



**DETERMINANTS OF TAX COMPLIANCE IN THE CASE OF VALUE
ADDED TAX REGISTERED INDIVIDUAL TAX PAYERS IN ADDIS
KETEMA SUB CITY**

BY:

ABDULSEMED SHAFI

ADDIS ABAB, ETHIOPIA

MARCH, 2019

**DETERMINANTS OF TAX COMPLIANCE: CASE STUDY AT ADDIS ABABA
ON VALUE ADDED TAX REGISTERED INDIVIDUAL TAX PAYERS IN ADDIS
KETEMA SUB CITY**

BY: ABDULSEMED SHAFI

A RESEARCH THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND
FINANCDE, COLLEGE OF BUSINESS AND ECONOMICS, IN PARTIAL FULFILMENT
OF REQUIRMENT OF MASTERS OF SCIENCE (MSC) IN ACCOUNTING AND
FINANCE

ADVISOR: ALEM HAGOS (PHD)

ADDIS ABAB, ETHIOPIA

MARCH, 2019

LETTER OF CERTIFICATIONS

This is to certify that Abdulsemed Shafi Aman has carried out his research project work under my supervision, on the topic of **Determinants of tax compliance in the case of VAT Registered Tax Payers: In Addis ketema Sub city**". This work is original in its nature and it is suitable for Submission in partial fulfillment of the requirement for the award of Master's Degree in Accounting and Finance.

Approved by:

Internal Examiner: _____ Signature _____ Date _____

External Examiner: _____ Signature _____ Date _____

Advisor: _____ Signature _____ Date _____

DECLARATION

I, Abdulsemed Shafi Aman, declare that the study entitled **Determinants of tax compliance In the case of VAT registered tax payers:** in the case of Addis Ababa kality sub-city city” is the result of my own effort in research undertaking. All information in this document has been obtained and presented in accordance with academic rules and ethical conduct. The study has not been submitted to any Degree or Diploma in any college or university. It is submitted in the partial fulfillment of the requirement of the award of Masters of Degree in Accounting and Finance. Lastly I have fully cited, acknowledged and referenced all material and results that are not original to this work.

Name: Abdulsemed Shafi Aman

Signature _____

Date _____

ACKNOWLEDGMENTS

All my praise to Almighty Allah, the cherisher and sustainer of the world, the most gracious, the most merciful. Next, I would like to express my extreme indebtedness and sincere appreciation to my Advisor Alem Hagos (Dr.) for his tremendous help and support in the course of my stay in the program. His guidance right from the beginning of development of the proposal until the completion of the research work and producing this full-fledged research is profoundly appreciable. His incredible insights, suggestions, and comments actually helped me in successfully presenting of my research.

My gratitude is also extended to Addis Ababa City Government Revenues Authority's (ACGRA's), Audit staffs and customer Relation Staffs.

My gratitude then goes to my extremely beloved families, Neima Temesgen (Wife) you all are always with me in happiness as well as sorrow, baby Nimra Abdulsemed and baby Selwa Abdulsemed for your tolerance in sharing your sweet time. The last but not least thanks to my beloved Mom Zubeyda Kedir and Father Shafi Aman, for there greatest effort in shaping my life (Dear mom and Dad, your special place in my heart will never and ever forget).

Finally yet importantly, thanks are due to Atnafu, and Aman for your invaluable contribution and sharing ideas for the work I have done.

Table of Contents

Acknowledgments	i
Table of Contents.....	ii
List of Tables	v
List of Figures	vi
Acronyms and Abbreviations.....	vii
Abstract	viii
CHAPTER ONE.....	1
1. INTRODUCTION.....	1
1.1 Background of the Study.....	2
1.2 Statement of the Problems	3
1.3 Broad Research Objectives and Hypothesis	5
1.4 Significance of the Study	6
1.5 Scope of the Study	6
1.6 Limitation of the Study.....	7
1.7 Organization of the Study	7
CHAPTER TWO	8
LITERATURE REVIEW.....	8
2. Introduction.....	8
2.1 Theoretical Literature Review	8
2.1.1 The Concept and Definition of Tax Compliance.....	8
2.1.2 Tax Compliance Theories	11
2.1.3 Determinants of Tax Compliance	15
2.1.3.1 Structure of Tax System.....	15
2.1.3.1.1 Tax Rates.....	16
2.1.3.1.2 Tax Audits.....	17
2.1.3.1.3 Role (Efficiency) of the Tax Authority/Government	17
2.1.3.2. Attitude &Perceptions of Government Spending	18
2.1.3.3 Ethics toward Tax Compliance	19
2.2 Empirical Literature Review.....	19

2.3 Research Gap	23
2.4 Conceptual Framework	24
CHAPTER THREE	25
RESEARCH DESIGN, METHODOLOGY AND METHODS	25
3. Introduction.....	25
3.1 Research Objective and Hypothesis Formulation	25
3.2 Research Approaches	28
3.3. Research Method Adopted.....	29
3.3.1 Population and Sample Design	29
3.3.2 Instrument Design.....	31
3.3.3 Conduct the Survey	31
3.3.4 Model Specification, Definition and Measurement of Variables	32
3.3.5 Diagnosis Test about Assumptions of Regression Analysis	36
CHAPTER FOUR	41
RESULT AND DISCUSSION	41
4. Data Collection Overview.....	41
4.1 Results of the study	41
4.1.1 Profile of the Respondents	41
4.1.2 Descriptive Statistics Result on the Determinants of Tax Compliance.....	42
4.1.2.1 Tax Rate Issues	43
4.1.2.2 Tax Audit Issues	44
4.1.2.3 Efficiency (role) of Tax authority	48
4.1.2.4 Perception and Attitude of Government Spending	49
4.1.2.5 Ethics toward Tax Compliance.....	50
4.1.3 Correlation and Multiple Regression Analysis Result	51
4.1.3.1 Correlation Analysis Result	51
4.1.3.2 Multiple Regression Analysis Result	53
4.2 Interpretation of the Results.....	55

CHAPTER FIVE	60
CONCLUSIONS, AND RECOMMENDATION	60
5.1 Conclusion	60
5.2 Recommendation	62
REFERENCES	64
APPENDICES	74

List of Tables

Table 1.1: Proportion of Files under investigation Audit	5
Table 3.1: Sample Size determination.....	30
Table 3.2: Measurement of Variables	35
Table 3.3: Kaiser-Meyer-Olkin Measure for the pilot test.....	39
Table 3.4: Cronbach’s Alpha Coefficients for the Pilot Test.....	40
Table 4.1: Demographic Profile of the respondents	41
Table 4.2: Summary of Tax Rate Issues.....	43
Table 4.3: Mean and Std. dev. of Tax Audit Issues.....	44
Table 4.4: Summary of efficiency (Role) of Tax authority	48
Table 4.5: Summary of Perception and attitude toward tax.....	49
Table 4.6: Summary of Ethics of government spending	50
Table 4.7: Correlations Coefficients.....	52
Table 4.8: Multiple Regression Analysis	53
Table 4.9: Regression Coefficients.....	54

List of Figures

Figure 3.1: Linearity test	36
Figure 3.2: Normality test	37
Figure 4.1: Perception on Effect of tax Audit on tax compliance	45
Figure 4.2: Respondents opinion about Fraud detection by Audit.	45
Figure 4.3: The Probability of being Audit effect on compliance	46
Figure 4.4 Perception on Role of tax audit on Voluntary tax compliance	47
Figure 4.5: Effect of previous audit history on tax compliance.....	47

Acronyms and Abbreviations

A.A	Addis Ababa
AACG	Addis Ababa City Government
AACGRA	Addis Ababa City Government Revenues Authority
AK	Addis Ketema
ERCA	Ethiopian Revenues and Customs Authority
LTP	Large Tax Payers
PAYE	Pay as you Earned
SAS	Self Assessed System
SPSS	Statistical Package for Social Science
UK	United Kingdom
VAT	Value Add Tax

Abstract

Tax is an important source of revenue for government's spending and development projects. When taxes are not well administered, tax morale may be undermined and unnecessary administrative and compliance costs incurred. Literatures shows tax evasion is among the major societal problems inhibiting development in developing countries and tax noncompliance is a phenomenon, which has attracted attention of policy makers as well as researchers over the years. This paper aim at to examine perception of tax payers on VAT compliance with tax policies of the government and non-compliance of taxpayers with the tax laws is a key to further motivating and assisting the compliers and designing appropriate strategies to deal with non-compliers so that they can gradually develop the desired behavior of tax compliance. To achieve this objective, the quantitative data methods were employed. The design of the study was both descriptive and explanatory type. From 6922 small and medium level VAT registered individual tax payers and pay their tax in Addis Ketema sub city; 378 tax payers were taken for the study .Stratified sampling technique was employed to select a representative sample from the two classes of taxpayers .Data were gathered by the use of close ended self-administered structured questionnaires .Descriptive and inferential method used for data analysis statistically treated using statistical package for social science (SPSS). Tables, graphs and charts were used to present results of the analysis. The results indicates that structure of the tax system, attitude & perception of government spending and ethics toward tax compliance affect taxpayers' compliance behavior . To solve the problems of the non-compliance behavior of the taxpayers educating taxpayers ,adopting a continuous and consistent audit program, and information about benefits of paying tax, have been a key to motivating factors and given as a recommendation.

Key words: Tax, Compliance; non-compliance; VAT; determinants; Addis ketema sub city

CHAPTER ONE

1. INTRODUCTION

Challenges in dealing with taxpayer behavior and the risks of tax administration are as old as taxation itself. A remarkable example is that, when income tax was first introduced in the UK in 1799, it was thought unacceptable that taxpayers should be required to disclose the precise level of their incomes. To deal with the obvious risks involved, the response was to require that taxpayers should declare that the tax paid was not less than the required 10 per cent of their income (Ann, Jacqueline, John, J. Richard & Sharon, 2012).

Taxes are greatly vital instrument and primary source of revenues to a government. The revenues are needed to finance critical programs (e.g., health care and education), services (e.g., law enforcement and public utilities), and infrastructures (e.g., road construction and environmental protection) which are essential to the society (Muzainah & zekariah 2016) .Eicher, Thomas Wendy (2002) States that taxation is an important source of revenue to government in both developing and developed countries to provide the basic infrastructural, and social amenities. This can only be realized if all taxpayers willingly comply with the tax laws and the desire to uplift one's society is the utmost desire of every patriotic citizen, in which tax payment is a demonstration of such a desire.

The payment of tax is a civic duty and an imposed obligation by government on their subjects and companies to enable her finance or run utilities and perform other social responsibilities. But the amount of revenue generated by government from such taxes for its expenditures depends among other factors, on the willingness of the taxpayers to voluntarily comply with tax laws.

Tax noncompliance is the failure of taxpayer to meet tax obligations whether the act is done intentionally or unintentionally and this may occur through failure to file tax returns, misreporting taxable income or misreporting of allowable subtractions from taxable income or tax due such as exemptions, deductions, tax credit Kirchler, (2007); Roth, Scholz&Witte, (1989).

1.1 Background of the Study

Being introduced in France by 1954 as Taxes Sur la Valeur Ajoutée, Value added tax has currently banquet over enormous countries of the world and to that extent, all developed and developing countries of the world with the exceptions of some countries has accepted VAT as their modern taxing system (Angesom,2013). VAT was introduced in Britain in 1973, at a standard rate of 10 per cent, VAT has become increasingly complicated with some products exempted or zero-rated, and different rates levied on various groups of goods and services (World Bank 2009). According to Peter in July 1974, the standard rate was reduced to 8 per cent, and four months later a higher rate - 25 per cent - was introduced on petrol. Two years later, this rate was reduced to 12.5 per cent. Under Mrs. Thatcher, the higher rate was abolished in 1979 and a unified rate of 15 per cent introduced (Peter, 1995). Interims of VAT structure, two groups of countries are identified: Single-rate and multiple-rate countries. According to International Monetary fund (IMF) report (2004), more than 4billion, 70%, of the world's population now live in countries with VAT and VAT raises about \$18 trillion in tax revenue, roughly one-quarter of all government revenue. Nowadays, among 190 countries of the world, over 136 (72%) of them have made VAT part of their tax system; and from 53 members of countries of Africa Union, 33 (60%) of them have introduced VAT (IMF,2004).

In 2008, 145 of the 183 economies measured in Paying Taxes 2010 used a VAT system representing nearly 80 percent of the population. Twenty of the 183 economies used a different consumption tax system in 2008, and 18 economies had no consumption tax which applied to the case study company. AT is also used in the developing world. Around 80 percent or more of the economies in Africa and Latin American and the Caribbean that were included in Paying Taxes have a VAT (World Bank & Paying tax 2009)

Ethiopia introduced VAT in the year 2003 as a replacement to sales tax. VAT is the principal source of revenue for the Ethiopian government (Wollela, 2008). VAT is one of the major source of revenue in Ethiopia since it was implemented in the tax system in 2003.VAT is introduced in Ethiopia by proclamation No. 285/2002 by replacing the former sales tax with various objectives like to collect tax on the added value, to enhance economic growth, saving & investment (Misrak, 2014). VAT obliged to those who register as VAT payers and their taxable

annual turnover is above Birr 1,000,000 VAT rate is 15% For instance, in the 2006–07 fiscal year, federal VAT revenue (on domestic transactions) accounted for about 41 per cent of total federal revenues from domestic sources. Further, since its introduction, VAT has been more revenue productive than sales tax (Wollela, 2008). One of the reasons to replace sales tax by VAT is to mitigate tax evasion, which is also called non-compliance by the tax payers (Misrak 2014). According VAT law supply of goods & services in Ethiopia are subject to VAT at a single standard rate of 15% except those exempted and zero-rated goods and supplies determined by the VAT law.

Later on, the VAT proclamation No.285/2002 has been amended by proclamation No.609/2008 which has three articles and a number of sub-articles. It adds a few new legal provisions, which were not incorporated in the previous proclamation and repeals, replaces some of the legal provisions of the previous proclamation (Misrak 2014).

1.2 Statement of the Problems

Tax compliance is a growing international concern for tax authorities and public policy makers as tax evasion seriously threatens the capacity of government to raise public revenue (Stephen B.2011).

Tax compliance has been a vital subject of research in an extensive number of developing as well as developed countries. Since every country has, its own particular way to deal with tax compliance levels and each has distinctive tax laws and regulations, the components influencing tax compliance behavior seem to differ among countries. Factors affecting tax compliance can be seen from different continuums; for instance, economists and policy analysts have given increasing attention to tax compliance theoretically and empirically (Clotfelter, 1983)

Tax noncompliance is the failure of taxpayer to meet tax obligations whether the act is done intentionally or unintentionally and this may occur through failure to file tax returns, misreporting taxable income or misreporting of allowable subtractions from taxable income or tax due such as exemptions, deductions, tax credit Kirchler, (2007); Roth, Scholz &Witte, (1989). Tax noncompliance is a universal phenomenon hindering efficient tax revenue productivity in both developing and developed countries, Clotfelter (1983).

Negative tax voluntary compliance attitude is individuals' failure to comply with their tax commitment. Hence, study by Loo, (2006), broadly categorized negative compliance as failing to file a tax return; underreporting of taxable income; overstating tax claims such as deductions and exemptions and failing to make timely payment of tax liability. In contrary, positive tax voluntary compliance attitude is the willingness of taxpayers to comply with tax system. To this effect, it stated that voluntary compliance attitude with tax laws involves true reporting of the taxable income; correct computation of the tax liabilities; timely filling of tax returns and timely payment of the amount owing as tax obligation(Cited from Aselam 2016).

According to Amina and Sanya (2015), Even if tax is base for the existence of the state, most taxpayers become unwilling to pay their tax obligations due to the presence of negative voluntary compliance attitude. Non-compliant taxpayers take a variety of actions to reduce their tax liability. Tax negative voluntary compliance attitude is burning issue in developing countries in the world especially Sub-Saharan Africa countries. The researcher pointed out that Ethiopia, like any other developing countries, faces difficulty in raising tax revenue to the level required for the promotion of economic growth. Many countries in the world generate their revenue from taxes.

In Ethiopia the principal taxes currently in place are Corporate Income Tax, Turn Over Tax/Value-Added Tax (VAT), Excise Tax, Customs Duty, Income Tax from Employment and income tax from business (Simon, 2013). Recently VAT becomes a major worldwide tax instrument which enhance Economic growth and on Average the growth rate of VAT was 66.27% from 2003 to 2012 (Jalata, 2014). VAT is the principal source of revenue for the Ethiopian Government (Misrak 2014).Today Many of the world and African countries depend their revenue on VAT (see appendix 2)

Tables1.1 bellow shows some of noncompliance practice under investigation audit in Ethiopia. Cases are unusual suspect or fraudulent activities going in to an organization it call in to the investigation audit under the matter. It involves through scrutinizing of the financial records in order to trace the suspects, determine financial irregularities, obtain substantial evidence against the suspects and present the case in court of law.

Table 1.1: Proportion of Files under investigation Audit in ERCA from 2004-2007 E.C

Description	Years in E.C			
	2004	2005	2006	2007
Files transferred to Prosecutor (FTP)	1881	2191	2523	1379
• From FTP, files discharged	1704	1887	2156	935
• From FTP, Files returned for further investigation	43	45	92	110
• From FTP, Closed Files	134	259	275	334
Files closed after paying administrative taxes & penalties	762	1001	769	272
Total files Under Investigation Audit	2643	3192	3292	1651
Total number of files under Audit	10574	11281	10660	5222
Percentage of investigation Audit from total Files	25%	28%	31%	32%
Winning potential of tax Authority from files discharged	86%	86.98%	86.92%	86%

Source: AACGR, Record section data (2018)

Like many other countries, Ethiopia suffers from revenue loss due to the problems of tax non-compliance (Misrak, 2014). It is clearly observed from the above table that from total files under audit 25 % to 32% was investigation audit. Out of the investigation audit and files discharged the winning potential of the tax authority for the period was about 86%. Therefore the figures indicate that there is a non-compliant practice in Ethiopia. The reason which is the objective of this study, the compliance nature of tax payers may not be well administered , controlled and implemented. Therefore, designing appropriate strategies to deal with non-compliers of tax payers to develop the desired behavior of tax compliance is the primary interest of the researcher.

It is with these facts in mind that the researcher was motivated to conduct a survey on determinants of tax compliance in the case of small and medium level VAT registered tax payers in Addis ketema sub city.

1.3 Broad Research Objectives and Hypothesis

The general objective of the study is to examine perception of determinants of tax compliance among small and medium level individual VAT registered tax payers. To achieve these objective the following hypotheses were framed;

H1- There is positive relationship between perception of tax rate and tax compliance.

