

# ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

# DETERMINING THE FACTORS THAT CAUSES TAX EVASION IN ADDIS ABABA CITY REVENUE AUTHORITY: THE CASE OF GULELE SUB CITY CATEGORY "A" AND "B" TAXPAYERS BRANCH OFFICE

BY

## TEWODROS SEYOUM SGS/0526/2011A

AUGUST 2020 ADDIS ABABA, ETHIOPIA

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> AUGUST 2020 ADDIS ABABA, ETHIOPIA

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## DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Dejene Mamo (Ph.D.). All source of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name

Signature

St. Mary's University, Addis Ababa

August ,2020

## **ENDORSEMENT**

This thesis has been submitted to St. Mary's University, school of Graduate Studies for examination with my approval as a university advisor.

Research Advisor:

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August ,2020

Declarat	ioniv
Endorse	mentv
Acknow	ledgement viii
List of A	bbreviation and Acronymsix
List of ta	blesx
List of fi	guresxi
Abstra	xii
Cha	apter One: Introduction1
1.1	Background of the study1
1.2	Background of the study setting4
1.3	Statement of the Problem
1.4	Research hypotheses
1.5	Objective of the study9
	1.5.1 General Objective
	1.5.2 Specific Objectives
1.6	Significance of the study10
1.7	Scope of the study10
1.8	Limitation of the study11
1.9	Organization of the paper11
Cha	apter Two: Review of related Literature12
2.1	Chapter overview
2.2	Theoretical Literature Review
2.3	Empirical Literature Review
2.4	Summary and Knowledge Gap25
2.5	Conceptual framework

## Table of content

Chapter Three: Research design and Methodology2			
3.1	Chapter Overview	27	
3.2	Research site or location description	27	
3.3	Research Design	27	
3.4	Research Approach	27	
3.5	Population, sample, sample size and sampling techniques	30	
3.6	Type of data and data collection tools and method	30	
3.7	Data analysis techniques	30	
3.8	Validity and reliability of the instrument	31	
3.9	Ethical Consideration in the study	31	
Cha	pter Four: Results and Discussion	32	
4.1	Introduction	32	
4.2	Profile of Respondents	32	
4.3	Study results from the collected data for determinants of tax evasion	36	
4.4	Inferential statistics results for the study of determinants of tax evasion.	47	
Cha	pter Five: Summary, Conclusion and Recommendation	57	
5.1	Summary	57	
5.2	Conclusion	59	
5.3	Recommendation	60	
Refe	References		
App	endixes	67	

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## List of Abbreviation's and Acronyms

ATE	Attitude of Tax Evasion
BLUE	Best Linear Unbiased Estimator
CTS	Complexity of Tax System
EDUC	Education
ERCA	Ethiopian Revenue and Customs Authority
GEN	Gender
GDP	Gross Domestic Product
GoE	Government of Ethiopia
IL	Income Level
IMF	International Monetary Fund
IRS	Internal Revenue Service
LTO	Large Tax Office
MoFED	Ministry of Finance and Economic Development
OLS	Ordinary Least Square
PD	Probability of Detection
PITE	Peer Influence of Tax Evasion
PR	Penalty Rate
PRG	Perceived Roll of Government
SPSS	Statistical Package for Social Science
TCMP	Taxpayers Compliance Measurement Program
TE	Tax Evasion
TIN	Tax Identification Number
TR	Tax Rate
UNDP	United Nation Development Program
VAT	Value-Added Tax

## List of tables

Table 4.2. 1: Age of Respondents for the tax evasion study in Gulele sub city, A. A
Table 4.2. 2: Summary of respondents Educational Level, Position in the organization, year of
experience and nature of businesses for the tax evasion study in Gulele sub city, A. A
Table 4.3. 1: Effects of tax evasion on resource accumulation, public service and government debt inGulele sub city, A. A
Table 4.3. 2: Impacts of tax rate on tax evasion in Gulele sub city, A. A
Table 4.3. 3: Impacts of income levels of taxpayers on tax evasion at Gulele sub city, A. A
Table 4.3. 4: Impacts of probability of detection and capacity of investigation of all income reportson tax evasion in Gulele sub city, A. A
Table 4.3. 5: Effects of penalty, good legal enforcement, and awareness creation on
tax evasion in Gulele sub city, A. A
Table 4.3. 6: Impacts of complexity of tax law and its administration system on tax evasion
in Gulele sub city, A. A
Table 4.3. 7: Impacts of perceived role of Government on the use of tax revenue to public
service on tax evasion in Gulele sub city, A. A
Table 4.3. 8: Impacts of taxpayer's attitude to government program on tax evasion
in Gulele sub city, A. A
Table 4.3. 9: Impacts of peer influence on tax evasion in Gulele sub city, A. A
Table 4.3. 10: Impacts of age of taxpayers on tax evasion in Gulele sub city, A. A 46
Table 4.3. 11: Effects of gender of taxpayers on tax evasion in Gulele sub city, A. A
Table 4.3. 12: Impacts of education and awareness creation on tax evasion in Gulele sub city,A. A
Table 4.4. 1: Regression results of various factors on their effect on tax evasion in Guele
sub city, A. A
Table 4.4.2: Summary of hypotheses result on the study of tax evasion in Gulele sub city, A.A

