determinant variable and VAT administration Effectiveness, the following correlation analysis is performed.

Correlations about factors affecting VAT administration

		VAT collection	registratio n	enforcement s	Administratio n
VAT collection	Pearson Correlation	1	.563**	.450**	.557**
	Sig. (2-tailed)		.000	.000	.000
	N	249	249	249	249
Registration	Pearson Correlation	.563**	1	.526**	.670**
	Sig. (2-tailed)	.000		.000	.000
	N	249	249	249	249
enforcements	Pearson Correlation	.450**	.526**	1	.552**
	Sig. (2-tailed)	.000	.000		.000
	N	249	249	249	249

administratio n	Pearson Correlation	.557**	.670**	.552**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	249	249	249	249

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

Source: own survey 2019

As it is depicted in table 7 it is noted that all determinant variables (VAT collection, Registration and Enforcement) positively and significantly correlated ($r=.0.557, 0.670$ and 0.552 , respectively and $p<0.01$) with VAT administration effectiveness. The positive value of the correlation coefficient of the determinants such as, VAT collection, registration and enforcement indicates that as the organization effective on more of them will increase or improved the effectiveness of VAT administration and vice versa. And the significance level of $.0.01$ also shows that the relationship between determinants and VAT administration are significant at $p<0.01$, 2-tailed. Therefore; according to ‘Guilford rule of thumb’ the correlation coefficients are between $5.0-7.0$ with in high association range, from this analysis, it is noted that VAT collection, registration and enforcement are positively related and had high association with VAT administration effectiveness

Regression Analysis

Multiple Regression Analysis of Factors affecting VAT administration effectiveness

Cohen et al., 2011 argues that there are some assumptions that need to be met in order to make sure that the regression model has a strong fit. This study as indicated above, data met these assumptions as follows: the measurements are from a probability-based sample, data are collected by Likert scale which is considered as interval, there are no extreme outliers, there is an approximate linear relationship between the dependent variable and the independent variables, the dependent variable is approximately normally distributed and data values are independent of each other, there is no multi- collinearity between variables (see Annex 1).

Regression analysis was conducted to know by how much the independent variable explains the dependent variable and to see the significance of each variable. A standard multiple regression was performed between overall VAT administration effectiveness the dependent variable and VAT registration, enforcement and collection, as independent variables.

As clearly indicated in methodology part, the regression equation took the following form:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where,

Y = VAT administration effectiveness

β_0 = constant term

$\beta_1, \beta_2,$ and, β_3 = estimated coefficients

X1 = VAT registration

X2 = VAT enforcement

X3 = VAT collection

In the model, β_0 = the constant term while the coefficients were used to measure the sensitivity of the dependent variable (Y) to a unit change in the predictor variables. ϵ is the error term which captures the unexplained variations in the model.

The SPSS output of regression result is divided into three panels. The top sub table summarizes the model summary to the regression, the middle sub table discussed ANOVA, indicates the overall significance. Moreover, the third gives information about each regression coefficient. The results were illustrated in table 8 below.

Model Summary (a) (Independent Variables as Predictors to VAT administration effectiveness)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.537 ^a	.288	.280	1.51088
a. Predictors: (Constant), registration, VAT collection, enforcements				

As shows in the above table, the value of R is 0.537 indicates that a strong relationship between

dependent variable and its determinants and therefore the R square on the other hand explains

that 28.8% of the variation of the effectiveness of VAT administration is caused by VAT registration, enforcement and collection. In another way it can be conclude that the remaining 71.2 % of the variations of the effectivenessof VAT administration is due to error term or variables do not included in the econometric model.