H2- There is positive relationship between perception tax audit and tax compliance

H3- There is positive relationship between perception of efficiency (role) of tax authority and tax compliance

H4- There is positive relationship between attitude & perception of government spending and tax compliance.

H5-There is positive relationship between perception of ethics and tax compliance.

1.4 Significance of the Study

Although VAT is one of the major sources of revenue in Ethiopia, researches on the determinants of VAT compliance has been given little attention. A study of determinants of VAT compliance assumed to be helpful to sustain revenues from VAT and to promote peace full relationship between the tax authorities and the taxpayers. Moreover, this study provides some guideline for future research into tax compliance behavior.

1.5 Scope of the Study

The scope of this study is focused on the analysis of determinants of tax compliance in terms of Structure of tax system (tax rates, tax audits, efficiency of the tax authority), attitude and perceptions of government spending, ethics and attitude toward tax compliance are taken in small & medium level VAT registered individual tax payers in Addis Ketema sub city. Therefore this study couldn't address all determinants of tax Compliance dimensions. This study focused only on Small and medium level tax payers. Therefore, because of large number of population this research not fully assesses all level (Private limited company and corporate level) of VAT registered tax payers. The scopes of this research also have a geographical limitation which is restricted to Addis Ababa specifically in Addis Ketema sub city. The time scope for data collection was limited to August 1, 2018 to November 30, 2018.

1.6 Limitation of the Study

The major limitation is that in the first place, the focus of this study was on individual tax payers but corporate tax payers may have different opinion and perception from the individual taxpayers. Due to time and resource limitation, the study couldn't cover corporate tax payers in the context of Ethiopia. As a result, the findings and/or outcomes reported in this thesis might not fully represent or reflect the situation of corporate tax payers. Due to large number of tax payers the study is not cover all individual tax payers. Therefore the researcher is obligated to take sample in order to draw inferences. Taking samples by its nature have its own limitation. Lack of sufficient previous studies in Ethiopia was other problem. Therefore, the researcher tried to solve this problem by using other country journals, literatures and findings as supporting documents.

1.7 Organization of the Study

The research is organized in to five chapters. The next chapter shows related literatures relevant to understand the topic of the study deeply. The third chapter deals with the research methodology and the research design, which includes the data set used, methods adopted, the population & sample size, questionnaire design, data collection procedures applied research strategies the fourth chapter deals with data analysis, presentation and discussion the fifth chapter contains summary of the findings conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2. Introduction

The first chapter introduced the problem to be investigated in this study along with its purpose. In order to put the study within the context of the existing literature, the subsequent section of this chapter present the review of both theoretical and empirical studies related tax determinants of tax compliance. The review has four sections. The first section presents the theoretical issues related to meaning & concepts of tax compliance. This is followed by the review of empirical studies regarding determinants of tax compliance and related issues from the existing literature. The third Section Shows the conceptual frame work about tax compliance. Finally, conclusions on the literature review and identification of the knowledge gap are presented.

2.1 Theoretical Literature Review

2.1.1 The Concept and Definition of Tax Compliance

Tax compliance is a major problem for many tax authorities and it is not an easy task to persuade taxpayers to comply with tax requirements even though ‘tax laws are not always precise’ James and Alley (2004). The meaning of tax compliance has been defined in various ways. Marziana, Mohamad, Norkhazimah and Mohmad (2010), defines tax compliance as the degree to which a taxpayer complies or fails to comply with the tax rules of their country. According to Marti (2010), tax compliance is fulfilling all tax obligations as specified by the law freely and completely. Tax compliance is the ability and willingness of taxpayers to comply with tax laws, declare the correct incomes in each year and pay the right amount of taxes on time. Andreoni, Erard, and Feinstein (1998) claimed that tax compliance should be defined as taxpayers’ willingness to obey tax laws in order to obtain the economic equilibrium of a country. Song and Yarbrough (1978) suggested that due to the remarkable aspect of the operation of the tax system in the United States and that it is largely based on self-assessment and voluntary compliance, tax compliance should be defined as taxpayers’ ability and willingness to comply with tax laws which are determined by ethics, legal environment and other situational factors at a particular time and place. Alm (1990) and Jackson

and Milliron (1986) defined tax compliance as the declaring all incomes and payment of all taxes by fulfilling the provisions of laws, regulations and court judgments.

Compliance in administration terms, therefore, includes registering or informing tax authorities of status as a taxpayer, submitting a tax return every year (if required) and following the required payment time frames Ming Ling, Normala and Meera, (2005). In contrast, the wider perspective Singh, V. and Bhupalan, R. (2001) defined tax compliance in a pure administration term the degree of honesty, adequate tax knowledge and capability to use this knowledge, timeliness, accuracy, and adequate records in order to complete the tax returns and associated tax documentation. Somasundram (2003, 2005) claimed since the total amount of tax payable is highly dependent on the levels of tax compliance; this perspective reveals the primary perspective of compliance becomes a major issue in a self-assessment, although it is inevitable that tax authorities will seek to 'influence' the areas taxpayers have influence over determining to reduce the risks of non-compliant behavior they face otherwise e.g. through continuously conducting tax audits or a continuous assessment of different sorts and other means such as various compliance influencing activities including tax education. Some authors have viewed tax compliance from a different perspective. For example, A wider definition of tax compliance defined by Brown and Mazur (2003), tax compliance is multi-faceted measure and theoretically, it can be defined by considering three distinct types of compliance such as payment compliance, filing compliance, and reporting compliance into categories in considering definitions of tax compliance.

The wider perspective of tax compliance was also illustrated in the definition provided by Andreoniet. al. (1998) in which they included the desired outcome as a result of obedience to tax laws – 'to obtain an economic equilibrium'; Allingham and Sandmo (1972) – 'enjoy tax saving' or 'penalty'. Singh (2003) described tax compliance as voluntary action – 'without having to wait for follow up actions from tax authority'. Apart from these, Song and Yarbrough (1978) included some factors of compliance in their definition i.e. 'determined by ethics, legal environment, and other situational factors'. Since there have been many empirical studies attempts have been made to define tax compliance, for the purpose of this study, Alm (1990); Jackson and Milliron (1986) and Kirchler (2007), tax compliance is defined as taxpayers' willingness to comply with tax laws, declare the correct income, claim the correct deductions, relief and rebates and pay all taxes on time.

VAT is a broad-based business tax imposed at each stage of the production and distribution process (Tuan, 2007). It is an indirect tax based on the consumption of goods and services in the economy. Value added is the difference between sales proceeds and purchases of intermediate goods and services over a certain period. For example, the value added for a supermarket is the difference between the total sales receipts that month and the total invoice for goods and services from its supplier. Ultimately, consumers carry the burden of the tax because everyone else in the process deducts the VAT paid on inputs from the VAT collected on their outputs (Angesom, 2010).

There are two means of administering VAT: the credit-invoice VAT and the subtraction-method VAT. In the credit-invoice method, the most common form of the VAT, a business pays VAT on its purchase of inputs and collects it on its sales whether those sales are to another business or the final consumer (Curtis, 2010). Under this method, all transactions are taxed at a fixed proportional rate regardless of whether they are final or intermediate transactions. Taxpayers are allowed to deduct the taxes paid on intermediate purchases from the taxes collected from their sales in determining their tax liability. It is called the invoice method because payment of the tax merely requires firms to maintain invoice on sales and purchases for each tax payment period usually monthly or quarterly (ibid). A credit-invoice VAT is more resistant to tax evasion because businesses collect and remit the tax at every stage of the production process. Another viable approach to levying VAT is the subtraction-method VAT, which is economically equivalent to the credit invoice VAT. Each method has positives and negatives, but almost every country that levies a VAT has chosen the credit-invoice method as the best way to apply the VAT in practice. This method uses company accounts to determine VAT liability by subtracting taxable receipts less taxable purchases to obtain total value added. In other words, according to Curtis (2010) subtraction method of computing a firm's VAT calls simply for subtraction of total purchases from the sales of the firm in question and the balance, the value added by this firm, is then subject to the VAT rate. Of the approximately 150 countries that levy a VAT, only Japan uses the subtraction method.

VAT is the predominant form of consumption tax system used around the world (World Bank & Paying Tax 2009). However, like other taxes, the VAT is vulnerable to tax evasion, tax fraud and poor enforcement (J.A and Tran 2010). Given the VAT's revenue raising importance, there have

been many time series and cross country studies investigating the effectiveness of VAT compliance and enforcement (Ibid). The most popular measure of such effectiveness is the collection efficiency (CE) index (Ibid). CE is defined as the ratio of actual VAT revenue to potential VAT revenue with full compliance. Most studies calculate potential VAT revenue crudely, multiplying a single VAT rate by the value of final consumption. VAT compliance tends to be more time-consuming in countries where indirect taxes are not administered by the same tax authority that deals with corporate income tax. Administrative procedures vary from country to country and these have a significant impact on how long it takes to comply with VAT and it takes less time to comply, on average, in countries where business uses online filing and payment for VAT (World Bank and Paying tax, 2009). VAT Compliance decreases or collection inefficiency can arise from tax evasion on the part of registered businesses and lax enforcement by tax authorities (J.A and Tran, 2010). Compliance time is likely to be lower where tax systems are stable, tax legislation is well understood and does not change frequently, and administrative and legal frameworks operate in a way that leads to an efficient tax system

Tax noncompliance is the failure of taxpayer to meet tax obligations whether the act is done intentionally or unintentionally and this may occur through failure to file tax returns, misreporting taxable income or misreporting of allowable subtractions from taxable income or tax due such as exemptions, deductions, tax credit Kirchler, (2007); Roth, Scholz&Witte, (1989). Tax noncompliance is a universal phenomenon hindering efficient tax revenue productivity in both developing and developed countries (Alabede, Ariffin&Idris, 2011). Tax non-compliance occurs through failure to file a tax return, misreporting income or misreporting allowable subtractions from taxable income or tax due (Serkan, Tamer, Yüzba&Mohdali, 2016).

In general Kasipillai & Abduljabber, (2006) Tax non-ompliance can be defined as either a failure to submit a tax return within the stipulated period or no submission, understatement of income, overstatement of deductions, failure to pay assessed taxes by due date and in some cases non-compliance may mean an outright failure to pay levied taxes.

2.1.2 Tax Compliance Theories

These research efforts produced a number of models aimed at understanding compliance behavior of taxpayers and scholars have concluded that economic, social, psychological cultural and

demographic factors are influencing tax compliance (Allingham & Sandmo, 1972; Jackson & Millron, 1986 ; Alm, 1991).

Economic Based Theories

They are also known as deterrence theory and they place emphasis on incentives. The theory suggests that taxpayers are amoral utility maximizers- they are influenced by economic motives such as profit maximization and probability of detection. As such they analyze alternative compliance paths for instance whether or not to evade tax, the likelihood of being detected and the resulting repercussions and then select the alternative that maximizes their expected after tax returns after adjusting for risk. This process is referred to as “playing the audit lottery” by Trivedi and Shehata (2005). Therefore according to the theory, in order to improve compliance, audits and penalties for non-compliance should be increased.

Deterrence can be achieved through a number of approaches, punitive and persuasive. That is, deterrence may take on the form of increasing the probability of detection, increasing the tax rate or by the imposition of tougher penalties. Alternatively, it may take on the form of better education, increased advertising/publicity and incentives. The economic definition of taxpayer compliance views taxpayers as ‘perfectly moral, risk-neutral or risk-averse individuals who seek to maximise their utility, and chose to evade tax whenever the expected gain exceeded the cost (Devos, 2014).

Besides the economic factors like tax Audit & penalty Tittle and Welch (1983) analyzed the effect of religiosity on tax compliance according to Tittle and Welch religiosity have an effect on tax compliance behavior of an individual. Taxpayers exhibit a range of behavioral possibilities influenced by several factors. These factors may be economic factors such as income, tax rate, tax determinants of tax compliance penalty; psychological factors such as norm, moral, attitude of taxpayers; and social factors such as demographic factor (Brook, 2001).

Social factors theories

The theory suggests that taxpayers are compliance behavior is influenced by Fairness of the tax system and effects of referrals. Fairness of the tax system is a concept of having equitable tax system. Fairness of the tax system is believed by the taxpayers and tax authority as one of the

significant determinants of compliance decision (Amina and Saniya 2015). Warneryd and Walerud suggest that perceived inequity in the tax system does not contribute to tax evasion, but it is used to rationalize non-compliant behavior

When we come to see effects of Referrals: Individual taxpayers do not live alone in this world and they have to interact with others in their daily life. Thus influence of one person on another in their compliance is an important part of their continuous existence in society. Perception of peers not to comply with the tax laws resulted in the taxpayers' non-compliance action (Hai T 2011). Decisions to comply or not are sometimes influenced by family members and friends (Ajzen & Fishbein 1980). A Behavioral research by Puspitasari and Meiranto(2014) states that peer groups have a strong impact on behavior, preferences and personal values of the individual person .However, (Green 2000) found that there is no significant correlation between taxpayer non-compliance and knowing non-compliant peers .

Psychological Theories

Psychology theories on the other hand posit that taxpayers are influenced to comply with their tax obligations by psychological factors. They focus on the taxpayers' morals and ethics. The theories suggest that a taxpayer may comply even when the probability of detection is low.

As opposed to the economic theories that emphasize increased audits and penalties as solutions to compliance issues, psychology theories lay emphasis on changing individual attitudes towards tax systems.

The essential thrust of this approach is that individuals are not simply independent utility maximisers rather individuals are recognized to contain an array of attitudes and beliefs which interact and respond to social norms. Social psychology models inductively examine the attitudes and beliefs of taxpayers in order to understand and predict human behavior(Devos,2014)

Cultural Theories

Torgler and Schneider (2007) suggest that culture influences tax compliance. Their study examined the effect of culture on tax morale to comply with the tax law in Switzerland, Belgium

and Spain. The findings suggest that it is possible for culture and national pride to influence tax morale in complying with the tax laws.

Ethical decision making is a social process which is transferred within culture from generation to generation (Crane & Matten, 2007) and thus different cultures embrace different values and behaviour (Axinn, Blair, Heorhiadi, & Thach, 2004). The importance of culture in the context of tax compliance has been supported in various studies (Kirchler, 2007; Torgler & Schneider, 2007). However, there is no standard measure to examine the influence of culture in tax compliance, which leads to mixed findings on the importance of culture in some studies (Kirchler, 2007).

Demographic characteristics

Age, gender, income, level of education is tax compliance determinants from demographic perspective variables used in tax compliance research

Researchers have long studied demographic factors such as age; however, the findings from different studies remain inconclusive. For example, Tittle (1980), Warneryd and Walerud (1982) posit a negative association - older people are less compliant. In contrast, Clotfelter (1983), Dubin and Wilde (1992) argued that age was positively related to compliance. However, there have been a significant number of studies that have found no relationship (Spicer and Becker, 1980).

Mason and Calvin (1984) younger people likely to admit underreporting of taxable income than the older people. In the study using taxpayers in the US and Hong Kong, Chan, Troutman, and O'Bryan, (2000) found that the decision to comply with tax rules is driven by the age of the respondents. The result suggests that older taxpayers are more tax compliant than the young taxpayers

The association between gender and tax compliance has received some attention in prior literature however, findings vary across studies. Some studies found that males are more compliant but others found the other way around. Although the agreement among the findings is still in discussion, the need to explore this more fully is still relevant especially in a SAS, in order to help tax administrators to plan and determine the framework of their tax audits and help target tax education programmers effectively differences in the toward risk-taking. Studies had indicated

that female has proven to be more risk-averse than male in decision making particularly in financial decision risk (Meier-Pesti&Penz, 2007)

Chan et. al. (2000) investigates the direct and indirect effects of two noncompliance opportunities, namely educational and income level. Previous literature supports the direct, negative relationship between educational level and taxpayer compliance but a direct relationship between income level and tax compliance is unclear (Jackson and Miliron, 1986; Roth et. al., 1989). Chan et. al. (2000) also postulates that greater education is directly linked to a likelihood of compliance. They argue that educated taxpayers may be aware of non-compliance opportunities, but their potentially better understanding of the tax system and their higher level of moral development promotes a more favorable taxpayer attitude and therefore greater compliance. Chan et. al.(2000) also suggested that those with a higher education level are more likely to have a higher level of moral development and higher level attitudes toward compliance and thus will tend to comply more.

2.1.3 Determinants of Tax Compliance

Various studies in developing countries resolute various determinants of tax compliance, as we have seen above, economic, social, psychological and cultural factors are influencing tax. Other works of literature like (Andreoni, Erard & Feinstein, 1998; Chau & Leung, 2009; Fuest & Riedel 2009) suggests the need for more studies on tax compliance in developing economies.

Allingham and Sandmo (1972) conduct an empirical analysis into compliance behavior of taxpayers and they made a model which became known as A-S model. In the model, the determinants of the taxpayer are being affected by the income of the taxpayer, tax rate, probability of audit, and fine rate. However, factors influencing compliance behavior of taxpayers are numerous than suggested in the A-S model (Alm, 1990; Jackson & Millron, 1986). Therefore, Alm, Jackson & Millron conclude that Social & psychological factors are influencing compliance behavior of taxpayers beyond the A-S model.

2.1.3.1 Structure of Tax System

Structure of tax system is concerned with economic factors (actions that are associated with the costs and benefits of performing the actions) in relation to tax compliance and other factors that associated with the structure of the tax system (Loo, 2006). Hasseldine (1999), Song and

Yarbrough (1978) and Torgler and Schneider (2005) assumed that taxpayers are rational economic evaders who likely would assess the costs and/or benefits of evasion. They would attempt to minimize their tax liability, for example, by intentionally under-reporting their income and would enjoy tax savings if the tax authorities did not detect them. On the other hand, they would be willing to pay more, including a penalty, if they were caught (Song and Yarbrough ,1978; Torgler, 2007).

2.1.3.1.1 Tax Rates

James, Brian and Jonathan (1998) claimed that the theoretical models indicate that, as income rises, tax evasion should increase over most ranges. Although there are special cases in which cheating declines with income, the regressive bias of tax evasion is the general prediction. By contrast, theoretical models generate no clear predictions on the effects of tax rates on compliance. The presence of both income and substitution effects complicates the analysis, and special assumptions about the form of penalties, distribution of income, and shape of preferences are often required to identify any comparative statics. Clotfelter (1983) claimed that “reducing tax rates is not the only policy that has the potential to discourage tax evasion” but the tax rate is an important factor in determining tax compliance behavior although the exact impact is still unclear and debatable Kirchler, (2007). Clotfelter also suggests that there was a significant relationship between tax rates and evasion due to tax rates being used as an instrument that can be manipulated for policy goals in particular. Raising marginal tax rates will be likely to encourage taxpayers to evade tax more (Witte and Woodbury, 1985; Ali, Cecil and Knoblett, 2001; Torgler, 2007) while lowering tax rates does not necessarily increase tax compliance (Trivedi, Shehata, and Mestelmen, 2004; Kirchler, 2007) This uncertainty and conflicting issue (for example reducing tax rate to increase compliance) has attracted the attention of tax researchers aiming to come up with more certain and concrete evidence of the impact of tax rates on evasion. Allingham and Sandmo (1972) previously attempted to find a relationship between actual income, tax rates, penalty and investigation and tax evasion using statistical modeling.