# List of figures

Figure 2. 1: Conceptual Framework on tax evasion study	.26
Figure 4.2. 1: Gender proportion of respondents for the tax evasion study in Gulele sub sity	
A. A	.30
Figure 4.2. 2: Marital Status of respondents for the tax evasion study in Gulele sub city	
A. A	.34
Figure 4.4. 1: Durban-Watson Test rejection and non-rejection area	.54
Figure 4.4. 2: Normality test for residual test on tax evasion study in Gulele sub city	
A. A	.58

#### Abstract

Tax administration in Ethiopia, like other developing countries, is characterized by low tax compliance level. This has been resulted in a reduction of revenue yields and public services. The overall objective of this study was to identify determinants of tax evasion. The study was conducted using a formal survey in which a total of Out of 456 questionnaires were distributed to randomly selected category "A" and "B" taxpayers in two strata in a 7,671 study population from the distributed questionnaires 361 were returned. The primary data was collected through structured questionnaire from category "A" and "B" taxpayer of Addis Ababa City revenue authority, Gulele Sub city Branch Office. Secondary data such as, branch office report also used for the study. The collected raw data was analyzed using descriptive and inferential statistics. The regression analysis showed that tax rate, income level, probability of detection, penalty rate, complexity of tax system, perceived role of government, peer influence on tax evasion, age, gender and education factors are statistically significantly affected. The research also suggested that efforts to be made by branch office with regard to revisit the perceived high tax rates, engage in national campaign to raise awareness and increase knowledge about the benefits of voluntary compliance, enhance the percentage of audit coverage of taxpayers, penalize defaulters, simplify tax laws, close tax law loopholes, and, train tax examiners.

Key words: tax avoidance, tax compliance, public service, and taxpayers.

## **CHAPTER ONE**

## **INTRODUCTION**

This research handles issues concerning determining the factors that causes tax evasion in Addis Ababa city revenue authority: the case of Gulele sub city category "A" and "B" taxpayers branch office. This chapter presents information on background of the study, statement of the problem, research question, objective of the study, Significant and scope of the study, limitation of the study and organization of the paper.

### **1.1 Background of the study**

Much of the failure to finance public spending – particularly spending on health, education and infrastructure are due to the failure of Government to raise adequate tax revenue (Cullis, J., Jones, P. and Lewis, A., 2006). There is no doubt that revenue due in any government will be reduced by the unpatriotic act of tax evaders thereby affecting economic growth (Adebisi, J. F, and Gbegi, D.O. 2013). Literature in accounting and finance has argued that there is drastic reduction in states budget all over the world because of the practice of tax evasion by economic agents (Muhrtala, T. and, Ogundeji, M. 2013).

Taxation is a branch of public law. As important sources of public revenue, taxes are very important part of the daily functioning of a government. According to Bhatia (1996) tax is a financial charge or other levy imposed on an individual or a legal entity by government. Taxes are important sources of public revenue. Public goods and services are normally subject to collective consumption, thus requiring that we put some of what we earn into government hands.

The provision of public services offers a rationale for taxation (Chen, 2003). Unable to collect enough taxes to cover public spending prevents the government's ability to provide necessary services important to the welfare of the society. Tax evasion and avoidance is a universal phenomenon that takes place in all societies and economic systems including both developed and developing countries (Chau and Leung, 2009). Tax evasion and avoidance are the two best known ways that influence government spending for public goods and services but, it should be distinguished tax evasion from tax avoidance, which consists in trying to reduce one's taxable income by exploiting the tax law while staying inside its boundaries.

Even though it's helpful to provide conventional definition of tax evasion, as the concept more of relies on the tax laws that regulate it, which is territorial and jurisdictional by nature, providing universal definition at the outset remains a challenge. However, based on definitions given to the term in different legal systems if not universal, one can come up with comprehended definitions of the term. To come up with few, the United States Revenue Service Sector (IRC), defines *tax evasion* under section 7201, - "*as willful attempts in any manner to evade or defeat any tax or the payment thereof*".

The definition given above by IRC clearly depict any intentional attempt to defeat assessment of true tax liabilities which in turn end in tax Deficiency (evasion of assessment) and non-payment of tax due and owing (evasion of payment) as tax evasion. Among others a comprehensive definition of tax evasion was given by Canadian department of national revenues as: "The commission or omission of an act knowingly with intent to deceive so that the tax reported the taxpayer is less than the tax payable under the law or an omission of revenue, fraudulent claiming of expenses or allowances and the deliberate misrepresentation, concealment or with holding of material facts." According to the Canadian revenue department, tax evasion is intentional deceitful act/omission to reduce tax payable under the law and conspiracy to the effect. Likewise, the definition comprises essentials of tax evasion such as existence of affirmative act/omission that ends in tax deficiency or under reporting of the tax less than the tax payable under the tax and conspirate the tax payable under the tax hav.

In general, tax evasion simply refers to intentional effort by people, corporate body, trust and other institutions to illicitly refuse to pay their tax and reporting true and fair value of their earnings by means of evading (Wondiye, 2017). Ian and Veerinderjeet (1995) noted that, tax evasion includes acts in flouting of the law where by persons pay a lesser amount of tax than they would otherwise be bound to pay by concealment of all or part of their legitimate or illegal economic activities from the tax authorities." Tax avoidance on the other hand is used to describe acts in line with the law but not with in its sprits whereby persons pay less tax than they would otherwise be bound to pay (Tracey, 2009).

