

# **Determinants of Value Added Tax Revenue Performance in Ethiopia: Ethiopian Revenue Authority at Jimma Town.**

*A Thesis submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Award of the Degree of Master (MSc) in Accounting and Finance.*

**BY:**

**TOLESA FAYERA (RM 0292/11)**



**JIMMA UNIVERSITY  
COLLEGE OF BUSINESS & ECONOMICS  
ACCOUNTING AND FINANCE  
MSC PROGRAM**

**JULY 2020**

**JIMMA, ETHIOPIA**

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**Under the Guidance of**

**Dr. Mathews Kebede**

**And**

**Mr. Sintayehu Tullu**



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## DECLARATION

I, Tolesa Fayera, have carried out research work on the “*Determinants of Value Added Tax Revenue Collection Performance in Ethiopia: Ethiopian Revenue Authority in Jimma Town*” independently in partial fulfillment of the requirement of the Masters of Science (MSc) degree in Accounting and Finance with the guidance and supervision of the research advisor, Dr. Mathews Kebede, and Ato Sintayehu Tulu.

I, also declare that this thesis is my original work and that all sources of materials used for the thesis have been duly acknowledged.

**Declared by:**

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Name of the Student

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**Date**

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**Signature**

## CERTIFICATE

This is to certify that the thesis prepared by **Tolesa Fayera**, entitled: “*Determinants of Value Added Tax Revenue Performance in Ethiopia: Ethiopian Revenue Authority in Jimma Town*”. It is submitted in partial fulfillment of the requirements for the Degree of Masters of Science in Accounting and Finance complies with the regulations of the university and meets the accepted standards concerning originality and quality.

Therefore, we hereby declare that no part of this thesis work has been submitted to any other university or institution for the award of any degree or diploma.

This thesis has been submitted for examination with my approval as a university advisor.

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## ABSTRACT

*The sustainable development of any country depends on the ability of the government to generate a sufficient amount of revenue from its internal source of finance. VAT has an important role in the revenue system of the Ethiopian government. To sustain its role the governments ensure that the revenue generated by this tax is raised as efficiently as possible. However, revenue generated by this tax system is not as good as expected due to weakness in the tax administration. The study was conducted to examine the determinant factors of Value Added Tax revenue collection performance in Ethiopian Revenue Authority (ERA) in the case of Jimma Town. To meet this objective, researcher used a descriptive research design that used both quantitative and qualitative research approach, in which simple random sampling methods were employed to select 435 VAT-registered taxpayers and employees of Ethiopian Revenue Authority. And the researchers used both primary and secondary sources of data. Primary data were collected from a sample of VAT-registered taxpayer's and employees of Ethiopian Revenue Authority in Jimma Town and secondary data were collected from published document and office annual reports. The data were analyzed using the descriptive and econometric method to examine factors influencing determinants of value-added tax revenue collection performance of the Ethiopian Revenue Authority at Jimma Town. The result of the study showed that the determinants factors of Value Added Tax revenue collection performance which affects statistically significant and positive with tax education, political stability, taxpayers' compliance, and whereas attitudes of taxpayers towards tax authority or government and unemployment rate affect negative statistically significant. Based on the findings of study, the researcher recommended that Revenues Authority should fulfill necessary manpower increase the taxpayer awareness by giving training to the taxpayers and create continuous follow up to improve Value added tax revenue collection performance, mechanisms to improve the knowledge and understanding of VAT rules and regulations, improve the attitude of the business community to increase government's revenue collection capacity by reducing the resistance against VAT registration by taxpayers and improve VAT administration capacity in the town to earn high revenue from VAT collection that the economic growth.*

**Keywords: VAT, Tax, Revenue Collection, Performance, Taxpayers**

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## ABBREVIATION / ACRONYMS

CBRO	Comprehensive Budget Release Order
DTE	Developing and Transitional Economies
ERA	Ethiopian Revenue Authority
EU	European Union
FDRE	Federal Democratic Republic Of Ethiopia
GDP	Gross Domestic Product
GNP	Gross National Product
GST	Goods and Service Tax
IMF	International Monetary Fund
JTERA	Jimma Town Ethiopian Revenue Authority
MoFEC	Ministry Of Finance and Economic Corporation
MoFED	Ministry Of Finance and Economic Development
MoR	Ministry of Revenue
OECD	Organizational and Economic Co-operation Development
OLR	Ordered Logistic Regression
OLS	Ordinary Least Squares
SIGTAS	Standard Integrated Government Tax Administration System
TIN	Tax Identification Number
VAT	Value Added Tax
VIF	Variance inflation factor
WB	World Bank

# CHAPTER ONE

## INTRODUCTION

This chapter covers the background of the study, statement of the problem, the objective of the study, statement of hypothesis, the significance of the study, scope and limitation of the study, and organization of the paper.

### 1.1. Background of the study

The major aim of governments in most of the world is to stimulate and guide their economic and social development and meet public demands. The governments must continue to achieve the goal of government promoted and directed development (Wawire, 2011). Tax is a compulsory levy on the citizens and a policy tool for the government that helps to mobilize revenue to provide services to the public which are necessary for the society. By collecting tax the government finances its projects which are important to accelerate the economic while minimizing wealth distribution inequalities. Tax revenue, all over the world plays a vital role in the development of an economy; this facilitated many nations to introduce a VAT on goods and services.

VAT is a tax on the value added to goods and services by enterprises at each stage of the production and distribution process. It rose when a taxable person makes a supply of goods or services in the course of his business. Thus, in some countries, it is called goods and services tax (GST). VAT was intended because very high sales taxes and tariffs encourage cheating and smuggling (Worku, 2008). VAT has spread throughout the world since it's introduced in 1955; France was the first country to introduce VAT effective from April 10, 1954. Nowadays it raises about 20 percent of the world's tax revenue and affects about 4 billion people (Keen and Lockwood, 2007). By 1969, the only eight nations had adopted VAT; Cote-Devoir was the first country in Africa to introduce VAT in 1960. Since 1979 VAT has been adopted as the main form of an indirect tax by many countries in world (Misrak, 2008). In Ethiopia VAT adopted into tax system on January 1, 2003, the issuance of VAT proclamation No.285/2002 designed to replace sales tax which had been applied on the sale of goods and service. Value-added tax is a sales tax based on the increase in the value or price of the product at each stage in each manufacture production and distribution. One of the reasons to replace sales tax by VAT is to enhance economic growth, saving & investment, mitigate tax evasion or taxpayer's non-compliance (Misrak, 2014).

Nowadays, in developing countries with the increasing tax of the government, the role of taxation in economic development has become more significant. However, most of the developing countries face problems difficulty in generating sufficient revenue for meeting public purposes. Low per capita incomes, subsistent agriculture economy, poorly structured tax systems, and weak tax and customs administrations contribute to difficulties in raising tax revenues in the developing county (Tesfaye, 2015).

Revenue collection is very important for every government in the world as it enables the government to acquire assets which are not liable to debt and which the government uses to develop its economy. The aims of tax administration are to improve laws regarding registration, assessment, collection revenue, and exploiting full taxation potential of a country (World Bank, 1991). The economic resources available to a society are limited and so an increase in government expenditure, then the government needs to raise revenue to meet its fiscal responsibility. However, reductions in tax cause a substantial decline in the revenue of the government. The reduction in revenue is worsening the budgetary deficit. Thus, tax reduction needs to be coordinated with fiscal reforms. The general advice of international institutions such as the International Monetary Fund and World Bank given the developing countries over the past few decades has been to replace foreign trade tax (import tariff revenue) with a domestic consumption tax, particularly with value-added tax and to maintain relatively high corporate income tax rates (Delessa, 2014).

A VAT is the principal source of revenue for the Ethiopian government (Wollela, 2008). Apart from this the VAT is charged on taxpayers that meet the threshold of Ethiopian Birr (ETB) 500,000 and above in annual turnover and the tax is charged at 15% rate on transactions subject to VAT on domestic transactions accounted for about 41 percent of total federal revenues from domestic sources. Further, VAT has been more revenue productive than sales tax since its introduction (Wollela, 2008). Since 1993, the Ethiopian government has made the major economic shift from central planning to a market-oriented economic system. In line with this, changing the mode of collection of revenue in the form of taxation, and the introduction of the modern tax system (VAT) were considered an immediate necessity.

One of the recurrent problems of the three-tier structure of the government in Ethiopia is dwindling revenue generation as characterized by yearly budget deficits and insufficient funds for economic growth and development. Myles (2000) states that the financial capacity of any gov-

ernment depends on its revenue base, the fiscal resources available to it and the way these resources are generated, and utilized. This mobilization involve the adoption of economic and political acceptable taxes that would ensure easy administration, accounting, verification, auditing and investigation based on the equality, neutrality and other attributes of good tax system. A VAT is a tax on value-added goods and services however it intended to be a tax on domestic consumption; levied at all stages of production and distribution (Ebrill, Keen, Bodin & Summers, 2001). A consumption tax not on production or distribution activities VAT charged sale of goods and service while the seller can claim credit for the VAT that it has been charged on its inputs.

Several studies conducted on the determinants of value added tax (VAT) revenue in various countries. Carmen S. and Fernandez D. S. (2016), Determine the main economic and tax factors that influence VAT revenues in Portugal collected a time series monthly data from 1998 to 2015. Knowing the main determinants of VAT revenues can be helpful to policymakers they can optimize the collection of VAT revenues through adjustment of economic and fiscal policies that have a positive impact on the determinants of VAT revenues. But, not only by adjusting directly the fiscal policy on VAT but also through the adjustment of other variables has a direct impact on VAT. The results show that economic growth, consumption, the public deficit, and the level of the reduced and intermediate VAT rates all have a positive impact on VAT revenues, while unemployment has a negative impact on VAT revenues. The Exports, imports, and the standard VAT rate do not influence VAT revenues. However, the determinants of VAT Revenues in Portugal and imports has insignificant impact on VAT revenue, the standard VAT rate to be statistically insignificant in explaining VAT revenues. This has some major implications regarding the regulation of fiscal policy. These imply that adjusting the fiscal policy on VAT may not be very effective for increasing VAT revenues, but GDP, inflation, consumption, and unemployment may be more effective.

A study conducted by Yohannis (2016) titled “Determinants of Value Added Tax (VAT) Revenue in Ethiopia the case of Gondar Town” based on theoretical and empirical evidence. To meet the objective of different data collected from the Ministry of Finance and Economic Development, and Ethiopian Revenue Authority. A Descriptive statistics and ordered logistic model were employed to analyze the data. By taking variables' effects on Age, educational level, attitude, corruption and compliance of VAT payers significantly affect determine the VAT revenue aid as the independent variable and revenue performance as the dependent variable. The Study results



indicated by taking variables age, educational level, attitude, corruption and compliance of VAT payers significantly affect determine the VAT revenue.

Desalegn (2014) conducted a research “The Role of Value Added Tax on Economic Growth of Ethiopia”; he attempted to analyze the role of VAT on economic growth of Ethiopia using the time series macro-economic data of GDP, VAT, total tax revenue excluding VAT, non-tax revenue, and foreign revenue from 2003 to 2012. The study employed descriptive statistics and multiple regressions to analyze the data. The finding of the study show that as compared to sales tax, VAT boosts the general economic growth of Ethiopia but the issue of regressively like sales tax still continues. During the periods under review, the growth rate of VAT was 66.27% on average. For the periods of sales tax, the average growth rates of GDP were only 2.53%.

Thus, VAT is the major source of income from indirect tax in Ethiopia as well as in Jimma Town since its introduction. In view of this, the paperwork intends to avert all the prevention deficiency deduced by the recent author and thereby discovered the benefits of the value-added tax as our revenue performance in this country (Ethiopia). This study is to examine determinants of value-added tax (VAT) revenue collection performance of Ethiopian Revenue Authority at Jimma Town. To conduct the study, both primary and secondary data was used.

## 1.2. Statement of the Problem

According to Bogetic & Hassan (1993) value-added tax replaces some alternative taxing systems such as sales tax or turnover tax in many countries though some countries may invent VAT as a new system without replacing any previous taxing system. The sustainable development of any countries' depends on the ability of the government to generate a sufficient amount of revenue from its internal source of finance. To sustain its role, it is important to ensure that the revenue generated by this tax is raised efficiently as possible. VAT becomes a major worldwide tax instrument that enhances economic growth. The VAT applied to the amount of value-added throughout the passage of goods and services from one stage to another, it makes the burden of taxation invisible to the customers. In Ethiopia, the implementation of VAT to replace sales tax as of January 2003 Proclamation No.285/2002 and becomes the central landmark tax reform. Accordingly, it has introduced a uniform standard rate of 15% VAT system on most goods and services (Desalegn, 2014). The inadequate revenue performance of VAT may be caused by factors including poor VAT revenue administration, i.e. the lack of capacity tax authorities to implement the attributes of the tax in practice. A good tax administration is crucial in fully implementing the design features of VAT and achieving the government's policy at large (Mikesell, 2007).

Ethiopia has made progress in mobilizing domestic revenue since the mid-1990s, but still lags countries other low-income countries. The tax to GDP ratio rise from 8.6 percent in 2008/09 to 12.7 percent in 2014/15, but it has declined to 11.1 percent in 2017/18. Ethiopia relies seriously on trade taxes, while direct and indirect taxes have underperformed. Direct and indirect tax revenue was 56 percent of total revenue in Ethiopia in 2016/17, below the 64 percent average for low-income countries. Non-tax revenue plays a small role in domestic revenue. A key challenge is increasing the efficiency of the domestic tax system. Ethiopia lags regional peers on VAT and corporate income tax efficiency measures a key reason for the low tax to GDP ratio (IMF, 2018).

The main problems in VAT administration that East Wollega revenue authority office encountered were lack of awareness of taxpayers, resistance against registrations for Value Added Tax by some traders, poorly structured tax system, taxpayers' compliance, education, weak tax administration, the weak culture of taxpayers, poor VAT administration system which made the office ineffective difficulty in raising tax revenue (Habtamueta., 2015). Similarly, Tefera (2011)

found that due to constraints of skilled manpower, low awareness of taxpayers, the low commitment of local leader and complexity of VAT law end up with improper VAT administration which imposes VAT administration burden on taxpayers, and weak enforcement in VAT administration in the Amhara Regional State.

According to Hailu (2004), VAT is a tax levy on the consumption of goods and services. Moreover, it is a modified sales tax based on the net value added at each stage of production or services rather than on gross receipts. The VAT is charged on taxpayers the threshold of Ethiopian Birr (ETB) 1 million and above in annual turnover and the tax rate at 15% charged on transactions subject to VAT. VAT is the main source of income from indirect tax in Ethiopia as well as Jimma Town since its introduction. But, in practice, Value-added Tax collected to the VAT target was not realized with its plan. This means gaps between VAT revenue targets and the actual amount collected not been achieving the degree of VAT revenue collection performance due to taxpayers, VAT administrative functions, and consumers. Keeping this in mind, this study was intended to investigate the determinant factors of Value Added Tax revenue collection performance in the Ethiopian Revenue Authority at Jimma Town.

Best of the knowledge of the researcher, there is no research made in Ethiopia particularly in Jimma Town on the title determinants of value-added tax revenue collection performance. However, there are some related researches conducted by Dasalegn (2014) analyze how VAT becomes a tool for national development in Ethiopian, Abay (2015) examines the contribution of VAT on Ethiopian economy, Birhan (2014) determinants of Value added tax revenue in Ethiopian in case of Gonder Town, and Aduna T. and Ayana G. (2019) determinants of Value Added Tax Collection Performance in West Shoa Zone, Oromia Regional State, Ethiopia are much limited and the findings are mixed. Besides, previous studies conducted by local researchers did not incorporate variables like the unemployment rate, political stability, inflation rate, and Economic growth (Real GDP). Therefore, the researcher aims to fill the above-mentioned gaps. Moreover, this research is intended to study the determinants of Value added tax revenue collection performance by adding more data and variables like GDP, Inflation rate Unemployment rate and Taxpayer compliance, to enhance the validity and generalizability of the study.

### **1.3. Research Question**

The study has addressed the following research question in addition to the hypotheses formulated

- 1) What is factors that influencing determinants of value-added tax revenue collection performance of Ethiopian Revenue Authority at Jimma Town?

### **1.4. Research Objectives**

#### **1.4.1. General Objective of the Study**

The general objective of the study was to establish the determinants of value-added tax revenue collection performance in Ethiopian Revenue Authority (ERA) in the Jimma Town.

#### **1.4.2. Specific Objectives of the Study**

The specific objectives of the study:

1. To identify the taxpayer's related variables affecting VAT revenue performance of ERA at Jimma Town;
2. To assess the attitudes of taxpayers towards VAT rate and market competition between VAT registered and non-VAT registered business enterprises
3. To investigate the determinants of VAT revenue collection related to VAT administration;
4. To measuring and describing the VAT revenue performance of ERA at Jimma Town by using the C-efficiency ratio.

### **1.5. Research Hypothesis**

Based on the real future of VAT in Ethiopia, the research aims to prove and disprove the following assumption depending on the available evidence that we get after data collection analysis.

**The research hypothesizes has the following:**

- H1:** The tax education has a positive significant effect on VAT revenue performance.
- H2:** Economic growth (GDP) has a positive significant effect on VAT revenue performance
- H3:** The inflation rate has a negative significant effect on VAT revenue performance.
- H4:** Attitude of tax payer's towards negative significant effect on VAT revenue performance.
- H5:** Political stability positive significant effect on VAT revenue performance.
- H6:** Tax payer's compliance has positive significant effect on VAT revenue performance.
- H7:** Unemployment rate has significant negative effect on VAT revenue performance.

## **1.6. Significance of the Study**

The study will help policymakers to be able to understand the determinants of VAT revenue performance in Ethiopian Revenue Authority at Jimma town and improving the VAT administration system to increase the revenue performance of VAT to the GDP. The study was important to investigate problems on taxpayers to increase revenue. It is also expected that the study will give guidelines to the concerned tax authorities regarding how they properly address the VAT system and at the same time to monitor and to ensure the system of VAT administration effectively and efficiently increase revenue to achieve the objectives. Further, the study will help the tax authorities to identify their problems and inefficiencies and to take corrective action to improve revenue performance to GDP. Finally, it is believed that the study will add to the existing literature and it will serve as a reference for those who will conduct further study.

## **1.7. Scope of the study**

The scope of the study is limited to only VAT from other types of taxes. The study has focused on examine the determinants of value-added tax (VAT) revenue collection performance of Ethiopian Revenue Authority in Jimma Town by considering seven (7) independent variables against the VAT revenue collection performance. Though the source of government revenue is obtained from both direct and indirect taxes, the study focus on VAT which one of the recently implemented indirect tax because, it is difficult to investigate all indirect taxes which are vast and cumbersome to make an analysis.

## **1.8. Limitation of the study**

The study is limited to only Value added tax from indirect tax due to time and cost constraints. Besides, the study unable to consider data for more than 5 years due to lack of organized data on socio-economic variables. The other limitation is the perception level of respondents about the objectives of study.

## **1.9. Organization of the Thesis**

The study is presented in five chapters. The first chapter deals with the introductory part of the paper including the background of the study, statement of the problems, objectives of the study, significance of the study, scope as well as limitation of the study. The second chapter reviews related relevant literature. In the third chapter, the research methodology and design including the research approach, the source and method of data collection, model specification, and method of analysis is explained. Forth chapter presents the result of data analysis and discussion. Finally, the fifth chapter presents the conclusions and recommendations based on findings.

# CHAPTER TWO

## A REVIEW OF THE LITERATURE

### 2.1. Theoretical Literature Review

#### 2.1.1. Theories of Taxation

Tax is compulsory levy on the citizens and a policy tool for the government that helps to mobilize revenue to provide goods and services to the public which are necessary for the society. Tax is defined as a compulsory contribution imposed by a public authority, irrespective of the exact amount of services rendered to the taxpayer in return, and not imposed as a penalty for any legal offense as cited by Lauden (2015).