Other economic models of rational compliance decisions, however, perceived that tax rates have a mixed impact on tax compliance or predict that increasing tax rates will increase compliance behavior (Kirchler, Hoelzl, and Wahl, 2008). In contrast with Allingham and Sandmo, various

studies found that increasing tax rates encouraged noncompliant behavior or produced mixed findings (Pommerehne and Wech-Hannemann, 1996; Park and Hyun, 2003). Porcano (1988) claimed that tax rates have no effect on tax compliance while most experimental studies found that increasing tax rates leads to tax evasion.

Since the impact of tax rates was debatable (positive, negative or no impact on evasion), Kirchler et. al. (2008) suggested that the degree of trust between taxpayers and the government has a major role in ascertaining the impact of tax rates on compliance. When trust is low, a high tax rate could be perceived as an unfair treatment of taxpayers and when trust is high, the same level of tax rate could be interpreted as the contribution to the community (Kirchler et. al.,2008). In summary, evidence suggests tax rates have mixed impact on tax compliance i.e decreasing tax rates do not necessarily always increase compliance . Increase in tax rates might have a positive or negative impact on evasion. Moreover, increasing tax rates will not necessarily always decrease compliance behavior (Allingham and Sandmo, 1972).

2.1.3.1.2 Tax Audits

Studies claimed that tax audits have a positive impact on tax evasion (Dubin, 2007). These findings suggest that in self-assessment systems, tax audits can play an important role and their central role is to increase voluntary compliance. Audit rates and the carefulness of the audits could encourage taxpayers to be more cautious in completing their tax returns, report all income and claim the correct deductions to ascertain their tax liability. In contrast, taxpayers who have never been audited might be attracted to under-report their actual income and claim false deductions.

2.1.3.1.3 Role (Efficiency) of the Tax Authority/Government

For many aspects of tax compliance, there is a debate in the literature as to how the effective operation of the tax system by the tax authorities influences taxpayers' compliance behavior as researchers from different countries have been unable to achieve agreement about this issue, which appear to differ from country to country. Therefore, different countries have proposed and developed a different solution to the relationship between taxpayer compliance and their operation of the tax system.

The role of the tax authority in minimizing the tax gap and increasing voluntary compliance is clearly very important. Hasseldine and Li (1999) illustrated this, placing the government and the tax authority as the main party that needs to be continuously efficient in administering the tax system in order to minimize tax evasion. The government plays a central role in designing the tax systems itself, and the specific enforcement and collection mechanisms (Hasseldine and Li, 1999). Furthermore, Roth and Witte (1989) suggested that in order to increase compliance, maximize tax revenue and be respected by taxpayers, a government must first have an economical tax system, which is practicable; they must discourage tax evasion and not induce dishonesty; they must avoid the tendency to dry up the source of the tax and should avoid provoking conflict and raising political difficulties; they should also have a good relationship with the international tax regime.

2.1.3.2. Attitude & Perceptions of Government Spending

Studies on the relationship between the specifics of actual government spending and tax compliance, particularly on tax evasion, are very limited. Logically, taxpayers, and especially those who pay high amounts of tax, will be sensitive to what the government spends their money on. Although there is limited empirical evidence, it is reasonable to assume that taxpayers will tend to evade tax if they perceive that the government spends tax money unwisely. However, in most developed countries like the United Kingdom, which implement Pay as You Earn (PAYE), it is quite difficult to evade much of their tax liability as deductions are made at the source for the majority of many taxpayers' liabilities. Unlike the United Kingdom, in other countries where PAYE is not as extensively used, taxpayers have a larger opportunity to under-report their income and therefore pay less tax.

Lewis (1982) suggests that attitudes should be examined for the degree to which they are a product of myth and misperception. He argued that when myths and misperceptions are replaced by knowledge, a change in attitudes towards taxation would occur even if the taxpayers' basic ideology and values remain unchanged and the tax law is unchanged. He also claimed that misperception probably plays a major role shaping fairness evaluations. Meanwhile, Roberts, Hite, and Bradley (1994) also suggest that attitude to one's own tax evasion (tax ethics), and attitude to other people's tax evasion are important. If the government is wisely spending the national revenue, for example for basic facilities like education, health and safety and public transportation,

it is likely that voluntary compliance will increase. In contrast, if taxpayers perceive that the government is spending too much on something considered unnecessary or unbeneficial to them then taxpayers will feel deceived and attempt to evade.

2.1.3.3 Ethics toward Tax Compliance

In a tax system which is based largely on voluntary compliance (such as a SAS), the taxpayers' standard of ethics is 'extremely important' (Song and Yarbrough, 1978)

Ethics are a subjective scale and the level of ethical behavior is heavily reliant on how people perceive the behavior being considered (Ajzen, 1988). Studies on tax psychology, which predicts Ajzen (1988) first introduced people's behavior using the Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB), and (Ajzen, 1991). These theories attempt to predict people's behavior based on their intentions. It is assumed that ethics encourage individuals to act according to them and a taxpayer with a negative attitude towards tax evasion tends to be less compliant (Kirchler et. al., 2008).

In summary it can be noted that tax compliance has been a vital subject of research in an extensive number of developing as well as developed countries. Since every country has, its own particular way to deal with tax compliance levels and each has distinctive tax laws and regulations, the components influencing tax compliance behavior seem to differ among countries. Factors affecting tax compliance can be seen from different continuums; for instance, economists and policy analysts have given increasing attention to tax compliance theoretically and empirically (Clotfelter, 1983).

Economic factors such as tax rates, tax audits and perceptions, view of citizens on government spending and as well as institutional variables those incorporates the role of the tax authority, simplicity of the tax return and administration, and the probability of detection have both positive and negative associations with tax compliance.

2.2 Empirical Literature Review

This section of the research covers the findings of different researchers about the determinants of tax compliance empirical evidence on determinants of tax Compliance around the Globe.

Several empirical studies have been undertaken to assess and understand the compliance behaviors or determinants of tax compliance across different countries. The compliance behavior of taxpayers and scholars especially in developed countries have concluded that economic, social, psychological and cultural factors influence tax compliance (Allingham & Sandmo, 1972; Jackson & Millron, 1986; Alm, 1991)

According to Clotfelter's (1983) an important early study of the empirical relationships among income, the marginal tax rate, and evasion, reports elasticity's for the after-tax income, and marginal tax rate variables for each of a separate audit classes. Coefficients on both the after-tax income and marginal tax rate variables are positive and significant. The author therefore suggests that there was a significant relationship between tax rates and evasion due to tax rates being used as an instrument that can be manipulated for policy goals in particular Kirchler (2007). The tax rate is an important factor in determining tax compliance behavior although the exact impact of tax rate on tax compliance is still unclear and debatable. On the other hand James et al. (1998) claims that studies using laboratory experiments typically find that high tax rates are associated with greater evasion. Increase in tax rates might have positive or negative impact on evasion.

Moreover, increasing tax rates will not necessarily always decrease compliance behavior (Allingham and Sandmo, 1972). Allingham and Sandmo concluded that taxpayers might choose either to fully report income or report less, regardless of tax rates. Tax rates appeared to be insignificant in determining tax evasion.

Witte and Woodbury (1985) found that tax audit could change compliance behavior from negative to positive. Witte and Woodbury in their study of small proprietors found that tax audits have a significant role in tax compliance. They did not empirically test individual taxpayers, thus left open room to conduct research in this area. According to Studies by Dubin (2007) claimed that tax audits have a positive impact on tax evasion. These findings suggest that in self-assessment systems, tax audits can play an important role and their central role is to increase voluntary compliance

A study conducted by Richardson (2008) also suggested that the role of government has a significant positive impact on determining attitudes toward tax. This study attempted to investigate the determinants of tax evasion in different countries including the USA, the UK, Argentina,

Thailand, Canada, Chile, and Brazil. Richardson also suggested that the government should increase their reputation and credibility in order to obtain trust from the taxpayers.

Although previous studies could not provide conclusive results on the measurable impact of the efficiency of the government on compliance, however, researchers from different countries have discussed this issue and some authors have described how the role of government in inducing tax compliance is important and relevant in self-assessment systems (Richardson, 2008; Hasseldine and Li, 1999).

Orviska and Hudson (2002) and Trivedi, Shehata, and Mestelmen (2004) found a significant (but weak) relationship between tax evasion and ethics. Elffers, Weigel, and Hessing (1987) earlier found that ethics, attitudes and moral beliefs influenced upon tax compliance behavior according to their psychological model of tax compliance.

The evidence clearly shows various attitudes towards taxation, such as tax ethics and the fairness of the tax system and that these have an influence on the inclination towards tax evasion (Jackson and Milliron, 1986). It is consequently important to get more details about how these attitudes are influenced. Roth et. al. (1989) identified two primary factors in taxpayer compliance, namely financial self-interest and moral commitment.

Individuals comply with tax laws because it is in their own financial interests to minimize their tax bill, but also because of their perceived moral obligation to obey tax laws. Roth et. al. (1989) validates that there was a consistently positive relationship between moral commitment and compliance behavior. Roth et. al. (1989) finding seems to theorize that ethics have a positive effect on compliance behavior, more than financial self-interest. Ajzen (1988) claimed that the best predictor of a person's behavior is ethics, but argued that this link can be disrupted by the passage of time, unforeseen events or new information. In addition, low involvement behaviors are likely to be based on few, weakly held or possibly unstable views.

As suggested by previous studies Kirchler et. al., (2008); Orviska and Hudson (2002); Jackson and Milliron (1986)), attitudes and ethics remain important in determining evasion behavior. Based on Ajzen (1991) the theory of reasoned action or the intention to evade will encourage a taxpayer to behave negatively toward taxation and thus attempt to under-report income. On the other hand,

attitudes towards the tax authority are also important as tax attitudes and ethics generally depend on the perceived use of the money collected by the government (Kirchler et. al., 2008).

In Ethiopia, different researches have been made on tax. Tilahun & Yidersal (2014) on the title *Determinants of Tax Compliance Behavior in Ethiopia: The Case of Bahir Dar City Taxpayers* with the objective to identify factors that determine tax compliance behavior. The researcher used one-way ANOVA, two samples and one sample T-test, the data were collected using structured questionnaire. The results revealed that perception on government spending; perception on equity and fairness of the tax system; penalties; personal financial constraint; changes on current government policies; and referral group (friends, relatives etc.) are factors that significantly affect tax compliance behavior.

Suresh & Srinivas (2012) on the title *factors that influence rental taxpayers' compliance with tax system: an empirical study of Mekelle city, Ethiopia* with the objective of identifying factors that influence rental taxpayers' and their degree or level of compliance with the tax system in Mekele city. The researcher had drawn 140 sample sizes out of 5,480 total populations that constitute 37 rental taxpayers from Hadnet, 41 from Hawelti and remaining 62 from Kedamayweyane. The primary data were collected through structured questionnaire; the data were analyzed using the descriptive statistics like mean and standard deviations. The researchers concluded that there were some dishonest rental taxpayers. Some rental taxpayers were intentionally understating their taxable income by substantial amounts. Even some individuals entirely do not report their taxable income to the concerned body. Consequently, it affects the attitudes and compliance behavior of genuine rental taxpayers towards the tax system. The study also disclosed that with the exception of minority of the rental taxpayers who hold certificate and diploma, majority of them were with an educational background of elementary and high school completed. Hence, it can be concluded that rental taxpayers lack knowledge of easily understanding the laws and regulations of the tax system and how their taxable income is computed. With respect to providing tax awareness training, it is the duty and responsibility of the tax authority to conduct a series training to the rental taxpayers, especially for those whose educational background was elementary and secondary school completed, However, the research indicated that majority of the respondents didn't attain the tax training sessions. This may be either because of poor control and follow up mechanism of the tax authority or due to lack of awareness of the rental taxpayers. Therefore, it

can be concluded that still many respondents are not attending or participating in the tax training session.

A study made by Amina & Saniya (2014) on tax compliance and its determinant the case of Jimma zone, Ethiopia, with the aim of investigating the determinants of tax compliance for the case of Jimma zone category 'A' taxpayers. By distributing 384 questionnaires to category A sample taxpayers, the study tried to explore the main determinants of tax compliance. The findings shows that age, sex, penalty, audit, simplicity, fairness and government perception were found to affect tax compliance. In general it is recommended that ERCA has to work on educating the young generation about the tax system and the benefit it has to the society as a whole, try to make the whole tax system as fair as possible with regard to the benefit received from paying tax and the tax burden of paying it, to expand and make more regular and consistent auditing still putting in mind the cost associated with it, work on bringing a good reputation in providing public service and making the tax system simple in general and the law, the forms, the filling, the paying and appeal system in particular in order to increase the tax compliance in one hand and the tax revenue in general.

As discussed above the empirical study on determinants of tax compliance around the world shows that different variables have been taken into account to investigate what determine tax compliance of different taxpayers. According to the results of the various study tax compliance has been influenced specifically by probability of being audited, perceptions of government spending, penalties, personal financial constraints, Ethics and attitude toward tax compliance.

2.3 Research Gap

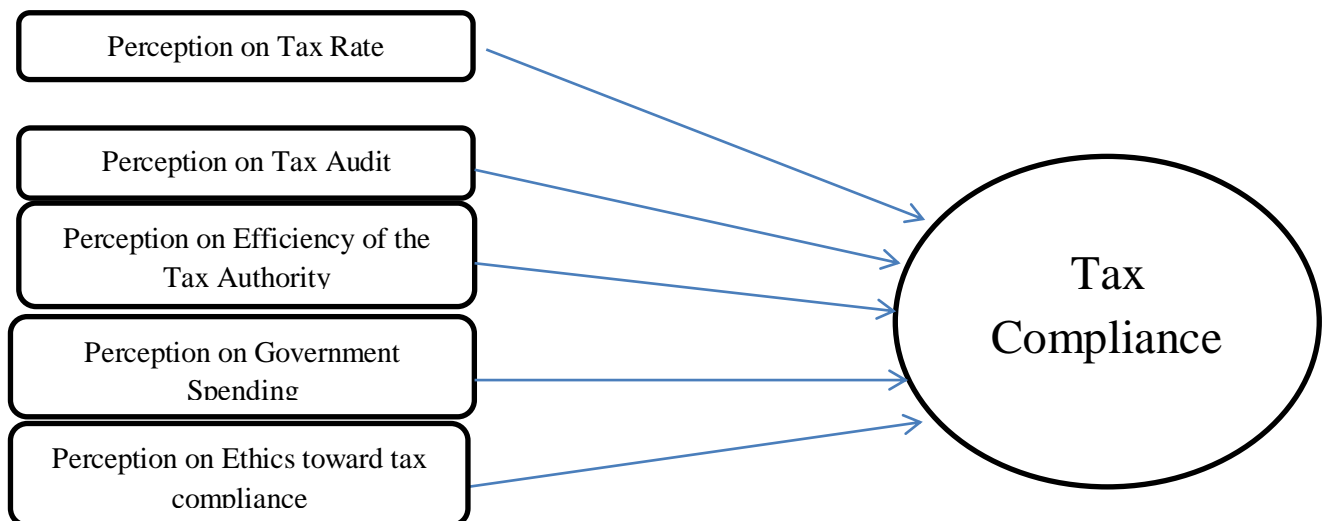
Most researches conducted on tax compliance attitude issues were done in developed countries. For instance studies such as Allingham & Sandmo, (1972) in Norway, Jackson and Milliron (1986) in New Zealand and Torgler (2007) in Australia out tax compliance of taxpayers is influenced by factors including probability of being audit, perception on government spending, fear of penalty, personal financial constraints and existence of referent groups in self - assessment system. When it comes to Ethiopia, there are few researches done on the same topic and related issues in country. Few researches have been done on tax compliance in Ethiopia. For example, the studies conducted by Desta (2010), Tesfaye (2015), Yonas (2016) , Tilahun & Yidersal, (2014) on simillar issue by incorporating up to nine explanatory variables in their study and

made different suggestions about tax voluntary compliance attitude of taxpayers ' on different study areas in the country. Exclusive research on VAT compliance behavior of tax payers is not conducted by researchers although few researches have been done on tax compliance in Ethiopia but they stated few issue about VAT. Teffera (2005) attempted to show the problem of noncompliance by providing information on credit filers and nil-filers. He concluded that taxpayer's compliance problems are continuously manifests due to deliberate evasion and unlawfulness, and weak audit and enforcement capability of the tax administration. The author Provide information about VAT implementation in Ethiopia using information merely from tax authority Wollela (2008) examines VAT administration in Ethiopia and identifies key problems including lack of sufficient number of skilled personnel and gaps in the administration in such areas as refunding, invoicing and filing requirements. The author examines VAT administration in Ethiopia focusing on the key administration tasks using interview to tax officials and survey to tax payers and practitioners.

Therefore, aforementioned problems necessitate this study to be carried out and doing this research assumed to fill the gap of methodology and other gaps mentioned above about Determinants of Tax Compliance in The Case of VAT Registered individual Tax payers in Addis Ketema Sub City.

2.4 Conceptual Framework

Based on the literatures reviewed both (theoretical and empirical) the following conceptual framework were formulated.



Source: Kirchler(2007) and Loo(2006) and modified by researcher

CHAPTER THREE

RESEARCH DESIGN, METHODOLOGY AND METHODS

3. Introduction

This chapter presents the research Methodology, Research design and it describes the techniques and methods of data sampling, collection, processing, data analysis, reliability and validity of the test.

3.1 Research Objective and Hypothesis Formulation

In view of the problem statement as well as research objectives, theoretical foundations, and review of literatures presented in the prior chapters, a conceptual framework is developed. These frameworks are in turn expected to guide and understand the perception of tax payers toward tax compliance. The study also identifies chief motivators of tax compliance from the identified variables and provides substantial contribution to the existing literature in the area. Based on the proposed conceptual framework, relevant hypotheses are formulated and argued as presented in the following section. In order to achieve the research objective the researcher developed major variables such as, perception on tax rate, perception on tax audit , perception on role (efficiency) of the tax authority, perception on government spending, perception on ethics toward tax compliance.