Tax evasion refers to illegal actions by households or firms to reduce tax liability. The practice of tax evasion is harmful in several respects. Firstly, it deprives society of the resources needed to finance collective goods and welfare programs. Secondly, it generates efficiency costs, Thirdly and lastly, it contributes to the unpopularity of the tax system, as those who do not evade taxation may develop the perception that only the little people pay taxes (Joseph, Guttentag and Reuven Avi-Yonah, 2005)

According to Fagariba (2016) tax evasion is a deliberate refusal of a taxpayer towards his/her tax obligation. Evasion is, thus, an intentional and purposeful violation of the tax law through hiding the source and the amount of income with the intent of paying less. Developing countries lose \$ 285 billion every year due to tax avoidance and evasion (Cobham, 2005).

Tax evasion have had an impact on public services and the accumulation of capital that influences yield and economic growth. Fjeldstad & Tungodden (2001) noted that half or more of the taxes that should be collected cannot be traced by the government treasuries due to corruption and tax evasion. Karlinsky S., Burton H., & Blanthorne C., (2004) indicated that perception of tax evasion as a non-serious crime has led to an environment where taxpayers may not be afraid of evading tax.

Hence, Chiumya, C. (2006) noted the need of taxpayers' tax evasion perception in one country that curbing tax evasion is one of the most complex activities in tax administration since tax evasion takes many forms and facets. In another study by Gomez Sabaini and Moran for ECLAC (2016), it was concluded that, tax evasion has been and continues to be one of the main obstacles affecting public finances of the countries.

As Harun J R., Abu Bakar J M., and Tahir M I. (2011) indicated, taxpayers' perception of tax evasion is different among countries. Cultural differences are one of the factors that affect an individual moral decision making or influence their perception regarding ethics on tax evasion. As a result, one end of spectrum, a few studies concluded tax evasion is never justified. On the other hand of spectrum, several studies concluded that tax evasion could be ethical in certain situation (Sezgin, S., Yldz, S., Ayyildiz, Y., 2011).

It is very important for every country to be aware of the causes for tax evasion since it is the only way to find a strategy for combatting it. The issue is extremely complex, but undoubtedly, it is an exercise, which all countries must undertake. It is important to point out that the causes vary from one country to another and even, within the same country through time and moments of its history.

### 1.2 Background of the study setting

Even though it was very difficult to get reliable documentary evidence as to when exactly taxation was introduced, it is believed that history of Ethiopian taxation comes together with the establishment of the government. Taxation was a source of government revenue from early Aksumite Kingdom in Ethiopia around 500AD (Misrak, 2008).

In most developing countries, like Ethiopia, the revenue generated by the government is quite less than the expenditures spent. The country's tax mobilization was also the lowest among most African countries and thus, identifying the factors that determine tax compliance behavior has been open for empirical investigation (Tilahun A. and Yidersal D., 2014). The fact is that, as it is for most developing countries, the Ethiopian government revenues yield from tax is low. This "low income" yield can only be credited to the extent that tax provisions are not properly authorized due to the failure of taxpayers to organize and fail to comply (Solomon, 2017). Hence, although taxpayers' tax evasion is a continual and growing global problem (McKerchar, M. & C. Evans 2009) studies suggest that developing countries, many of them in Sub-Saharan Africa, are the hardest hit (Ali M, Fjeldstad O and Sjursen H I. 2013).

Any government's priority is the generation of revenue money by means of which it can procure such services and goods necessary for the performance of its functions. (Ethiopian Chamber of Commerce and Ethiopian Business Development Services network, 2005). According to Ministry of Finance and Economic Cooperation ensuring macroeconomic stability for sustainable economic growth through financing expenditures mainly from tax revenues as one of the fiscal objectives (MoFED, 2016). Apart from its extant condemnation by modern governments, one can strongly argue that tax evasion remains persistent challenge from the very inception of state. Nowadays, following the advancement of public finance, the concept of tax

evasion get emphasis by tax scholars. It is now condemned and categorized as anti-social behaviors as well as criminal act.

Scholar's such as Fakile and Adegibie (2011) classifies tax evasion as full and partial evasion. Partial evasion occurs when individual or corporate entity understated its earnings for the purpose of tax and declares low income. Whereas full evading occurs when person or corporate entity qualified to pay tax fails to register with tax authority to enroll in the tax system.

Under Ethiopian tax laws, even though, tax protest has longevity which goes back to imperial regime, tax evasion in its contemporary mannerism was first introduced in the year 1994, which comes with well advanced income tax proclamations 285/94 and value-added proclamation 286/94. Ethiopian Income tax proc. no.286/94 was among the first laws that introduce the concept of tax evasions with its contemporary development. Section 9, art 96 of the proclamation comes with definition of the term. Accordingly, "A taxpayer who evades the declaration or payment of tax commits an offense and, in addition to the penalty for the understatement of income referred to in Article 86, may be prosecuted and, on conviction, be subject to imprisonment for a term of not less than five (5) years"

The most common attempt to evade or defeat a tax is the affirmative act of filing a false return that omits income and/or claims deductions to which the taxpayer is not entitled (Wondiye, B., 2017). The Ministry of Revenue, formerly known as Ethiopian Revenue and Customs Authority, are responsible for overseeing the various reforms and collecting taxes and customs duties among other things. Ethiopian revenue and customs authority (Current name "Ministry of Revenues") were reestablished in 2008 (by proclamation number 587/2008) through the merger of the former Ministry of Revenues, Federal Inland Revenue Authority, and the Ethiopian Customs Authority. The formation of Ethiopian revenue and customs authority signals the Ethiopian government's commitment to establishing a modern tax and customs administration system. Previously, Gulele Sub City Small Taxpayers Revenue and Customs Office established as a branch office of the authority following the above proclamation but, now it is administered by Addis Ababa city government revenue authority.