Since the imposition of a tax creates a tax burden on taxpayers, it poses questions such as: Should taxes be levied on citizens equally, ability to pay is a major consideration. Taxes should be for revenue only, or as a means of social control, or both? W. M. Curtiss (1967). To answer such questions various theories have been developed. The theories have been the ability to pay theory presented by Arthur Cecil Pigou in 1920 and the benefit theory developed by Erik Lindahl in 1919 (Wikipedia). The two principals have been developed as a guide to equity which brings fairness in the tax system.

Individual theories advocates that tax should be levied to the citizens in proportion to the benefits they receive from the government services, it is similar to the benefit theory. While the social theory believes advocates that tax should be used to minimize inequalities between citizens, which are similar to the ability to pay theory. Taxes an imposed proportion to the benefits a taxpayer receives from the state and should be predictable, convenient, and efficient said by Adam Smith. The good tax system must follows the principles of efficiency, fairness, and easy to administer.

#### 2.1.2. Economic Theory of Taxation

As cited by Lawrence Kimuhu (2015) the economists have put forward many theories of taxation at different times to guide the state as to how justice or equity in taxation can be achieved.

**The Benefit Theory:** This theory holds the proportion to the benefits they receive from the governments in public services and that taxes should be paid by those people who receive direct-

benefit of the government programs and projects out of the taxes paid. This theory has been subject to plain criticism on the following grounds: If the state maintains a certain connection between the benefits conferred and the benefits derived, it will be against the basic principle of the tax. A tax, as we know, is a compulsory contribution made to the public authorities to meet the expenses of the government and the provisions of general benefit. Tax is no direct substitution. Most of the expenditure incurred by the state is for the general benefit of its citizens, it is not possible to estimate the benefit enjoyed by a particular individual every year. If we apply this theory in practice, then the poor will have to pay the heavy taxes because they benefit more from the services of the state. This is against the principle of fairness (Saleemi, 2005).

**The Ability-to-Pay-Theory:** This theory originates from the 16<sup>th</sup> century. This theory holds that the tax levied according to an individual's income or ability to pay and the basis of progressive tax as the tax rate increases taxable income also increase of (Jones & Rhoades, 2011). This theory is really the most equitable tax system since people with greater income or wealth and can afford to pay more taxes should be taxed at a higher rate than people with less individual income tax and has been widely used in industrialized economies. Nonetheless, there is no solid approach for the measurement of the equity of sacrifice in this theory, as it can be measured in absolute, proportional or marginal terms. VAT does not tie in with this theory because the amount of VAT on particular goodwill is the same for everyone, however much they earn. A VAT is thus regressive since it represents a smaller proportion of a person's income as their income rises (Jones & Rhoades, 2011).

**The-Cost-of-Service-Theory:** Some economists were of the opinion that if the state charges the actual cost of the service rendering from the people, it will satisfy the idea of equity or justice in taxation. The cost of service theory can't doubt be applied to some extent in those cases where the services are rendered out of prices and are a bit easy to determine, e.g., postal, railway services, the supply of electricity, etc., etc. But the expenditure incurred by the state cannot be fixed for each individual because it cannot be exactly determined, for instance, the cost of service of the police, armed forces, judiciary, etc., to different individuals. Dalton has also rejected this theory on the ground that there is no quid pro quo in a tax (Kaplow, 2010).



### **2.1.3. Definition and Conceptualization of Value Added Tax**

A VAT is most recent and effective innovation in the taxation field levied on the value-added of the goods and services. Tax is broad-based included the value added tax to each commodity by a firm during all stages of production and distribution. Value-added tax is considered as one form of sales taxation. VAT is defined as a broad-based tax levied at multiple stages of production and distribution on commodity sales at up to and including at least the manufacturing stage, with critically systematic offsetting of input tax against output tax (Ebrill et al, 2001; Gendron and Bird, 2007). VAT varies from sales tax in a sense VAT is imposed at each stage of production and distribution whereas retail sales tax is imposed only at one stage, the final stage. VAT helps to minimize problems related to tax evasion or avoidance. Thus, the value-added tax is more productive and less destructive than sales tax.

A VAT is an indirect tax imposed and collected on the value added at each stage in the production and distribution of a good or service. A consumption tax is charged only for goods and services to be sold or imported or a system taxing people on how much they consume rather than what they add to the economy (income tax). The seller shifts the tax burden to the buyer by adding the value of the tax to the cost of the goods and services and pays the same amount to the government. VAT is also a tax on estimated market value added to a total cost product or service at each stage of its manufacture or distribution and the additions are ultimately added to the final consumer, i.e. end users bear the tax burden or the incidence because they cannot recover the tax paid on consumption of goods and services (Umeora, 2013).

The multiple tax system relatively successful, it should be approached strategically and realistically in order to maximize taxpayer participation, create an efficient refund and audit administration, and encourage private sector growth. Tax involves every features of income generating activities and consumption items, and requires not only administrative capacity of revenue authority, but also the involvement of private sectors properly uses accounting and reporting (Tadros, 2009).

However, the task of creating a well-educated and highly compliant taxpaying citizen supported by an efficient and responsive set of tax administration requires considerable resources and time (High field & Baer, 2000). Despite the fact that people need to pay taxes based on grounds of vertical and horizontal equities, it is not always the case. Since the business owners do not have

simplified access to and clarification on information of the tax laws, they lack awareness on tax rules and regulations (Kebrat, 2010).

#### **2.1.4. An Overview of Value Added Tax**

The development and rapid spread of value-added tax are among the most important tax development of the late 20<sup>th</sup> century. The theory is that the end consumer carries the burden of Value Added Tax, not the business, which is merely collecting the Value Added Tax on behalf of the tax authority. Different scholars also define value-added tax as a percentage tax on value-added applied at each stage of production and it's the type of indirect tax, found in more than 130 countries and has become the principal source of revenue for many countries (Kassu, 2011). According to the International Monetary Fund report in the year 2018, about 160 countries have made Value Added Tax part of their tax system, and from 53 members of countries of African Union, 33 of them introduced Value Added Tax as their tax system (IMF, 2018).

According to IMF report (2003), cited by Gabriel (2013), over four billion people from the world's population living with VAT. Besides implementing VAT in the world, it's revenue increased by about \$18 trillion currently. Nowadays, it exists in more than 160 countries that have implemented the VAT tax system, including in many developing countries that have modernized their tax systems in the past decades. Besides, from 54 African countries, only 44 countries have implemented VAT. And Ivory Coast was the first African country in introducing VAT. In Ethiopia, one of the focuses of the tax policy reforms is reforming indirect taxation. Value Added Tax is the main tax reform to indirect taxation was the introduced in January 2003. However, weak tax administration, particularly in developing and transitional economies (DTE) is the principal impediment to the successful implementation of Value Added Tax. Value Added Tax (VAT) is the main source of revenue for the Ethiopian government. For instance, Federal Value Added Tax Revenue (on domestic transactions) accounted for about 41 percent of total federal revenues from domestic sources (IMF, 2003).

To sustain a VAT revenue role in the government's finance, it is important to ensure that the revenue generated by this tax is raised as efficiently as possible. However, researches shown in Ethiopia revenues raised by Value Added Tax are usually garnered at the expense of erosion in its salient features. This may be caused by factors including poor Value Added Tax administration and poor culture of paying tax of the taxpayers i.e., the incapacity of tax authorities to im-

plement the attributes of the tax in practice. A good tax administration is crucial in achieving the government's policy objectives at large and fully implementing the design features of Value Added Tax (Yesegat W., 2008). The Ethiopian government has introduced Value Added Tax as part of the overall tax reform program. A revised income tax law has been approved and made operational beginning January 1, 2003. This revised law includes enhanced enforcement procedures and an improved penalty regime, with a view to increasing the efficiency of income tax collection and ensuring the recovery of income tax arrears. The prior to the introduction of Value Added Tax the Ethiopian government has initiated a number of processes. These include the design and computerization of the taxpayer registration process; the operational development of taxpayer services activities, return process and debit and audit activities, publicity campaign and taxpayer education. These measures are expected to improve the government's revenue position.

A VAT is increasingly being used throughout the world, including many African countries to raise government revenue with less administrative and economic costs than other broadly based taxes. It is believed to be a good means to raise government revenue even when relatively poorly administered. Also strengthen the above idea empirically (Ebrill and Keen, 2001). They found that in the countries that have adopted VAT, revenue from this source accounted on average 27 percent of the total tax revenue or 5 percent of the GDP and now 70 percent of the world population lives with a VAT.

### **2.1.5. Indirect Taxes in Developing Countries**

Taxation is divided into major types, they are direct and indirect taxes, for the purpose of this paper, only indirect taxes would be discussed briefly in which value-added tax were examined in detail. Value-added tax is an indirect tax paid on all VAT able goods and services consumed by individuals and corporate entities (Omesi, & Nzor, 2015). A Value added Tax is a consumption tax charged at each stage of the consumption chain and borne by the final consumer of the product or service (Qamruz et al, 2012). VAT is indirect taxes have become an important source of development funds in developing countries. Many developing economies that have adopted economic planning use indirect taxes as an important source of funds. These taxes are found to be better suited in developing countries because they have much wider coverage as compared to direct taxes. Both rich and poor pay indirect taxes in the form of commodity prices.

The high rate of taxes on luxury goods will take away resources from the rich and such resources redistributed among the poor in the form of subsidies besides taxes on a product like alcohol, cigarettes can have a beneficial effect on consumption patterns. Indirect taxes are used to divert resources from less desired use to a more desired one in developing countries. Taxes on goods considered to be luxuries will make them more expensive, lower their demand and profitability. This will divert their resources from the production of these goods to more essential ones.

On the other hand in developing economies collection of direct taxes is not very significant. Only a small proportion of the population pays such taxes. Direct taxes are primarily used in such economies to reduce inequalities of the income distribution. The high degree of progression is used in case of direct taxes in developing countries. This discourages savings done by the high-income group and adversely affects investment and capital formation. Highly progressive taxation reduces tax evasion and black money. Thus direct taxes have a limited role to play in developing countries and indirect taxes have become an important source of development funds in developing countries (Gaurav Akrani, 2010).

### **2.1.6. Tax Administration**

The effectiveness of a tax system is not limited only by appropriate legal regulation but also by the efficiency and integrity of the tax administration. In many countries, especially in developing countries, small amounts of collected revenue can be explained by either incapability of the tax administration in realization of its duty. It might be predict the performance of tax collection depends on the effectiveness of tax authority in detecting, punishing, and deterring nonconformity to tax laws. The best tax policy in the world would worth little if its implementation was distant from effective argued by Bird (2004). In this regard, the yield, incidence, and efficiency of a tax system may depend on how it is administered. Therefore proposals on tax policy should not only involve the design of the tax code but should also include considerations on the administrative structure to enforce it (McLaren, 2003). So that, the administrative aspects of tax administration in the words of Jantscher (1990, p. 179): “tax administration is tax policy”.

Recently the efforts to collect comparative information about tax administrations in many countries. One of them is the study conducted by OECD (2013) which covered 52 countries. The key findings in the study noted the wide-ranging institutional and organizational reforms implemented in the effort to improve efficiency and effectiveness of revenue bodies. Other cross-country

empirical studies by Robinson and Slemrod (2012) concluded, among others, that the extent of tax administration and enforcement may partly explain differences in tax collection performance between countries.

In the context of C-efficiency, the administrative and compliance costs associated with collecting taxes are relevant factors in evaluating the performance of tax administration. The efficiency performance for OECD countries in collecting tax revenues was high (OECD, 2013) dataset, (Alm and Duncan, 2014). However, when data from developing countries are included in the calculations, this performance seemed to be less impressive. Alm and Duncan (2014) argued that countries in their study should be able to maintain their levels of revenue with 10% to 16% fewer inputs.

The share of VAT revenues increase as a fraction of GDP is accompanied by an increase in the complexity of the administration of VAT. Moreover, as complexity increases, corruption and the share of the black economy also increases. Both the share of the black economy and the level of corruption (measured by the Corruption Perception Index) are negatively related to the VAT efficiency ratio (Sokolovska & Sokolovskyi, 2015).

### **2.1.7. Tax Structure**

A feature of good VAT structure system is that the tax is levied on a broad consumption base (James, 2015, p. 8). There are two reasons why a broad base for VAT may be advantageous (Bird & Gendron, 2007). First, a broad base could lower the efficiency cost of levying taxes since the rate required to achieve any revenue target would be lower because a larger share of economic activities is covered in the tax net. Second, simplify administration because there would be fewer avenues for evasion and the tax authority does not have to allocate its limited resources identifying different economic activities with different treatments.

Nonetheless, the VAT system of developing countries typically exempts a large share of economic activity for a variety of reasons (Mackenzie, 1991). When a commodity is exempt from VAT, no tax is payable on its sale and the input tax paid will not be able to be recovered. One of the reasons for exemption is that the output may be hard to tax due to difficulties in identifying its appropriate output (e.g. financial services). Another reason is that exemption may be necessary for distributional concerns and political necessities example, agricultural products and basic

foodstuffs). The sensitivity in taxing particular items and conditions imposed by donors may also be offered as other reasons for exempting particular goods or services from VAT.

### **2.1.8. Problems of Implementing Value Added Tax in Ethiopia**

A mechanism which a countries raise revenue to finance government spending on the goods and services that most of us demand is taxation. As compared to the developing countries, the developed countries have been able to generate substantial revenue through imposing taxes. One of the reasons for this has been the efficient tax system operating in developed countries, unlike the developing economies which are characterized by weak monetization and the low development of the formal sectors. In other words, these countries have employed a tax system that has one or a combination of the following desirable characteristics as economic efficiency, administrative simplicity, flexibility, political accountability, and fairness. The tax system needs to be economically efficient meaning the tax system should not have an effect on the allocation of resources. The tax system a country adopts should be easy and inexpensive to administer and that should be able to respond to changing economic circumstances. Taxpayers should also be able to determine what they are actually paying so that the political system can more accurately reflect the preferences of individuals. The tax system should be seen to be fair in its effect on all individuals. It follows that optimality in a tax system requires the absence of distortion in any economic activity (Hancock, 1995). It is expected that people's tax payments are in line with their income and they are required to pay a tax in proportion to their level of income. On the part of the tax collectors, collection of tax should be time conscious and convenient and the cost of collecting the taxes should not be high to discourage business. Otherwise, this means that the ideal tax system in developing countries should raise essential revenue without excessive government borrowing and should do so without discouraging economic activity and without deviating too much from the tax system in other countries (Tanzi, 2001).

### **2.1.9. Measures of VAT Revenue Performance**

The main determinants to be divided into the following categories: variables regarding value-added tax, in order to assess how changes in VAT rates affect revenues; variables regarding the economic environment, to analysis the impact of economic conditions in collecting revenues and institutional variables. For the latter, have variables regarding how tax administration efficiency

increases VAT revenues, and also variables concerning the impact of the legal and political environment of each country on VAT revenues.

The potential revenue which can be raised from the VAT depends on a number of factors, such as the effect of Tax education, Economic growth (Current GDP), Inflation rate, Attitudes of taxpayers towards the tax authority or government, Political stability, Taxpayer's compliance and Unemployment rate. In assessing a VAT revenue income, economists use the operating assumption that a VAT would be fully shifted to final consumers in the form of higher prices of goods. A revenue estimate does not take into account the possible shifts in consumption patterns that might be expected if some items are taxed and others excluded from taxation (Bickley, 2011).

The determinants of VAT revenue are enormous in number; the main and important variables as they used in different studies include the effect of Tax education, Economic growth (Current GDP), Inflation rate, Attitudes of taxpayers towards tax authority or government, Political stability, Taxpayer's compliance and Unemployment rate. Regarding the GDP, most of the studies concluded that the growth trend of an economy matter whether the tax revenue collected in one's country is larger enough or the reverse. In this regard, the following section presents the detail.

### **2.1.10. Value Added Tax Revenue Collection Performance**

A VAT revenue performance is an important indicator of the efficiency of the tax administration and the pressure it faces to increase its collection efforts. A common measure of the VAT performance of an economy is the tax to GDP. This ratio is essential because, it tells how much tax revenue is available to a country's government, taking account of the size of the economy. Another measure is the C-efficiency which uses the same principle but uses the value of total Consumption in the economy.

$$\text{C-efficiency} = (\text{Net VAT collections} / \text{Consumption}) \text{ multiply by } (1 / \text{Standard VAT rate}) \dots (2.1)$$

Since VAT is a tax on consumption, rather than all economic activity, in principle, the C-efficiency can give a more accurate measurement of VAT performance. The VAT is increasingly being used throughout the world, including many African countries to raise government revenue with less administrative and economic costs than other broadly based taxes. Ebrill and Keen (2001) also strengthen the above idea empirically and about 70 percent of the world population now lives in countries with a VAT. This implies that it is a key source of government revenue in

more than 160 nations. To see whether the newly implemented VAT is effective or not in raising government revenue, it is important to compare VAT revenue performance with the replaced sales tax. Sales tax is collected without any threshold on the annual transaction. On the other hand, VAT is collected on all sales of commodities at every stage of production with a threshold on the annual turnover. To compare VAT revenue with that of sales tax revenue, the turnover tax should be added on VAT since the sales tax was replaced by VAT and turnover tax.

### **Tax Education**

Studies showed that there is a lack of awareness about VAT law by businessmen and professionals. Studies also revealed that there is a need to promote the habit of keeping tax records by various taxpayers. Tax education could be inculcated so that there will be voluntary tax compliance, decrease the incidence of various inadvertent tax offenses, and enhancement in revenue generation capability of taxation.

### **Economic Growth**

Current GDP (Economic growth), we mean an expansion of the supply side of the economy and potential Gross Domestic Product (GDP). This expansion could be an increase in the annual growth rate, a one-time increase in the size of the economy that does not affect the future growth rate but puts the economy on a higher growth path, or both. The supply side of the economy, in the long run, contrast to the short-term also called “economic growth,” by which a boost in aggregate demand in a slack economy, can rise GDP and help align actual GDP with potential GDP. A country develops; tax bases are wider and grow more than the growth in income. A higher per capita income reflects a higher level of development, which implies a higher capacity to pay taxes as well as a greater capacity to levy and collect taxes (Chelliah, 1971).

### **Inflation Rate**

The link between change in price levels (inflation), and its tax effects on profit levels and outputs were not specifically articulated in classical growth theories. However, the relationship between the two variables is indirectly suggested to be negative, as indicated by the education in firms’ profit levels through higher wages. Taxes are a central feature of economic life but not of the growth models that different studies conducted the long-run effects of monetary and fiscal policies. Taxes in current monetary growth models are lump-sum transfers that change disposable



income but do not directly affect factor rewards or the cost of capital. In contrast, the actual personal and corporate taxes do influence the cost of capital to firms and the net rate of return to savers. The existence of such taxes also in general changes the effect of inflation on the rate of interest and the process of capital accumulation. Accordingly, the neoclassical model of economic growth has a direct relationship to inflation and taxes. Inflation is positively related with VAT revenues and with the VAT rate, that is to say, higher inflation leads to higher VAT revenues and a higher VAT rate, meaning that VAT rates are adjusted in the face of inflation so that the government can achieve the necessary revenues to meet their projected expenditures (Pagan et al, 2001).

### **Attitudes of taxpayers towards the tax authority**

Attitude is an important factor in trying with satisfaction that will lead to Value added tax revenue behavior. Taxpayers can have a positive or negative attitude about tax in general and Therefore, taxpayers' attitude towards tax was expected to have either a positive or negative effect on Value-added tax revenue in particular (Kirchieret al., 2008). The taxpayer's ability to understand the attitude towards tax authority or government on Value-added tax revenue generates. The perception of an individual's behavior towards other parties either positively or negatively attitude. Therefore, taxpayers' attitude towards tax was expected to have either a positive or negative effect on Value-added tax revenue.