H1: Tax rate have positive relationship with tax compliance

Tax rate is a percentage rate which is applied on a tax base in order to determine the amount of tax liability (Misrak 2014). The impact of tax rates was debatable positive, negative or no impact on tax compliance (Kirchler et. al., 2008). The author suggested that the degree of trust between taxpayers and the government has a major role in ascertaining the impact of tax rates on compliance. When trust is low, a high tax rate could be perceived as an unfair treatment of taxpayers and when trust is high, the same level of tax rate could be interpreted as the contribution to the community (Kirchler et. al., 2008). According to Clotfelter's (1983) an important early study of the empirical relationships among income, the marginal tax rate, and evasion,

reports elasticity's for the after-tax income, and marginal tax rate variables for each of a separate audit classes. Coefficients on both the after-tax income and marginal tax rate variables are positive and significant. The author therefore suggests that there was a significant relationship between tax rates and tax compliance due to tax rates being used as an instrument that can be manipulated for policy goals in particular. Even if some authors suggest that tax rate issues were debatable on tax compliance still today (positive, negative or no effect) others argued that tax compliance and tax rate have positive relationship. From this the researcher formulated H1, which states that perception on tax rate has positive relationship with tax compliance.

H2: Tax audit have positive relationship with tax compliance

Studies claimed that tax audits have a positive impact on tax compliance. Audit rates and the thoroughness of the audits could encourage taxpayers to be more prudent in completing their tax returns, report all income and claim the correct deductions to ascertain their tax liability (Dubin, 2007). Witte and Woodbury (1985) in their study of small proprietors found that tax audits have a significant role in tax compliance. Butler (1993) also found that tax audit could change compliance behavior from negative to positive. Therefore based on the literatures reviewed the author formulated the second hypothesis H2, which states that perception on tax audit have positive impact on tax compliance

H3: Efficiency of the tax authority has positive relation with tax compliance

The role of the tax authority in minimizing the tax gap and increasing voluntary compliance is clearly very important. The government plays a central role in designing the tax systems itself, and the specific enforcement and collection mechanisms (Hasseldine and Li, 1999). Roth and Witte (1989) suggested that in order to increase compliance, maximize tax revenue and be respected by taxpayers, a government must first have an economical tax system, which is practicable; they must discourage tax evasion and not induce dishonesty; they must avoid the tendency to dry up the source of the tax and should avoid provoking conflict and raising political difficulties; they should also have a good relationship with the international tax regime. An empirical study conducted by Richardson (2008) also suggested that the role of government has a significant positive impact on determining attitudes toward tax. The author investigates the determinants of tax evasion in different countries including the USA, the UK, Argentina, Thailand, Canada, Chile, and Brazil.

Richardson also suggested that the government should increase their reputation and credibility in order to obtain trust from the taxpayers. As observed above from the empirical literatures the authors conduct role of the tax authority have positive impact on tax compliance. Therefore the researcher conduct the third hypothesis H3, which states that role of tax authority have positive impact with tax compliance.

H4: Government spending has positive relation with tax compliance

Roberts, Hite, and Bradley (1994) also suggest that attitude to one's own tax evasion (tax ethics), and attitude to other people's tax evasion are important. If the government is wisely spending the national revenue, for example for basic facilities like education, health and safety and public transportation, it is likely that voluntary compliance will increase. In contrast, if taxpayers perceive that the government is spending too much on something considered unnecessary or unbeneficial to them then taxpayers will feel deceived and attempt to evade. Hear after the researcher developed H4, government spending has positive impact on compliance.

H5: Ethics has positive relation with tax compliance

Ethics are a subjective scale and the level of ethical behavior is heavily reliant on how people perceive the behavior being considered (Ajzen, 1988). In a tax system which is based largely on voluntary compliance (such as a SAS), the taxpayers' standard of ethics is 'extremely important' (Song and Yarbrough, 1978). Studies on tax psychology, which predicted by Ajzen (1988) first introduced people's behavior using the Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB), and Ajzen (1991). These theories attempt to predict people's behavior based on their intentions. It is assumed that ethics encourage individuals to act according to them and a taxpayer with a negative attitude towards tax evasion tends to be less compliant (Kirchler et. al., 2008). Roth et. al. (1989) validates that there was a consistently positive relationship between moral commitment and compliance behavior. Roth et. al.'s (1989) finding seems to theorize that ethics have a positive effect on compliance behavior, more than financial self-interest. Therefore the researcher develops H5 by stating that Ethics and tax compliance are positively related.

3.2 Research Approaches

Research design is the blueprint for fulfilling research objectives and answering research questions. In other words, it is a master plan specifying the methods and procedures for collecting and analyzing the required information. In addition, it must ensure that the information collected is appropriate for solving a problem (Adams, Khan, Raeside and White 2007).

In any research it is mandatory to choose the best research approach which is suitable to achieve the researcher objective. Those approaches can be qualitative, quantitative and mixed methods. This study adopted a quantitative research approach by using a primary data source.

Quantitative research, according to Van der Merwe (1996), is a research approach aimed at testing theories, determining facts, demonstrating relationships between variables, and predicting outcomes. Quantitative approach uses statistical methods in describing patterns of behavior and generalizing findings from samples to population of interest, around employs strategies of inquiry such as experiments and surveys. The researcher in quantitative research, unlike in the qualitative paradigm where he/she is regarded as a great research instrument due to his/her active participation in the research process, is considered as being external to the actual research, and results are expected to be replicable, no matter who conducts the research (Creswell 2003).

In order to answer the statement of the problem and meet the research objectives, the design of this study is both descriptive and explanatory type. Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group. The main characteristic of this method is that the researcher has no control over the variables; he/she can only report what has happened or what is happening (Kothari, 2004). Explanatory designs try to establish cause-and-effect relationships. The primary purpose of explanatory research design is to determine how events occur and which ones may influence particular outcomes (Dawson ,2006). Explanatory studies are characterized by research hypotheses that specify the nature and direction of the relationships between or among variables being studied.

3.3. Research Method Adopted

A choice of research approach is based on the objective of the research; the objectives of this research were to investigate the perception of tax payers on tax Compliance in the case of small and middle level VAT registered individual tax payers in Addis Ketema . The techniques used in this research include random selection of research participants from the study population in an unbiased manner, the standardized questionnaire or intervention they receive, and statistical methods used to test predetermined hypotheses regarding the relationship between specific variables. Therefore researcher adopted quantitative research approach since quantitative approach uses statistical methods in describing patterns of behavior and generalizing findings from samples to population of interest, around employs strategies of inquiry such as experiments and surveys. The design of the research was both descriptive and explanatory type. Descriptive method used in order to explain the characteristics or perception of tax payers toward tax compliance and explanatory design used to establish case and effect of the independent variables on the dependent variables in The Case of VAT Registered individual tax payers in Addis Ketema Sub City, Ethiopia. The study used structured questionnaire as the primary data collection instrument to gather information

3.3.1 Population and Sample Design

The target populations were 6,922 VAT registered taxpayers, consisting of 2,125 small (annual turnover between half million and five million) & 4,797 medium (annual turnover between five million and forty million) level tax payers found in Addis Ketema Sub city (AACGR ,2018).

Three small and medium level tax centers are available in Addis ketema sub city which are Addis ketema Small tax payers branch office, Merkato number one and Merkato number two. The former is a small tax payer's branch office and the latter two are a medium level tax payer's branch office. Mercato number one administer four sub tax centers (Mirab, Tana, Chilallo and Liyu tax sub centers). Mercato number two also administer four sub tax centers namely Abdoberenda, Adarash, Yirgahaile Akababi and Liyu tax sub centers.

The researcher applied proportional stratified simple random sampling technique for the target population in Addis Ababa based, in view of tax payers in each category, is then used to determine

how firms to choose from each class of tax payers (Starata) considered in the study. Sample taxpayers are eventually selected randomly from each category in light of the respective sample proportion.

Based on these population Sample size required for the study was based on the formula described below as stated and used by Isreal G.P. (1992), Olouch (2012), and by (Worku M. 2015) using 5% confidence level

$$n = \frac{N}{1+N(E)^2} \text{ Where;}$$

n= Number of items in sample

N= Population size

E2 = square of the maximum allowance for error between the true proportion and the sample proportion.

Number of Taxpayers in Addis Ketema sub city is summarized as follows:

1. small taxpayers	2125
2. medium taxpayers	<u>4,797</u>
Total	<u>6,922.00</u>

Therefore, sample size $n = \frac{6922}{1+6922(0.05 \times 0.05)} = 378$

Then the researcher used samples by using Proportional sampling based on the two stratified samples.

Table 3.1: Sample Size determination

Tax payers	All VAT registered Tax Payers in The sub-city	
	Number of tax payers	Sampled tax payers
Small Tax Payers	2125	116
Medium Tax Payers	4797	262
Total	6922	378

Source: Own Computation 2018

3.3.2 Instrument Design

This study used both primary and secondary source of data. Secondary data was used mainly to have data about tax payers' information, and for documentations. As a result secondary source of data was collected using different sources such as literatures, websites, and journals. Regarding the primary data sources the researcher used structured questionnaire as an instrument to collect data from tax payers to gather the information needed for the research by using a five point Likert response scale. The questionnaire has two parts first part focuses mainly about the personal profiles of sample respondents such as age; gender, education status etc., whereas part two of the questionnaire deals with state of agreement by respondents on determinants of tax compliance In The Case of VAT Registered individual Tax payers in Addis Ketema Sub City.

3.3.3 Conduct the Survey

Regarding collection procedures, the researcher reviewed literatures to get background information about tax compliance in general. Basically the researcher developed the questionnaire based on Kirchler (2007) and Loo (2006) tax compliance determinants factors. As a step the first Step was to council and taking advice from the advisor. The second step was taking formal letters from Addis Ababa University that support researcher to get sufficient information and reports from concerned bodies. The last step was to conduct the survey and collecting data. The survey was conducted by distributing questionnaire to VAT registered taxpayers of Addis ketema sub-city (small& medium taxpayers). The questionnaires consisted of 35 questions. The questionnaires were distributed to 378 VAT registered taxpayers from Addis ketema sub-city who came to the tax authority for tax audit ,annual tax clearance monthly VAT reporting purposes. From the questionnaire 238 questionnaires were responded and retrieved .For the purpose of this research conducting survey is the most affordable ways method because of the following reasons. At least to make a representative sample the respondents in these researches were massive in amount and cost-inefficient to perform face to face interview, the more data gathered, the more representative it becomes. The researcher also used this method for easy analysis of the result.

According to Leedy and Ormrod, (2013), in doing any research, there is an ethical responsibility to do the work honestly and with integrity. The basic principle of ethical research is to preserve and protect the human dignity and rights of all subjects involved in a research project In this regard, the

researcher assured that the respondents' information was confidential and used only for the academic purpose. Before the data collection, the ethical issues were taken in to consideration when the study is conducted. Appropriate communication was undertaken with the staff of the branches. During data collection respondents were informed the objective of the research was for academics purpose only. Anyone who may not interest to involve and bring any information was not included in the study. For the purpose of respondents' security their names was not written on the questionnaire. As a general rule, therefore the study was not raising any ethical anxiety.

3.3.4 Model Specification, Definition and Measurement of Variables

Both the descriptive and inferential analysis was conducted using statistical software called Statistical Package for Social Science V20. Descriptive analysis was used to analyze data gathered through questionnaires. The data gathered through questionnaires was fed into SPSS to make the data ready for processing. At last presentation and report was done through graphs, figures, and tables by using frequency. Multiple regression analysis was also applied for the research to address research objective two which includes all variables together. And the inferential statistics is used to examine the relationship and the direction of the relationship between the dependent variables (tax compliance) and the independent Variables. Basically, multiple regressions have four assumptions, linearity, Normality, and Multi co linearity and independence of error terms. In order to study the relationships between the independent and dependent variables a multiple regression analysis was used.

$$\text{Comp} = \alpha_0 + \beta_1 \text{TR} + \beta_2 \text{TA} + \beta_3 \text{Eff} + \beta_4 \text{P} + \beta_5 \text{E} + \varepsilon$$

Where, α_0 = Tax Compliance in absence of tax rate issues, tax audit, Perception, Ethics, and Efficiency

β_1 = The partial change in the Tax compliance due to one unit change in Tax Rate while other things remain constant

β_2 = The partial change in the Tax compliance due to one unit change in Tax Audit while other things remain constant

β_3 =The partial change in the Tax compliance due to one unit change in Efficiency while other things remain constant

β_4 =The partial change in the Tax Compliance due to one unit change in perception while other things remain constant

β_5 =The partial change in the Tax Compliance due to one unit change in Ethics while other things remain constant

ε = other factors undefined/Error term

A concept, which can take on different quantitative values, is called a variable (.Kothari 1990). There are two types of variables that were considered in this research, which are dependent, & independent variable.

Dependent Variables: If one variable depends upon or is a consequence of the other variable, it is termed as a dependent variable(Kothari,1990).in this study tax compliance is a dependent variable.

Tax Compliance: For the purpose of this study tax compliance is defined as taxpayers' willingness to comply with tax laws, declare the correct income, claim the correct deductions, relief and rebates and pay all taxes on time): Kasipillai and Jabbar (2003)

Independents variable: a variable that is antecedent to the dependent variable is termed as an independent variable (Kothari, 1990). . Each independent variable has several questions which in turn used for the measure of tax compliance. As mentioned earlier the survey instrument of this is study is a questionnaire. The study measured in this question is likers scale range from '1' to '5' strongly dis agree strongly agree respectively. The items of the questionnaires are measured based on the variables of the study. In this study, we have five independent variables defined as follows.

Tax rates: Tax rate is a percentage rate which is applied on a tax base in order to determine the amount of tax liability.(Misrak 2014).

Tax audit: Audit rates and the thoroughness of the audits could encourage taxpayers to be more prudent in completing their tax returns, report all income and claim the correct deductions to ascertain their tax liability. In contrast, taxpayers who have never been audited might be tempted to under report their actual income and claim false deductions.

Efficiency of the Tax Authority: Efficiency in terms of compliance although previous studies could not provide conclusive results on the measurable impact of the efficiency of the government on compliance, however, researchers from different countries have discussed this issue and some authors have described how the role of government in inducing tax compliance is important and relevant in self-assessment systems (Richardson, 2008; Hasseldine and Li, 1999).

Attitude and Perception: Defined as tax payers perceptions on government spending, perceptions on the fairness of the systems .Evidence suggests that attitude and perceptions of the taxpayer play an important role in their compliance decisions compliance.

Ethics toward tax: Tax payers' behaviors toward tax. Studies on tax psychology, which predicts Ajzen (1988) first introduced people's behavior using the theory of reasoned Action (TRA) and Theory of Planned Behavior (TPB), and (Ajzen, 1991).These theories attempt to predict people's behavior based on their intentions. It is assumed that ethics encourage individuals to act according to them and a taxpayer with a negative attitude towards tax evasion tends to be less compliant (Kirchler et. al., 2008).

For the measure of tax compliance six questions were used in relation to tax rate five questions from tax audit, three questions from efficiency of the tax authority five questions about attitude and perception of government spending and the last nine questions about ethics. The SPSS outcomes of each question were reflected through each variable under Pearson Correlation coefficient. By using the correlation coefficient the variables were measured strength and direction of the relationship between dependent variables and independent variables were identified.

Table 3.2: Measurement of Variables

	Notation	Variables	Measure/items	nature of the questions
Dependent Variable	Comp	Tax Comp.	<ol style="list-style-type: none"> 1. Tax Rate 2. Tax Audit 3. Role of Government/tax Authority 4. Perception of government spending 5. Ethics of tax payers 	
Independent Variable	TR	Tax Rate	<ol style="list-style-type: none"> 1. VAT rate have no effect on VAT Compliance 2. Exempted or Zero Rated Goods affect VAT cause to Reduce compliance 3. The VAT rate of 15% is not fair 4. Reducing the rate of VAT might encourage taxpayers' voluntary compliance 5. The current VAT rate of 15% is not fair will not encourage tax compliance 6. Raising the rate of VAT will encourage taxpayers' voluntary compliance 	Disagree, agree
	TA	Tax Audit	<ol style="list-style-type: none"> 1. Tax Audit have no effect on VAT compliance 2. The probabilities of being detected by the tax authority for not declaring the exact VAT is low 3. The probability of being audited by the tax authority are very low as a result I can under report and over claim the VAT 4. I believe that tax audits can play an important role to increase voluntary compliance 5. Taxpayers who have never been audited before cause for malicious report 	Disagree, Agree
	Eff	Efficiency	<ol style="list-style-type: none"> 1. Government/tax Authority collects VAT Economically. 2. AACGR personnel are capable in collecting VAT 3. The tax authority collects the required amount of VAT as planed and expected 	Disagree, Agree
	P	Perception and Attitude	<ol style="list-style-type: none"> 1. I believe tax authority is highly corrupted, so I don't want to declare the correct VAT 2. I believe that collecting money from me is not fair 3. I believe the government budget allocation is not fair, so I wish not to declare VAT 4. I believe declaring the required VAT benefit the poor 5. I believe government spending is unfair, So I don't need to declare the required VAT 	Disagree, Agree
	E	Ethics	<ol style="list-style-type: none"> 1. I believe that paying tax is a moral obligation 2. I believe under reporting VAT is un Ethical, so I declare the required tax 3. I believe that VAT administration system is unmanageable an un ethical 4. I believe VAT collected do not improves life situation. 5. Interest & penalties imposed by AACGR improve voluntary tax compliance 6. I feel that under invoicing of imported goods cause not to issue VAT invoice 7. I feel government, not tax payers cause for under invoicing of imported good. 8. Un familiarity of tax payers for tax laws cause for Discouraging VAT compliance 9. I believe VAT is important 	Disagree, Agree

Source: Developed by the Author (2018)

3.3.5 Diagnosis Test about Assumptions of Regression Analysis

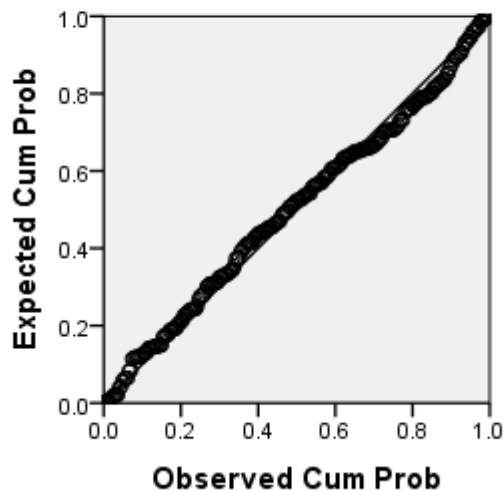
Some tests were conducted in order to ensure the appropriateness of data to assumptions regression analysis as follows.

Linearity Test

Linearity refers to the degree to which the change in the dependent variable is related to the change in the independent variables. To determine whether the relationship between the dependent variable Tax Compliance and the independent variables Tax Rate, Tax audit, Efficiency, Attitude & Perception, and Ethics of government spending is linear; plots of the regression residuals through SPSS V20 software had been used.