#### **1.3 Statement of the problem**

Tax evasion have been a general and persistent problem throughout history with serious economic consequences. In general, tax evasion and corruption can have ambiguous effects on economic growth: tax evasion increases the amount of resources accumulated by entrepreneurs, but it also reduces the amount of public services supplied by the government, thus leading to negative consequences for economic growth (Roy and Raffaella, 2011).

As Hudson (2002) stated that tax evasion is the source of a potentially serious loss of revenue to governments, resulting in the possible underfunding of public service and an 'unfair' burden on frank taxpayers. Study show that, developing countries lose \$ 285 billion per year due to tax evasion as far as the domestic shadow economy is concerned (Cobham, 2005). Therefore, Chau and Leung (2009) stated that, this concern is particularly severe for developing countries given the rapid growth of investment in their economies and their lack of adequate experience in dealing with this problem. Tax evasion and avoidance can cause a fiscal deficit or aggravate an existing deficit and force government to decrease expenditure, increase tax rates or initiate new rates. Sometimes government is often tempted to borrow funds to bridge the tax 'gap'.

As Addisu (2011) stated in his study, the tax administration lacks the institutional capacity to handle modern operational and enforcement practices to deliver efficient and quality service. That is why the problem of tax evasion is increasing time to time. As Mansan (1988) stated, the common practices of tax evasion include: under-reporting of income, over-statement of expenses, non-recording of sales, and others. This also supported by Slemrod and Yitzhaki (2000) in which tax evasion refers to an illegal reduction of tax payments such as underreporting income or by stating higher deduction-rates.

Based on the report of MoFED (2016) tax to GDP ratio in Ethiopia is 13.3% which is one of the lowest in Sub-Saharan Africa. Despite the fact that, the tax to GDP ratio is declining in 2018, as noted with the document of UNDP (cited from IMF, 2018) Ethiopia is also "losing 6 percent of its GDP every year in the form of illicit outflows". The implication is that to improve the tax revenue-to-GDP ratio, there is a need for additional efforts that would improve the taxpayers' compliance. Part of this effort is to reduce tax evasion and to this end studying "Determining of the factors that causes tax evasion" is crucial, which in turn justifies this kind of study.

A study directed by Worku (2016) on the assessment of tax evasion the case of Lideta sub city small taxpayers branch office by using descriptive research method and the results showed that, majority of the respondents pay tax due to fear of punishment and believe tax law should be respected. There was also an indication that taxpayers in the branch office can evade tax regardless of the strength of the tax law.

A study conducted by Endashaw (2019) on the determinants of tax evasion in Addis Ababa administration city the case of Bole sub city category "A" taxpayers by using both descriptive and inferential methods and the results indicated that, the tax being levied is not fair and equitable, awareness is a corner stone for enhanced voluntary compliance, legal enforcement, and penalties by itself cannot ensure voluntary tax compliance behavior. The research also showed that attitude and peer influence have a positive effect on tax evasion.

Due to the problem of tax avoidance and evasion is inherent in all tax systems, tax compliance is growing international concerns for tax authorities and public policy makers as tax evasion seriously threatens the capacity of government to raise public revenue (Chau and Leung, 2009). Recently, W/o Adanech Abebe, who is the former minister of ministry of revenue, has been announced list of business owners who has evaded their income. Ethiopian ministry of revenue announced that Ethiopia has lost 14 billion birr in tax evasion in which 135 companies involved and the minister office will follow the case by the court (Source: Walta Television, Feb 27, 2019 G.C). There is also complain from taxpayers about the tax system and its administration which is providing by the tax revenue office that lead them to minimize their income as well as overstating their expenses. Off course, there is a study that has been conducted determinants of factors that causes tax evasion in category "A" taxpayers but, the researcher could not find a study that has been conducted determinants of factors that causes tax evasion in category "A" and "B" taxpayers. In view of this, therefore, the study is interested to undertake on the subject determining the factors that causes tax evasion in Addis Ababa city revenue authority category "A" and "B" taxpayers, with special reference to Gulele sub city branch office.

## **1.4 Research Hypotheses**

This study has been expected to give result to the following hypotheses.

• **H0**<sub>1</sub>: Higher tax rate encourages tax evasion positively but insignificantly.

HA1: Higher tax rate encourages tax evasion positively and significantly

• H0<sub>2</sub>: Income level has a positive but insignificant relationship with tax evasion.

HA2: Income level has a positive and significant relationship with tax evasion.

• **H03**: Lower probability of detection through audit encourages tax evasion and have a positive but insignificant effect.

**HA**<sub>3</sub>: Lower probability of detection through audit encourages tax evasion and have a positive significant effect.

- H04: Lower penalty rate have insignificant positive correlation with tax evasion.
   HA4: Lower penalty rate have significant positive correlation with tax evasion.
- H05: The complexity of the tax system has insignificantly positive effect on tax evasion.
   HA5: The complexity of the tax system significantly and having positive effect on tax evasion.
- **H06**: Low perceived role of government's influence on taxpayers' compliance but insignificantly having a positive encouragement in tax evasion.

**HA**<sub>6</sub>: Low perceived role of government's influence on taxpayers' compliance and significantly having a positive encouragement in tax evasion.