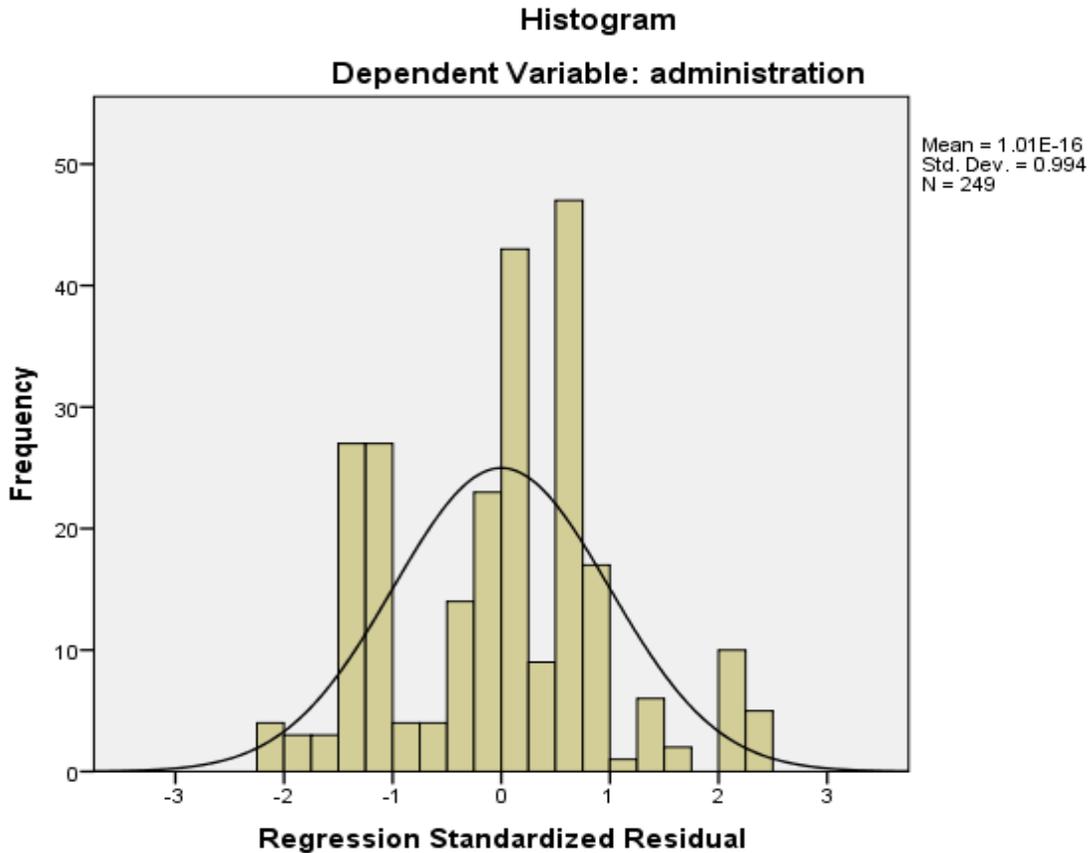
ANOVA (b) (Independent Variables as Predictors to VAT administration effectiveness)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	226.705	3	75.568	33.104	.000 ^b
	Residual	559.279	245	2.283		
	Total	785.984	248			

- a. Dependent Variable: administration
- b. Predictors: (Constant), registration, VAT collection, enforcements

Assumption testes

Normality curve



Linearity: Standard multiple regressions can only accurately estimate the relationship between dependent and independent variables if the relationships are linear in nature. That is to say the mean values of the outcome variable for each increment of the predictor(s) lie along a straight line.

To check whether determinant factors have direct correlation with VAT administration effectiveness / which is the dependent variable/ residual plot against the fitted values were plotted. (Montgomery et al., 2002) advocated that the preferable method of detection of linearity is examination of residual plots (plots of the standardized residuals as a function of standardized predicted values, readily available in most statistical software). Thus from the figure 2 depicted in appendix II , it could be easily understood that the observations are lie on the straight line of the graph or no observations far from the line and as a result this reflects that the linearity assumption is fully met.

Llinearity graph

Normal P-P Plot of Regression Standardized Residual



The Fit of the Regression Model

The fit of the regression model can be evaluated by two things: The Model Summary table and ANOVA table. The model summary table provides the R, R², adjusted R², and the standard error of the estimate, which can help in determining how successful the model is in predicting the outcome (Cohen et al 2011). R can be considered as one measure of the quality of the prediction of the dependent variable relationship of the independent variables (Field, 2013). However, R square tends to somewhat over-estimate the success of the model when applied to the real world, so an adjusted R square value is calculated which takes into account the number of variables in the model and the number of observations our model is based on. The adjusted R square value gives the most useful measure of the success the model. The adjusted R square is high indeed (0.288), indicating that 28.8% of the variance in the dependent variable is explained by the independent variables, which is moderate. As Cohen et al (2011) highlight, if an adjusted R square is > 0.5, this indicates a strong fit.

Similarly, to the above table, the analysis of variance is highly statistically significant (0.000) at the 5 % level of significance and F ratio is 33.104, demonstrating that the relationship between the independent and dependent variables is strong. In conclusion and from the above results, both the Model Summary table and ANOVA table show a significant fit of the data overall and prove that the model enhances our capability to expect the dependent variable.