Figure 3.1: Linearity test.

Normal P-P Plot of Regression Standardized Residual



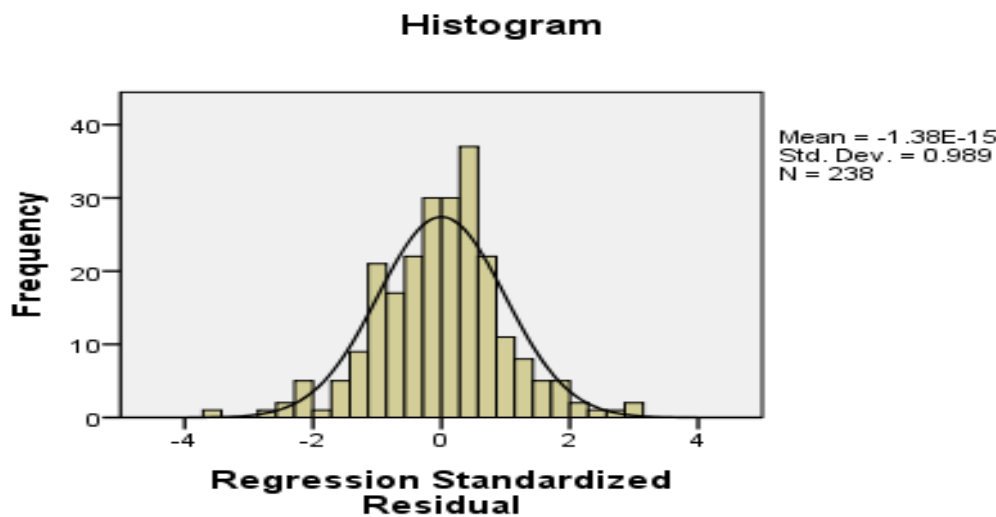
Source: own Research SPSS output 2018

From the above graph the scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right. This result suggests the relationship we are trying to predict is linear.

Normality Test

Secondly, the linear regression analysis requires all variables to be multivariate normal. This assumption can best be checked with a histogram and a fitted normal curve or a Q-Q-Plot. As per the Classical Linear Regression Models assumptions, the error term should be normally distributed or expected value of the errors terms should be zero ($E(u_t) = 0$).

Figure 3.2: Normality test



Source: SPSS output 2018

Figure 3.2 shows the frequency distribution of the standardized residuals compared to a normal distribution. As you can see, although there are some residuals (e.g., those occurring around 0) that are relatively far away from the curve, many of the residuals are fairly close to 0. Moreover, the histogram is bell shaped which lead to infer that the residual (disturbance or errors) are normally distributed. Thus, no violations of the assumption normally distributed error term.

Multi co linearity Test between Study Variables

Thirdly, linear regression assumes that there is little or no multi-co linearity in the data.

Multi-co linearity occurs when the independent variables are not independent from each other. A second important independence assumption is that the error of the mean has to be independent from the independent variables. Thus, we can test using the following criteria.

1. Correlation matrix – when computing the matrix of Pearson's Bivariate Correlation among all independent variables the correlation coefficients need to be smaller than 1. Thus from this research finding correlation table indicates that all independent variables have correlation coefficient less than one and there is no strong correlation between the independent variables(see Correlation Table).

2. Tolerance – the tolerance measures the influence of one independent variable on all other independent variables; the tolerance is calculated with an initial linear regression analysis. Tolerance is defined as $T = 1 - R^2$ for these first step regression analysis. Thus from the finding in coefficient table all Tolerance values were less than one (See Appendix 2).

3. Variance Inflation Factor (VIF) – the variance inflation factor of the linear regression is defined as $VIF = 1/T$. Similarly with $VIF > 10$ there is an indication for multi-collinearity to be present; with $VIF > 100$ there is certainly multi-collinearity in the sample. Thus from the coefficient table all VIF values are less than 10. Simply the values are not more than 1.045 (see appendix 2 regression Coefficient table). This confirms us there are no violations of little or no Multi-collinearity between independent variables.

Simply, when we can see appendix 1 and correlation table 8, there is no strong pair-wise correlation between the explanatory variables. As a rule of thumb, inter-correlation among the independent variables above 0.80 signals a possible multi-co linearity problem. In this study the maximum value of the correlation coefficient is 0.134(between Attitude and perception and Efficiency). Thus, it can be concluded that all the variables in the study have low correlation power as a result there is no multi-co linearity problem.

Autocorrelation Test

Fourthly, linear regression analysis requires that there is little or no autocorrelation in the data. Autocorrelation occurs when the residuals are not independent from each other. While a scatter plot allows you to check for autocorrelations, you can test the linear regression model for autocorrelation with the

Durbin-Watson test. The value of Durbin Watson assume to be between 0 and 4, values around 2 indicate no autocorrelation. From our test, the value of Durbin Watson is about 1.587(see Table 4.7). Thus it lies between $0 < 1.587 < 4$ (see table 4.8). The value of Durbin Watson is close to 2 indicates there is no violation of Autocorrelation. Thus, from an explanation of the information presented in the entire five tests one can conclude that there is no significant data problems that would lead to say the assumptions of multiple regressions have been seriously violated.

Validity

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure. The questionnaire was carefully designed and tested with a few members of the population for further improvements. Content validity of the survey questionnaire was validated by professionals, tax Authority staffs and the research advisor.

A pilot test used to ensure validity ,a pre-test was given to eleven respondents to see if the questionnaire contains anything that was hard to interpret .Thus using Kaiser-Meyer-Olkin Measure of questionnaires Sampling method the following results were found.

Table 3.3: Kaiser-Meyer-Olkin Measure for the pilot test

Variables	Kaiser-Meyer-Olkin Measure questionnaire sample test
Tax rate	0.841
Tax audit	0.841
Efficiency	0.714
Perception	0.870
Ethics	0.912

Source: Own research Result, 2018

From the above validity test table all values of the values of the variable are above 0.6. It is said to be acceptable measure if the KMO value above 0.6(George & Mallery, 2003)

Reliability

To ensure the reliability of the measurement scales, Cronbach's alpha was used in the calculation. Where by a higher value of above 0.6 indicated that the variables were reliable while the values above 0.9 are regarded as most reliable but anything below 0.6 was regarded inconsistent with the reliability scales as according to George & Mallery, (2003) who suggested that in order for a scale to be reliable, the Cronbach's alpha value should be above 0.6.

Table 3.4: Cronbach's Alpha Coefficients for the Pilot Test

Variables	Cronbach's Alpha	No. of items
Tax Rate	.906	6
Tax Audit	.901	5
Role(Efficiency) of Tax Authority	.950	3
Attitude and Perception toward tax	.914	5
Ethics and attitude of government spending	.892	9

Source: own Research Survey 2018

The above table shows the reliability test for the dependent variables Tax Rate, Tax Audit, Role (Efficiency) of tax authority, Attitude and perception toward tax, and Ethics and attitude of government spending. The Reliability Test for Role (efficiency) of tax authority consisted of three questions and the result is 0.95 representing a 95% scale reliable. The reliability test for tax rate consisted of five questions is 0.906 representing 90.6%. This result is considered high according to the Alpha Coefficient Range. As shown in table for the reliability test Cronbach's Alpha coefficients for Tax Compliance factors range from 0.892 to 0.950 and thus the researcher concludes that the questions regarding determinants of Tax compliance are accept.

CHAPTER FOUR

RESULT AND DISCUSSION

4. Data Collection Overview

This chapter contains the findings and analysis of the research study based on interpretation of the data collected. The researcher distributed a total of 378 questionnaires (262 to medium level and 116 to small level) tax payers. Out of the total 378 questionnaires, 140 questionnaires were not collected and 238 useable questionnaires were obtained to enable a meaningful analysis of the data with 63% response rate. Statistical Package for the Social Sciences (SPSS) software is used to analyze the research findings.

4.1 Results of the study

4.1.1 Profile of the Respondents

This section describes respondents' demographic background including age, gender, educational levels, business category and number of years stay in a business

Table 4.1: Demographic Profile of the respondents

Variables	Category	Frequency	Percentage (%)
Gender	Male	190	79.8
	Female	48	20.2
	Total	238	100
Age	<30	43	18.1
	31-40	107	45
	41-50	61	25.6
	>50	27	11.3
	Total	238	100
education level	primary school	81	34
	high school graduate	93	39.1
	certificate/diploma	47	19.7
	Degree	17	7.2
	Total	238	100
Your Business Category	medium level	175	73.5
	small level	63	26.5
	Total	238	100
Number of years stay in a business	<1 year	28	11.8
	1-5 year	66	27.7
	5-10 year	117	49.2
	>10 year	27	11.3
	Total	238	100

Source: own Research Survey 2018

Based on the above table, the research finding indicates that 79.8% of the respondents were male, and 20.2% of them were female. Among the respondents 18.1% of them were within the age of less than 30 years old, 45 % were within the age of 31-40 years old, about 25.6% were within 41-50 years old, and 11.3% were above the age of 50 years old. Thus, most of them were found within the age range of 31-40 years old. Regarding the educational level of the respondents, 34% were primary school educated, 39.1% were high school graduate educated, 19.7% has certificate/diploma, and 7.2% has degree. From this finding, most of them were high school graduate educated. Therefore, most of them were not highly educated. From the business category statement, majority about 73.5% of them were in medium level, and 26.5% of them were in small scale level. Concerning business experience, about 11.8% had less than 1 year experience, 27.7% had 1-5 year experience, 49.2% had 5-10 year business experience, and 11.3% had above 10 year business experience. Thus, most of them had 5-10 years business experience. It is believed that lack of knowledge do have its impact on tax compliance behavior of the taxpayers (Mohd 2010).

4.1.2 Descriptive Statistics Result on the Determinants of Tax Compliance

In this study, a five point likert scale is used to measure respondents' response concerning the tax compliance. Where: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree. Responses were measured on five point Likert scale with 1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; and 5 = Strongly Agree as used by (Worku M.2015).

4.1.2.1 Tax Rate Issues

The following six questions in relation to VAT rate were posed to the respondents

Table 4.2: Summary of Tax Rate Issues

Variables	Responses in Percentage (%)					Mean	Std.dev	Grand mean
	Strongly disagree(1)	disagree(2)	neutral(3)	agree(4)	strongly agree(5)			
VAT rate have no effect on VAT Compliance	119(50%)	66(27.7%)	32(13.4%)	15(6.3%)	6(2.5%)	1.84	1.045	1.87
Exempted or Zero Rated Goods affect VAT cause to Reduce compliance	115(48.3%)	53(22.3%)	44(18.5%)	18(7.6%)	8(3.4%)	1.95	1.130	
The VAT rate of 15% is not fair	119(50%)	66(27.7%)	31(13%)	18(7.6%)	4(1.7%)	1.83	1.030	
Reducing the rate of VAT might encourage taxpayers' voluntary compliance	109(45.8%)	87(36.6%)	18(7.6%)	18(7.6%)	6(2.5%)	1.84	1.021	
The current VAT rate of 15% is not fair will not encourage tax compliance	114(47.9%)	76(31.9%)	29(12.2%)	14(5.9%)	5(2.1%)	1.82	0.999	
Raising the rate of VAT will encourage taxpayers' voluntary compliance.	106(44.5%)	75(31.5%)	20(8.4%)	27(11.3%)	10(4.2%)	1.99	1.169	

Source: own Research Survey 2018

From the above table majority of them 50%,48.3%, 50%, 45.8%, 47.9%, and 44.5% of them were strongly disagreed that VAT rate have no effect on VAT Compliance, Exempted or Zero Rated Goods affect VAT cause to Reduce compliance, The VAT rate of 15% is not fair, Reducing the rate of VAT might encourage taxpayers' voluntary compliance, The current VAT rate of 15% is

not fair and will encourage tax compliance, and Raising the rate of VAT will encourage taxpayers' voluntary compliance respectively. From this finding, one can infer that respondents were disagreed on the above points. Hence, VAT rate has mixed effect on tax compliance, reducing the rate of VAT might not encourage tax payers voluntary compliance.

4.1.2.2 Tax Audit Issues

five questions in relation to tax Audit were raised the respondents. Responses were measured on Likert scale with 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4= Agree; and 5= Strongly Agree

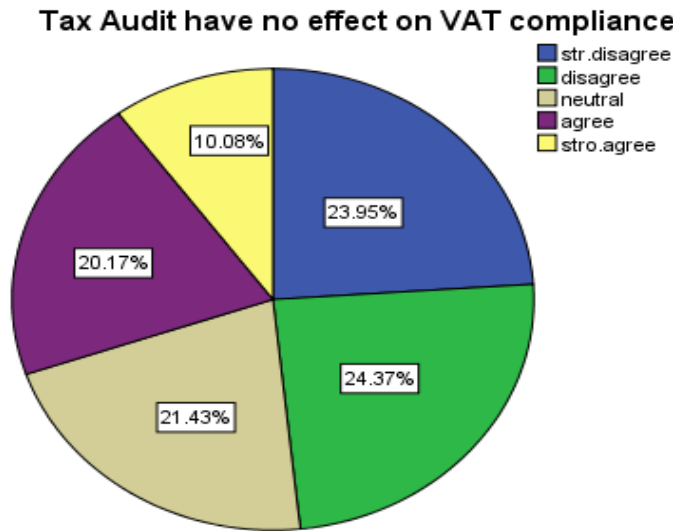
Table 4.3: Mean and Std. dev. of Tax Audit Issues

Variables	Measure of central tendency		
	Mean	Std.dev	Grand mean
Tax Audit have no effect on VAT compliance	2.68	1.308	2.89
The probabilities of being detected by the tax authority for not declaring the exact VAT is low	2.70	1.283	
The probability of being audited by the tax authority are very low as a result I can under report and over claim the VAT	2.91	1.383	
I believe that tax audits can play an important role to increase voluntary compliance	3.20	1.347	
Taxpayers who have never been audited before cause for malicious report	2.97	1.299	

Source: own Research Survey 2018

The first question was whether audit has effect or not on VAT compliance. 23.95% of the respondents strongly disagree and 24.37% of the respondents are disagreed on the statement that audit have no effect on tax compliance

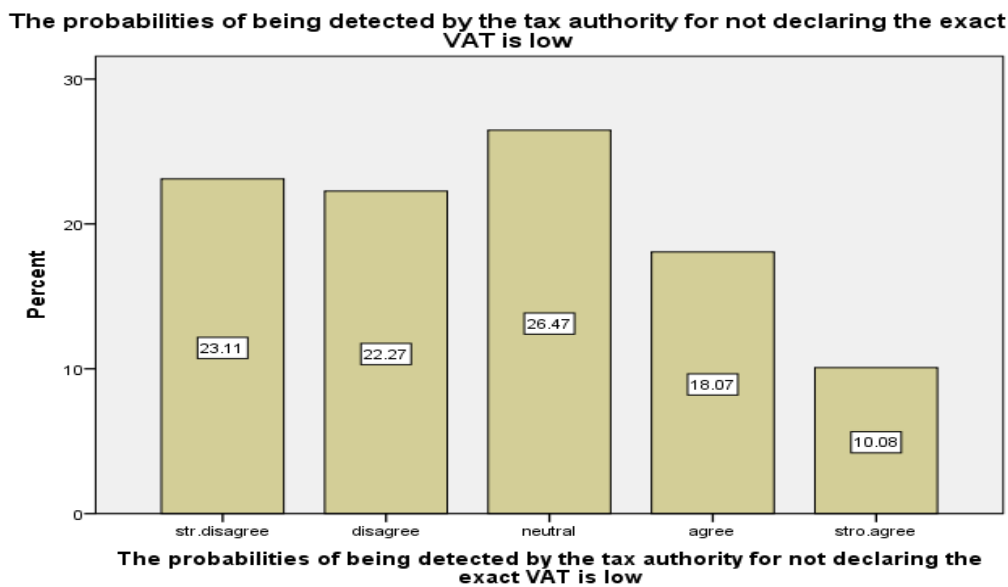
Figure 4.1: Tax payers Perception on Effect of tax Audit on tax compliance



Source: Own Research Survey 2018

The second question raised to the respondents about tax audit was their opinion about whether the probabilities of being detected by the tax authority for not declaring the exact VAT is low or not. See fig 4.2 below 26.47% of the respondents neutral, 23.11% strongly disagree and 22.27% of the respondents disagree that the chance of not detection by audit for misreporting of VAT.

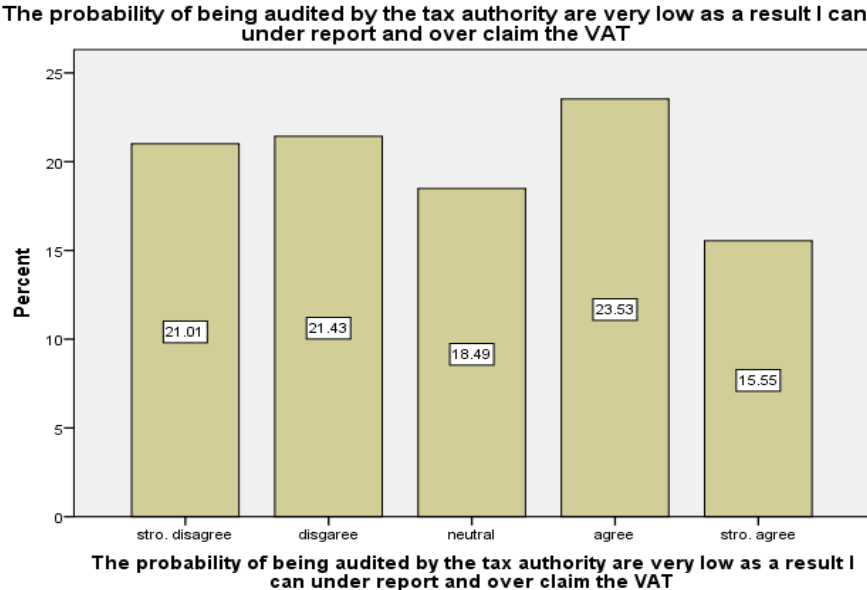
Figure 4.2: Respondents opinion about the probability of Fraud detection by Audit.