### **Political Stability**

Democracy is understood as representing a good political system for governing a country. Empirical studies provide evidence of the influence of a political democratic system on tax morale (Torgler, 2004). Individuals, who are satisfied with how democracy has evolved and with the way the country is being governed, have higher levels of tax morale, Individuals' support for democracy helps to maintain a high level of tax optimism (Torgler, 2004). A democratic political system offers citizens the possibility to express their preferences. Also, a more active role helps citizens to monitor and control politicians, and thus to reduce the asymmetry of information, diminishing the discretionary power of the government (Torgler, 2004). Democracy influences happiness through higher satisfaction with policy outcomes. People tend to be happier, if they have (and use) the opportunity to participate in democracy. There is a significant relationship between democracy and happiness.

According to Martinez-Vazquez and Bird (2010) argued that political decisions on the determination of the VAT base may considerably affect the potential revenue from VAT in any country. Further, how fully this potential base could be reached may affect the actual revenues collected. How close this potential base could be reached may, in turn, depend on the interaction between the level of tax compliance (or tax morale) and the effectiveness of the tax administration. Thus, Martinez-Vazquez and Bird (2010) recommended that the revenue productivity of VAT could be improved in two ways. First, strengthens the VAT structure through base-broadening measures; second, strengthens the VAT administration and compliance. Their results reveal that political stability has a positive effect on the C-efficiency ratio. A higher probability for the current government to be reappointed will generate a more efficient tax system, as policymakers will maintain the investment aimed to increase tax capacity and to reduce tax evasion.

### **Tax Compliance Determinant**

The size of the black market economy is usually associated with non-compliance. The VAT may not be very effective in collecting revenues in countries with a large informal sector (Keen, 2007). Matthews & Lloyd-Williams (2000) and Matthews (2003) used the currency to GDP ratio as a proxy for the size of the black economy and found that as the size of the black economy increases, VAT revenues tend to decrease. Emran & Stiglitz (2005) prove that reforming the tax system by replacing trade taxes such as import and export tariffs with VAT can cause substantial reductions in welfare for countries with a large informal sector, which is very concerning and jeopardizes the validity of VAT as being the best option for a consumption tax in those countries.

### **Unemployment Rate**

The unemployment rate is an economy that occurs when there are people who are both willing and able to work but do not have a job. It is the percentage of the total labor force that is unemployed but actively seeking employment and willing to work. When the unemployment increase the government tax revenue becomes less due to fewer people are working, there will be fewer people earning enough income to pay tax. As a result, the government will receive less tax revenue and this will have a large impact on the government's finances. In addition to this it hinders the economic growth because of firm won't be able to produce as many goods and services produced. As a result, the production of goods and services in the economy decrease, GDP will be lower. This also has an influence on government taxation and spending (Roland, 2013).

## **2.2. Empirical Evidence of VAT Revenue Performance**

### **2.2.1. Empirical Evidence on Determinants of VAT Revenue in Different Countries**

The European model of VAT was mostly adopted by the government of different countries. Today most countries throughout the world have tax. The All members of the OECD and leading economies in the world have a VAT or very broadly comparable tax, apart from the US. For most of the 20<sup>th</sup> century, the principal federal tax on individuals in the US has been on income, whether it is earned from labor (wages and salaries) or capital (interest, dividends and capital gains). But a number of economists and politicians have concluded that the US should replace the income tax partially or entirely with a consumption tax. Most of the political argument over a consumption tax has centered on whether the US should adopt a value-added tax (VAT) similar to the ones that European countries have. While a VAT is a consumption tax, it is not the kind that most consumption, tax advocates prefer.

According to Wawrie (2011) cite in Adair (1997) study conducted on the introduction of value-added tax (VAT) in Kenya that replaced sales tax in 1990. The study analyzed the structure, administration, and performance of VAT. The estimated buoyancy and elasticity coefficients were less than agreement involving a low response of revenue from VAT to changes in GDP. This suggested the presence of laxity and deficiencies in VAT administration. However, the estimation of buoyancy and elasticity coefficients was done in total disregard of the time series properties and without taking care of unusual observations in the data. Thus, the results were not reliable for planning purposes.

According to A. Mohammad Salmeen (2011), GST or VAT is not a new tax system. Most of the worlds in the countries have already adopted this taxing system. However, in implementing GST, the government should take into consideration several problems or factors that might retard the development of the GST system. The problems arise on both sides of taxpayers and tax administrators. Therefore, a properly planned GST system should be looked upon before the system is introduced. For example, the public should be properly educated with general knowledge on the GST system, since the end consumers will bear the burden of the cost of tax.

Umeora (2013) investigated the effects of Value Added Tax (VAT) on economic growth (GDP) and total tax revenue in Nigeria by using the simple regression method to analyze the time-series

data relating to VAT, GDP and Total Revenue for the period from 1994 to 2010. The analysis of results showed that VAT has a significant effect on GDP and Total Tax Revenue. The findings revealed that the government is encouraged to sensitize the people to enable it to increase the tax rate, to enlarge its annual revenue for economic development.

Njogu, L. K. (2015) a researcher conducted “The effect of value-added tax on economic growth in Kenya.” To analysis the state of the Kenyan economy about productivity as measured by Gross Domestic Product (current GDP), consumer prices as measured by consumer price indexes (CPI), and employment as measured by the unemployment rate, from the inception of VAT as administered by Kenya Revenue Authority (KRA) from 1990 to 2014. About the effect of VAT rates on economic growth as measured by GDP, the findings indicated that a percent change in the incident rate of GDP is an increase of 7% for every unit decrease in VAT. It can, therefore, be concluded that there exists a significant negative relationship between VAT rates and GDP; hence the researcher recommended that KRA should strive to reduce and/or maintain a low VAT rate to increase overall GDP.

Madugba & J. (2016) examine the relationship between value-added tax and economic development in Nigeria for the period between 1994 and 2012 and used multiple regressions to analyses the data. Their result showed a negative significant relationship between value-added tax revenue and Gross domestic product and a positive significant relationship between Gross domestic product and total consolidated revenue. They recommend that the government should educate the general public more on the essentials of VAT payments.

### **2.2.2. Empirical Evidence on VAT Revenue in the case of Ethiopia**

Dakito (2011) examines the contribution of VAT for the development of Ethiopia's economy and its impact on social spending, equity. He used multiple regression models and descriptive statistics for the study period from 2003/04 to 2009/10 G.C. The analysis of the study revealed that VAT revenue contributed positively to the development of the respective sectors. However, the contributions are statistically significant only to the health and agricultural and natural resource development sectors. He concluded the VAT tax revenue was unable to neutralize the regressively of the VAT tax levy in Ethiopia because of its unsystematic exemptions, tax structure and tax system.

Desalegn (2014) conducted a research “The Role of Value Added Tax on Economic Growth of Ethiopia”; he attempted to analyze the role of VAT on economic growth of Ethiopia using the time series macro-economic data of GDP, VAT, total tax revenue excluding VAT, non-tax revenue, and foreign revenue from 2003 to 2012. The study employed descriptive statistics and multiple regressions to analyze the data. The finding of the study showed that as compared to sales tax, VAT boosts the general economic growth of Ethiopia but the issue of regressively like sales tax still continues. During the periods, the growth rate of VAT was 66.27% on average. For the periods of sales tax, the average growth rate of GDP was 2.53%.

However, after the executions of VAT, such growth rate reached about 21.9% on average. The analysis also showed the average ratio of 2.95% VAT to GDP. The finding also reveals that VAT, total tax revenue, and non-tax revenue except foreign revenue were significant at a 5% level of significance but all of them positively contributed to economic growth during the periods under review. However, to be effective, it requires strong administrations and cooperation’s of the taxpayers with taxing authority and the government in general.

Dasalegn (2014) uses multiple regressions method to analyze how VAT becomes a tool for national development in Ethiopian context from the period 2003 to 2012. His finding reveals that, VAT, total tax revenue and non-tax revenue has positive and significant effect on Ethiopian economic growth during the periods under review. He also found that taxes collected from VAT boosts the general economic growth more than the sales tax in Ethiopia and it plays an energetic role for the national development of Ethiopia and it also enables to succeed the current growth and transformation plan (GTP) of the country.

Abay (2015) attempts to see the contribution of VAT on the Ethiopian economy in general and emphasizes whether VAT tax have a significant economic contribution than other taxes in particular. The study used twelve (12) years data from 2002/03 to 2013/14 major taxes. The study analyzed by using the descriptive statistics of collected data. The finding of the study reveals that as compared with other taxes, Value added tax (VAT) has a great contribution to the Total tax revenue and enhanced the Ethiopian economy. His analysis showed the average ratio of VAT to Total Tax Revenue and GDP was 30.45% and 2.95% respectively.

Yohannes (2016) Conducted research “Determinants of Value Added Tax Revenue in Ethiopia: The Case of Gondar Town” based on theoretical and empirical evidence. To meet the objective

different data collected from the Ministry of Finance and Economic Development, and Ethiopian Revenue and Customs Authority. The result of the study indicated by taking variables Age, educational level, attitude, corruption and Compliance of VAT payers significantly affect determine the VAT revenue. The study also recommends that the authority should create awareness and train the taxpayers about the rules and regulations of VAT in ordered to get the amount of VAT revenue that the economy generates.

Firehiwot (2016) studied the nexus between tax revenue, private final consumption, inflation and economic growth in Ethiopia using co-integrated VAR approach for the period 1970–2015. She found that Real GDP exert negative and significant effect on actual tax revenue in the long run while the impact of the real private final consumption is positive and not significant in the long run and there is evidence of bi-directional causality between real tax revenue, inflation, real private final consumption and real GDP.

### **2.2.3. Research Gap**

The empirical studies that have been reviewed in the previous section focused contribution of VAT to GDP, the effects of Value Added Tax (VAT) on economic growth, determinants of Value Added Tax Revenue and the VAT administration problems and practice. The several international studies have been conducted on the determinants of VAT revenue by considering the variables GDP, VAT rate, import, inflation, consumer price indexes, consumption, and unemployment. Even though several types of research have been conducted in this area, there is inconsistency in their findings. In addition, the variables used as independent variables to see their effect on dependent variable VAT revenue varies from one research to another.

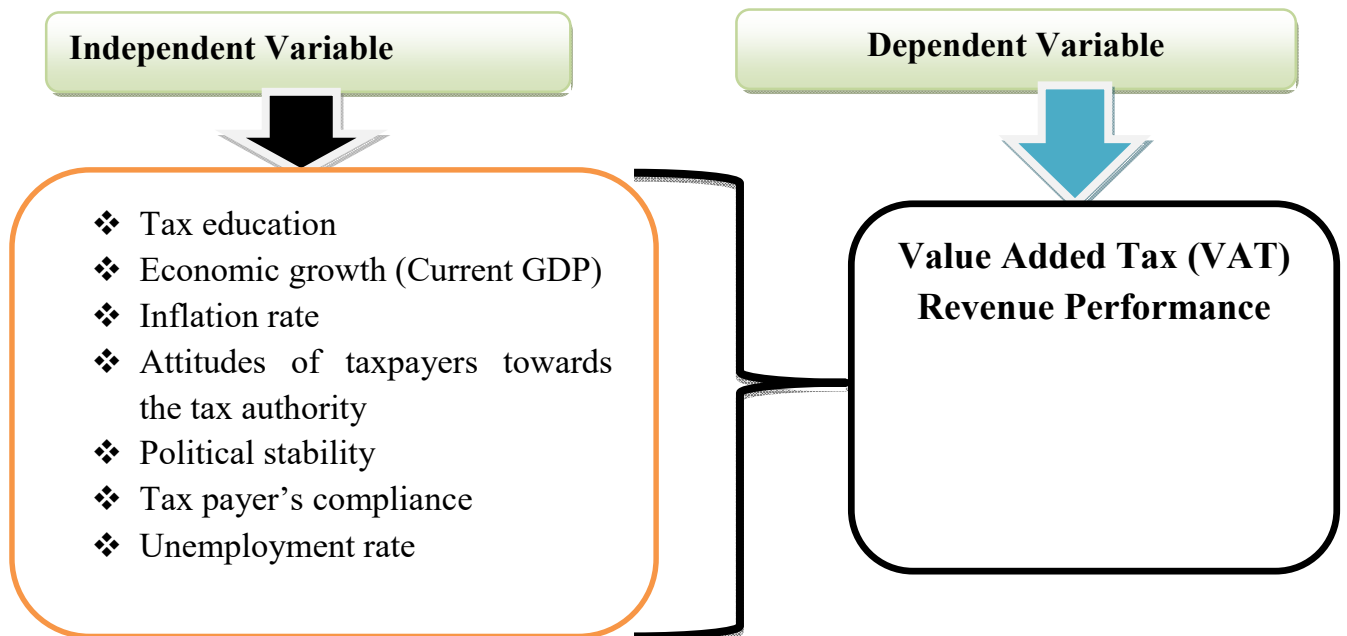
However, to the knowledge of the researcher, it is possible to conclude that although there have been a number of studies on determinants VAT revenue collection performance both developed and developing countries, particularly in Ethiopia there are no so many studies that exhaustively examine specifically. When it comes to local researches, the number of studies by itself is very much limited and there was great inconsistency in their findings. In addition, previous studies conducted by local researchers did not incorporate variables like the unemployment rate, inflation rate, political stability and Economic growth (Current GDP). In other words, it measures the difference between Value-added Tax collected to the VAT target was not realized with its plan. This means gaps between VAT revenue targets and the actual amount collected not been achiev-

ing the degree of VAT revenue collection performance due to taxpayers, VAT administrative functions, and consumers. Therefore, it is quite interesting to undertake research on this issue due to the above mentioned gaps. Moreover, this research is intended to study the factors determinants of Value Added Tax (VAT) revenue performance by adding more data and variables unlike previous researches conducted so far, to enhancing the reliable, valid and generalizable of the study.

#### 2.2.4. Conceptual Framework

Based on the objectives of the research and review of existing literature regarding the determinants of VAT revenue performance clearly define independent variables and dependent variables. The primary interest of the researcher is dependent variable. Explanatory variables were factors that would influence the dependent variable in either a positive or negative way. The frame work assumes that VAT revenue is a net result of the positive and negative effects exerted by all the independent variables on the dependent variable. Taking a positive relationship among the variable showed that the VAT revenue was expected to increase. The research model which shows the relationship between dependent and independent variables is presented as follows:

**Figure 1: Conceptual frameworks of the study**



# **CHAPTER THREE**

## **RESEARCH METHODOLOGY AND DESIGN**

This chapter discusses the research approach, data type and source, sample size, data collection method, model specification, method and procedure of data analysis and variables definition and measurement.

### **3.1. Introduction**

The study has been conducted by using quantitative and qualitative (mixed) approach determinants and factors influencing VAT revenue collection performance involves a set of both quantitative and qualitative research design. A descriptive statistics and ordered logistic regression were used to organize and analyses data. A high-quality research design is characterized by flexibility, efficiency, and economy, and should minimize bias but maximize the reliable, valid and generalizable of data collected and analyzed.

### **3.2. Description of Study Area**

The study site was conducted Jimma Town, the office of the Ethiopian Revenue Authority in Jimma Branch; Jimma town is located southwestern Ethiopia in Oromia Regional state at about 336 km away from Addis Ababa, the capital city of Ethiopia. Jimma is one of the historical cities of Oromia Regional state; it is founded in the let 1830s. Now a day, the city is the biggest city and the market center in southwestern Ethiopia. It is in the range of 12.1<sup>0</sup>C to 30.0<sup>0</sup>C with the mean daily temperature of 19.5<sup>0</sup>C (Jimma Wikipedia)

Based on the data obtained from the internet with the title of Population of Cities in Ethiopia (2019) the population of Jimma city is 128,330. And various forms of Christianity (Orthodox, protestant, catholic), Islam and other beliefs are commonly practiced in the town. The official work language in town, even in Oromia regional state is Afaan Oromoo (Oromic), which belongs to the eastern Cushitic group of languages, considered one of the five most widely spoken languages from among the approximately 1000 languages in Africa.



### **3.3. Research Design**

Research design is the method and the techniques actually use to collect the required data. The study was used a descriptive research design that used both quantitative and qualitative research approach. According to Mugenda (2003) descriptive research is the process of collecting data in order to answer questions concerning the current status of the subject in the study. The main advantage of using this design is to enable the researcher to identify the factors and measure their performance. In recent years the methods available for collecting data have been generally classified into three broad categories: qualitative, quantitative and mixed research methods. To answer the research questions through the above research approaches are available for a researcher, both quantitative and qualitative (mixed) research approach was used. Mixed research approaches helps to mitigate the bias in adopting only either qualitative or quantitative approach (Creswell, 2003). A mixed set of qualitative and quantitative data used to examine the relationships between determinants and factors influencing VAT revenue performance. Therefore, for this research a mixed research approach was used.

### **3.4. Source of Data**

To achieve the objective of the study basically, both primary and secondary data were used. The primary data was obtained by using a survey of Self-administered semi-structured questionnaires with selected samples of taxpayers and tax officials were distributed. Moreover, documentary analysis using data held by the Tax authorities, Ministry of Revenue, the Ministry of Finance and Economic Corporation (MoFEC) and National Bank of Ethiopia (NBE) was used. Finally, different web sites were visited.

The main data used for this study were collected from a sample of VAT payers through semi-structured questionnaires, which prepared for the study. Information about respondents, socio-economic characteristics and institutional situations, etc. obtained directly through the questionnaires. The researchers obtained data from primary and secondary data sources to obtain reliable data and achieve the stated objectives of this study. In the study, both primary and secondary data sources were used.

### 3.5. Sample Design

#### 3.5.1. Population or Universe

The population is a set of units having common observable characteristics and from which the sample is actually selected. The study population was employees of Ethiopian Revenue Authority in Jimma Town, Jimma Town Revenue office and VAT-registered taxpayers.

#### 3.5.2. Sampling Techniques and Procedures

##### 3.5.2.1. Sampling Technique

Sampling design is a definite plan for obtaining a sample from a given population it refers to the technique or the procedure the researcher was adopted in selecting an item for the sample.

##### 3.5.2.2. Sampling Procedure

Both simple random and stratified sampling techniques were involved for this study. A simple random sampling technique and stratified sampling was adopted to select the taxpayers and the employees of Revenue Authority for this study. There are 1,874 taxpayers in Jimma town and 142 Tax officials and experts are working related to the VAT department respectively. The strata were formed on the basis of VAT- registered taxpayers; Regional and Federal VAT-registered taxpayers.

The sample size in this study determined by using simplified and easy Yamane (1967) formula to determine the sample size from the VAT-registered taxpayers. Sample size from VAT-registered is  $n = \frac{N}{1 + N(e)^2}$  Where n= is the sample size N= is Population e = is the error limit or the level of precision (which is 0.05 on the basis of 95% Confidence level). The study used sample frame was 330 taxpayers in Jimma Town and 105 tax official as shown above and by using the formula. Thus, the sample size for this study is:

VAT registered taxpayers, 
$$n = \frac{N}{1 + N(e)^2} = 1,874/1+1,874(0.05)^2 = \underline{\underline{330}}$$

Tax employees, 
$$n = \frac{N}{1 + N(e)^2} = 142/1+142(0.05)^2 = \underline{\underline{105}}$$

Probability stratified sampling were used in this study. Under stratified sampling, the population is divided into several sub-populations that are more homogeneous than the total population (the

different sub-populations are called, strata) and select items from each stratum to constitute a sample. The sample elements are selected from different business sectors; the study followed the method of proportional allocation under which the sizes of the samples from the different strata was kept proportional to the sizes of the strata. That is, if  $P_i$  - represents the proportion of population included in strata  $i$ , and  $n$  - represents the total sample size, the number of elements selected from strata  $i$  is  $n \cdot P_i / N$  (Kothari, 2004). Accordingly, the sizes of elements were selected from the strata are depicted in the Table 1.

**Table 1: Stratification Sample size**

Types of taxpayers	Sample Frame	Formula	Sample Size
Federal VAT registered firms	217	$n = \frac{n \cdot P}{N}$	$330 \cdot 217 / 1874 = 38$
Regional VAT registered firms	1,657	$n = \frac{n \cdot P}{N}$	$330 \cdot 1657 / 1874 = 292$
<b>Total</b>	<b><u>1,874</u></b>		<b><u>330</u></b>

*\* indicates employees and taxpayers, 2020*

### 3.6. Method of data collection

The researcher use one set of questionnaires for the survey which was answered by selected Jimma Town, process coordinators and team leaders of the tax assessment and collection department. Most of the questions were close-ended with 3 and 5 point scales, Yes and No questions, and categorical scaled questions. There were some open and ended questions.