• H07: Tax attitude and tax evasion are insignificantly and positively correlated.

HA7: Tax attitude and tax evasion are significantly and positively correlated.

• **H0**<sub>8</sub>: The influence of the reference groups (that is friends and families) are positively but insignificantly correlated with tax evasion.

**HA**<sup>8</sup>: The influence of the reference groups (that is friends and families) are positively and significantly correlated with tax evasion.

• H09: Younger age and tax evasion are positively but insignificantly correlated.

**HA9**: Younger age and tax evasion are positively and significantly correlated.

• H0<sub>10</sub>: Males are not tax evader tax than females.

HA<sub>10</sub>: Males are tax evader tax than females.

H0<sub>11</sub>: Limited tax knowledge have a positive but insignificant relationship with tax evasion.
 HA<sub>11</sub>: Limited tax knowledge have a positive and significant relationship with tax evasion.

## 1.5 Objective of the study

## **1.5.1 General Objective**

The general objective of the study was determining the factors that causes tax evasion in Addis Ababa City Administration Revenue Authority the case of Gulele Sub City category "A" and "B" taxpayers branch office.

## **1.5.2 Specific Objectives**

This study was addressed the following specific objectives to determine causes of tax evasion:

- To identify impact of tax rate and level of income on tax evasion.
- To identify effects of the complexity of the tax system such as penalty and probability of detection on tax evasion.
- To identify the determination of demographic variables such as age, marital status, gender, and education on tax evasion of taxpayers in the study area.
- To determine the effects of attitude and perception on tax evasion.
- To identify the relationship between the perceived role of government and tax evasion.

#### **1.6 Significance of the study**

The study findings will contribute primarily to the ministry of revenue to have better understanding of why some taxpayers evade their income and prepare themselves to solve this problem and also to contribute towards the understanding of tax evasion in developing countries. And identifying factors that affect tax evasion in the targeted study area. In addition, other researchers can also use this study as an input for further and detailed studies.

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

Previously, the tax administration in Ethiopia has long been a member of the ministries that had no administrative specialization in determining and collecting taxes. But, the most recent reorganization and restructuring of tax administration in 2008 G.C (by proclamation number 587/2008) merged three different revenue agencies into one authority (Ministry of revenues), namely the Federal Inland Revenue Authority, the Ethiopian Customs Authority, and the Federal Government's National Lottery. This was done based on a review of the business process reengineering. The study used qualitative and quantitative data for its research.

The study is limited only to Addis Ababa city revenue authority, Gulele Sub City category "A and B" taxpayer's branch office and those who perform their business in this sub city under category "A" and "B". According to the Federal Income Tax Proclamation No. 979/2016, category "A" taxpayers being a body or other person having an annual gross income of birr 1,000,000 or more and category "B" taxpayers being a body or other person having an annual gross income of birr 500,000 or more but less than 1,000,000. Private limited companies, share companies, and cooperatives were included in the study while governmental organizations and non-governmental organizations were excluded due to the compliance nature of the companies. The study did not include those organizations whose tax is administered under the Federal Government.

The study covered profit tax, value added tax, and withholding tax collected by the branch office whereas personal income tax, turn over tax, custom duty and excise tax type were excluded from the study. The selection of this three-tax types was based on the availability and adequacy of sample units and the ability to manage the work within the specified time frame.

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

This study has its own limitations which were encountered at various stages. The primary limitation of the study was challenges in finding the right person at the right time. Secondly, respondents were not devoted themselves in filling and returning questionnaires on time. Thirdly, due to the time and financial constraints of the study, this thesis was limited to Gulele Sub City small taxpayer's branch office only. Therefore, it is difficult to generalize the results of the findings to overall sub cities in the Addis Ababa City. Some taxpayers were hesitated to disclose their tax evasion problems assuming that it will endanger their possibility to receive service from the office and being claimed to crime. However, these limitations did not block conducting the intended research and convinced them by using some confidentiality assurance mechanisms such as, not displaying any data by the name of the taxpayer and using indirect questions. Corona Virous pandemic (COVID-19) was also another limitation to distribute and collect the questionnaire but, with the help of Gulele sub city branch office employees and cooperation of the respondent's, the data was collected and analyzed as much as possible.

## **1.9 Organization of the paper**

This research paper is organized in five chapters each incorporated topics and subtopics. Chapter one provides the necessary background of the study and study setups. It states the research problems, and the research questions. It also describes the objectives, scope, significance, and limitations of the study. Chapter two sets the footing of the study. It reviews existing literature on determining of the factors that causes tax evasion related issues to extract useful and relevant information and concepts. It also forms the theoretical basis and constructs an analytical framework drawn from the theoretical concepts. Chapter three deals with research area description, methods of the study such as research strategy, sample size and sampling techniques. It also describes the tools for sources of data, data type and data analysis techniques. Chapter four is the core of this study, which presents the data collected statistical analysis. Chapter five, finalizes the study with summary, concluding points and by drawing some recommendations.

## **CHAPTER TWO**

## **REVIEW OF RELATED LITERATURE**

### 2.1 Chapter overview

This chapter is the discussion of theoretical and empirical literature relevant to the study Accordingly, it is divided into four broad sections: theoretical literature review, empirical literature review, summary and knowledge gape, and conceptual framework.