Independent Variables as Predictors to VAT administration effectiveness (Coefficients output)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.660	.922		8.311	.000
	Enforcements	.257	.045	.321	5.712	.000
	VAT collection	.497	.080	.346	6.191	.000
	Registration	.142	.138	.159	2.094	.025

a. Dependent Variable: administration

Hypothesis Testing

After assessing the model fitness, the following section will discuss the model parameters. At the coefficient table, we look at the individual contribution of each variable. This can be evaluated by looking at the standardized Beta coefficients and Sig columns. The regression results obtained from the model were utilized to test the hypotheses developed in chapter One.

Therefore, in this part the rest hypothetical tests were given attention and results were analyzed based on the coefficients sub table. According to (Field, 2013), if the significant values are $p > 0.05$ then the predictor is making a remarkable contribution to the model.

➤ **H2. VAT registration has a significant effect in predicting the effectiveness of VAT administration performance.**

Table 10 presents the results to test hypothesis 2 which states about the VAT registration effect in the effectiveness of VAT administration effectiveness. As shown above, VAT registration effect in the effectiveness of VAT administration effectiveness was significant at standardized beta value ($B=0.159$, $p = 0,025 < 0.05$). Thus, this result could provide support for the hypothesis; therefore, the null hypothesis was accepted. In other words, we infer that there is a significant effect between VAT registration and VAT administration effectiveness. The raw score regression coefficient or slope (β_1) is displayed in SPSS under standardize β as the second line and is 0.142. This means for every one-unit rise (1-unit VAT registration) in β , VAT administration effectiveness (the outcome) improved by 0.142

➤ **H3. VAT enforcement has a significant effect in predicting the effectiveness of VAT administration**

Table 10 presents the results to test hypothesis 3 which states about the VAT enforcement affect the effectiveness of VAT administration effectiveness. As shown above, VAT enforcement effect in the effectiveness of VAT administration effectiveness was significant at standardize beta value ($B = .321$, $p = 0,000 < 0.05$). Thus, this result could provide support for the hypothesis; therefore, the null hypothesis was accepted. In other words, we infer that there is a significant effect between VAT enforcement and VAT administration effectiveness. The raw score regression coefficient or slope (β_1) is displayed in SPSS under standardize β as the second line and is 0.257. This means for every one-unit rise (1-unit VAT registration) in β , VAT administration effectiveness (the outcome) improved by 0.257

H4. VAT collection has a significant effect in predicting the effectiveness of VAT administration

Table 10 presents the results to test hypothesis 4 which states about the VAT collection effect in the effectiveness of VAT administration effectiveness. As shown above, VAT collection effect in the effectiveness of VAT administration effectiveness was significant at standardized beta value ($B = 0.346$, $p = 0.000 < 0.05$). Thus, this result could provide support for the hypothesis; therefore, the null hypothesis was accepted. In other words, we infer that there is a significant effect between VAT collection and VAT administration effectiveness. The raw score regression coefficient or slope (β_3) is displayed in SPSS β as the second line and is 0.497. This means for every one-unit rise (1-unit VAT collection) in β , VAT administration effectiveness (the outcome) improved by 0.497

Based on the regression result of the study, VAT registration, enforcement and collection has a positive and significance effect on the effectiveness of VAT administration. Under this study among the factors for effective VAT administration, VAT collection is dominant or important factor with a beta value of (0.346).

This result supports the finding of Wonder et al (2012) and Bardhan and Mookherjee (2002). Conclude that VAT collection has positive and significance influence on the potential effectiveness of VAT administration. Therefore, it can conclude that the effectiveness of VAT administration is significantly influenced by the collection practice of the authority. These results also show the design of VAT collection system that the authority collecting tax from VAT registered business firms is a key aspect for the effectiveness of VAT administration.

The next important factor which affects the effectiveness of VAT administration is VAT enforcement, (0.321) has significance influence on the effectiveness of VAT administration. This finding is consistent with Ndunda et al (2015), and Wonder et al (2010), found that VAT enforcement has significance influence on effectiveness of VAT administration.

On the other hand VAT registration has also significance effect on the effectiveness of VAT administration (0.159) this finding is in line with the study of Ndunda J. et al. (2015) they further conclude that, for the effectiveness of VAT administration in local government authorities need to take into account the overall integrity of employees and taxpayer in VAT registration units.

Hypothesis summery table

3.1.1.1.1. Hypotheses Number	3.1.1.1.2. Statement	3.1.1.1.3. P-Value	3.1.1.1.4. Decision
3.1.1.1.5. H2	3.1.1.1.6. VAT registration has a significant effect in predicting the effectiveness of VAT administration	3.1.1.1.7. .025	3.1.1.1.8. Accepted
3.1.1.1.9. H3	VAT enforcement has a significant effect in predicting the effectiveness of VAT administration	3.1.1.1.10. .000	3.1.1.1.11. Accepted
3.1.1.1.12. H4	VAT collection has a significant effect in predicting the effectiveness of VAT administration	3.1.1.1.13. .000	3.1.1.1.14. Accepted

Source: own survey 2019

Analysis of Interview question

Regarding the practice of efficiency and effectiveness of the revenue office different quantitative and qualitative data were collected and analyzed. From quantitative data analysis regarding to human resource around 68.7% of the respondents argued that that the current organizational structure of revenue offices is not capable to address the service properly. At the same time 63.2% of the respondents argued that the recent employees of revenue offices are not capable and competent enough to address the services for taxpayers.