Apart from the primary data collected, a self-administered semi-structured questionnaire was distributed with a sample of VAT registered taxpayers and tax officials in the Ethiopian Revenue Authority in Jimma Town and tax officers working at the regional tax office in Jimma Town. Finally, Documentary analyses of financial records were used from MoFEC, Ethiopian Ministry of Revenue in Jimma Town and Jimma Town Revenue office and website. Since it is difficult to calculate GDP for Jimma, Ethiopian GDP is used to determine the efficiency ratio.

## **3.7. Method of Data Analysis and Model Specification Procedures**

### **3.7.1 Methods of Data Analysis**

In order to analyze the data both descriptive and econometric methods were used. In the qualitative part of the study, after the data has been collected and processed manually, the descriptive technique was adopted for analysis of the data. Besides, the qualitative part used percentages and statistical tools to strengthen and to make the study more systematic. In general, to analyze the data, statistical software was used. Analysis procedures can vary widely in sophistication and complexity, from simple frequency distribution (percentage) to sample statistics measures. But for this study, the data for five years were used.

However, in developing the model for determinants of VAT revenue collection performance in Ethiopia, including all variables is impossible due to the unavailability of data, time shortage and financial resource scarcity, and small sample size problem. Therefore, following empirical literature, this study attempts to investigate the economic growth (Current GDP), political stability, inflation rate, and unemployment rate on the VAT revenue of Ethiopia empirically. The model specification indicated mathematically is represented.

### **3.7.2. Descriptive statistics**

Descriptive statistics is one of the techniques used to summarize information (data) collected from a sample. By applying descriptive statistics such as percentages, frequency of appearance, etc. one can compare and contrast different categories of sample units concerning the desired characters to draw some important conclusions.

### **3.7.3. Model specification**

#### **3.7.3.1. Logistic regression model**

In order to achieve the objective of the study that is the determinants of VAT revenue statistical software was employed. The model used to examine the relationships between determinants and factors influencing VAT revenue collection involves a set of quantitative data. Econometric analysis was applied to examine the determinants of Value-added tax revenue collection performance. In addition, we have checked the validity of estimators by making diagnostic test for heteroskedasticity, normality and multicollinearity.

Logistic regression is called the logistic model or logit model, analyzes the relationship between multiple independent variables and a categorical dependent variable, and estimates the probability of occurrence of an event by fitting data to a logistic curve (2013). Ordered logistic regression (OLR) model is a regression model for an ordinal response variable.

In occasions where the independent variables are categorical or a mix of continuous and categorical, logistic analysis is preferred to discriminate analysis (Agresti, 2007). The assumptions regression required for statistical tests in logistic regression are far less restrictive than those for ordinary least squares regression. There is no formal requirement for normality, homoscedasticity, linearity of the independent variables within each category of the response variable. However, the assumptions that apply to logistic regression model including meaningful coding, inclusion of all relevant and exclusion of all irrelevant variables in the regression model and low error in the explanatory variables.

The research model was used Value Added Tax revenue performance as the dependent variable and tax education level of VAT payer's, economic growth (current GDP), inflation rate, political stability, attitudes of taxpayers towards the tax authority or government, taxpayer's compliance and unemployment rate as independent variables. According to Park (2013) a logistic regression model can be constructed with the equations:

$$\text{logit} \left( \frac{p}{1-p} \right) = \ln(\text{odds}) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \dots + \beta_n X_n + \epsilon_i \dots \dots \dots (1)$$

Where p - is the probability of interested outcome,  $\beta$  is the intercept parameter,  $\beta_i$  is a regression coefficient, and  $\chi$  is a predictor, ln natural logarithm, and forming the general model

$$Li = \ln \left( \frac{p}{1-p} \right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \dots + \beta_k \chi_k + U_i \dots \dots \dots (2)$$

Where, Li - logs of odds ratio / logit; Ln -natural logarithm;  $\beta_i$  - coefficient for each independent variable;  $\beta_0$  -intercept of the regression;  $X_i$  – each independent variable and  $U_i$  - error term

The odds ratio is the factor by which the odds of VAT revenue performance a unit change in the  $i^{th}$  the independent variables, controlling the effects of other variables (Johnson & Wichern, 2007). The odd ratio can easily be derived from the coefficient by taking the exponent of the coefficient. The independent variables associated factors affecting VAT revenue including the research model has been used VAT revenue performance as the dependent variable and tax educa-

tion level of VAT payer's, economic growth (current GDP), inflation rate, political stability, attitudes of taxpayers towards the tax authority or government, taxpayer's compliance and unemployment rate as independent variables.

### **3.7.1.3. Ordered Logistic Regression (OLR) model**

It is a regression model for ordinal response sometimes used in an ordered (from low to high) dependent variables. Ordered logistic regression (OLR) model is a regression model for an ordinal response variable. if one question on a survey is to be answered by a choice among "low", "medium", "high" and the purpose of the analysis is to see how well the response can be predicted by the responses to other questions, some of which may be quantitative, then ordered logistic regression is used.

## **3.8. Definition and Measurement of Variable**

### **Dependent Variable**

Since we intend to estimate the determinants of VAT revenues, it is straightforward to think of the VAT revenues in millions of Birrs as the main candidate for the dependent variable.

**VAT REVENUES COLLECTION PERFORMANCE (VATRP) (in millions of birrs):** Are the total monthly revenues collected from the tax on the value-added of goods and services in Jimma Town. It is one of the most sources of government revenue. The most widely used measure of VAT performance in the tax literature is the VAT Collection Efficiency (C-efficiency) indicator proposed by Ebrill et al. (2001), which measures the actual VAT revenue as a proportion of potential VAT revenue. This variable look values of orders as low willingness (0), medium willingness (1), and high willingness to pay VAT revenue (2).

### **Explanatory Variables**

As the objective is to examine the determinants of VAT revenues collection performance, it is important to select the candidate variables to test. The explanatory variables were selected based on the previous literature and on the possibility of finding monthly data on those variables. The selected variables grouped into seven groups, according to the expected results and from there, seven hypotheses to be created.

**The description of the selected variables is the following:**

**TAX EDUCATION (TAXEDU)** is a lack of awareness about VAT law by businessmen and professionals.

**ECONOMIC GROWTH (GDP)** is the growth rate of the Gross Domestic Product, and it will be used as a measure of economic growth.

**MONTHLY INFLATION (IR)** is an indicator of the evolution of the price level of all goods and services in a given economy.

**ATTITUDES OF TAXPAYERS TOWARDS TAX AUTHORITY OR GOV'T (ATTA)**

Attitude is an important factor trying with satisfaction that will lead to value added tax. Taxpayers can have a positive or negative attitude about tax in general and value added tax revenue.

**POLITICAL STABILITY (POS)** a democracy is understood as representing a good political system for governing a country

**TAXPAYER'S COMPLIANCE (TPCOMP)** is tax authorities able to develop more targeted enforcement strategies for non-compliant taxpayers. Taxpayer compliance refers to the taxpayers' ability to understand the tax code and pay the taxes owed with minimal effort, record keeping, and cost.

**UNEMPLOYMENT (UNEMPR)** is a labor force unemployed has measured the percentage of the active population that is searching for a job but has still not found one.

**Table 2: Measurement of variable, expected outcome and Abbreviation**

Variable	Type	Measurement	Abbrev.	Expect. Sign
Value Added Tax Revenue Collection Performance	Dependent	C-efficiency	VATRP	
Tax Education	Independent	Educational level of taxpayers	TAXEDU	+
Economic Growth (Real GDP)	Independent	tax-to-GDP	GDP	+
Inflation	Independent	Inflation in percentage	IR	-
Attitude of taxpayer's	Independent	Dummy Variable	ATTA	+
Political stability	Independent	Dummy Variable	POS	+
Taxpayer's compliance	Independent	Dummy Variable	TPCOMP	+
Unemployment Rate	Independent	Percentage of unemployed work force.	UNEMPR	-

# CHAPTER FOUR

## RESULTS AND DISCUSSIONS

This chapter discussed the analytical results of the study. The first section of this chapter presents the results of the descriptive statistics of the study. This is followed by the discussion of the econometric model results.

### 4.1. Descriptive statics of VAT registered Tax Payers Variables

The study analyzed the data collected through a questionnaire from the selected VAT registered taxpayers and the selected employees of the Tax Revenue in Jimma Town. The survey was conducted by distributing questionnaires to both VAT-registered taxpayers and employees of the Tax Authority. Close and open-ended questionnaires were prepared for both respondents based on simplified lists of Likert scale and detailed information requirements along with any kind of comment given by the respondents. The questionnaires distributed to both VAT registered taxpayers and Tax Authority employee respondents were prepared both English Version and Amharic versions to avoid language barriers and minimize response biases due to misunderstanding.

The questionnaire was distributed to total sample 435 (330 and 105 from a VAT registered taxpayers and employees of tax authority respectively) respondents whereas 328 (99%) and 105 (100%) valid response was obtained and analyzed in this study. In the survey, the background information of taxpayers was examined.

**Table 3: Background of information**

Items	Category of respondents	Frequency	Percent
<b>Gender of taxpayers</b>	Male	250	76.2
	Female	78	23.8
	<b>Total</b>	<b>328</b>	<b>100.0</b>
<b>Sex of tax official</b>	Male	84	80.0
	Female	21	20.0
	<b>Total</b>	<b>105</b>	<b>100.0</b>
<b>Age of tax official</b>	20- 30	69	65.7
	31- 40	27	25.7
	41- 50	9	8.6
	<b>Total</b>	<b>105</b>	<b>100.0</b>

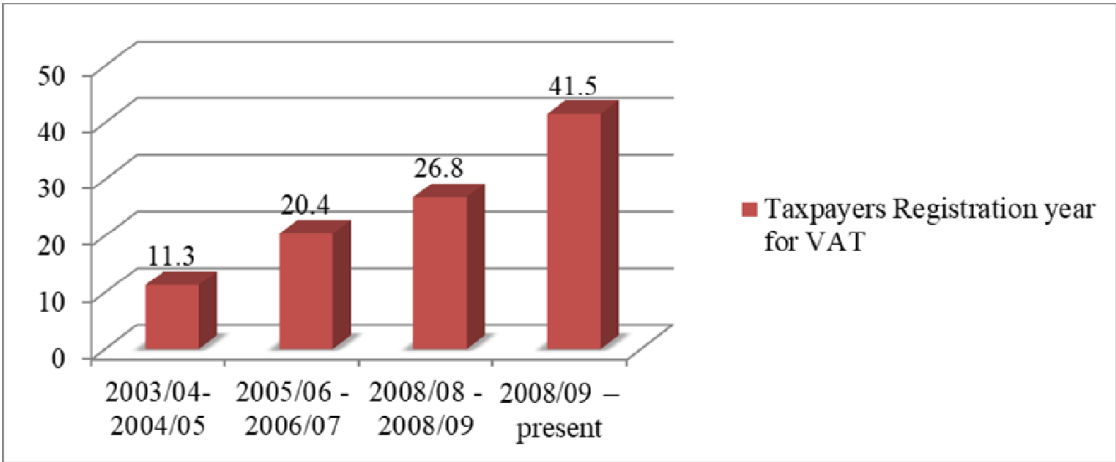


<b>Educational level of tax official</b>	TVET/certificate	14	13.3
	Diploma	12	11.4
	Bachelor Degree (BSc/BA)	72	68.6
	Master (MSc/ MA)	7	6.7
	<b>Total</b>	<b>105</b>	<b>100.0</b>
<b>Department of tax official</b>	Assessment and Follow up	28	26.7
	Auditing and Inspection	9	8.6
	Collection and Reporting	59	56.2
	Others	9	8.6
	<b>Total</b>	<b>105</b>	<b>100.0</b>

**Source: Survey result, 2020 and SPSS output**

According to **Table 3**, the sample composed of 23.8% (78) of Female, 76.2% (250) of Male and 20% (21) Female and 80% (84) Male of VAT-registered taxpayers, and tax official respectively. According to **Table 3**, the majority of the respondents 65.7% (69) are between the age of 20-30 and the rest are between 31-40, 25.7% (27), and 41-50, 8.6% (9). This implies that most of the respondents are in the productive age category. Moreover, **Table 3** educational level of the tax official was also studied and results show that out of the 105 respondents, 14 (13.3%) TVET/certificate, Diploma holders 12 (11.4%), and 72 (68.6%) had a first degree and MSc and Above. This shows that all the respondents are expected to have basic knowledge about Value Added Tax. Finally, **Table 3** Department of tax operation indicates respondent 59 (56.2%) collection and reporting, 28 (26.7%) assessment and follow-up, Auditing and inspection 9 (8.6), and others 9 (8.6) departments.

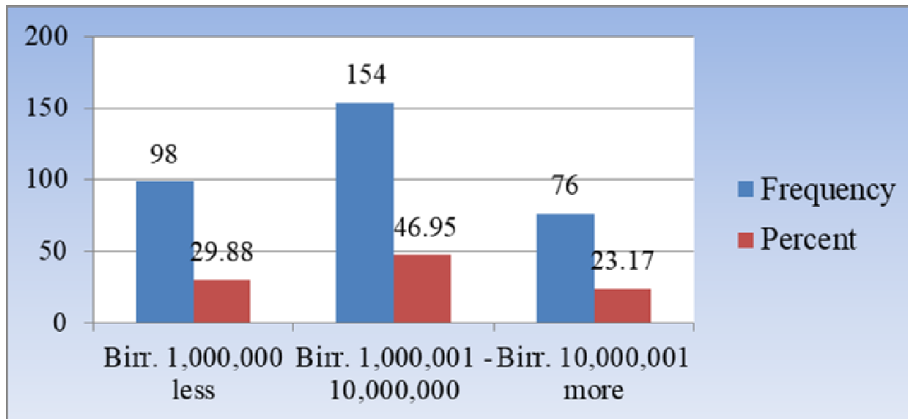
**Figure 2: Taxpayers Registration year for VAT**



**Source: Survey result, 2020 and SPSS output**

As indicated in **figure2**, the number of VAT-registered tax payers increased from (37)11.3% to (136) 41.5% 2008/09 – present VAT registered tax payers increased. This shows that Revenues Authority taxpayer’s identification becomes increase.

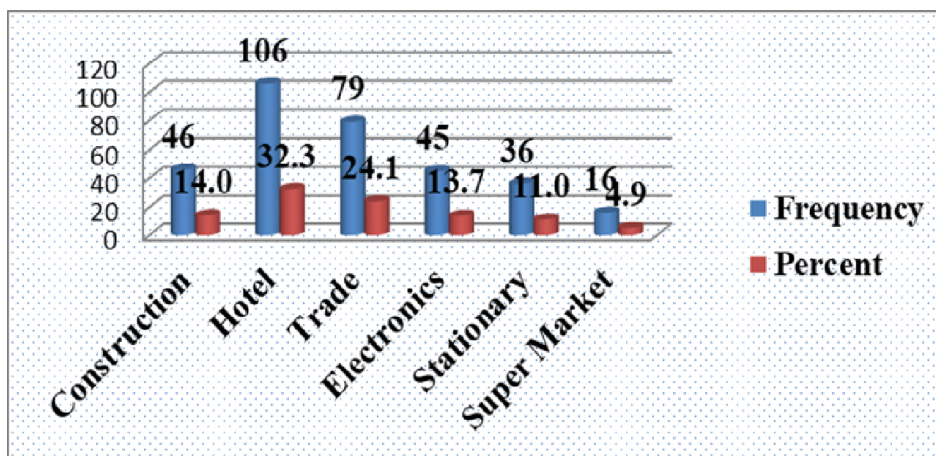
**Figure 3: Average annual turnover of Tax payers**



**Source: Survey result, 2020 and SPSS output**

As indicated in **figure 3**, the highest level of the average annual turnover of Jimma Town VAT-registered taxpayers were between 1,000,000 – 10,000,000 Birr which accounted 154 (46.9%) and the lowest one was more than 10, 000,000 birr that accounted only 76 (23.1%) and the level of VAT-registered taxpayers 1,000,000 birr that accounted 98 (29.8%). The level of VAT-registered taxpayers was less than 1,000,000 birr is Voluntary registered taxpayers. The threshold of VAT 1,000,000 birr is not fair; to be fair the threshold should be less than 1,000,000. On the other hand, the amount of threshold may block interested taxpayers from registering for VAT and effect on compete market share between VAT-registered and non-VAT-registered taxpayers.

**Figure 4: Areas of Trading**



**Source: Survey result, 2020 and SPSS output**

As shown in **figure 4** in terms of area of occupation the share of Jimma Town VAT registered Taxpayers for Hotel was 106 (32.3%) accounted the highest percentage, Trade 79 (24%), construction 46 (14%) Electronics 17.1%, supermarket 13.6% and Stationary 27 (8.2%) were the lowest percentage share of sector. It shows that majority of tax is come from the service nature of business.

**Table 4: Business Organization**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sole Proprietorship	164	50.0	50.0	50.3
	Partnership	77	23.5	23.5	73.8
	PLC	87	26.5	26.5	100.0
	Share company	0	0	0	100.0
	<b>Total</b>	<b>324</b>	<b>100.0</b>	<b>100.0</b>	

**Source: Survey result, 2020 and SPSS output**

As indicate in **Table 4** in terms of business organization 50% are sole traders, 26.5% are PLC and the remain 23.5% are partners business.

#### 4.1.1. VAT registration and identification for taxpayers

**Table 5: VAT registered taxpayer's registration**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	105	32.0	32.0	32.0
	No	223	68.0	68.0	100.0
	<b>Total</b>	<b>328</b>	<b>100.0</b>	<b>100.0</b>	

**Source: Survey result, 2020 and SPSS output**

The taxpayers were also asked whether or not those who have to get VAT registered are registered or not. Out of the 328 respondents (223) 68% not all of those who should get registered for VAT are registered and the remaining (105) 32% reported that those who should get registered for VAT are registered.

**Table 6: The required to register for VAT**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	95	90.5	90.5	90.5
	No	10	9.5	9.5	100.0
	<b>Total</b>	<b>105</b>	<b>100.0</b>	<b>100.0</b>	

**Source: Survey result, 2020 and SPSS output**

Moreover, **Table 6** depicted that 95 (90.5%) respondent replay that Are there taxpayers that are required to register for VAT but did not do so, the income of the office would be decrease, 10 (9.5%) respondent said that Are there taxpayers that are required to register for VAT but did not do so, the income of the branch office would be not increase. The approaches that the authority follows to increasing the awareness of taxpayers VAT registration process educating taxpayers, giving awareness and changing culture of taxpayers.

**Table 7: The reason behind non- registered taxpayers**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Low awareness and lack of information	209	63.7	63.7	63.7
	Selfishness	31	9.5	9.5	73.2
	The poor capacity of the government offices that deal with VAT	88	26.8	26.8	100.0
	<b>Total</b>	<b>328</b>	<b>100.0</b>	<b>100.0</b>	

**Source: Survey result, 2020 and SPSS output**

The taxpayers were also asked about the reasons why many organizations are not VAT registered. The (209) 63.7% explained that is low awareness and lack of information on the side of the leaders of the organizations, (88) 26.8% of the respondents explained that poor implementation capacity of the government bodies, least of them not to get VAT registered is selfishness and also explained that poor implementation capacity of the tax authority.

## INDEPENDENT VARIABLE

**Table 8: Tax Education**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
Do you agree with taxpayers have knowledge about books and records maintained for VAT purpose	30.5	55.5	5.5	5.5	3
Do you agree with any awareness about the VAT proclamation and regulation get from authority	34.3	56.5	7.1	0.06	1.5
The Authority has an adequate number of skilled manpower	4.3	4.9	6.5	51.2	33
Do you believe that ERA had made sufficient explanation to the public regarding VAT	5.9	6.2	7.7	52.8	27.5

**Source: Survey result, 2020 and SPSS output**

In terms of tax education asked taxpayers have knowledge about books and records maintained for VAT purpose is cumbersome reply that (100) 30.6% strongly disagree, (180) 55.5% disagree, (18) 5.5% agree, (9) 3% strongly agree and (18) 5.5 % neutral. It indicates that majority of respondents argued that many of taxpayers are haven't knowledge about books and records maintained for VAT purpose. The authority doesn't create awareness about books and records maintained for VAT purpose of taxpayers.