### **2.2 Theoretical Literature Review**

Most countries have different philosophies about taxation and different methods of collecting their tax revenue. Castles et al (1990) and Agell, et al (1997) argue that the different uses of total government expenditure affect growth differently and a similar argument applies to the way tax revenue is raised. During the past years, some countries have increased taxation quite dramatically, while in other countries tax rates have remained roughly the same.

As UNDP (2016) report show that taxation is the way in which governments supply the public goods and services and act as a compulsory fee. It is a major part of any economy and the legislature of a nation cannot do anything without collecting tax revenue from citizens. Taxation assumes an imperative job in improving the economy of a nation. It helps the presence of the nation and the nonfinancial independence and allows the authority to support social welfare projects and framework activities in the country. It equally distributes wealth, allocates resources fairly, eradicates foreign dependency and keeps the domestic industry from external industrialists by restricting imports through heavy taxes.

In most developing countries, dependence on income taxes, more specifically on corporate income taxes, generally increases as the level of income rises. In addition, a relatively high percentage of the total tax revenue of industrialized countries comes from domestic consumption taxes, especially the value-added tax (rather than the simpler turnover tax). Payroll taxes are much more important in developed countries and the more affluent developing countries than in the poorest countries, reflecting the near lack of social security systems in the latter. Indeed, in many developed countries, payroll taxes rival or surpass the individual income tax as a source of revenue. Demographic trends and their consequences (in particular, the aging of the world's

working population and the need to finance public pension) threaten to raise payroll taxes to increasingly steep levels. Some countries have responded by privatizing the provision of pensions

In developing countries, taxes represent a much higher percentage of national output than in developed countries. Similarly, more national output is channeled to governmental use through taxation in developing countries with the highest levels of income than in those with lesser incomes. Certainly, in many respects the tax systems of the developing countries with the highest levels of income have more in common with those of developed countries than they have with the tax systems of the poorest developing countries. (Encyclopedia Britannica, Maria, S., Cox Charles E., and McLure Fritz, N., 2019)

Individuals try to avoid settling their tax liabilities by two different means, namely, tax avoidance and tax evasion. Different authors defined tax avoidance in different manners at different times. Murray (2012) defined tax avoidance by dividing tax into distinctive factors. She writes: first, not evasion but lawful, because it is carried out in the genuine belief that the tax advantage in question can be obtained within the rules, for example by exploiting the loophole or other defect in the legislation. Second, tax avoidance is a type of tax planning where the taxpayer seeks to obtain tax advantage in question in a way that is contrary to the intention of the legislature.

**Tax avoidance** is the legitimate minimizing of taxes, by using methods which is included in the tax code. Businesses avoid taxes liabilities by taking all legitimate deductions and by sheltering income from taxes by setting up employee retirement plans and other means, all legal and under the Internal Revenue Code or state tax codes (Jean Murray, 2019).

**Tax evasion**, on the other hand, is the illegal practice of not paying taxes, by minimizing income, reporting more expenses, or by not paying taxes owed. Tax evasion is part of an overall definition of tax fraud, which is illegal intentional non-payment of taxes.

Citizens' behavior is important for policymakers to develop procedures to overcome the problems of disloyalty among individual citizens. The most widely analyzed models are Becker (1987) and Fisher (1992), which have added to the collection of taxes in citizens' behavior. As Chan et al. (2000) in those studies mentioned the important constructs of tax evasion, such as

demographics, noncompliance opportunity /economic, attitudes and perceptions and the tax structure / system, in the Fisher (1992) model.

Alabede et al. study (as cited in Chatopadhyay and DasGupta, 2002; Franzoni, 2000) defined that tax compliance is "operationally considered as complying with tax laws in the act of true reporting of the tax base, correct computation of the tax liabilities, timely filing of tax returns and timely payment of the amount due as tax".

As Lidia indicated (as cited in Lehmann and Coleman, 1994 and Asprey and arsons, 1975) the definition of tax evasion "The criminal falsification or non-disclosure as a means of reducing tax and have always been regarded as unacceptable at law". Tax evasion can occur where taxpayers employ fraudulent methods to evade their income. Tax evasion practices are in contravention of the law whereby a person who derives a taxable income either pays no tax or pays less tax than he would otherwise be bound to pay. Tax evasion includes the failure to make a payment of actual tax liabilities or a failure to disclose in a return the true amount of income derived.

Hannan's study (as cited in Alm and Vazquez, 2001 and Chiumya 2006) defined tax evasion Illegal activities or practices which are adopted by a taxpayer to escape him/her-self from taxation. For this purpose, taxable income / profits liable to tax or other taxable activities are concealed, tax reduction factors like expenditures, exemptions or other tax credits are knowingly and willfully overstated and the amounts received, or the source of income misrepresented.

According to the Canadian revenue department, tax evasion is intentional deceitful act/omission to minimize tax payable under the law and conspiracy to the effect. Likewise, the definition comprises essentials of tax evasion such as existence of affirmative act/omission that ends in Tax deficiency or under reporting of the tax less than the tax payable under the tax law (Wondiye, 2017).

Wondiye's study (as cited in Scholars such as Fakile and Adegibie, 2011) classifies tax evasion as full and partial evasion. Partial evasion occurs when individual or corporate entity minimize its earnings for the purpose of tax and report low income. Whereas full evading occurs when person or corporate entity qualified to pay tax fails to register with tax authority to enroll in the tax system.

#### 2.2.1 Determinates of tax evasion

It is very important for every country to be aware of the causes of a phenomenon as complex as tax evasion since it is the only way to find a strategy for combatting it.