Source: Own Research result

The third question posed to respondents was; the probability of being audited by the tax authority is very low as a result I can under report and over claim the VAT. Figure 4.3 shows that 23.53 % of the respondents agreed ,while 21.43% and 21.01% of the respondents disagree and strongly disagree respectively with the point that the probability of being audited cause for underreporting of output tax and over reporting of input tax

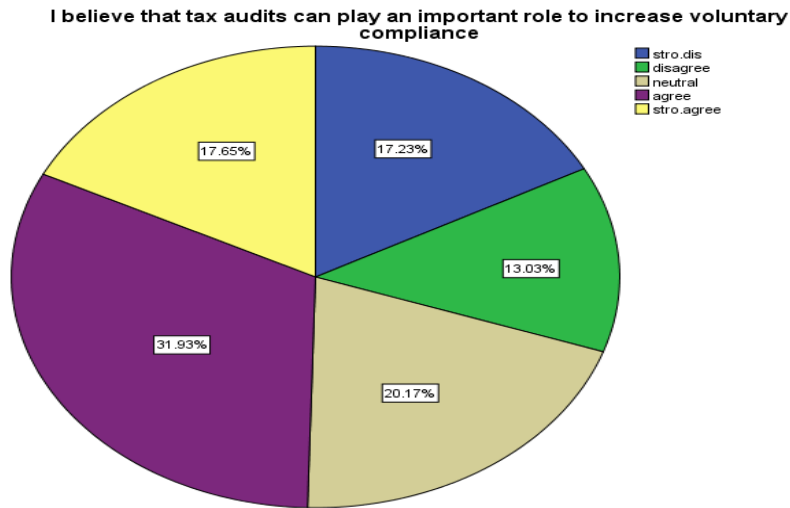
Figure 4.3: The Probability of being Audit effect on VAT compliance



Source: Own Research result 2018

The fourth question raised to respondents was whether tax audits can play an important role to increase voluntary compliance or not. Figure 4.4 Bellow shows 31.93% of the respondents agree while 20.17% neutral and 17.65% agreed that audit can play a positive role to increase voluntary tax compliance.

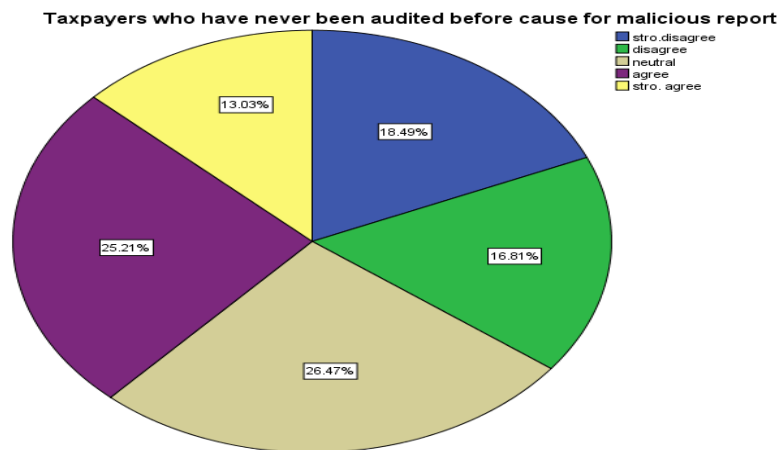
Fig 4.4: Perception of tax payers role of tax audit on Voluntary tax compliance



Source: Own Research result 2018

The last question was taxpayers’ opinion about those who have never been audited before cause for malicious report or not. Majority of the respondents or 26.47% of them were neutral, where as 25.21% of the respondents were agree that those who have never audited cause for malicious report.

Figure 4.5: Effect of previous audit history on tax compliance



Source: Own Research result 2018

Summary of tax payers opinion about tax audit shows, majority of respondents disagreed with the statements that tax audit have no effect on VAT compliance (24.4%), while majority of them agree on the probability of being audited by the tax authority are very low as a result I can under report and over claim the VAT (23.5%), I believe that tax audits can play an important role to increase voluntary compliance (31.9%). Also majority of them were neutral or indifferent on statements the probabilities of being detected by the tax authority for not declaring the exact VAT is low (26.5%), and taxpayers who have never been audited before cause for malicious report (26.5%).

4.1.2.3 Efficiency (role) of Tax authority

Table 4.4: Summary of efficiency (Role) of Tax authority

Variables	Responses in percentage (%)					Mean	Std. deviation	Grand mean
	Strongly disagree(1)	disagree(2)	neutral(3)	agree(4)	strongly agree(5)			
Government/tax Authority collects VAT Economically.	21(8.8%)	49(20.6%)	143(60.1%)	16(6.7%)	9(3.8%)	2.76	0.850	2.75
ERCA personnel are capable in collecting VAT	21(8.8%)	55(23.1%)	136(57.1%)	18(7.6%)	8(3.4%)	2.74	0.853	
The tax authority collects the required amount of VAT as planed and expected	24(10.1%)	55(23.1%)	128(53.8%)	20(8.4%)	11(4.6%)	2.74	0.917	

Source: own Research Survey 2018

As it is shown in table above, most of respondents were agreed majority about 60.1%, 57.1%, and 53.8% of them were neutral on the statements Government/tax Authority collects VAT Economically, AACGR personnel are capable in collecting VAT, and The tax authority collects the required amount of VAT as planed and expected respectively

4.1.2.4 Perception and Attitude of Government Spending

Evidence suggests that perceptions and attitude of the taxpayer play an important role in their compliance decisions. Taxpayers were asked the following questions regarding their attitude & perception on tax compliance.

Table 4.5: Summary of Perception and attitude toward tax

Variables	Responses in percentage (%)					Mean	Std.d ev	Grand mean
	Strongly disagree(1)	disagree(2)	neutral(3)	agree(4)	strongly agree(5)			
I believe tax authority is highly corrupted, so I don't want to declare the correct VAT	25(10.5%)	44(18.5%)	43(18.1%)	97(40.8%)	29(12.2%)	3.26	1.200	3.2
I believe that collecting money from me is not fair	31(13%)	44(18.5%)	38(16%)	88(37%)	37(15.5%)	3.24	1,284	
I believe the government budget allocation is not fair, so I wish not to declare VAT.	34(14.3%)	35(14.7%)	58(24.4%)	83(34.9%)	28(11.8%)	3.15	1.233	
I believe declaring the required VAT benefit the poor	28(11.8%)	37(15.5%)	52(21.8%)	86(36.1%)	35(14.7%)	3.26	1.23	
I believe government spending is unfair, So I don't need to declare the required vat.	38(16%)	40(16.8%)	38(16%)	87(36.6%)	35(14.7%)	3.17	1.318	

Source: own Research Survey 2018

As it is shown in table 4.5 above, from the first sub-construct 10.5% strongly disagreed, 18.5% disagreed, 18.1% neutral, 40.8% agreed, and 12.2% were strongly agreed that tax authority is highly corrupted, so I don't want to declare the correct VAT. From the second sub-construct, 13% strongly disagreed, 18.5% disagreed, 16% neutral, 37% agreed, and 15.5% strongly agreed. From

the third sub-construct, 14.3% strongly disagreed, 14.7% disagreed, 24.4% neutral, 34.9% agreed, and 11.8% were strongly agreed. Based on the fourth questions, 11.8% strongly disagreed, 15.5% disagreed, 21.8% neutral, 36.1% agreed and 14.7% were strongly agreed. From the fifth sub-construct, 16% strongly disagreed, 16.8% disagreed, 16% neutral, 36.6% agreed, and 14.7% were strongly agreed.

4.1.2.5 Ethics toward Tax Compliance

Table 4.6: Summary of Ethics of government spending

Variables	Responses in percentage (%)					Mean	Std.dev	Grand mean
	Strongly disagree(1)	disagree(2)	neutral(3)	agree(4)	strongly agree(5)			
I believe that paying tax is not a moral obligation	19(8%)	25(12.2%)	37(15.5%)	104(43.7%)	53(22.3%)	3.62	1.17	3.43
I believe under reporting VAT is Ethical, so I don't declare the required tax	14(5.9%)	29(12.2%)	76(31.9%)	85(35.7%)	34(14.3%)	3.4	1.17	
I believe the tax authority has limited capability to investigate all income reported to them, so I have an opportunity to not report my exact income	15(6.3%)	34(14.3%)	56(23.5%)	106(44.5%)	27(11.3%)	3.4	1.06	
I believe VAT collected do not improves life situation.	12(5%)	23(9.7%)	58(24.4%)	93(39.1%)	52(21.8%)	3.63	1.06	
Interest & penalties imposed by ERCA improve voluntary tax compliance	14(5.9%)	26(10.9%)	41(17.2%)	95(39.9%)	62(26.1%)	3.69	1.14	
I feel that under invoicing of imported goods cause not to issue VAT invoice	22(9.3%)	32(13.4%)	38(16%)	95(39.9%)	51(21.4%)	3.45	1.35	
I feel government, not tax payers cause for under invoicing of imported good.	24(10.1%)	48(20.2%)	71(29.8%)	64(26.9%)	31(13%)	3.13	1.17	
Un familiarity of tax payers for tax laws cause for Discouraging VAT compliance.	15(6.3%)	27(11.3%)	39(16.4%)	95(39.9%)	62(26.1%)	3.68	1.16	
I believe VAT is very important	40(16.8%)	61(25.6%)	51(21.4%)	58(24.4%)	28(11.8%)	2.89	1.28	

Source: own Research Survey 2018

From the above table result, majority of the respondents from each sub-construct 43.7%,35.7% 44.5%, 39.1%, 39.9%, 39.9%, and 39.9% were agreed on the paying tax is a moral obligation, I believe under reporting VAT is un ethical, so I declare the required tax, I believe VAT administration system is unmanageable and un ethical, VAT collected do not improves life situation, Interest & penalties imposed by AACGR improve voluntary tax compliance, I feel that under invoicing of imported goods cause not to issue VAT invoice, and Un familiarity of tax payers for tax laws cause for Discouraging VAT compliance were agreed respectively with each statements. While about 29.8% were neutral on government, not tax payers' cause for under invoicing of imported good. However, majority of the respondents about 25.6% of them were disagreed that VAT is important.

4.1.3 Correlation and Multiple Regression Analysis Result

4.1.3.1 Correlation Analysis Result

The primary objective of correlation analysis is to measure the strength or degree of linear association between two variables. The correlation coefficient examines the strength and direction of the linear relationship between two variables. The correlation coefficient can range between -1 and +1, the larger the absolute value of the coefficient; the stronger the relationship between the variables. Zero (0) indicates no relationship between two variables. The sign of the relationship indicates the direction of relationship. $P\text{-value} \leq \alpha$: The correlation is statistically significant; if the p-value is less than or equal to the significance level, then we can conclude that the correlation is different from 0. $P\text{-value} > \alpha$: The correlation is not statistically significant; if the p-value is greater than the significance level, then you cannot conclude that the correlation is different from 0. As such the following table shows the correlation between tax compliance, tax rate, tax audit, Efficiency (role) of tax authority, attitude and perception toward tax, and ethics and attitude of government spending.

Table 4.7: Correlations Coefficients

		Tax Compliance	Tax Rate	Tax Audit	Attitude & Perception	Ethic	Efficiency
Tax Compliance	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	238					
Tax Rate	Pearson Correlation	.490**	1				
	Sig. (2-tailed)	.000					
	N	238	238				
Tax Audit	Pearson Correlation	.436**	.083	1			
	Sig. (2-tailed)	.000	.200				
	N	238	238	238			
Attitude & Perception	Pearson Correlation	.374**	.124	.020	1		
	Sig. (2-tailed)	.000	.057	.756			
	N	238	238	238	238		
Ethics & Attitude	Pearson Correlation	.283**	-.048	.063	-.105	1	
	Sig. (2-tailed)	.000	.462	.332	.105		
	N	238	238	238	238	238	
Efficiency	Pearson Correlation	.260**	.058	-.025	-.134*	.082	1
	Sig. (2-tailed)	.000	.375	.696	.038	.208	
	N	238	238	238	238	238	238

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

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

Source: own Research Survey 2018

From the above correlation table 4.7, we can see that all of the independent constructed variables were correlated with tax compliance. Among the variables the highest correlation coefficient was found between Tax compliance and tax rate, followed by between tax compliance and tax audit,

and between tax compliance and attitude and perception of government spending toward tax. While the lowest and weakest correlation was between Tax Compliance & Ethics and between tax compliance and Efficiency (role) of tax authority.

Therefore, from the above table we can conclude that all constructed variables have positive correlation with Tax Compliance because the p (sig) value is less than $\alpha=.05$ level.

4.1.3.2 Multiple Regression Analysis Result

Table 4.8: Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.834	.695	.689	.28378	.695	105.800	5	232	.000	1.587

a. Predictors: (Constant), Ethics, Tax Rate, Efficiency, Tax Audit, Attitude and perception

b. Dependent Variable: Tax Compliance

Table 4.8 above shows three important elements, thus R, R² and the adjusted R². From this table, R shows a significant positive relationship of 0.834 which is 83.4%. The R² value =.695 meaning 69.5% of the variance in the model can be predicted using the independent variables or in simple words 69.5% of tax compliance is explained by the constructed independent variables. However, the remaining 30.5% changes in tax compliance in Addis ketema sub city are caused by other factors that are not included in the model. Therefore, the constructed tax compliance factors (such as Tax rate, tax audit, Efficiency, Perception and attitude, and Ethics) are good explanatory variables of the factors for tax compliance among VAT registered tax payers.

Table 4.9: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.002	.131		.017	.987
Tax Rate	.246	.021	.422	11.485	.000
Tax Audit	.192	.017	.418	11.495	.000
Efficiency	.177	.023	.287	7.793	.000
Attitude	.185	.018	.390	10.523	.000
Ethics	.181	.022	.302	8.233	.000

a. Dependent Variable: Tax Compliance among VAT registered tax payers

In the table-above 4.9, coefficients indicated how much the dependent variable varies with an independent variable, when all other independent variables are held constant. The beta coefficients indicated that how and to what extent the independent variables influence the dependent variable. Accordingly, the result of coefficient value of regression analysis indicated the highest determinant factor which affect tax payers for tax compliance was Tax Rate (at Beta value=.422), followed by Tax audit (Beta=.418), Attitude and perception (Beta=.390), Ethics (Beta=.302), and Efficiency (Beta=.287). Thus, from this finding one can infer that Tax Rate and Tax audit has the most significant factors determining for Tax compliance. Based on the above table finding we can develop the following regression model:

$$\text{Tax Compliance} = .002 + 0.246\text{TR} + 0.192\text{TA} + 0.185\text{P} + 0.181\text{E} + 0.177\text{Eff}$$

Where, TR=Tax Rate

TA=Tax audit

P=Attitude and Perception

E=Ethics

Eff=Efficiency

Based on the above model result, all the explanatory variables have positive influence on tax compliance among VAT registered tax payers in Addis ketema sub city. The B coefficient of Tax Rate =0.246 .i.e. 100% change in Tax Rate leads to 24.6% change in tax compliance among VAT registered tax payers in Addis ketema sub city, Tax Audit=0.192 indicating that 100% change in tax Audit leads to 19.2% increase in tax compliance among VAT registered tax payers in Addis ketema sub city, Perception= 0.185 implies that a one unit change in perception leads to .185 unit increase in tax compliance among VAT registered tax payers in Addis ketema sub city, Ethics= 0.181 signifies that a one unit change in compatibility results to .181 unit increase in tax compliance among VAT registered tax payers in Addis ketema sub city and Efficiency=0.177 indicating that a one unit change in Efficiency would leads to increase tax compliance among VAT registered tax payers in Addis ketema sub city by .177 units.

These findings provide significant support for the reliability, transaction efficiency and ease of use literature which advocates that the variables have influence tax compliance among VAT registered tax payers in Addis ketema sub city.

4.2 Interpretation of the Results

The findings from this review imply that tax compliance is a wide and complex phenomenon . There is evidence from the literature reviewed that although tax compliance has been the subject of considerable empirical research, however, no homogeneity in the determinants of tax compliance has been achieved. There are too many and different explanatory factors that have been proposed in the literature as determinants of tax compliance. The problem with this situation is that when undertaking an empirical study one would be faced with choosing a set of predictor variables from what is a very large set of candidate predictors .On the basis the results of this study, that tax compliance have a significant positive relation with tax rate, tax audit, role(efficiency) of the tax authority, perception of government spending and ethics.

Economic models of rational compliance decisions, perceived that tax rates have a mixed impact on tax compliance or predict that increasing tax rates will increase compliance behavior Kirchler, Hoelzl, and Wahl, (2008). In contrast with Allingham and Sandmo, various studies found that increasing tax rates encouraged noncompliant behavior or produced mixed findings (Pommerehne and Wech-Hannemann, 1996; Park and Hyun, 2003). Porcano (1988) claimed that tax rates have

no effect on tax compliance while most experimental studies found that increasing tax rates leads to tax evasion. Therefore the relationship between tax rates and tax compliance remains uncertain due to inconsistent findings.

The descriptive statistics results of tax rate issues in this study indicate that tax rate have positive impact on tax compliance. The evidence provided by the finding indicates that the relationship between taxpayers' attitude to tax rate and compliance behavior is a strong and positive relationship. The possible explanation for the fairly strong relationship between two variables may be attributed to the fairly weak attitude of the respondents toward tax evasion as well as high compliance level of tax payers toward compliance. In other word the result shows tax payers in Ethiopia are volunteered to pay their tax even with high rate and their compliance behavior increase with an increase in tax rates. The first reason could be many of the tax rate issues are related to VAT and VAT is a consumer based tax system in Ethiopia where final users are paying the tax rather than tax payers. Therefore tax payers are volunteered to tax compliance with an increase in tax rates. The second reason to encourage compliance may be to keep tax rules simple and clear as possible complicated tax systems are associated with high tax evasion. Studies shows that well designed tax systems are able to increase tax compliance irrespective of tax rate. The third reason could be the degree of trust between taxpayers and the government has a major role in ascertaining the impact of tax rates on compliance. When trust is low, a high tax rate could be perceived as an unfair treatment of taxpayers and when trust is high, the same level of tax rate could be interpreted as the contribution to the community. The finding confirmed with Clotfelter's (1983) an important early study of the empirical relationships among income, the marginal tax rate, and evasion, reports elasticity's for the after-tax income, and marginal tax rate variables for each of a separate audit classes. The coefficients on both the after-tax income and marginal tax rate variables are positive and significant relation with tax rates.

The regression result shows the coefficient of the independent variable tax rate ($\beta = 0.422$) provides evidence in support of the prediction in hypothesis (H1) which indicates tax rate is significantly positively related to tax compliance. Therefore the study accept the first hypothesis that tax rate have positive impact on tax compliance. (P-value is less than $\alpha = 0.05$) Therefore, the hypothesis (H1) accepted.