For this question any awareness about the VAT proclamation and regulation get from authority reply that (111) 34.3 % strongly disagree, (183) 56.5 % disagree, (2) 0.06% agree, (5) 1.5% strongly agree and (23)7.1% neutral. Many taxpayers have not enough awareness about VAT Proclamations and regulations. This indicates that the authority did not have enough training program to VAT registered taxpayers the awareness level is not good enough on VAT proclamation and regulation.

The Authority has an adequate number of skilled manpower 33.2% respondents are strongly agreed, 51.2% of the respondents agreed, 4.3% of respondents strongly disagreed and 4.9% of the respondent's disagreed, 6.5% is neutral. It revealed that the Revenues Authority have sufficient human capital to collect VAT revenue. The Revenue Authority had made sufficient explanation to the public regarding VAT (171) 52.8% agreed and (89) 27.5% strongly agreed.

**Table 9: Gross Domestic Product**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
Do you agree with the intention of Value Added Tax implementation in Jimma Town enhance revenue and encourage taxpayers	0.0	2.7	5.5	49.7	42.1
Do you agree with the introduction of VAT in Ethiopia is necessary by replacing the sales tax for accelerating Ethiopian economic growth?	0.0	3.0	8.2	44.5	44.2
Do you agree with VAT effect on economic growth	8.8	14.6	10.4	35.7	30.5
Do you agree with the VAT implementation in Ethiopia is encouraging investment, saving and work	48.2	35.1	8.5	6.4	1.8

**Source: Survey result, 2020 and SPSS output**

As **Table 9** indicate that respondent 42.1% respond that the intention of Value Added Tax implementation is to enhance revenue and encourage taxpayers are strongly agreed, while 49.7% agreed, and the rest 5.5% (3) have no idea whether it enhance or reduce revenue. This implies that even if majority of respondents believe that Value Added Tax enhance revenue and encourage tax payers. As **Table 9** indicates the introduction of VAT in Ethiopia is necessary by replacing the sales tax for accelerating Ethiopian economic growth 44.2% of the respondents are strongly agreed, and 44.5% agreed that against idea of the majority respondents.

Moreover, as **Table 9** indicate that VAT has effect on economic growth 30 % of the respondents strongly agree 35.7 % agreed, (166)51.2 % of the respondents agreed, and (13)9.2% of the respondent's strongly agreed, 6.5% is neutral. As indicate that the VAT implementation in Ethiopia is encouraging investment, saving and work. Most of the respondents are strongly disagree 48.2% and disagreed 35.1%. This shows that there is poor understanding and little knowledge of taxpayers on Value Added Tax and its effect on country's economy and Value Added Tax effect on investment, saving and work.

**Table 10: Inflation Rate**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
VAT-registered taxpayers are less competition in the market than non VAT tax payers	7.6	17.8	5.8	43.3	26.5
Consumers are not willing to buy goods and services with VAT	0.06	4.3	8.2	43.9	43
Uniform VAT rate affect purchasing power of consumer goods and services	6.1	8.8	5.8	45.7	33.5
The increasing price of goods and service are increase VAT revenue	0	6.7	4.9	50.9	37.5
Inflation rate change the consumer price Index to buy goods and services	5.8	5.5	3	48.2	37.5

**Source: Survey result, 2020 and SPSS output**

As it's shown from the **Table 10** VAT taxpayers is less competition in the market than non VAT tax payers were replied that agreed 43.3%, strongly agreed 26.5% and disagreed 17.8%. While taxpayers respondents were asked to express their view about Consumers are not willing to buy goods and services with VAT. Consequently, 43.9% of taxpayers were replied that agreed, 43% of taxpayers were responded strongly agreed, 4.3% of taxpayers were answered disagreed and

8.2% of taxpayers were replied that neutral. From this finding, the majority of the respondents Consumers were not willing to buy goods and services with VAT. It can conclude that the main reason for not willing to buy goods and services with VAT, by most consumers were lack of awareness about VAT.

Moreover, **Table 10** the uniform VAT rate affect purchasing power of consumer goods and services the respondent replay that 45.7% agreed 33.5% strongly agreed. Accordingly, the increasing price of goods and service are increase VAT revenue and inflation rate change the consumer price index to buy goods and services most of the taxpayer’s respond strongly agreed and agreed. This implies that tax is imposed on the value of total taxable income is increase, an increase inflation would enhance the value of the total taxable income, meaning tax is changed in line with the nominal value of the underlying transaction, and thereby affects the total VAT revenue. As a result, the VAT revenue is decreased because of Consumers were not willing to buy goods and services with VAT.

**Table 11: Attitude of taxpayers towards tax authority or government**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
Have a positive attitude towards the government or the tax authority?	4	4.6	9.8	39.9	41.8
Tax authority is highly corrupted, so I don’t want to declare the correct VAT	5.5	7.6	14.3	41.5	31.1
The level of VAT rate is high and has made goods and services expensive and results in noncompliance of taxpayers	12.2	23.2	12.8	36.9	14.9
15% single VAT rate on all items of goods and services. In my opinion single VAT rate is unfair.	13.7	18.6	13.4	32.0	23.3
The existence of unregistered tax payers is creating unfair competition and making registered taxpayers’ loss their market share and profitability.	4.0	4.3	10.1	32.3	49.4

**Source: Survey result, 2020 and SPSS output**

The survey was conducted by asking the taxpayer’s have a positive attitude towards the government or the tax authority. The respondents, 41.8% and 39.9% strongly agreed and agreed, 9.8% neutral, 4.6% disagreed and remain 4% strongly disagree. Most of the respondent responds they have positive attitude to the tax authority; this helps to pay their tax voluntarily, while the least

taxpayer respondents replied that they have no positive attitude to the tax authority that they got different service from the authority because of the bureaucracy system, the tax authority are highly corrupted and it affects VAT revenue.

As **table 11** indicated that 36.9% and 14.9% of tax payers respectively agreed and strongly agreed that the level of VAT rate is high and have made goods and services expensive and resulted in non-compliance of taxpayers which indicates administrative weakness or tax evasion.

Moreover, **Table 11** Shows that the questions were asked whether a 15% single tax rate is unfair. 13.7% strongly disagreed, 18.6% disagreed, 13.4% neutral, 32% agreed and 23.3% strongly agreed. It indicated that single VAT rate on all items of goods and services are unfair. **Finally**, as indicate that the existence of unregistered taxpayers is creating unfair competition and making registered taxpayers lose their market share and profitability the taxpayers respondent 49.5% strongly agreed and 32.3% agreed.

**Table 12: Political stability**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
Do agree with the political system/ stability in Ethiopia determine the VAT revenue	0.0	4.9	6.4	48.5	40.2
Do agree with the VAT levied on your business is not reasonable	10.1	14.6	5.5	33.6	36.0
Do agree with bureaucracy in registration and identification	1.5	5.2	6.4	47.9	39.0
Do agree with political intervention on your business	12.2	17.7	6.4	44.8	18.9
Do agree with lack of accessible information on government regulations of VAT that are relevant to your business.	14.3	17.1	13	33.5	21.6

**Source: Survey result, 2020 and SPSS output**

As indicated **Table 12** taxpayers respondents 40.2%% and 48.5% are strongly agreed and agreed respectively that the political system/stability in can determine VAT revenue, while 4.9% disagreed taxpayer respondents replied that political system cannot determine VAT revenue and remain 6.4% are neutral. Moreover, taxpayer respondents, 39%% and 47.9% are strongly agreed and agreed respectively replied that bureaucracy in registration and identification in own business, this create VAT levied on business is not reasonable. This implies heavy bureaucracy in the office of the authority, respondent were not willing to express the reasonable pay tax revenue.



This creates political intervention on business activities and also lack of accessible information on government regulations of VAT that are relevant to business environment. When conclude that political factors such as the not reasonable VAT levied on business firms and bureaucracy in registration; and political intervention and lack of accessible information on government regulations of VAT to business firms are crucial factors for VAT collection which highly affect the performance of VAT revenue collection.

**Table 13: Taxpayers compliance**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
Do you agree that most of the taxpayers are registered voluntarily?	38.4	43.3	6.4	6.4	5.5
Do you agree with the VAT refunding processes being made are on time effectively?	47.9	34.8	7.3	6.4	3.7
Do you agree with the VAT assessment and collection mechanism is effective and efficient?	48.8	32.6	5.8	6.1	6.7
Do you agree with rising the rate of VAT will discourage taxpayer's voluntary compliance.	10.1	14.0	5.5	35.4	35.1
Do you agree with reducing the rate of VAT might encourage taxpayers voluntary compliance	5.2	7.6	10.1	40.5	36.6

**Source: Survey result, 2020 and SPSS output**

The survey was conducted by asking the VAT payer's to know the taxpayers compliance. The VAT payer respondents reply that most of the VAT payers are registered voluntarily 38.4% strongly disagreed, 43.3% disagreed, 6.4% neutral , 6.4% agreed and 5.5% strongly agreed taxpayer respondents replied that most taxpayer's are not voluntary registered and the assessment and collection mechanism is not effective and efficient which affect VAT revenue.

As indicate **Table 13** raising the rate of VAT will discourage taxpayer's voluntary compliance taxpayer's respondent replay that 35.1% strongly agreed, 35.4% agreed, 5.5% neutral, 14% disagreed and 10.1% strongly disagreed. This implies that, reducing the VAT rate might be encouraging taxpayer's voluntary compliance.

**Table 14: Unemployment Rate**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
Due to fewer people are working, low earning VAT revenue	2.1	6.1	7.6	51.5	32.6
The percentage of the total labor force unemployed increase year to year, but increase collection of tax revenue	27.1	53.7	8.8	5.8	4.6
The government receive less tax revenue because of increase unemployment rate	0.0	3.7	7.3	51.5	37.5
Do agree with tax decrease the ability to investment, save and work	32.3	50.0	5.5	8.2	4.0
Do agree with the people who are both willing and able to work but do not have a job	10.7	13.4	10.4	41.8	23.8

**Source: Survey result, 2020 and SPSS output**

A survey conducted **Table 14** indicates that fewer people are working, low earning VAT revenue 51.5% agreed, 32.6 strongly agreed, 7.6% neutral and 6.1% disagreed. Most of the taxpayer's respondents replied that due to increase unemployment rate, decrease earning VAT revenue. In addition, as fewer people have job, firms won't be able to produce as many goods and services and thereby, the output of goods and services in the economy, GDP, will be lower.

As indicate **Table 14** the VAT registered taxpayers respondents were asked to give their views on the total labor force unemployed increase year to year, but increase collection of tax revenue 53.7% of the respondents disagreed, 27.1% strongly disagreed, 8.8% remained neutral while 5.8% agreed and 4.6% strongly disagreed. Due to increase unemployment rate, decrease collection of tax revenue.

As indicate **Table 14** taxpayers' respondents were asked to give the governments receive less tax revenue because of increase unemployment rate. The taxpayer's respondent's reply 37.5% and 51.5% strongly agreed and agreed respectively and 7.3% are neutral. This implies that unemployed people contribute less to the economy.

As indicate **Table 14** VAT registered taxpayers reply that tax decrease the ability to investment, save and work 32% of respondent strongly disagree, 50% disagreed and 8.2% agreed, 4% strong-

ly agreed and the remain 5.5% is not decided. This means most of the taxpayers' are ability to understand tax encourage investment, saving and work.

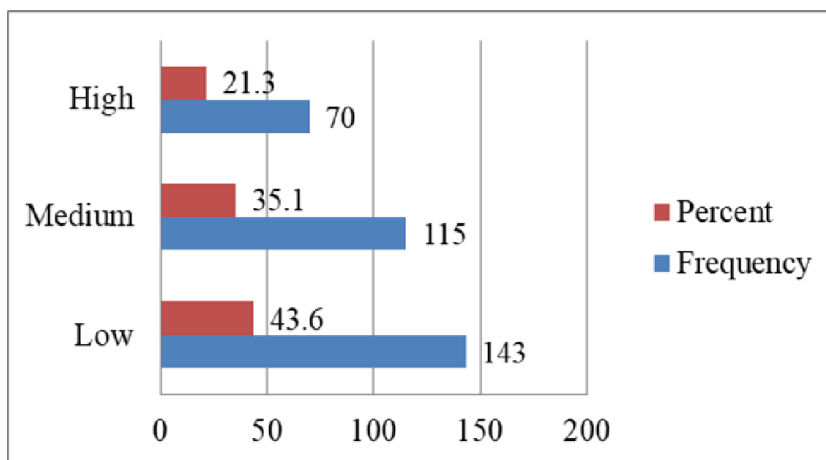
As indicate **Table 14** the people who are both willing and able to work but do not have a job were asked to give their views 23.8% and 41.8% strongly agreed and agreed respectively and 10.4 % are neutral and the remain 10.7% and 13.4 % strongly disagreed and disagreed respectively. This implies that they do not participate in paying tax due to lack of job.

## Dependent Variable

### VAT Revenue Collection Performances

Respondents were asked questions to identify their level of pay VAT revenue. Specifically, the willingness of taxpayer to pay VAT revenue ordinal response sometimes used in an ordered (from low to high) dependent variables. Based on this, taxpayers were categorized into three levels of willingness of taxpayer to pay VAT revenue one question on a survey is to be answered by a choice among 0 = Low willingness, 1 = Medium willingness and 2 = High willingness to pay VAT and the purpose of the analysis is to see how well that response can be predicted by the responses to other questions which may be quantitative, then ordered logistic regression is used. As indicate **Figure 5** about 21.3 % of respondents were high willingness, 35.1% were medium and the rest 43.6 % were low willingness to pay VAT revenue. The result indicates that most of the taxpayers' willingness to pay VAT revenue was low and medium.

**Figure 5: Willingness to pay VAT revenue**



Source: Survey result, 2020 and SPSS output

**Table 15: Descriptive statistics for both taxpayers and Tax Authority Variables**

From VAT Registered Tax payers					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
The percentage change of total revenues collection from VAT is increasing from year to year, but not meets the targets.	2.1	10.4	7.9	48.5	31.1
Revenue Authority witnessed unachieved VAT Targets	0.0	3.0	11.9	52.1	32.9
In Jimma Town Ethiopian Revenues Authority the VAT income is affected due to lack of intensive follow up.	0.06	2.7	6.7	54.3	35.7
From Revenues Authority Employee's					
The percentage change of total revenues collection from VAT is increasing from year to year, but not meets the targets.	0.0	0.0	0.0	67.6	32.4
Revenue Authority witnessed unachieved VAT Targets	0.0	0.0	12.4	61.9	25.7
In Jimma Town Ethiopian Revenues Authority the VAT income is affected due to lack of intensive follow up.	0.0	9.5	15.2	53.3	21.9

**Source: Survey result, 2020 and SPSS output**

A VAT-registered taxpayer's respondents were asked to give their views on the percentage change of total revenue collections from VAT is increasing from year to year, but not the meet the targets. 31.1% of the respondents strongly agreed, 48.5% agreed, 7.9% remained neutral while 10.4% disagreed and 2.1% strongly disagreed. In addition to that, the Respondents were asked Revenue Authority witnessed unachieved VAT Targets, 32.9% of respondents strongly agreed, 52.1% agreed, 11.9% neutral and 3.0% disagreed on unachieved VAT Targets. Also, the respondents asked VAT income is affected due to lack of intensive follow up, 35.7% strongly agreed, 54.3% agreed, 6.7% neutral, and 2.7% disagreed.

This indicates that the percentage change of total VAT collections from year to year is not meeting the target. Whereas the question for Revenues Authority employees asked the percentage change of total revenue collections from VAT is increasing from year to year, but not the meet the targets, 67.6 % agreed and 32.4% strongly agreed. For the question Revenue Authority witnessed unachieved VAT Targets, 25.7% strongly agreed, 61.9% agreed and 12.4% neutral and finally the Revenues Authority employees were asked VAT income is affected due to lack of intensive follow up, 21.9% strongly agreed, and 53.3% agreed, 15.2% neutral and 9.5% disagreed.

This indicates that even if the revenue collections from VAT is increasing from year to year, but didn't meet the targets due to lack of intensive follow up.

#### 4.1.2. Descriptive statistics of VAT Revenues Authority employees Variables

Data was also collected from employees of Tax Revenue Authority and result obtained from them was summarized as follows:

**Table 16: Tax administration**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
Tax administrations are strong enough to control non-registered and illegal activities of Value Added taxpayers	3.8	5.7	13.3	42.9	34.3
Value Added Tax registered business enterprises that have collected the tax with illegal invoices	36.2	44.8	8.6	5.7	4.8
All those who should get registered for Value Added Tax are registered not registered	24.8	50.5	4.6	16.2	0.0
Had all those who should get registered for Value Added Tax been registered, the income of the branch office would be increase?	0.0	7.6	6.7	49.5	36.0
Fairness of the threshold of Value Added Tax 1,000,000	37.1	53.3	4.8	1.9	2.9

**Source: Survey result, 2020 and SPSS output**

As indicate that respondents (45) 42.9% agreed, (36)34.3% strongly agreed, (14)13.3% neutral and (6)5.7% disagreed and the remains (4) 3.8% are strongly disagreed respondent, replay that tax administrations are strong enough to control un-registered and illegal activities of Value Added Tax payers. According the respondent said that tax administrations are strong enough to control non-registered and illegal activities of Value Added Tax payers.

Moreover, **Table 16** depicted that 36.2% strongly disagreed, 44.8% disagreed, 8.6% neutral and 5.7% agreed and the remain 4.8% are strongly disagreed respondent replay that Value Added Tax registered business enterprises that have collected the tax with illegal invoices, According to respondent said that Value Added Tax registered business enterprises that have collected the tax without illegal invoices.

Moreover **Table 16** respondent replay that all those who should get registered for Value Added Tax are not registered, 50.5% disagreed, 24.8% strongly disagreed, 16.2% agreed and the re-

main 4.6 are neutral. According to the respondents, the reason for at least some of them not to get registered for Value Added Tax are many taxpayers haven't the necessary information to yet registered for Value Added Tax mainly because of their lack of information and the poor capacity of the government bodies who are in charge of VAT administration is the reason for it.

Moreover, **Table 16** indicates respondent replay that all those who should get registered for Value Added Tax been registered, 36.0% strongly agreed, 49.5% agreed, 6.7% neutral and 7.6% disagreed. So, the income of the branch office would be increase.

Moreover, **Table 16** indicates that 37.1% strongly disagreed, 53.3% disagreed, 4.8% neutral, 2.9 strongly agreed and majority of tax payers respondents said that the threshold of Value Added Tax (1,000,000 ETB) is not fair, and the rest 4.8% have no idea about. This reflects dissatisfaction of the majority of tax payers with the amount of threshold. On the other hand the amount of threshold (1,000,000) may block interested taxpayers from registering for value added tax. Regarding the fairness of the amount of threshold of Value Added Tax, respondents who said that it isn't fair; to be fair the threshold should be less than 1,000,000. Generally, in developing countries the poor performance of taxes is likely is to be due to weak tax administration (that is, the incapacity of the administration to implement the tax in practice).

**Table 17: Compliance to VAT rule and regulation, potential VAT administration**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
VAT rate has no effect on VAT compliance	34.1	41	9.5	11.4	6.7
Raising the rate of VAT will encourage taxpayer's voluntary compliance.	29.5	41	8.6	15.2	5.7
Reducing the rate of VAT might encourage taxpayers voluntary compliance	6.7	5.7	12.4	41.0	34.3
The reporting period for VAT filling and payment is enough for the taxpayers	0.0	12.4	3.8	49.5	34.3
The VAT rate is high and has made goods and services expensive and results in making taxpayers' noncompliance.	0.0	7.6	13.3	40.0	39.0

**Source: Survey result, 2020 and SPSS output**

As **Table 17** indicated that VAT rate has no effect on VAT compliance 12.2% strongly disagreed, 23.2% disagreed, 12.8% neutral, 36.9% agreed and 14.9% strongly agreed, if the level of

VAT rate is high the income of VAT will be high. And also most tax officials' response raising the VAT rate might discourage taxpayer's voluntary compliance and reducing the VAT rate encourages taxpayer's voluntary compliance.