In the literature, numerous components have been examined to clarify the tax evasion behavior of citizens. Such as Allingham and Sandmo (1972), Spicer and Becker (1980), Clotfelter (1983), Feinstein (1991), Kirchler (1997), Frey and Feld (2002), Torgler (2003), and Feld, Torgler, and Dong (2008) can be stated. Some common factors are analyzed in those studies, such as tax rates, tax burden, income level, income source, tax audits, tax penalties, public spending, public services, tax mentality, tax morality, age, gender, marital status, education, tax system, bureaucracy, and democracy.

There are four key determining factor of Fischer's Model of tax compliance Orviska & Hudson, Amina & Saniya (as cited in Gerald and Patrick, 2009, Fischer et al., 1992 and Marshal, 2014) which includes, noncompliance opportunity factors, tax system/structure, attitude and peer influence, demographic factor. Noncompliance opportunity factor incorporates tax rates and income level while the tax system/structure includes probability of detection and penalty. The demographic factor incorporates age, gender, and education.

## 2.2.1.1 Tax rate

A tax rate is simply defined that the percentage at which an individual or corporation is taxed. As Park & Hyun (2003) noted that the increase in tax rate strengthen the incentive to report less income to compensate the reduced income". Therefore, there is positive and significance relationship between tax evasion and tax rate. Another study conducted by Tanzi (1980) used an econometric model to give an interpretation to the relationship between noncompliance and marginal tax rate in the United States. He pointed that "tax rates were negatively correlated with tax compliance". Finally, many researchers have been examined the relationship between tax rates and tax evasion in both developing and developed countries. The results of their study showed that the tax rate has a positive significant effect on tax evasion.

#### 2.2.1.2 Income level

Studies shows different results on the relationship between the level of income of taxpayers and tax evasion. Some study has showed that, low-income earners are highly engaged in the attitude of tax evasion and they indicated that massive undeclared charges came from low-income earners (Johns & Slemrod, 2008). Alm et al. study (as cited in Mansor & Gurama, 2016) noted that, high-income earners are less evasive i.e., high income encourages and increases tax compliance. As Aziah et al. (as cited in Mansor & Gurama 2016) pointed that, Income level has a significant relationship with tax evasion i.e., how much a person earns define the way she/he thinks in reporting and complying with the tax authorities. One of the reasons why the dominant part of tax compliance in many developing countries has been reduced is the undeveloped tax system.

The following are the primary components of the tax system/structure: -

### 2.2.1.3 Probability of detection

The country that have low probability of detection will have less tax revenue and people would normally like to avoid their tax liabilities thinking that they will probably not be caught. Pioneer tax evasion research by Allingham & Sandmo (1972) noted that, high probability of detection will always lead to a larger income being declared i.e. there is a positive relationship between probability of detection and income from tax. According to Alm (as cited in Chau & Leung (2009) noted that, increasing the probability of detection will increase tax compliance and tax audit represents one of the effective detective measures used by tax authorities. Most research founds that there is a positive relationship between tax evasion and poor probability of detection.

### 2.2.1.4 Penalty

Most citizens are trying to increase the level of their tax evasion as the result of low or poor punishment or legal enforcements. Park & Hyun (2003) in their experimental study of determinants of tax compliance using data for Korea find out that accusing taxpayer's penalty when caught stimulated taxpayers to report the actual income they earn. Another study conducted by Allingham & Sandmo, (1972) noted that, an increase in the penalty rate will always increase the report of actual income. The above two studies show that, there is a positive relationship between tax evasion and low penalty.

#### 2.2.1.5 Complexity of tax system

One of the dominant issues affecting the potential of governments taxes revenue is the presence of appropriate tax laws. A tax law that is not stable and that has low performance have made the tax system complex and move to tax evasion. As Stankevicius & Leonas (2015) in his study defined complexity of tax system as the most important determinant of tax evasion. The tax system may appear complex in the perspective of most citizens since most come from a wide range of basics with the exceptional education, exceptional subculture and a unique understanding of taxation and may not clearly understand what's expected from them. The tax authority provided complex form yet, tax return to help citizen's mistakenly complete government forms. As Palil (2010) noted that the information required in the return should be at minimum level and be readily available from taxpayers' business and personal records."

#### 2.2.1.6 Perceived roll of government

The citizens' compliance can be affected by the government's legitimacy, efficiency, and credibility and subsequently redeem the tax revenues that the authorities can increase. Citizens can estimate reasonable terms of trade between their private admission and the provision of public goods and services by the government. Thus, as Kirchler, Hoelzl, & Wahl (2008) discussed that citizens will refrain from redesigning fairness in their association with other tax system operators if the terms of trade offered by the authorities through the tax system contrast with their own fair terms of trade.

As Chiumya (2006) noted in his study that the offers made by the government as a by-product of the tax paid, lack of transparency and accountability in the use of public funds adds to the open question concerning each tax system. This enhance the availability of a more regrettable strategic distance from taxation.

Citizens are very sensitive where tax can go. It is doubtful that the government precisely spend the revenue of the country, for example from vital offices, such as education, health and protection, and public transport. It is most likely that voluntary compliance will increase. By estimation, if citizens understand that the administration "spending" on unnecessary social welfare is ineffective and a lot, citizens will decrease voluntary tax compliance feel sold out and try to stay away from it (Hannan, 2014).