As expected the results of analysis on tax audit shows that tax audits can play an important role and their central role is to increase voluntary compliance. However, tax audit is one of the most sensitive interactions between tax payers and tax authority in Ethiopia. It impose burden on tax payers in greater or lesser extent depending on the number and probability of interaction with the authority. The descriptive statistics result shows most of the respondents believe that the probability of being audited by the tax authority are very low as they try to under report the output tax and over claim input taxes . On the other hand the they believe that if audited the probabilities of being detected by the tax authority for not declaring the exact tax is high. Therefore increasing the number of audits (measured by audit rates) increase the probability of being audited, and should there by incentives to tax compliance. Likewise the effectiveness of tax authorities in detecting tax evasion should exert a significant effect on tax compliance. Both the probability of being tax audited, once audited, the probability of the detection reduce the probability of evasion. Audit rates and the carefulness of the audits could encourage taxpayers to be more cautious in completing their tax returns, report all income and claim the correct deductions to ascertain their tax liability. This research confirm (Dubin, 2007), claimed that tax audits have a positive impact on tax, these findings suggest that tax audits can play an important role and their central role is to increase voluntary compliance

The regression coefficient of the independent variable tax audit ($\beta = 0.418$) this means that there is positive significant relation between tax audit and tax compliance.. The regression table shows (P-value is less than $\alpha=0.05$) the second hypothesis (H2) accepted

Most respondents are neutral on the statement that government/tax Authority collects VAT economically, the tax authority collects the required amount of VAT as planed and expected and AACGR personnel are capable in collecting the required tax. This may be because in a developing country like Ethiopia of most tax payers may have lack awareness about role or efficiency of government spending but relatively higher percent of the tax payers are disagree or strongly disagree on those points. Therefore placing the government and the tax authority as the main party that need to be continuously efficient in administering the tax system in order to minimize tax evasion. Furthermore, based on the literatures and the finding of this study suggested that in order to increase compliance, maximize tax revenue and be respected by taxpayers, a government must first have an economical tax system, which is practicable; they must discourage tax evasion and

not induce dishonesty; they must avoid the tendency to dry up the source of the tax and should avoid provoking conflict and raising political difficulties; they should also have a good relationship with the international tax regime. The government plays a central role through designing the tax systems itself, and the specific enforcement and collection mechanisms (Hasseldine and Li, 1999: 93)

The role of the tax authority in minimizing the tax gap and increasing voluntary compliance is clearly very important. The regression coefficient of the independent variable tax role of the tax authority (Beta=.287), the study provides evidence consistent with hypothesis (H1&H2) indicates a significant positive effect on the influence of tax compliance. Like tax audit and tax rate the regression table shows (P-value is less than $\alpha=0.05$) Therefore hypothesis (H3) accepted

The descriptive statistics results of attitude of government spending shows respondents were agreed that the government budget allocation is not fair the wish not to declare the correct tax. Political stability and the ruling government party in a country might play a significant role in determining tax evasion behavior. For instance, if an individual favors the current ruling government party, he might choose to be compliant because he believes that the government is trusted, efficient and equitable. This finding is not surprising for a developing country like Ethiopia, where trust between tax payers and the government and the culture of paying tax is law. The government should remind tax payers that their tax supports programs they value; the government should also make particular effort to avoid reminding them of government activities they dislike.

The result of the study shows that taxpayers are sensitive to what the government spends their money on. It is reasonable to assume that taxpayers will tend to evade tax if they perceive that the government spends tax money unwisely. Roberts, Hite and Bradley (1994) also suggest that attitude to one's own tax evasion (tax ethics), and attitude to other people's tax evasion is important. According to the Author if the government is wisely spending the national revenue, for example for basic facilities like education, health and safety and public transportation, it is likely that voluntary compliance will increase. In contrast, if taxpayers perceive that the government is spending too much on something considered unnecessary or unbeneficial to them then taxpayers will feel deceived and attempt to evade.

The regression table shows perception of government spending has a significant positive relationship with tax compliance (Beta=.390) and with (P-value is less than $\alpha=0.05$) Therefore, the hypothesis (H4) accepted.

Finally the descriptive statistics result related to ethics toward tax compliance shows that ethics have a significant positive impact on tax compliance. The result shows that taxpayers are influenced to comply with their tax obligations by ethical behavior. Therefore taxpayer may comply even when the probability of detection is low. As opposed to the economic factor that emphasize increased audits and penalties as solutions to compliance issues individual attitudes towards tax systems .The finding is consistent with Ajzen (1988) and Kirchler et.al.,(2008) claimed that the best predictor of a person's behavior is ethics, but argued that this link can be disrupted by the passage of time, unforeseen events or new information. In addition, low involvement behaviors are likely to be based on few, weakly held or possibly unstable views. The finding also similar to the finding by Wollela (2008) .The findings of the analyses suggested that in Ethiopia there is divergence between the effective VAT taxation and the legislation. The Authors outcomes of the surveys showed a paucity of tax awareness among the society and strong education programs as well as lack of trust between taxpayers and administrators as major challenges to the VAT system in the country.

Regression result of Ethics with (Beta=.302) indicates that ethics have a positive significant relation with tax the hypothesis (H5) accepted.

Therefore, the researcher was accepted all the H1, H2, H3, H4, H5 hypothesis. This indicates that all factors have positive impact on tax compliance among VAT registered tax payers in Addis ketema sub city. Among the variables, Tax rate, Tax Audit Issues, and Perception of government spending found to have the most statistically significant effect on tax compliance among VAT registered tax payers in Addis ketema sub city.

CHAPTER FIVE

CONCLUSIONS, AND RECOMMENDATION

5.1 Conclusion

The main objective of this research was to assess the determinants of VAT compliance. The findings of this study revealed that most of the identified factors have influence on the VAT compliance of small and medium level individual tax payers. The identified tax compliance factors included Tax rate, tax audit, role (efficiency) of tax authority, role of government spending and ethics and attitude toward tax. Accordingly, this part of the research summarizes the major findings of the study from

Based on the results of data analysis and interpretation in the previous chapter the following summary of major findings conclusion was given:

Firstly majority of the respondents believe that the current rate of VAT is fair reducing the rate of VAT might not encourage voluntary compliance.

The impact of tax rates are positive, negative or no impact on evasion, Kirchler et. al. (2008) and McKerchar and Evans (2009) suggested that the degree of trust between taxpayers and the government has a major role in ascertaining the impact of tax rates on compliance. When trust is low, a high tax rate could be perceived as an unfair treatment of taxpayers and when trust is high, the same level of tax rate could be interpreted as contribution to the community (Kirchler et. al., 2008).

- As a Conclusion, In this research as per the taxpayers, response to the questionnaire the rate of VAT had positively affected the VAT compliance behavior of the taxpayers and evidence suggests that tax rates have mixed impact on tax compliance decreasing tax rate does not necessarily always increase compliance .Increase in tax rates might have positive or negative impact on evasion. Moreover, increasing tax rates will not necessarily always decrease compliance behavior.

Secondly tax payers believe that the probability of being audited and the chance of fraud detection by the tax authority are low as a result they attracted toward under reporting of their actual income .

The audit probability at ERCA is very low and the larger portion of the VAT revenue is generated from the small portion of audit performance(Aselam 2016).

- This shows taxpayers are not voluntarily compliant due to the low level of being audited.
- The result also shows that the probability of being fraud detection by the tax authority have impact on voluntary tax compliance
- Tax payers believe that tax audit have impact on voluntary compliance
- There is a significant positive relation between tax audit and tax compliance.

Thirdly most of respondents were agreed about 60.1%, 57.1%, and 53.8% of them were neutral on the statements government/tax Authority collects VAT Economically, AACGR personnel are capable in collecting VAT, and the tax authority collects the required amount of VAT as planed and expected respectively

- Therefore taxpayers' response to the questionnaire tells us that they were not sure about the efficiency of the government.
- If the tax authority is not efficient, taxpayers will refrain to meet their obligations. Hence, it is one of the central questions in determining taxpayers' satisfaction and their compliance behavior.
- According to the taxpayers' response, there are problems that must be solved in order to convince their client about their efficiency.

Fourthly majority of respondents were agreed that government is highly corrupted; government budget allocation is not fair to benefit the poor. As result tax payers are not volunteered to pay tax.

- As conclusion the respondents did not believe that the government is spending appropriately the tax collected. If taxpayers perceived that, the government is spending unwisely the tax collected, majority of them will tend to evade the tax.

Lewis (1982) argued that when myths and misperceptions are replaced by knowledge, a change in attitudes towards taxation would occur even if the taxpayers' basic ideology and values remain unchanged and the tax law is unchanged.

Finally majority of the respondents believe that paying the correct tax is a moral obligation. On the other hand they believe that VAT administration system is poor, unmanageable and do not improve life situation of the society. They also believe that government is liable for under invoicing of imported goods this cause to not to issue invoices to customers. Many of the respondents are agree with the point that un familiarity of tax payers for tax laws cause for discouraging VAT compliance and VAT is important next to those neutral respondents. Therefore the results of analysis shows ethics and attitude of the society have positive relation with tax compliance.

In general the results of analysis shows that VAT compliance have a positive relation with tax rate, tax audit, role or efficiency of tax authority, government spending and ethics and attitude toward tax compliance. In other words concerning correlation matrix, the highest correlation coefficient was found between tax compliance and tax rate, followed by between tax compliance and tax audit. All constructed variables have positive correlation with Tax Compliance because the p (sig) value is less than $\alpha=.05$ level

All regression assumptions were tested and there is no violation of the assumptions. 69.5% of the variance in the model can be predicted using the independent variables or in simple words 69.5% of tax compliance is explained by the constructed independent variables. The researcher was accepted all the H1, H2, H3, H4, H5 hypothesis. This indicates that all factors have positive impact on tax compliance among VAT registered tax payers in Addis ketema sub city.

5.2 Recommendation

Based on the findings, the following recommendations were made to the concerned authorities:

- ✓ A continuous, timely and consistent audit plan must be adopted to prevent tax noncompliance.
- ✓ There should be different awareness programs to improve the tax morale of the taxpayers by AACGR to develop a sense of a good citizen and love to the nation forces one to comply with tax laws
- ✓ Tax payers should get continuous education programs about tax , acquire specific motivational packages to make them more interested to pay the required tax
- ✓ The tax authority could also upgrade the skill and competency of tax officials in

order to handle tax related offences in a better way and working procedures of the authority should be fully automated. This will increase tax payers confidence about the tax authority.

Finally, future research should be done, in private limited company, corporate tax payers and individual tax payers in other city of the country to make the research more conclusive.

REFERENCES

- Adams, J. Khan, H., Raeside, R., & White, D. (2007). *Research methods for graduate business and social science students*. SAGE publications India
- Adesina ,O. Uyioghosa ,O.(2016) *Tax Knowledge, Penalties and Tax Compliance in Small and Medium Scale Enterprises in Nigeria*
- Ajzen ,I.,Fishbein, M .(1980) *Understanding attitudes and predicting social behavior*. Englewood & li ́sNew Jersey: Prentice Hal.
- Ajzen, I. (1988). *Attitudes, Personality and Behaviour*. Milton Keynes: Open University Press.
- Ajzen, I. (1991). Theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Alabede, J. , Ariffin, Z. & Idris, K. (2011). *Determinants of Tax Compliance Behaviour: A Proposed Model by Nigeria*. In Abdulsalam Mas’ud, Almustapha Alhaji Aliyu and El-Maude Jibreel Gambo(ed) *Tax Rate and Tax Compliance In Africa*.
- Ali, M. Cecil, H., and Knoblett, J. (2001). The effect of tax rates and enforcement policies on tax compliance. A study of self employed taxpayers. *American Economic Journal*, 29(2), 86-202.
- Allingham, M., and Sandmo, A. (1972). Income tax evasion: A theoretical analysis, *Journal of Public Economics*, 1(3-4), 323-338.
- Alm, J. (1990). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Review*, 66(3), 577-93.
- Alm, J., Jackson, B., and McKee, M. (1993). Institutional uncertainty and taxpayer compliance. *American Economic Review*, 82(4),1018-26
- Amina & Samiya .Tax compliance and its determinant the case of jimma zone, Ethiopia *International Journal of Research in Social Sciences* Vol. 6, No.2 2015.
- Andreoni, J, Erard, B., and Feinstein, J. (1998). Tax compliance,*Journal of Economic Literature*.
- Angesom ,B. (2013) *VAT Collection Practices in Addis Ababa: A Case Study in the Eastern Branch of Ethiopian Revenue and Customs Authority*.

- Ann, Jacqueline ,John,J.Richard& Sharone Journal of Tax Research (2012) Special Edition: a tax
10th International Tax Administration Conferencevol. 10, no. 2
- Aselam ,O. (2016) Determinants of Tax Compliance in the case of Nifas Silk Lafto Sub city.
- Banele D. (2017)determinants of tax non- compliance among small and medium enterprises in
Zimbabwe, journal of economics and behavioural studies VOL. 9(4).
- Bautigam, D., Fjeldstad, O. and Moore, M. (2005) Taxation and State-Building in Developing
Countries: Capacityand Consent. In Adesina Olugoke Oladipupo , Uyioghosa Obazee(ed)
Tax Knowledge, Penalties and Tax Compliance in Small and Medium Scale Enterprises in
Nigeria
- Bernasek, A. & Shwiff, S. (2001). Gender, risk and retirement. Journal of Economic Issues.
35(2), 345- 356.
- Brown, R. & Mazur, M. (2003). IRS's Comprehensive Approach to Compliance. Paper
presented at National Tax Association Spring Symposium in May 2003, Washington
D.C.
- Chan, C., Troutman, C.,and O'Bryan, D. (2000). An expanded model of taxpayer compliance:
Empirical evidence from United States and Hong Kong. Journal of International
Accounting, Auditing and Taxation, 9(2), 83 –103.
- Clotfelter, (1983).Tax evasion and tax rates: An analysis of individual returns. The
- Craner, J., and Lymer, A. (1999). Tax education in the UK: A survey of tax courses in
undergraduate accounting degrees. Accounting Education: An International Journal,
8(2), 127-56.
- Creswell, J. (2003). Research design: Qualitative, quantitative, and mixed methods
- Curtis ,S. (2010). The Value-Added Tax Is Wrong for the United States.
- Dawson, Catherine D. (2006). Practical Research Methods. Oxford: How to Books design.
- Desta K., 2010. "Assessment of taxpayers' voluntary compliance with taxation: a case of Mekelle
city, Tigray, Ethiopia" MBA, Thesis, MU.

- Devos, K. (2005). The attitudes of tertiary students on tax evasion and the penalties for tax evasion- A pilot study and demographic analysis. *Journal of Tax Research*, 3(2), 222-73.
- Devos, K.(2014) Factors Influencing Individual Taxpayers Compliance Behaviors
- Dubin, J.A. (2007). Criminal investigation enforcement activities and noncompliance.
- Dubin, J.A., and Wilde, L.L. (1992). An empirical analysis of state income tax amnesties: causes. *Quarterly Journal of Economics*, Oxford university press, 1058-70.
- Eicher, J., Thomas, J., and Wendy, L. (2002), Men, women, taxes and Ethics. in Naomi Owusuaa (ed) tax non-compliance in the informal sector: a case of small and-medium-scaled enterprises at Suame magazine in the Kumasi metropolis, Kwame Nkrumah University
- Elffers, H. Weigel, R. ,and Helsing, D. (1987). The consequences of different strategies for measuring tax evasion behavior. *Journal of Economic Psychology*, 8(3), 311-37. Ethiopia.
- Friedland, N., Maital, S., and Rutenberg, A. (1978). A simulation study of income tax evasion. *Journal of Public Economics*, 8, 107-116
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference 11.0 update*, Allyn & Bacon, Boston
- Green W. (2000) *Econometric analysis*. New Jersey.
- Hai T, See LM (2011) Intention of tax non-compliance: examine the gaps. *Int J Bus Social Sci* 2: 79-83.
- Hasseldine, J., and Hite, P. (2003). Framing, gender and tax compliance. *Journal of Economic Psychology*, 24 (4), 517-533.
- Hasseldine, J., and Li, Z. (1999), more tax evasion research required in new millennium. *Crime, Law and Social Change*, 31 (1), 91-104.
- Hite, P., and Hasseldine, J. (2001). A primer on tax education in the United States of America. *Accounting Education*, 10(1), 3-13.International.
- Israel G.D. (1992), *Determining Sample Size Florida Cooperative Extension Service University of Florida*, Fact Sheet PEOD.6 Retrieved on 23/01/2019,From:

- J.A. G. and Tran ,H NHI A General Framework for Measuring VAT Compliance Rates (General Paper No. G-206 August 2010)
- Jackson. B., and Milliron, V. (1986). Tax compliance research: Findings, problems, and prospects. *Journal of Accounting Literature*, 5, 125-65.
- Jalata (2014) Role of Value added tax on Economic growth of Ethiopia Article Science, Technology & Art research
- James Andreoni, Brian Erard and Jonathan Feinstein(1998) Tax compliance: Journal of American Economic Association
- James O. Alabede (2014) an Exploratory Analysis of Individual Taxpayers' Compliance Behavior in Nigeria: a Study of Demographic Differences and Impact.
- James, S., and Alley, C. (2004). Tax Compliance, self assessment and tax administration.
- Jones, S.M., and Duncan, W.A. (1995). Teaching the introductory tax course; a new paradigm. *Journal of the American Taxation Association*, 17 (1), 95-103.
- Kasipillai, J., and Jabbar, H.A. (2006). Tax compliance attitude and behaviour: gender and Ethnicity differences in Tax Compliance.
- Kennedy P. John O. (2014)Nigeria *International Journal of Business and Social Science* Vol. 5, No. 9; August 2014
- Kirchler, E., & Maciejovsky, B. (2001). Tax compliance within the context of gain and loss situation, expected and current asset position and profession. *Journal of Economic Psychology*, 22, 173-194.
- Kirchler, E. (2007). *The Economic Psychology of Tax Behaviour*. Cambridge: Cambridge University Press
- Kirchler, E. Hoelzl. E, Ingrid Wahl (2018) The “slippery slope” framework. *Journal of Economic Psychology*, 29, 210-55
- Kirchler, E., Hoelzl, E., and Wahl, I. (2008). Enforced versus voluntary compliance:
- Kirchler. K., Muehlbacher. S, Kastlunger .B and Wahl . , 2007: Why Pay Taxes? A Review of Tax Compliance, Decisions, International Studies Program, Working Paper 07-30

- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age
- Kwai and Wong (2011) tax knowledge & tax compliance determinants in self-assessment system in Malaysia in Palil, Mohd Rizal (ed) Tax knowledge and tax compliance determinants in self-assessment system in Malaysia, Ph.D. thesis, University of Birmingham.
- Leedy, P.D., & Ormrod, J.E. (2013). *Practical research: planning and design* (10th ed.). USA: Pearson Education, Inc.
- Levin, I.P., Schneider, S.L., and Gaeth, G.J. (1998). All frames are not created equal: A typology and critical analysis of framing effects. *Organizational Behavior and Human Decision Processes*, 76(2), 149–188.
- Lewis, A. (1982). *The social psychology of taxation*. Oxford: Wiley.
- Lewis, A., Carrera, S., Cullis, J., Jones, P., 2009, 'Individual, cognitive and cultural differences in tax compliance: UK and Italy compared', *Journal of Economic Psychology*, vol. 30, no. 3, pp. 431-445
- Loo, E.C. (2006). *The influence of the introduction on self assessment on compliance behaviour of individual taxpayers in Malaysia*. PhD thesis. University of Sydney.
- Manaf, Hasseldina, and Hodges (2005) are women more tax compliant than men in Malaysia?. *Management Research*
- Marti, L. O. (2010). Taxpayers' attitudes and tax compliance behaviour in Kenya. *African Journal of Business & Management*, 1,112-122(ed) in Ojochogwu Winnie Atawod & Stephen Aanu Ojeka factors That Affect Tax Compliance among Small and Medium Enterprises (SMEs) in North Central Nigeria
- Marziana H., Mohamad, N. Orkhazimah A., & Mohamad, S.D. (2010). Perceptions of taxpayers with level of compliance: A comparison in the east coast region, Malaysia In EIYA, Ofiafoh, ILABOYA, O. J and OKOYE, A. Francis(ed) *Religiosity and Tax compliance: Empirical evidence from Nigeria*
- Mason, R., & Calvin, L. D. (1984). A study of admitted income tax evasion. *Law and Society Review*, 13(fall),7389.