As **Table 17** indicated, 49.5% and 34.3% of tax officials s agreed and strongly agreed respectively for the statement the reporting period for VAT filling and payment is short. However, 12.4% of them disagreed for the statement the reporting period for VAT filling and payment is short.

As **Table 17** indicated that 40% and 39% of tax officials respectively agreed and strongly agreed that the level of VAT rate is high and have made goods and services expensive and resulted in non-compliance of taxpayers which indicates administrative weakness or tax evasion.

**Table 18: Strength of the tax authority to control non-complaint taxpayers**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
All tax officials and other staff members are competent enough to handle the duties assigned to them.	5.7	7.6	11.4	43.8	31.4
There is in general shortage of resources and infrastructural facilities to enhance tax law enforcement.	3.8	7.6	12.4	41.0	35.2
Training provided to employees and career development plan at different levels and in different departments is sufficient in promoting the capacity of tax officials	4.8	4.8	17	40.0	33.3
The organization provides appropriate incentives and awards to the best performing tax officials especially those who have done the best in deterring noncompliance.	33.3	47.6	6.7	12.4	0.0

**Source: Survey result, 2020 and SPSS output**

As **Table 18** showed 43.8% and 31.4% of tax officials agreed and strongly agreed respectively that tax officials and other staff members are competent enough to handle the duties assigned them. But, 7.6% of tax officials disagreed for the statement tax officials and other staff members are competent enough to handle the duties assigned them.

**Further**, 41% and 35.2% of tax officials' agreed and strongly agreed respectively that there is in general shortage of resources and infrastructural facilities to enhance tax law enforcements.

Nonetheless, 7.6% of tax officials disagreed that there is in enough resources and infrastructural facilities to enhance tax law enforcements.

**On the question** Training provided to employees at different levels of the staff is sufficient in promoting the capacity of employees. 40% and 27.6% disagreed and strongly disagreed respectively. It implies that adequate Training was not provided to most of employees at different levels of the staff in promoting the capacity of employees.

**Moreover**, about 47.6% and 33% of tax officials disagreed and strongly disagreed respectively that the authority not provides appropriate incentives and awards to the best performing tax officials especially those who have done the best in deterring non-compliance.

Finally, **Table 18** indicated that 12.4% of tax officials agreed that the trainings provided to employees and career development at different levels and in different departments are sufficient in promoting the capacity of tax officials.

**Table 19: Problems and Prospects of Implementing Value added tax**

Descriptive Statistics					
Statements	Strongly disagree%	Disagree%	Neutral %	Agree %	Strongly agree %
The process of Value Added Tax registration is easy for taxpayers.	29.5	54.1	6.7	11.4	1.0
Most of the Value Added taxpayers are registered obligatorily	0.0	3.8	14.3	43.8	38.1
Value Added Tax declaration process is easy	33.3	34.8	4.8	15.2	1.9
There are customers who are not willing to purchase goods and services with Value Added Tax.	0.0	16.2	9.5	42.9	31.4

**Source: Survey result, 2020 and SPSS output**

**Table 19** indicates that asked were the process of Value Added Tax registration is easy for taxpayers respondent 29.5% strongly disagree, 54% disagreed, 6.7% neutral and 11.4% are agreed. This implies that there is problem in the process of Value Added Tax registration.

**Table 19** Again shows that 38.1% and 43.8% respondent said that most of Value Added Tax payers registered obligatorily strongly agree and agreed respectively and 3.8% respondent disagreed said that Value Added Tax payers registered voluntarily. While, 14.3% neutral either nor registered voluntarily or obligatory. We can see that most of the Value Added Tax payers regis-



tered obligatorily. This implies majority of Value Added Tax payers are not interested with paying Value Added Tax.

It is also indicated on **Table 19** that 34.8% and 33.3% disagreed and strongly disagreed respectively respondent responded that the process of Value Added Tax declaration was not easy and effective, and 6.7 and 7.6 strongly disagreed and disagreed respectively respondent said that the Value Added Tax declaration process was easy and effective. We can infer from this that the Value Added Tax declaration process had problem by itself.

More again **Table 19** describe that 42.9% and 31.% agreed and strongly agreed respondents said that there were customers who were not purchase goods and services with Value Added Tax, 16.2% disagreed that there were no customers who were not purchase goods and services with Value Added Tax and 9.5% respondents responded that they don't know. So the majority of the respondents indicated that there were many customers who were not willing to purchase goods and services with Value Added Tax. This implies that there is lack of awareness about Value Added Tax on the side of customers.

**Table 20: The Problems of Value Added Tax Administration and Improved**

Descriptive Statistics					
Statements	Strongly disagree %	Disagree %	Neutral %	Agree %	Strongly agree %
The problems in the Value Added Tax administration that needs to be improved.	1.9	4.8	17.1	40.0	36.2
Ethiopian tax laws to encourage VAT collection properly	3.8	5.7	19.0	38.1	33.3
The Value Added Tax assessment and collection mechanism is efficient	0.0	7.6	8.6	48.6	35.2
Auditors, inspectors and prosecutors have the required skill and experience to detect and handle tax offenses by taxpayers.	36.2	55.2	5.7	2.9	0.0
The tax authority provides appropriate incentives and awards to the best performing tax officials specially those who have done the best in deterring noncompliance.	8.6	13.3	7.6	41.0	29.5

**Source: Survey result, 2020 and SPSS output**

As **Table 20** indicated, respondents were asked whether or not there are things that need to get improved in the Value Added Tax administration. The 40.0% of respondents are agreed, 36.2% are strongly agreed that there are problems that need improvement. The remaining 17.1% neu-

tral, 4.8% disagreed and 1.9% strongly disagree, respondent, that there are no problems that demand improvement. The respondents were also asked the Ethiopian tax laws to encourage VAT collection properly 33.3% are strongly agreed that there are encourage VAT collection properly and 48.6 agreed. The remains 8.6 % neutral and 7.6 % disagreed. Accordingly, the problem of demand is needed to improved Ethiopian tax laws to encourage VAT Payers and collection creates a good tax system, assessment, and collection mechanism is efficient.

As **table 20** indicated, 36.2% of tax officials strongly disagreed and 55.2% of them disagreed that Auditors, inspectors, and prosecutors have the required skill and experience to detect and handle tax offenses by taxpayers. So that the existing auditors, inspectors, prosecutors, and other staff members lack the necessary skill and experience to detect and handle tax offense by taxpayers. The tax authority provides appropriate incentives and awards to the best performing tax officials who have done the best in deterring noncompliance those who have done the best in deterring noncompliance 41% agreed and 29.5% strongly agreed.

### **4.1.3. VAT Revenue Collection Performances**

In general VAT revenue collection in Ethiopia shows, increasing slowly for the level of taxpayer's awareness towards VAT increasing and among other reasons. The capacity of tax collection increased from Birr 12.4 billion in 2005 to Birr 165.3 billion in 2015 which is 133.3% growth in a decade and the share of domestic revenue in the total public revenue increased from 77 % to 94 % in the same period. For analysis purposes, VAT collection with its respective total tax revenue collection 2014/15 to 2018/19 year. The following table also summarized a gradually growing VAT collection that contributes to total tax revenue.

### 4.1.3.1. VAT revenue as a percentage of total tax revenue

**Table 21: Total tax revenue and VAT revenue in Jimma Town 2014/15 -2018/19**

Items	Years				
	2014/15	2015/16	2016/17	2017/18	2018/19
VAT revenue for Federal revenue authority	14,601,810	16,163,705	21,601,869	26,834,705.7	88,830,279.6
Tax Revenue for Federal revenue authority (in million)	474.52	596.25	766.59	821.5	933.98
%age of VAT revenue to tax revenue	<b>3%</b>	<b>2.70%</b>	<b>2.80%</b>	<b>3.30%</b>	<b>10%</b>
VAT revenue for Jimma Town Revenue office	55,069,064.	56,804,968	40,985,887	43,631,365.6	42,676,113.7
Tax Revenue for Jimma Town Revenue office	108,220,746	133,999,822	119,405,885	167,329,873	200,688,864
%age of VAT revenue to tax revenue	<b>50%</b>	<b>42.4%</b>	<b>34.3%</b>	<b>26%</b>	<b>21.3%</b>

**Source: JTERA and Jimma Town Revenue office Annual Report**

The **Table 21** shown that the share of the federal VAT income in to total tax revenue ranges from 3% in the year 2014/15 to 10% % in year 2018/19. Indeed, the average for the five years was 6.5%. However, during the years 2014/15, 2015/16, 2016/17 and 2017/18 the share of VAT to tax revenue was lower than the average value of the five years. In short the share of VAT to tax revenue was highest in the year 2018/19 and lower 2015/16. The contribution of VAT revenue as percentage of total government income is very high so that depending on VAT revenue is advisable for the government of Ethiopia.

Moreover, **Table 21** shown that the share of the Jimma Town VAT revenue in to tax revenue ranges from 50% in the year 2014/15 to 21.3% % in year 2018/19. Indeed, the average for the five years was 34.8%. However, the share of Jimma Town VAT to tax revenue was decrease from 50% in the year 2014/15 to 21.3% % in year 2018/19. In short the share of VAT to tax revenue was highest in the year 2014/15 and lower 2018/19. The contribution of VAT revenue as percentage of total government income is very high so that depending on VAT revenue is advisable for the government of Ethiopia.

### 4.1.3.2 Efficiency ratio

The efficiency ratio of VAT for ERA in Jimma Town for the year's **2014/15-2018/19** shows

**Table 22: Efficiency ratio of VAT in Ethiopia (in Billions)**

Items	Years				
	2014/15	2015/16	2016/17	2017/18	2018/19
VAT revenue	55,465.62	58,132.06	63,762.15	67,816.25	76,568.75
GDP Current market price	1,297,961.44	1,528,044.23	1,796,481	1,719,491	1,874,689
Standard VAT rate (in percent)	0.15	0.15	0.15	0.15	0.15
<b>VAT efficiency ratio in Percent</b>	<b>28.5%</b>	<b>25.3%</b>	<b>26.60%</b>	<b>26.20%</b>	<b>27%</b>

**Source: ERCA, NBE and MoFEC**

As **Table 22** indicated the VAT collected compared to GDP, which is the efficiency ratio, ranges from 28.5% in 2014/15, 25.3% in 2015/16, 26.6% in 2016/17, 26.2% in 2017/18 and 27% in 2018/19. The average share of VAT efficiency ratio is 26.72%. Further, as **table 22** indicated the share of VAT to GDP was increasing in the period considered.

### 4.1.3.4. C-Efficiency ratio

**Table 23** showed the c-efficiency ratio of VAT for the period **2014/15 -2018/19**

**Table 23 C- Efficiency ratio of VAT in Ethiopia (in Billions)**

Items	Years				
	2014/15	2015/16	2016/17	2017/18	2018/19
VAT revenue	55,465.620	58,132.060	63,762,150	67,816,250	76,568,750
Private consumption for Ethiopia	1,013,203.0	1,118,114.00	1,147,628.0	1,441,581.0	1,884,070.0
Standard VAT rate (in percent)	0.15	0.15	0.15	0.15	0.15
<b>C-efficiency ratio</b>	<b>36%</b>	<b>34.6%</b>	<b>37%</b>	<b>31.3%</b>	<b>27%</b>

**Source: ERCA, NBE and MoFEC**

As **table 24** indicated the c-efficiency ratio ranges from 36% in the year 2014/15 to 27% in the year 2018/19 average 33.2%. And hence, the share of VAT to private consumption was lowest in the year 2018/19 (27%) and highest in 2016/17 (37%). Since VAT is a tax on consumption, rather than all economic activity, in principle, the C-efficiency can give more accurate measurement of VAT performance.

## 4.2. Regression Analysis

Regression analysis was conducted to empirically determine whether independent variables were significant with dependent variables. The regression analysis was done with VAT Revenue collection performance as a dependent variable and determinants of VAT revenue collection performance as independent variables (Tax Education level of taxpayers, Gross Domestic Product, inflation rate, Attitude of taxpayers toward tax authority, Political stability, Taxpayers compliance, and Unemployment rate).

### 4.2.1. Results of the Econometric Model

An econometric model, ordered logistic regression model, was employed to identify the determinants of VAT revenue performance. Including variables in the model were tested for the existence of multicollinearity if any. The contingency coefficient and variance inflation factor were used for the multicollinearity test of continuous variables, heteroskedasticity, and Normality distributions of the data were tested.

### 4.2.2. Multicollinearity Test

The ordered logistic regression model was used to analyze the determinants of Value added tax revenue collection performance. The data have been tested for multicollinearity and heteroskedasticity problems. The most commonly applied diagnostic test for the multicollinearity problem is the Variance Inflation Factor (VIF) for continuous variable and contingency test for the discrete variable. As a rule of thumb, if the VIF of a variable exceeds 10, that variable is said to be highly collinear (Gujarati, 1995). Thus, the results of the VIF values for the variables confirmed that there is no serious problem of multicollinearity (**Table 24**).

**Table 24 Multicollinearity Test**

Model		Collinearity Statistics	
		1/VIF (Tolerance)	VIF
1	(Constant)		
	Tax Education	.773	1.294
	GDP	.698	1.432
	Inflation rate	.761	1.314
	Attitude of taxpayers	.696	1.438
	Political stability	.731	1.369
	Taxpayers compliance	.697	1.434
	Unemployment rate	.840	1.191

a. Dependent Variable: VAT revenue performance

Source: survey result, 2020

**Table 25 Correlation Matrix**

	VATRP	TAXEDU	GDP	IR	ATPTA	POS	TPCOMP	UNEMPR
<b>VATRP</b>	1							
<b>TAXEDU</b>	.245**	1						
<b>GDP</b>	.164**	.253**	1					
<b>IR</b>	.033	.025	.328**	1				
<b>ATPTA</b>	-.063	.235**	.339**	.287**	1			
<b>POS</b>	.251**	.361**	.264**	.357**	.232**	1		
<b>TPCOMP</b>	.227**	.334**	.455**	.177**	.346**	.296**	1	
<b>UNEMPR</b>	-.147**	.132*	.172**	.104	.387**	.126*	.091	1

\*\* . Correlation is significant at the 0.01 level \* . Correlation is significant at the 0.05 level (2-tailed).

Source: Survey result, 2020 and SPSS output

A correlation is a numbers that explains the degree of relationship between two variables 1 to -1. As shown in the above correlation matrix of **Table 25**, the correlation coefficient value shows as the tax education, political stability and taxpayers compliance were positive and significantly correlated with VAT revenue collection performance  $r=0.245, r=0, r=0.251, r=0.227$  and  $p<0.05$  respectively. The Current GDP and inflation rate has statistically insignificant correlation with Value added tax revenue collection performance  $r=0.164, 0.033$  and  $p>0.05$  respectively. But,

attitude of taxpayers' towards tax authority and unemployment rate has a negative relationship and statistically significant with value added tax revenue collection performance with  $r=-0.063$ ,  $r=-0.147$  and  $P<0.05$  respectively. Since the highest correlation coefficient in this study is 0.455, between taxpayer's compliance and current GDP. This indicate that there is no evidence of serious multicolliniarity in the study, because Cooper & Schindler, (2009) and Hair et al. (2006) suggested that serious multicollinearity corrected when the correlation coefficient is 0.8 and 0.90 respectively.

### **4.2.3. Determinants of factor affecting VAT revenue**

#### **4.2.3.1 Ordered Logit Model Results**

This section presents the result of the ordered logit regression model and the result of the significant variables that determine VAT revenue performance in Jimma town. The variables that were discussed in the below (**Table 28**) were considered for the model and tested for their significance.

The dependent variables, VAT revenue collection performance have three choices: 0= Low, 1= Medium and 2=High. The coefficient values measured the expected change in the logit for a unit change in each independent variable, all other independent variables being equal Gujarat (1992). The coefficient sign shows the direction of the influence of the variable on the logit.

The significance values (also called as p- values) show whether a change in the independent variable significantly influences the logit at a given level. In this study, the variables were tested at a 5% significance level. Accordingly, if the significance value is greater than 0.05, then it shows that there is insufficient evidence to support that the independent variable influence a change. If the significance value is equal to or less than 0.05, then there is sufficient evidence to support a claim presented by the coefficient value. The odd ratio indicates the extent of the effect on the dependent variable caused by the predictor variables (Hill et al., 2001; Gujarat, 1992).

The estimated results of the ordered logit model shown in **Tables 28** total of 7 explanatory variables were considered in the econometric model out of which 5 variables were found to significantly influence VAT revenue collection performance. These were tax education, attitude towards the tax authority or government, political stability, taxpayers' compliance, and unemployment rate. The remaining Gross domestic product (Current GDP) and inflation rate were

found to have no significant effect on VAT revenue collection performance according to the result of the study.

In this case, if the predictor's p-value is less than 0.05 ( $P < 0.05$ ); then each predictor has a significant effect on the response/ dependent variable. Moreover, odd ratio, is the exponential of the logistic coefficients revealed relationship type between the predictors and the outcomes and also presents the extent or influence level to which raising the corresponding measure by one unit influences the odds ratio. Consequently, if the odds ratio value just below 1 indicates the event is less likely to happen in the comparison than in the base group, and mean that there is no effect of that variable on the outcome at which result of the Wald statistic is near and became to zero and result of the p-value is non-significant, if the odds ratio value is just above 1 to infinity indicate the event is more likely to happen in the comparator than in the base group (Muchabaiwa,2013 and Park,2013).

### Model Summary

Model summary have values **Table 4.27** indicate how good the model fits the data. Accordingly, the likelihood ratio chi-square of 61.55 with a p-value of 0.0000 tells us that the model as a whole is statistically significant. The Pseudo R-square Cox & Snell  $R^2$  and the Nagelkerke's  $R^2$  0.194 implies that about 19.4% of the change in VAT revenue collection performance is explained by explanatory variables. But, the Nagelkerke's  $R^2$  modification that does range from 0 to 1 is a more reliable measure of the relationship with a better model displaying a value closer to 1 and provides an indication of the model fitting information. Thus, there is good relationship between the predictors and the response variable at 19.4%.

**Table 27: Goodness of fit**

Model Fitting Information					Pseudo R-Square	
Model	-2 Log Likelihood	Chi-Square	Df	Sig.	Cox and Snell	.171
Intercept Only	694.720				Nagelkerke	.194
Final	633.168	61.552	7	.000	McFadden	.089

Link function: Logit.

Source: Survey result, 2020 and SPSS output\



**Table 26: Result of Regression Analysis of Taxpayer’s variables**

<b>Ordered logistic regression</b>							
				Number of obs	=	328	
				LR chi2 (7)	=	61.55	
				Prob> chi2	=	0.0000	
Log likelihood = -316.58405				Pseudo R2	=	0.0886	
<b>VATRP</b>	<b>  Odds Ratio</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt; z </b>	<b>[95% Conf. Interval]</b>	
TAXEDU	1.777105	.5749858	.3761323	2.72	0.007	1.173688	2.690753
GDP	1.332499	.2870561	.3331309	1.15	0.251	.8163239	2.17506
IR	.9709232	-.0295079	.2517524	-0.11	0.909	.584084	1.613966
ATTA	.5581299	-.5831636	.1038805	-3.13	0.002	.387532	.8038278
POS	1.992511	.6893954	.4368252	3.14	0.002	1.296548	3.062052
TPCOMP	1.760475	.5655837	.3730361	2.67	0.008	1.162156	2.66683
UNEMPR	.5740417	-.5550532	.1280242	-2.49	0.013	.3707715	.8887519
/cut1	2.477034	1.216494				.0927493	4.861318
/cut2	4.289632	1.234812				1.869445	6.70982

**Source: Primary data, STATA output 2020**

The result on **Table 27** shows that the likelihood ratio chi-square of 61.55 with a p-value of 0.0000 tells us that the model as a whole is statistically significant.