The qualitative finding of the study also assured that to fully implement good governance principles and to provide better service for taxpayers first the number of employees and organizational structure should be appropriate in accordance with the nature and volume of workloads. But currently the manpower and the organizational structures are not capable enough to the numbers of tax payers in the selected three cities administration as well as the revenue authority has a strong assignment in accordance with organizational adjustment.

Regarding the service delivery based on standards, around 62% of the respondents answered that the tax collection and registration system of the revenue offices didn't provide service on the stated standard. Similarly, from qualitative data analysis most of the

participants argued that the revenue offices are weak in using standards to give quality service for taxpayers.

Regarding Service delivery situation, the quantitative finding revealed that 71.4% of the respondents argued that taxpayers are unsatisfied with revenue office offices service delivery. Also, taxpayers on qualitative data analysis agreed that the overall service delivery from revenue offices are not in accordance with the interest taxpayers and also said that the service delivery standards are simply put on paper, practically it is not implemented. Almost all participant employees of the study agreed that the revenue offices are not in a position to say there is quality service which can satisfy the taxpayer. Generally, from quantitative and qualitative analysis of the study the service delivery of the revenue was not in a position to provide quality service for taxpayers.

taxpayers participated in the study justified some challenges regarding tax administration. Among the frequently identified challenges by these participants the first one was about organizational structure in such a way that the organizations are not decentralized to kebeles and also there are no enough number of competent and employee to give us better service compared with taxpayers. Absence of technology to give responsive service is also another challenge mentioned both by taxpayers and staff members. Staff members also identified lack of transportation accessibility to give door to door service like tax assessment and lack of other important input specially office equipment's as challenge to properly address quality service.

Conclusions:

The primary objective of the study was to assess Factors Affecting Value Added Tax (VAT) Administration Effectiveness in Case of South Gondar Zone. The study also tested the levels VAT of administration, registration, enforcement and collection. Based on the objectives and the findings of the study the following conclusion can be made.

Based on the demographic information, proportionally Female and Male employees as well as taxpayer and employee are participated in this study.

The mean score values for VAT administration, registration, enforcement and collection level was 3.16, 3.05, 2.61 and 3.32 respectively, this indicates that enhancements of VAT administration effectiveness should be conducted on all the dimensions, especially the dimensions of VAT enforcement, registration and collection.

From correlation analysis all determinant variables (VAT registration, enforcement and collection) positively and significantly correlated ($r=0.159$, 0.321 , and 0.346 , respectively and $p<0.01$) with VAT administration effectiveness.

Based on the regression analysis, VAT registration, enforcement and collection are collectively predicting VAT administration effectiveness by 28.8%. When we see the

individual predictions of each variables Registration 15.9%, enforcement 32.1%, and collection predict 34.6%. Thus, among the three-dimension VAT collection has greater impact on VAT administration followed by VAT enforcement.

Recommendations

Based on the above conclusions the following practical recommendations are pinpointed to overcome some of the constraints and maximize the benefit.

According to this research finding the levels of VAT administration effectiveness practice at Debretabor and Woretawere moderate/ average. Thus, the revenue office leaders shall be work hard to improve administrative effectiveness from overage to high levee. Accordingly, the leaders should give attention for administrative effectiveness factors such as VAT registration, enforcement and collection practices.

The revenue office is better regularly aware taxpayers about general rules, regulations and others tax related laws and create sense of ownerships to all tax payers and make easy way of informing the service users by creating strong relationship with them.

The Revenue offices should better to implement continuous capacity building program to enhance the competency of staff members to improve the capacity of collecting taxes based on strong potential assessment and the like. And the offices should better develop good tax registration and documentation system to implement good tax administration through tangible information.

Finally, future research, the researcher can add the category to include employees and taxpayers, of various worded as, or include more variables than just the one that are part of this study, as has mentioned in the limitation above. This would allow revenue office managements to have better understanding the factors that affect VAT administration effectiveness and how they can manipulate, these to their optimal potential, and in turn keep the moral and motivation taxpayers as well as performance of their employees high.

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