- McBarnet, D. (2001). When compliance is not the solution but the problem: From changes in law to changes to attitude. Canberra: Australian National University, Centre for Tax System Integrity.
- McKerchar, M., and Evans, C. (2009). Sustaining growth in developing economies through improved taxpayer compliance: Challenges for policy makers and revenue authorities. *eJournal of Tax Research*, 7(2), 171-201.
- Meier-Pesti & Penz, (2007) Sex or Gender Expanding the Sex based view by introducing Masculinity and Femininity as Predictors of financial risk taking
- Merima Ali, Odd-Helge Fjeldstad, Ingrid Hoem Sjursen Chr. Michelsen (2013) Factors affecting tax compliant attitude in Africa: Evidence from Kenya, Tanzania, Uganda and South Africa, Centre for the Study of African Economies 2013 Conference Oxford,
- Ming Ling, L., Normala, S.O., and Meera, A.K. (2005). Towards electronic tax filing: Technology readiness and responses of Malaysian tax practitioners. *Tax Nasional*, First Quarter, 16- 23.
- Misrak Tesfaye(2014) *Ethiopian Tax accounting principles and practice* 2nd edition, Addis Ababa.
- Muzainah Mansor & Zakariya'u Gurama (2016) The Determinants of Tax Evasion in Gombe State Nigeria *International Journal of Economics and Financial Issues*, 2016, 6(S7) 165-170.
- Niway A, Wondwossen J (2015) Determinants of voluntary tax compliance behavior in self-assessment system: evidence from SNNPRS,
- Oluoch R. A. (2012) *Factors Affecting Adopting OF Mobile Banking Technology IN Kenya A Case of Bank Customers within Nakuru Municipality*, Kabarak University Kenya
- Orviska, M., and Hudson, J. (2002). Tax evasion, civic duty and the law-abiding citizen. *European Journal of Political Economy*, 19(1), 83-102.
- Park, C., and Hyun, J.K. (2003). Examining the determinants of tax compliance by experimental data: A case of Korea. *Journal of Policy Modelling*, 25, 673-684
- Pommerehne, W.W., and Weck-Hannemann, H. (1996). Tax rates, tax administration and income tax evasion in Switzerland. *Public Choice*, 88 (1), 161-170
- Porcano, T.M. (1988). Correlates of tax evasion. *Journal of Economic Psychology*, 9(1), 47-67.

- Puspitasari E, Meiranto W (2014) Motivational postures in tax compliance decisions: an experimental studies. *Int J Bus Econ Law* 5: 100-110
- Richardson, G. (2008). The relationship between culture and tax evasion across countries: Additional evidence and extensions. *Journal of International Accounting, Auditing and Taxation*, 17(2), 67-78.
- Roberts, L.H., Hite, P.A., and Bradley, C.F. (1994). Understanding attitudes toward progressive taxation. *Public Opinion Quarterly*, 58, 165-190.
- Roth, J.A, Scholz, J.T., and Witte, A.D. (1989). *Taxpayer Compliance: An Agenda for Research*. Philadelphia: University of Pennsylvania Press
- Silvani, C., and Baer, K. (1997). Designing a tax administration reform strategy: Experiences and guidelines. Working paper, International Monetary Funds, Washington DC
- Simon Tareke Abay (2013) Assessment on the Implementation of Value-Added Tax (VAT) in Mekelle City Administration
- Singh, V. (2003). *Malaysian Tax Administration*. 6th ed. Kuala Lumpur: Longman.in Tilahun Aemiro (ed), *Determinants of Tax Compliance Behavior in Ethiopia: The Case of Bahir Dar City Taxpayers*. *Journal of Economics and Sustainable Development* Vol.5, No.15
- Singh, V., and Bhupalan, R. (2001). The Malaysian self assessment system of taxation: Issues and challenges. In Adesina Olukoge Oladipuno, Uyioghosa Obazee(ed) *Tax knowledge, Penalties and compliance in Small and Medium Scale Enterprise in Nigeria*
- Slemrod, J. (1984). The compliance cost of the US individual income tax system, National bureau of economic research, Cambridge Massachusetts, July 84
- Somasundram, N.R. (2003). Tax evasion and tax investigation - a study on tax compliance management. Chartered Secretary Malaysia, July, 20-24. In Ohene Franchis(Eds) an assessment of tax compliance by the self employed in the new Juaben municipality, MSc Thesis university of Kwame Nukroma
- Somasundram, N.R. (2005). Entertainment expenditure. Chartered Secretary Malaysia, March, 20-23. in Ohene Franchis (Eds) an assessment of tax compliance by the self employed in the new Juaben municipality, MSc Thesis university of Kwame Nukroma

- Song, Y., and Yarbrough, T.E. (1978). Tax ethics and taxpayer attitudes: A survey. *Public Administration Review*, 38(5), 442-452.
- Spicer, M.W. and Lundstedt, S.B. (1976). Understanding tax evasion. *Public Finance*, in Friedland(ed), a simulation study of income tax evasion, *Journal of Public Economics*, 10(78)107-116
- Spicer, M.W., and Becker, L.M. (1980). Fiscal inequity and tax evasion: an experimental approach. In Lars P field(ed), *Tax evasion in Switzerland: the roles of deterrence and tax morale*, WP empirical research in economics, university of Zurich
- Stephen (2011) *Determinants of tax compliance a case study of VAT flat rate scheme traders in the Accra metropolis, Ghana*
- Suresh V. & Srinivas G. (2012) *Factors that influence rental tax payers compliance with the tax system: an empirical study of Mekele City*
- Teffera, A.H 2005. Assessment of the value added tax implementation in Ethiopia. *Proceed of the second International Conference on the Ethiopian economy (vol III): 59-95*. Ethiopian Economic Association
- Tesfaye Alemayehu, 2015. *Determinants tax revenue in Ethiopia: MSC Thesis for partial fulfillment of the requirement of Masters of Science in Accounting and Finance*. AAU; Ethiopia
- The World Bank; *Paying tax*; Published jointly with International Finance Corporation November 2009
- TheWorld Bank/(2009 *The Impact of VAT on Business*
- Tilahun A.& Yidersal D.(2014) *Determinants of Tax Compliance Behavior in Ethiopia: The Case of Bahir Dar City Taxpayers.. Journal of Economics and Sustainable Development Vol.5, No.15 2014*
- Tittle, C. R. (1980). *Sanctions and social deviance: The question of deterrence*. New York: Praeger.
- Tittle, C. (1981). *Sanctions and Social Deviance: The Questions of Deterrence*. Connecticut: Praeger.

- Tittle, C.R., & Walch, M.R. (1983). Identity, morals and taboos: Beliefs as assets, *Quarterly Journal of Economics*, 126: 805-855.
- Torgler, B. (2007). *Tax Compliance and Tax Morale: A Theoretical and Empirical Analysis*. Cheltenham: EE.
- Torgler, B., and Schneider, F. (2005). Attitudes towards paying taxes in Austria: an empirical analysis. *Empirica*, 32(2), 231-246
- Trivedi, V.U., Shehata, M., and Mestelmen, S. (2004). Impact on personal and situation factors on taxpayer compliance: An experimental analysis. *Journal of Business Ethics*, 47(3), 175-197.
- Tuan Le Minh (2007). *Estimating the VAT Base: Method and Application*
- Tyler, T., and Lind, E. (1992). A relational model of authority in groups. In Zanna, M.P. (ed), *Advances in Experimental Social Psychology*, XXV, 115-191. San Diego, CA: Academic Press.
- Value Added Tax (Amendment) proclamation No. 609/2008, (Negarit Gazeta) Addis Ababa: Ethiopia.
- Value Added Tax proclamation No. 285/2002, (Negarit Gazeta) Addis Ababa: Ethiopia.
- Warneryd, K.E., and Walerud, B. (1982). Taxes and economic behaviour: Some interview data on tax evasion in Sweden. *Journal of Economic Psychology*, 2, 187-211.
- Wartick, M. (2017). Generational differences in perception of tax fairness of and attitude towards tax compliance in advances in taxation.
- Wenzel, M. (2003). Tax compliance and the psychology of justice: Mapping the field. In Braithwaite, V. (ed.), *Taxing Democracy. Understanding Tax Avoidance and Tax Evasion*. Pp.41-69. Aldershot: Ashgate.
- Witte, A., and Woodbury, D.F. (1985). What we know about the factors affecting compliance with the tax laws? In Kathrin B, Et al.(ed.), *The internal costs of VAT compliance: Evidence from Australia and the United Kingdom and suggestions for mitigation*.
- Wollela, A.,(2008) *Value Added Tax Administration in Ethiopia: A Reflection of Problems*

Worku ,M.(2015). Factors affecting adoption of mobile banking: the case of commercial bank of Ethiopia Addis Ababa city customers; a research project submitted in partial fulfillment of the requirements for the degree of Executive Masters in Business Administration (EMBA). Addis Ababa, Ethiopia

World Bank (1993) Working papers Determinants of Value-Added Tax Revenue

Yonas ,S. 2016. Tax payers' attitude towards taxation in Gedeo Zone. International Journal of Commerce

APPENDICES

Appendix 1

ADDIS ABAB UNIVERSITY

FACULTY OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

QUESTIONNAIRE TO BE FILLED BY VAT REGISTERED TAX PAYERS IN A.K. SUBCITY

Dear Respondents,

The purpose of this study in general and this questionnaire in particular is to study “**The Determinants of tax compliance in the case of VAT registered tax payers**” as a requirement for the partial fulfillment MSc. degree in Accounting and Finance. The outcomes of this study will help policy makers and tax authorities, Particularly Ethiopian Revenue and Customs Authority (ERCA), with a deeper understanding of the compliance behavior of their clients’ (i.e., taxpayers) and to identify strategies that help in fostering the level of voluntary compliance. This research has been intended only for academic purposes authorized by Addis Ababa University Faculty of Business and Economics School of Graduate Studies. Thus, your ideas and comments kept confidential.

I would like to thank you for your participation in responding the questionnaire. Your frank response and valuable support in responding to the questions raised is of vital important to the success of the study. Hence, I request you to fill the questionnaire carefully and at your own best knowledge in all regard.

To make your ideas more confidential , you are not required to write your name or your business name.

Address

For any clarification please contact me by the following Adress :

**Abdulmed ShafiAman (Kitchen home Office Next to Vatican Embassy, Finance department
Cell phone: 09 11 30 89 74 Office 0113 -720-044 or**

E-mail: abiamann@yahoo.com

I realty thank you again for your invaluable contribution to the work I will done

2-Tax audit issues

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
13 Tax Audit have no effect on VAT compliance					
14.The probabilities of being detected by the tax authority for not declaring the exact VAT is low					
15.The probability of being audited by the tax authority are very low as a result I can under report and over claim the VAT					
16.I believe that tax audits can play an important role to increase voluntary compliance					
17. Taxpayers who have never been audited before cause for malicious report					

3- Role (efficiency) of the tax authority/government

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
18. Government/tax Authority collects VAT Economically.					
19 AACGRA personnel are capable in collecting VAT					
20. The tax authority collects the required amount of VAT as planed and expected					

PART III- Attitude & Perceptions of government spending

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
21. I believe tax authority is highly corrupted, so I don't want to declare the correct VAT					
22. I believe that collecting money from me is not fair					
23. I believe the government budget allocation is not fair, so I wish not to declare VAT.					
24. I believe declaring the required VAT benefit the poor					
25. I believe government spending is unfair, So I don't need to declare the required VAT.					

PART IV Ethics and attitudes toward tax compliance

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
26. I believe that paying tax is a moral obligation					
27. I believe under reporting VAT is un Ethical, so I declare the required tax					
28. I believe that VAT administration system is unmanageable an un ethical					
29. I believe VAT collected do not improves life situation.					
30. Interest & penalties imposed by AACGR improve voluntary tax compliance					
31. I feel that under invoicing of imported goods cause not to issue VAT invoice					
32. I feel government, not tax payers cause for under invoicing of imported good.					
33. Un familiarity of tax payers for tax laws cause for Discouraging VAT compliance.					
34. I believe VAT is important					

Appendix 2

African Countries with VAT

Country	Date Introduced	Standard Rate (%)	Country	Date Introduced	Standard Rate (%)
Algeria	1992	21	Mauritania	1995	14
Botswana	2002	15	Mauritius	1998	10
Burkina Faso	1963	18	Morocco	1986	20
Benin	1991	18	Mozambique	1999	17
Cameroon	1999	18	Namibia	2000	15
Chad	2000	18	Niger	1986	17
Congo Republic	1997	18	Nigeria	1994	5
Cote-Devoire	1960	20	Senegal	1980	20
Ethiopia	2003	15	Rwanda	2001	15
Egypt	1991	10	South Africa	1991	14
Gabon	1995	18	Sudan	2002	10
Ghana	1998	10	Tanzania	1998	20
Guinea	1996	18	Togo	1996	18
Kenya	1990	16	Tunisia	1998	18
Madagascar	1994	20	Uganda	1996	17
Malawi	1989	20	Zambia	1995	17.5
Mali	1991	15			

Source: Simon Tareke (2013).

World Countries with VAT

Country	Standard Rate (%)	Country	Standard Rate (%)	Country	Standard Rate (%)
Australia	20	Romania	19	Lebanon	10
Belgium	21	Slovakia	19	Moldova	20
Bulgaria	20	Slovenia	20	Macedonia	18
Cyprus	15	Spain	16	Malaysia	5
Czech Republic	19	Sweden	25	Mexico	15
Denmark	25	United Kingdom	17.5	New Zealand	12.5
Estonia	18	Argentina	21	Norway	25
Finland	22	Australia	10	Paraguay	10
France	19.6	Bosnia & H	17	Peru	19
Germany	19	Canada	6	Philippines	12
Greece	19	Chile	19	Russia	18
Hungary	20	China	17	Serbia	18
Ireland	21	Croatia	22	Singapore	5
Italy	20	Ecuador	12	South Korea	10
Latvia	18	El Salvador	13	Sri Lanka	15
Lithuania	18	Guyana	16	Switzerland	7.6
Luxembourg	15	Iceland	24.5	Thailand	7
Malta	18	India	12.5	Turkey	18
Netherlands	19	Israel	15.5	Ukraine	20
Poland	22	Japan	5	Venezuela	8
Portugal	21	Kazakhstan	14	Colombia	45

Source: Simon Tareke (2013)

Correlations

		MeanTax	MeanAudit	MeanEff	MeanAtt	MeanEthic	MeanCompli
MeanTax	Pearson Correlation	1	.043	.058	.124	-.048	.490**
	Sig. (2-tailed)		.513	.375	.057	.462	.000
	N	238	238	238	238	238	238
MeanAudit	Pearson Correlation	.043	1	-.056	.005	.047	.436**
	Sig. (2-tailed)	.513		.386	.933	.470	.000
	N	238	238	238	238	238	238
MeanEff	Pearson Correlation	.058	-.056	1	-.134*	.082	.260**
	Sig. (2-tailed)	.375	.386		.038	.208	.000
	N	238	238	238	238	238	238
MeanAtt	Pearson Correlation	.124	.005	-.134*	1	-.105	.374**
	Sig. (2-tailed)	.057	.933	.038		.105	.000
	N	238	238	238	238	238	238
MeanEthic	Pearson Correlation	-.048	.047	.082	-.105	1	.283**
	Sig. (2-tailed)	.462	.470	.208	.105		.000
	N	238	238	238	238	238	238
MeanCompli	Pearson Correlation	.490**	.436**	.260**	.374**	.283**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	238	238	238	238	238	238

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

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

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	MeanEthic, MeanAudit, MeanTax, MeanEff, MeanAtt ^b	.	Enter

a. Dependent Variable: MeanCompli

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.834 ^a	.695	.689	.28678	.695	105.800	5	232	.000	1.587

a. Predictors: (Constant), MeanEthic, MeanAudit, MeanTax, MeanEff, MeanAtt

b. Dependent Variable: MeanCompli

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.506	5	8.701	105.800	.000 ^b
	Residual	19.080	232	.082		
	Total	62.586	237			

a. Dependent Variable: MeanCompli

b. Predictors: (Constant), MeanEthic, MeanAudit, MeanTax, MeanEff, MeanAtt

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.002	.131		.987		
	MeanTax	.246	.021	.422	11.485	.975	1.025
	MeanAudit	.192	.017	.418	11.495	.992	1.008
	MeanEff	.177	.023	.287	7.793	.967	1.034
	MeanAtt	.185	.018	.390	10.523	.957	1.045
	MeanEthic	.181	.022	.302	8.233	.980	1.021

a. Dependent Variable: MeanCompli

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	MeanTax	MeanAudit	MeanEff	MeanAtt	MeanEthic
1	1	5.539	1.000	.00	.00	.00	.00	.00	.00
	2	.159	5.906	.00	.84	.12	.01	.00	.02
	3	.117	6.867	.00	.05	.69	.18	.01	.03
	4	.107	7.182	.00	.06	.03	.13	.68	.01
	5	.061	9.496	.00	.01	.06	.45	.05	.55
	6	.016	18.630	.99	.03	.10	.23	.26	.39

a. Dependent Variable: MeanCompli

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.5179	4.1010	2.7218	.42845	238
Residual	-1.03451	.87559	.00000	.28374	238
Std. Predicted Value	-2.810	3.219	.000	1.000	238
Std. Residual	-3.607	3.053	.000	.989	238

a. Dependent Variable: MeanCompli