As cited in (Oscar, 2008) in ordered logit; Predicted probabilities are estimated as:

$$P(y_{\text{ordinal}} = \text{“Low”}) = P(\_VATRVN + u \leq \_cut1) = P(VATRV + u \leq 2.477)$$

$$P(y_{\text{ordinal}} = \text{“medium”}) = P(\_cut1 < VATRVN + u \leq \_cut2) = P(2.477 < VATRV + u \leq 4.29)$$

$$P(y_{\text{ordinal}} = \text{“High”}) = P(\_cut2 < VATRVN + u) = P(4.289 < VATRV + u)$$

**cut1** - This is the estimated cut point on the latent variable used to differentiate low VAT revenue collection performance from middle and high VAT revenue collection performance when values of the predictor variables are evaluated at zero. Revenue that had a value of 2.477 or less on the underlying latent variable that gave rise to our VATRP variable would be classified as low VATRP.

**cut2** - This is the estimated cut point on the latent variable used to differentiate low and middle VAT revenue collection performance from high VAT revenue collection performance when values of the predictor variables are evaluated at zero. Revenue that had a value of 4.289 or greater on the underlying latent variable that gave rise to our VATRP variable would be classified as high VATRP. Revenue that had a value between 2.477 and 4.289 or on the underlying latent variable would be classified as middle VATRP.

$$Li = \ln\left(\frac{P}{1-p}\right) = \beta_0 + \text{TAXEDU} + \text{GDPPC} + \text{IR} + \text{ATTA} + \text{POS} + \text{TPCOM} + \text{UNEMPR} + \epsilon_i$$

Moreover, Table 27 also shows the significance of the model by the likelihood ratio chi-square of 61.55 with a p-value (P=0.000), which tells us that the model as a whole is statistically significant. The Pseudo R-square Nagelkerke's R<sup>2</sup> 0.194 implies that about 19.4% of the change in VAT revenue collection performance is explained by explanatory variables. These statistics indicate that the overall model is significant in explaining the dependent variable since the associated probability is lower than 0.05.

**Table 27: Marginal Effects at Mean Values Explanatory Variable**

	Delta-method					
	dy/dx	Std. Err.	z	P> z	[95% Conf. Interval]	
TAXEDU	.0583451	.0242402	2.41	0.016	.0108353	.105855
GDP	.0291282	.0258569	1.13	0.260	-.0215503	.0798068
IR	-.0029942	.0262923	-0.11	0.909	-.0545262	.0485377
ATTA	-.059175	.022412	-2.64	0.008	-.1031016	-.0152483
POS	.0699546	.0258773	2.70	0.007	.019236	.1206731
TPCOMP	.0573911	.0240785	2.38	0.017	.0101981	.1045841
UNEMPR	-.0563225	.0247906	-2.27	0.023	-.1049112	-.0077339

**Source: computed from survey result**

## **Tax Educational Level**

As the ordered logit regression model, the result of this study showed that the educational level of taxpayers was positively and significantly ( $p < 0.05$ ) with relationship between VAT revenue collection performance at the coefficient result ( $\beta = 0.5749$ ) with marginal effect (0.0583451). Therefore, it can be concluded as, there is enough evidence to accept proposed hypothesis. Accordingly, as the tax education level status of an individual was improved by one level, the VAT revenue collection performance behavior of the individual increase by 5.8% by controlling other factors constant. A log-odds estimate for the increase in the tax education of taxpayer's increases the likelihood of the VAT revenue by 57.5% for the entire sample. When the tax education level increases or high they got knowledge about taxation and know about the benefits of tax to the public. The odds ratio 1.77 tells us that keeping the influences of other factors constant, as the tax education level are low, the decision to be willingness increases by a factor of 1.77. The finding suggested that educated tax payers are more tend to comply with tax laws compared with no educated taxpayers.

## **Attitudes of Taxpayers' Towards Tax Authority or Government**

As it was hypothesized, this variable was found to negative and statistically significant ( $p < 0.05$ ) relationship with VAT revenue collection performance. The coefficient result ( $\beta = -0.583$ ) with marginal effect (-0.059175). Therefore, it can be concluded as, there is enough evidence to accept proposed hypothesis. The result indicates that as the individual's attitudes of taxpayers' towards tax authority or government negative, the VAT revenue collection performance decreased by 5.9% other factors being constant. Based on 5 percent significance level for the odds ratio, the odds ratio of 0.55 tells us that keeping the influences of other factors constant, as the negative attitudes of taxpayers towards tax authority, the decision to be willingness of taxpayers decreases by a factor of 0.55.

## **Political Stability**

The result of ordered logit regression revealed that political stability was found to have a statistically significant and positive influence on VAT revenue performance at ( $\beta = 0.689$ ) with marginal effect (0.0699546) with ( $P < 0.05$ ). Therefore, it can be concluded as, there is enough evidence to accept proposed hypothesis. This indicates that a 1% increase in the taxpayer perception of political stability on the tax officials, it increases the probability of VAT revenue collection

performance by 6.9%, other factors being constant. This is a proportional odds ratio odds ratio 1.99 tells us that keeping the influences of other factors constant, as the political stable level are high, the decision to be willingness increases by a factor of 1.99.

### **Taxpayers Compliance**

As it was hypothesized, this variable was found to have positive and statistically significant at 5 percent significance level ( $P < 0.05$ ) relationship between VAT revenue collection performance and taxpayers compliance as the result of ordered logit regression ( $\beta = 0.565$ ) with marginal effect (0.0573911). This indicates that a 1% increase in the taxpayer comply with tax laws tax compliance behavior of the taxpayer increase on the tax officials, it increases the probability of VAT revenue collection performance by 5.7%, other factors being constant. This is a proportional odds ratio 1.76 indicates that keeping the effects of other factors constant, willingness of a VAT payer's increases, and a 1% increase in the voluntary VAT payers increases VAT revenue by a factor of 1.76 whenever there is taxpayers compliance.

### **Unemployment Rate**

The regression result shows that the unemployment rate has a significant negative effect on VAT revenue collection performance and statistically significant at  $P\text{-value} = 0.000$  to each other. The beta value (coefficient) of this variable is ( $\beta = -0.555$ ) with marginal effect (-0.0563225). Therefore, it can be concluded as, there is enough evidence to accept proposed hypothesis. The study shows that an increase in the unemployment rate would reduce tax revenue performance. Meaning, a 1% increase in unemployment rate result in a decrease of 5.6% on VAT revenue collection performance, this is because unemployed people contribute less to the economy as they are spending less and they do not participate in paying the tax due to lack of job. Besides, as fewer people have jobs, firms won't be able to produce as many goods and services and thereby, the output of goods and services in the economy (GDP) will be lower. As a result, the lower GDP would adversely affect the VAT revenue collection performance and the government ends up borrowing money because of low revenues and high spending.

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATION

The main objective of this chapter is to present the conclusion and recommendation of the research result. To answer the objective of the research question, the paper used a descriptive research design that used both quantitative and qualitative (mixed) research approach and data collected from primary and secondary data. Primary data were collected from selected sample taxpayers and tax officials of Ethiopian Revenue Authority in Jimma Town. Secondary data were collected from published and unpublished documents and office annual reports. The data were analyzed using the descriptive and econometric method in order to examine factors influencing determinants of value-added tax revenue collection performance of the Ethiopian Revenue Authority at Jimma Town.

#### 5.1 Major Summary of Findings

The econometrics analysis indicated that VAT revenue collection performance level was influenced by demographic, socioeconomic, politics, and tax system variable factors. Specifically, VAT revenue collection performance level was determined by tax education, economic growth (current GDP), inflation rate, attitudes of taxpayers towards tax authority or government, political stability, taxpayer's compliance, and unemployment rate factors. These factors need reconsiderations and firm commitments by the responsible government body (i.e., tax officials) and the business community to enhance the VAT revenue collection performance. The regressions analysis result also showed the VAT revenue collection performance which affects positive and significant with tax education, political stability, taxpayer's compliance and whereas attitudes of taxpayers towards tax authority or government and unemployment rate affect negatively and statically significant.

As per the survey, the Ethiopian Revenue Authority did not have enough training programs to VAT-registered taxpayers that are not good enough awareness on VAT proclamation and regulation. Tax authority makes educated taxpayers, intensive follow up awareness creations for taxpayers, giving training for existing ones, making forced registration for potential taxpayers, and take legal measures on non-registered taxpayers.

As per the survey, the attitudes of taxpayers have no positive attitude toward government or tax authority. So the tax authority should avoid some bureaucracy system and create good political stability in the working environment to satisfy the needs of taxpayers. Besides, the survey responses of both taxpayers and tax officials indicate that the VAT rate is high and made goods and services expensive and results in non-compliance with taxpayers. Means customers who are not willing to purchase goods and services with VAT receipt are high and their willingness of customers to buy goods and services with VAT receipt is low. It would be better to reduce the tax rate and enlarge the tax base. In line with this, the survey outcome shows the existence of market competition between registrants and non-registrants which leads to losing market share and profitability. This can be decreasing burdens those who are unable to compete in the market.

Besides, a total revenue collection from VAT is increasing from year to year, but not the meet the targets. Revenue Authority witnessed unachieved VAT Targets because of a lack of intensive follow-up. This indicates that even if the revenue collections from VAT is increasing from year to year, but not the meet the targets due to lack of intensive follow up. Finally, Since VAT is a tax on consumption, rather than all economic activity, in principle, the C-efficiency can give a more accurate measurement of VAT performance. The contribution of VAT revenue as a percentage of total government income is very high the share of VAT to GDP was increasing in the period so that depending on VAT revenue is advisable for the Ethiopian government.

Based on the result of the finding of the study, the VAT system has faced different problems when it comes to the ground. The major once are: lack of administration to control non-compliance taxpayers, lack of familiar taxpayers with VAT rules and regulation, issuance of the illegal invoice, the existence of reluctant customers to buy goods and services priced with VAT, lack of awareness of taxpayers, resistance against registrations for VAT, poor tax system, taxpayers' compliance, education, weak tax administration, weak culture of taxpayers, Constraints of skilled man power, low commitment leader and complexity of VAT law, the authority's weak follow-ups and controlling mechanisms against those taxpayers registered but doesn't use proper VAT invoices and those non-registered enterprises but have a transaction of more than or equal to the threshold level.

## 5.2 Conclusions

The main purpose of the study was to examine determinants factors of value-added tax revenue collection performance in Ethiopia the case study in Ethiopian Revenue Authority at Jimma town data obtained from sample respondents taxpayers and employees of tax official by using ordered logistic regression. The sustainable development of any nation depends on the ability of the government to generate revenue from its internal source of finance. VAT has an important role in the revenue system of the Ethiopian government. To sustain the VAT revenue role in the government's finance, it is essential to ensure that the revenue generated by this tax is raised as efficiently as possible. However, revenue generated by this tax system is not as good as expected due to weakness in the tax administration.

The researcher can conclude that the major finding of the study indicates that the VAT revenue collection performance is explained by tax education, attitudes of taxpayers towards the tax authority or government, political stability, taxpayers' compliance, and unemployment rate. The tax education, political stability, taxpayers' compliance has a positive and statistically significant relationship with VAT revenue collection performance. But attitudes of taxpayers towards the tax authority and the unemployment rate has a negative relationship with VAT collection performance and statistically significant in explaining VAT revenue collection performance. Among the independent variables, educational level taxpayers, political stability, and taxpayer compliance are the most determinant and statistically significant with VAT revenue collection performance in Jimma Town.

Taxpayers have a lack of knowledge and understanding of maintained book records, VAT rules and regulations, proclamation and they have a negative attitude towards the government or tax authority. The tax authority should be taken to narrow the gap by conducting intensified awareness creation programs and enforcement. From this finding, the majority of the respondent's consumers were not willing to buy goods and services with VAT. It can conclude that the main reason for not willing to buy goods and services with VAT by most consumers was a lack of awareness of taxpayers' VAT registration process and VAT knowledge. The tax authority and any concerned body should find a system to improve the knowledge and understanding of VAT through any aspects of giving awareness to the public.

Tax administrators have lack necessary skilled manpower, and are not well trained and are not in a position to give appropriate answers on taxpayers' requests. A good tax administration is important in improving VAT revenue collection performance by minimizing the cost of collection and by increasing the amount of revenue to be collected for the tax authority. Moreover, the results obtained can be useful for Ethiopia policymakers as they help to understand how VAT revenues in Ethiopia can be optimized.

Therefore it can be concluded as; there is enough evidence to accept the proposed hypothesis concerning tax education, political stability, taxpayer's compliance, and whereas the attitudes of taxpayers towards tax authority or government and unemployment rate explaining factors to VAT revenue collection performance in Jimma Town. In general Value added tax has a great contribution to increasing government revenues, hence the government Ethiopian Revenue Authority/office has to focus on factors that negatively affect VAT and needs to take corrective actions.

### **5.3. Recommendations**

Based on the findings of the study and the conclusions drawn the following recommendations are forwarded by the study to improve the VAT revenue collection performance.

**First,** The tax authority is advised to scale-up tax education programs to enhance taxpayers' awareness and improve the attitude of the business community which is one of the key determinants of compliance in the study area.

**Second,** The revenue authority is advised to enhance the human capital in revenue authority to address various problems identified about tax administration

**Third,** The tax revenue authority is advised to designing a mechanisms to reduce the resistance against Value Added Tax registration by taxpayers, changing culture of taxpayers, increase the capacity and efficiency of revenue office in all features to enhancing VAT administration capacity in the Town to earn high revenue from VAT revenue collection.

**Fourth,** Political stability has a positive and significant effect on VAT revenue collection performance. The tax revenue reduces bureaucracy in registration and political intervention on business firms decreases the compliance attitude of the taxpayers.



**Fifth,** Unemployment rate has a negative and significant effect on VAT revenue collection performance. Therefore, the government should create employment opportunity by expanding private industries that make firm able to produce as many goods and services.

**Finally,** There is a strong believes that well-informed taxpayer society can be considered as an important asset for the tax authority. Therefore, the authority should conduct a consistent awareness creation programs to update the business community and the society at large about the concepts, rules and regulations, advantages and uses of the Value Added Tax.

In addition to the tasks performed by the tax authority, the business communities should aware and obey of the current VAT rules and regulations, develop the culture of value-added taxpaying as a sign of modern thinking, pay attention towards the government's effort to collect revenue and they should execute their activities according to the current VAT laws as well as start to work in cooperation with the authority in fighting against those enterprises that are not registered to VAT and violating the rules and regulations of VAT.

Taking into account, the revenue collection by Ethiopian Revenue Authority in the study area, in particular, and in Ethiopia, will be improved.

#### **5.4. Direction for Future Study**

Future studies will enhance the contribution of the current paper if conducted by covering a wider study area like city administration, regional or national. From the perspective of variable, this study didn't address variables like a macroeconomic variable, demographic factor, tax factors, government expenditure share of tax and other variables that not included in this study due to researcher limited include qualitative factors like efficiency and effectiveness of the VAT administrators to enhancing revenue collection performance including variables that are insignificant in this study like Inflation rate and Economic Growth by adding more data.

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## Appendix 1: Survey Instruments for VAT Registered taxpayer (English Version)

**JIMMA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**  
**MSC PROGRAM**

This project is entitled “*Determinants of Value Added Tax Revenue Performance in Ethiopia: Ethiopian Revenue Authority*” in *Jimma Town*. The investigator is **Tolesa Fayera** who is currently an MSc (in Accounting and Finance) student at Jimma University.

The aim of this project is to determinants of Value Added Tax Revenue Performance in Ethiopia: Ethiopian Revenue Authority in Jimma Town, the investigator seeks to gather relevant information from a sample of 330 taxpayers by using semi self-administered structured questionnaire.

Participation in this project is completely voluntary; the questionnaire results will be recorded anonymously and strict confidentiality will be maintained.

For further information please contact Tolesa Fayera by the following address.

Tel.: 0922153963

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Thank you in advance for your kind cooperation!!!

### Instructions

Direction 1 please indicate

- ✓ Put (✓) mark in a box for all questions provided in each table.
- ✓ Brief explanation is needed for open ended questions.
- ✓ Semi self-administered structured questionnaire three parts

### PART 1: BACKGROUND INFORMATION

1. Gender: Male  0 Female  1

2. When did you start business?

2011/12 - present  1

2009/10-2010/11  2

2007/08-2008/09  3

Before 2007  4

3. When your business was first registered for VAT?

2003/04-2004/05  1

2005/06-2006/07  2

2007/08-2008/09  3

2008/09 on wards  4

4. Please indicate roughly the average annual turnover of your business?

Birr. 500,000 or less  1

Birr. 500,001 - Birr. 1,000,000  2

Birr. 1,000,001 - Birr. 10,000,000  3

Birr. 10,000,001 or more  4

5. What is your business activity \_\_\_\_\_

6. Your business organizations \_\_\_\_\_

7. Do you think that all of those who should get registered for VAT are registered?

Yes  1 No  2

8. If your answer to question 6 is No, what do you think is the reason behind?

1 Low awareness and lack of information

2 Selfishness

3 The Poor capacity of the government offices that deal with VAT

4 Others (explain) \_\_\_\_\_

## PART 2: INDEPENDENT VARIABLE QUESTION

**Direction 2:** Put (√) mark inside of a given space (box) of your choice

**Note:** 1= Strongly Disagree (SD), 2= Disagree (DA), 3= Not decided (ND), 4= Agree(A) and 5= Strongly Agree (SA)

9. Tax education Level of VAT payers	SD	DA	ND	A	SA
1. Do you agree with taxpayers have knowledge about books and records maintained for VAT purpose					
2. Do you agree with any training/awareness about the VAT proclamation and regulation get from authority					
3. The Authority has an adequate number of skilled manpower					
4. Do you believe that ERA had made sufficient explanation to the public regarding VAT					

<b>10. GDP (Gross domestic product)</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. Do you agree with the intention of Value Added Tax implementation in Jimma enhance revenue and encourage tax payers					
2. Do you agree with the introduction of VAT in Ethiopia is necessary by replacing the sales tax for accelerating Ethiopian economic growth?					
3. Do you agree with VAT effect on economic growth					
4. Do you agree with the VAT implementation in Ethiopia is encouraging investment, saving and work					
<b>11. Inflation rate</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. Do agree with VAT tax payers are less competition in the market than non VAT taxpayers					
2. Do agree with Consumers are not willing to buy goods and services with VAT					
3. Do agree with Uniform VAT rate affect purchasing power of consumer goods and services					
4. Do agree with the increasing price of goods and service are increase VAT revenue					
5. Do agree with Inflation rate change the consumer price Index to buy goods and services					
<b>12. The attitude of taxpayer toward government</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. Do you agree with to have a positive attitude towards the government or the tax authority?					
2. Do you agree with tax authority is highly corrupted, so I don't want to declare the correct VAT					
3. Do you agree with the level of VAT rate is high and has made goods and services expensive and results in noncompliance of taxpayers					
4. 15% single VAT rate on all items of goods and services. In my opinion single VAT rate is unfair.					
5. The existence of unregistered tax payers is creating unfair competition and making registered taxpayers' loss their market share and profitability.					
<b>13. Political system</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. Do agree with the political system/ stability in Ethiopia determine the VAT revenue					
2. Do agree with the VAT levied on your business is not reasonable					
3. Do agree with bureaucracy in registration and identification					
4. Do agree with political intervention on your business					
5. Do agree with lack of accessible information on government regulations of VAT that are relevant to your business.					



<b>14. Taxpayer's compliance</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. Do you agree with the idea that most of the VAT payers are registered voluntarily?					
2. Do you agree with the VAT refunding processes being made are on time effectively?					
3. Do you agree with the VAT assessment and collection mechanism is effective and efficient?					
4. Do you agree with rising the rate of VAT will encourage taxpayer's voluntary compliance.					
5. Do you agree with reducing the rate of VAT might encourage taxpayers voluntary compliance					
<b>15. Unemployment Rate</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. Due to fewer people are working, low earning tax revenue					
2. The percentage of the total labor force that is unemployed increase year to year but increase collection of tax revenue					
3. The government receive less tax revenue because of increase unemployment rate					
4. Do agree with tax decrease the ability to investment, save and work					
5. Do agree with the people who are both willing and able to work but do not have a job					
<b>16. VAT Revenue collection Performances</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. The percentage change of total revenues collection from VAT is increasing from year to year, but not meets the targets.					
2. Revenue Authority witnessed unachieved VAT Targets					
3. In Jimma Ethiopian Revenues Authority the VAT income is affected due to lack of intensive follow up.					

**PART 3: Dependent Variable Related Question**

17. How do you express the willingness of taxpayer to pay VAT revenue?

Low  0      Medium  1      High  2

18. Give your idea with regards to any factors which affect the revenue of VAT in Jimma town

\_\_\_\_\_

19. What are the problems you have faced while collecting/paying VAT \_\_\_\_\_

\_\_\_\_\_

20. What do you think of the alternative solutions to alleviate the problems identified?

\_\_\_\_\_

21. Would you specify any problems and complications on issues of VAT invoice, VAT filing and payment by the tax authority that needs improvement \_\_\_\_\_

\_\_\_\_\_

**Appendix 2: Survey Instruments for VAT Registered taxpayer (Amharic Version)**

**JIMMA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF ACCOUNTING AND FINANCE  
MSC PROGRAM**

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The aim of this project is to determine VAT revenue performance in the ERA in Jimma Town. To supplement the data obtained from Ethiopian Revenue Authority in Jimma town, the investigator seeks to gather relevant information from a sample of 330 taxpayers by using semi self-administered structured questionnaire.

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**መመሪያ 1:**

- ለ እያንዳንዱ ጥያቄ በተዘገጀ ሊሰጥበት የሚችል ክፍት ስፍራ (✓) ምልክት ያድርጉ
- የጽሁፍ መልስ ለማረጋገጥ የሚያስፈልጉ ጥያቄዎችን ማብራሪያ ይስጡ

1 ወንድ  0 ሴት  1

2 መቼን ጨዋታን ግዳዩ ገቡት

2011/12 -አ ሁን  1

2009/10-2010/11  2

2007/08-2008/09  3

ከ 2007 በፊት  4

3 ድረ ጅቶ መቼን ጨላ VAT የተመዘገበው

2003/04-2004/05  1

2005/06-2006/07  2

2007/08-2008/09  3

2008/09 \_ አ ሁን  4

4 ድርጅቶች በአመት የሚያገኙትን ቢስን ትነው

Birr. 500,000 በታች  1

Birr. 500,001 - Birr. 1,000,000  2

Birr. 1,000,001 - Birr. 10,000,000  3

Birr. 10,000,001 በላይ  4

5 የድርጅቶች አገልግሎት ወይም ስራ ምን ድን \_\_\_\_\_

6 ድርጅት \_\_\_\_\_

7 ወደ VAT መመዘን ብቻ ለበት በሙሉ ተመዝግቧል ብለው ያስባሉ

አዎ  1 አይደለም  2

8 ለ 6

ፍጥ ደረጃ ስራ ይደረግ ሆነ ምን ያቀምን ድንነው

1  የግንዛቤና የመረጃ ማነስ

2  ስራ ማውደድ

3  ከ VAT ጋር የሚገናኝ የመንግስት ተቋማት የአቅም ማነስ

4  ሌላ \_\_\_\_\_

**መመሪያ 2: ለእያንዳንዱ ደብዳቤ ተዘጋጅተው (✓) ምልክት ያሳዩ**

**ማሳሰቢያ: 1=በጭራሽ አልፎ ማመንገስ 2=አልፎ ማመንገስ 3=ናጸ 4=እስከ ማመንገስ ሁሉ 5=በደንብ እስከ ማመንገስ**

9. የግብር ከፋይ የትምህርት ሁኔታ	1	2	3	4	5
1. የግብር ከፋይ ወቅት የሂሳብ መዘገግ ብቻ ያደገውን ማረጋገጫ አላቸው					
2. ስለ VAT አዋጅና ደንብ ስልጠና ከሚሰጡት ተውላኝ አልወሰዱም					
3. የታክ ስብሰባ ስልጠና ተቋም ተማሪ ሃይል አለው					
4. የገቢዎች ባለስልጣን ስለ VAT በቂ ማብራሪያ ለህዝብ ይሰጣሉ					
10. GDP	1	2	3	4	5
1. በጅምር ተማሪ VAT አላማክረዱም መግብር ከፋይ ወቅት የሚከተሉትን ገቢን የሚጠቀሙ ናቸው					
2. በኢትዮጵያ የ VAT የሽያጭ ጭነትን ተክቶ መጀመር የሚያስፈልገውን ማረጋገጫ ይጠቀሙ					
3. VAT የሚከተሉትን ማረጋገጫ ማለፍ ለሚያስፈልገው ሰነድ ስብሰባ ይሰጣሉ					
4. በኢትዮጵያ የ VAT አላማክረዱም ምላሽ ስለሰጡት ማረጋገጫ ለሚያስፈልገው ሰነድ					
11. የዋጋ ግሽበት	1	2	3	4	5
1. የ VAT ተመዝጋቢዎች ከልተመዘገቡ ጉዳት ለሆኑት አንዳንድ ዝቅተኛ ተወዳዳሪነት አላቸው					
2. ተጠቃሚዎች ከ VAT ጋር መግዛትና መጠቀም አይፈልጉም					
3. ተመሳሳይ የ VAT መጠን የተጠቃሚዎችን መግዛትና መጠቀም አይቆይም					
4. የእቃና የአገልግሎት ዋጋ መጨመር የ VAT ገቢ እንዲጨምር ያደርጋል					
5. የዋጋ ግሽበት መጠን የተጠቃሚዎችን የመግዛት እና መጠቀም አይቆይም					
12. የግብር ከፋይ ስለመንግስት ግብር ያለው አማካኝነት	1	2	3	4	5
1. የግብር ከፋይ ስለመንግስት ግብር ጥሩ አማካኝነት አለው?					
2. የገቢዎች ባለስልጣን በመንግስት ግብር ላይ መከናወን ይፋ ጽሑፍ ስለሆነ ህዝብ ስለሚያውቅ የ VAT መጠን አያሳውቅም					
3. የ VAT					

መጠን ከፍተኛ ከ መሆኑ አንጻር የ እቃና የ አገልግሎት ዋጋ ጭማሪ ያሳያል ስለዚህ ከ ግብር ከፋይ ዎች ጋር አለ መስማማት ይፈጠራል					
4. 15% የ VAT መጠን ለ ሁሉም እቃና አገልግሎት መሆኑን ተመጣጣኝ አይደለም					
5. ያልተመዘገቡ ግብር ከፋይ ዎች መኖራቸውን ተመጣጣኝ ያልሆነው ድድር እንዲኖርና የተመዘገቡ ግብር ከፋይ ዎች ላይ የገበያ እጦትና ትርፋማነታቸውን ይቀንሳል					
<b>13. ፖለቲካ</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. በኢትዮጵያ የፖለቲካ መረጋጋት የ VAT ገቢን ይወስናል					
2. በድርጅት ዋላይ የተጣለው የ VAT መጠን ትክክለኛና ተመጣጣኝነው					
3. የመላየትና የመመዘን ብሂደት ላይ ቢኖር ሲሆን አለበት					
4. በድርጅት ዋላይ የፖለቲካ ጣልቃገብነት አለ					
5. ስለመንግስት የ VAT ደንብ መረጃ ተደራሽነት እጦት ከድረጅቶች ጋር ይገናኛል					
<b>14. የ ግብር ከፋይ ዎች ፊቃደኝነት</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. አብዛኛው የ ግብር ከፋይ ዎች በፊላህ ታችው የተመዘገቡ ግብር ናቸው					
2. የ VAT መልስ መክፈል ሂደት በትክክለኛው ሁኔታ እና ተካሄደው					
3. የ VAT መጣራትና መሰብሰብ ደብዳቤ መክፈል እና ተመጣጣኝነው					
<b>15. የ ስራ አጥነት መጠን</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. የ ሰራተኛ ቁጥር ማን ስለሆነ ግብር ገቢን ይቀንሳል					
2. ከአጠቃላይ የ ሰራተኛ አቅም ውስጥ የ ስራ አጥመጠን ከአመት ወደ አመት ቢጨምር ምን ግብር ገቢ አሰባሰብ ጠቅላይነት ይኖራል					
3. ማን ስለሆነ የግብር ገቢ እንዲያገኝ ያደረገው የ ስራ አጥመጠን መጨመር ነው					
4. ግብር የ እንሸስት መንገድን፡ የ ቁጠባንና የ ስራ አቅምን ይቀንሳል					
5. የ መስራት አቅም እና ፊላህ ትኖሮዎቻቸውን ስራ የሌላቸው ሰዎች አሉ					

<b>16. የ VAT አሰባሰብ ጥያቄ</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. የ አጠቃላይ የ VAT ገቢ ስብስብ ከአመት ወደ አመት እየጨመረ ነው ማን አላማኒን አላሳካም					
2. የ ገቢ ዎች ባለስልጣን መስጠት የ VAT አላማን እንዳይሳካ ያደርጋል					
3. በጂማዩ ኢትዮጵያ ገቢ ዎች ባለስልጣን በክትትል ማና ስምክን ያት የ VAT ገቢ ይጎዳል					

**PART 3: Dependent variable related question**

17. የ ግብር ከፋይ ዎችን ፊቃደኝነት እንዲታይ ገልጻሉ  
 ዝቅተኛ                      0                      መካከለኛ                      1                      ከፊተኛ                      2
18. የ ጅማ ከተማ የ VAT ገቢን የሚወስኑ ነገሮች ላይ ሀሳብ ይስጡ  
 \_\_\_\_\_
19. የ VAT አሰባሰብ ላይ ምን ዓይነት ጥቃቶች ግድቅን ያደርጋሉ  
 \_\_\_\_\_
20. እነዚህን ጥያቄዎች ለመቅረፍ የሚያስፈልጉ ሰነዶች ሆኑ \_\_\_\_\_  
 \_\_\_\_\_
21. ከ VAT ደርሰኝ፡ ከ VAT መመላትና ክፍያ ጋር የሚገናኙ ችግሮችን በመለየት እንዲሻሻል ከገቢ ዎች ባለስልጣን ላይ ምን ይጠበቃል  
 \_\_\_\_\_

## Appendix 3: Survey Instruments for Tax officials (English Version)

**JIMMA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**  
**MSC PROGRAM**

This project is entitled “*Determinants of Value Added Tax Revenue Performance* Ethiopian Revenue Authority” in **Jimma Town**. The investigator is Tolesa Fayera who is currently an MSc in Accounting and Finance student at Jimma University.

The aim of this thesis is to examine determinants of VAT revenue performance collection problems in the case of ERA in Jimma Town. To supplement the data obtained from Ethiopian Revenue Authority in Jimma town, the investigator seeks to gather relevant information from a sample of 105 tax officials (auditors, collection, reporting, inspectors, and others) by means of semi self-administered structured questionnaire.

Participation in this project is completely voluntary; the questionnaire results will be recorded anonymously and strict confidentiality will be maintained. For further information please contact Tolesa Fayera by the following address.

Tel.: 0922153963

E-mail: [tolesafayera91@mail.com](mailto:tolesafayera91@mail.com)

Thank you in advance for your kind cooperation!!!

### **Instructions**

**Direction 1:** Please indicate

- ✓ Put (✓) Mark on the box for all questions provided in each table.
- ✓ Brief explanation is needed for open-ended questions.
- ✓ Semi-structured QUESTION has THREE parts

### **PART 1: Population Demography**

1. Gender

Male  1

Female  2

2. Your age

- 20- 30             1
- 31- 40             2
- 41- 50             3
- Above 51          4

3. What is your highest level of education?

- Below Diploma             1
- TVET College/certificate    2
- Diploma                       3
- Bachelor Degree (BSc/ BA)  4
- Master (MSc/ MA)          5
- PhD                             6

4. Name of your department

- 1 Assessment and follow-up
- 2 Auditing and inspection
- 3 Collection and reporting
- 4 Other, please specify \_\_\_\_\_

**PART 2: VAT registration and identification for tax payers**

5. Are there taxpayers that are required to register for VAT but did not do so?

---

---

6. What are the approaches that the ERA follows in increasing the awareness of tax payers about the VAT registration process?

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### PART 3: VAT Administration Problems and Challenges Potential Authority

**Direction 2:** Put (√) mark inside of a given space (box) of your choice

**Note:** 1= Strongly Disagree (SD), 2= Disagree (DA), 3= Not decided (ND), 4= Agree (A) and 5= Strongly Agree (SA)

<b>7. Tax Administration</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. Tax administrations are strong enough to control non-registered and illegal activities of Value Added taxpayers					
2. Value Added Tax registered business enterprises that have collected the tax with illegal invoices					
3. All those who should get registered for Value Added Tax are registered					
4. Had all those who should get registered for Value Added Tax been registered, the income of the branch office would be increase?					
5. Fairness of the threshold of Value Added Tax 1,000,000					
<b>8. Compliance to VAT rule and regulation, the tax authority potential and VAT administration concern</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. VAT rate has no effect on VAT Compliance					
2. Raising the rate of VAT will encourage taxpayer's voluntary compliance.					
3. Reducing the rate of VAT might encourage taxpayers voluntary compliance					
4. The reporting period for VAT filling and payment is enough for the taxpayers					
5. The VAT rate is high and has made goods and services expensive and results in making taxpayers' noncompliance.					
6. Some VAT registered business enterprise collect tax with an illegal invoice					
<b>9. Strength of the tax authority to control non-complaint taxpayers and achieving its objective</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. All tax officials and other staff members are competent enough to handle the duties assigned to them.					
2. There is in general shortage of resources and infrastructural facilities to enhance tax law enforcement.					
3. Training provided to employees and career development plan at different levels and in different departments is sufficient in promoting the capacity of tax officials					
4. The organization provides appropriate incentives and awards to the best performing tax officials especially those who have done the best in deterring noncompliance.					
<b>10. Problems and Prospects of Implementing Value added tax</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. The process of Value Added Tax registration is easy for taxpayers.					
2. Most of the Value Added taxpayers are registered obligatorily					
3. Value Added Tax declaration process is easy					
4. There are customers who are not willing to purchase goods and services with					

Value Added Tax.					
<b>11. The Problems of Value Added Tax Administration and Improved</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. The problems in the Value Added Tax administration that needs to be improved.					
2. Ethiopian tax laws to encourage VAT collection properly					
3. The Value Added Tax assessment and collection mechanism is efficient					
4. Auditors, inspectors and prosecutors have the required skill and experience to detect and handle tax offenses by taxpayers.					
5. The tax authority provides appropriate incentives and awards to the best performing tax officials specially those who have done the best in deterring non-compliance.					

<b>12. VAT Revenue collection Performances</b>	<b>SD</b>	<b>DA</b>	<b>ND</b>	<b>A</b>	<b>SA</b>
1. The percentage change of total revenues collection from VAT is increasing from year to year, but not meets the targets.					
2. Revenue Authority witnessed unachieved VAT Targets					
3. In Jimma Branch of Ethiopian Revenues Authority the VAT income is affected due to lack of intensive follow up.					

13. Give your idea with regards to any factors which affect the revenue of VAT in Jimma town

\_\_\_\_\_

\_\_\_\_\_

14. What are the problems you have faced while collecting/paying VAT

\_\_\_\_\_

\_\_\_\_\_

15. What do you think of the alternative solutions to alleviate the problems identified?

\_\_\_\_\_

\_\_\_\_\_

16. Would you specify any problems and complications on issues of VAT invoice, VAT filing and payment by the tax authority that needs improvement \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



#### **Appendix 4: Reliability and Validity Test**

According to Bryma and Bell (2003), the Cronbach's Alpha result of 0.7 and above implies acceptable level of internal reliability. To meet consistency reliability of the test, the questionnaires was distributed to 330 individuals who are VAT registered taxpayers in Jimma Town and Cronbach's alpha was found to be 0.734 which is above 0.7.

<b>Reliability Statistics</b>	
<b>Cronbach's Alpha</b>	<b>N of Items</b>
<b>.734</b>	<b>33</b>

**Source: Survey result, 2020 and SPSS output**

## Appendix 5: Regression Output

ologit VATRP TAXEDU GDP INFR ATTA POS TPCOMP UNEMPR

Iteration 0: log likelihood = -347.35982

Iteration 1: log likelihood = -316.97101

Iteration 2: log likelihood = -316.5845

Iteration 3: log likelihood = -316.58405

Iteration 4: log likelihood = -316.58405

Ordered logistic regression	Number of obs	=	328
	LR chi2(7)	=	61.55
	Prob> chi2	=	0.0000
Log likelihood = -316.58405	Pseudo R2	=	0.0886

VATRP	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
TAXEDU	.5749858	.2116545	2.72	0.007	.1601507	.9898209
GDP	.2870561	.2500046	1.15	0.251	-.202944	.7770562
INFR	-.0295079	.2592918	-0.11	0.909	-.5377105	.4786947
ATTA	-.5831636	.1861225	-3.13	0.002	-.9479569	-.2183703
POS	.6893954	.2192336	3.14	0.002	.2597056	1.119085
TPCOMP	.5655837	.2118951	2.67	0.008	.1502768	.9808905
UNEMPR	-.5550532	.2230225	-2.49	0.013	-.9921692	-.1179371

/cut1	2.477034	1.216494		.0927493	4.861318
/cut2	4.289632	1.234812		1.869445	6.70982



Conditional marginal effects

Number of obs = 328

Model VCE : OIM

Delta-method

	dy/dx	Std. Err.	z	P> z	[95% Conf. Interval]	
TAXEDU	.0583451	.0242402	2.41	0.016	.0108353	.105855
GDP	.0291282	.0258569	1.13	0.260	-.0215503	.0798068
INFR	-.0029942	.0262923	-0.11	0.909	-.0545262	.0485377
ATTA	-.059175	.022412	-2.64	0.008	-.1031016	-.0152483
POS	.0699546	.0258773	2.70	0.007	.019236	.1206731
TPCOMP	.0573911	.0240785	2.38	0.017	.0101981	.1045841
UNEMPR	-.0563225	.0247906	-2.27	0.023	-.1049112	-.0077339

#### Goodness-of-Fit

	Chi-Square	Df	Sig.
Pearson	709.661	271	.000
Deviance	633.168	271	.000

Link function: Logit.

#### Test of Parallel Lines<sup>a</sup>

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Null Hypothesis	633.168			
General	602.124 <sup>b</sup>	31.044 <sup>c</sup>	7	.000

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

- a. Link function: Logit.
- b. The log-likelihood value cannot be further increased after maximum number of step-halving.
- c. The Chi-Square statistic is computed based on the log-likelihood value of the last iteration of the general model. Validity of the test is uncertain.

**Parameter Estimates**

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			
			Lower	Upper	Wald Chi-Square	df	Sig.	
Threshold	[VATRP=0]	2.477	1.2165	0.093	4.861	4.146	1	0.042
	[VATRP=1]	4.29	1.2348	1.869	6.71	12.068	1	0.001
TAXEDU	0.575	0.2117	0.16	0.99	7.38	1	0.007	
GDP	0.287	0.25	-0.203	0.777	1.318	1	0.251	
INR	-0.03	0.2593	-0.538	0.479	0.013	1	0.909	
ATTA	-0.583	0.1861	-0.948	-0.218	9.817	1	0.002	
POS	0.689	0.2192	0.26	1.119	9.888	1	0.002	
TPCOMP	0.566	0.2119	0.15	0.981	7.124	1	0.008	
UNEMP	-0.555	0.223	-0.992	-0.118	6.194	1	0.013	
(Scale)	1 <sup>a</sup>							

Dependent Variable: VAT revenue collection performance

Model: (Threshold), TAXEDU, GDPPC, INR, ATTA, POS, TPCOMP, UNEMP

a. Fixed at the displayed value.