#### 2.2.1.7 Attitude and peer influence of tax evasion

According to Chau and Leung et al (2009) the Fischer suggests two major considerations for altering taxpayers' attitudes and perceptions to tax compliance are the fairness of the tax system and peer influence. Thus, individual evaluates an event or object positively or negatively and positive and negative evaluation is the main dominant characteristic of an individual's attitude, (Alabede et al, 2011). As Kirchler et al. (2008) stated that, taxpayer who has favorable attitude towards tax evasion is anticipated to be less compliant and equally taxpayer with negative attitude is likely to be more compliant.

Attitude towards tax evasion was explained by Ajzen, Fishbein and Ajzen (as cited in Alabede, Ariffin, & Idris 2011) the taxpayer's disposition to respond positively or negatively to tax cheats.

Fairness of the tax system and peer influence are major factors in changing taxpayers' attitudes and perceptions. For preference and attitude towards taxation, knowledge is supposed to be important and better understanding of tax laws improves attitudes and tax behavior which correlate to commercial knowledge. Concerning the group level it is perceived that tax noncompliance may result when a group observed is not fairly treated in respect to tax burden in relation to other groups Chau & Leung, and Eriksen and Fallan (as cited in Palil, 2010 and Alabede, Ariffin, & Idris, 2011).

In the study of Chau & Leung (2009) noted the Fischer model that demographic variables such as age, gender, education etc, indirectly affect taxpayer compliance by their impacts on noncompliance opportunities and attitudes and perceptions."

## 2.2.1.8 Demographic variables

One of the common demographic variables is the taxpayers' age. As Andreoni et al., (1998) noted that noncompliance is significantly less common and of lower magnitude among householders in which either the head or the head's spouse is over age 65. McGee R. W. (as cited Barnett & Karson, 1987 and 1989; Harris, 1990; Ruegger & King, 1992) noted that previous studies on the relationship between age and ethical values showed that people become more ethical as they get older or that people tend to have more respect for law and for authority as they get older.

Therefore, it would be reasonable to expect that participants in the older age groups would be more opposed to tax evasion than participants from the younger age groups. From the above speech, young taxpayers are more willing to take more risks and less sensitive to sanctions because of lifecycle variations and generational differences, small life experiences and age socialization processes affect the attitude of citizens to tax evasion. Other research Tittle (as cited in Chau & Leung 2009) noted that determining the tax compliance level of males versus females indicated that women are more likely to tax compliance than man. Thus, women characteristics can also promote higher tax compliance than man.

As McGee R. W. in his study (as cited in Akaah, 1989; Betz, et al., 1989; Dawson, 1997; Glover, et al., 2002; Purcell, 1977) indicated that women's are more ethical than men's. While other studies indicated that no statistical difference between men and women (Callan, 1992; Friedman et al, 1987; Fritzsche, 1988; Harris, 1989; Kidwell et al., 1987; Stern & Havlicek, 1986). A few studies have found men to be more ethical that women (Barnett & Karson, 1987; Weeks et al, 1999). Overall, it is just like the gap between women and men shows a tendency to change, with the growing new generation of working ladies and a greater sense of independence. According to the above articulation, there is not a clear result about the effects of gender on tax evasion.

According to the study conducted by Jackson and Milliron (as cited in Chau & Leung, 2009) noted that education as a demographic variable relates to the taxpayers' ability to comprehend and comply or not comply with the tax laws. Studies that inspect the effect of education on tax compliance are taxpayer education will offer the essential tax knowledge and trade the perceptions and attitudes in the direction of tax- compliance. In other words, knowledge about taxation has a significant effect by complying legitimate rules and procedures. For example, as Kirchler, Hoelzl, & Wahl (2008) noted that there is a positive relationship between knowledge about tax and level of compliance.

Information on the conformity of taxpayers can be measured by on direct and indirect techniques. Andreoni, Erard, Feinstein(1998), indicated that the most reliable information about noncompliance is based on actual tax liabilities report that has been thoroughly examined by auditors as part of the Internal Revenue Service (IRS) Taxpayer Compliance Measurement program (TCMP) which attempts to measure " unreported income" and the national 'tax gap".

The commonly used method is the currency demand approach, which estimates the demand for currency as a function of conventional factors (e.g., income, interest rates) and also as a function of factors that are supposed to motivate individuals to engage in evasion activities (e.g., the direct and indirect tax burden, government regulation, the complexity of the tax system (Slemrod, 2007 and Alm, 2012).

## **2.3 Empirical Literature Review**

Empirical literature is simply referring to evidence from different sources of observation and report. There are several studies conducted in the field of determinants of tax evasion and its relationship. Because of tax evasion, the collected tax revenue by the government and financing on public goods and services has been reduced year to year in the developed and developing countries.

The study that has been conducted by Mukasa (2011) pointing examination of the relationships between tax knowledge, tax fairness and the compliance of small and medium-sized business enterprises by using the combination of qualitative and quantitative methods, and the researcher has implemented a cross-sectional research design. The researcher's finding shows that tax knowledge and tax fairness to be linked to compliance with taxes and tax knowledge to have a positive and significant relationship with tax compliance. Finally, the researcher suggested that, government be able to improve its service provision and accountability for the taxpayers to perceive an unbiassed exchange with the government.

The study that has been conducted by Ameyaw & Dzaka (2016) with the objective of investigating factors that have a detrimental effect on tax evasion in Ghana. The researcher has been used survey research design and quantitative approach. Both descriptive and inferential statistics also used to analyze the collected raw data. The results obtained from the analysis indicated that the main factors that have a significant effect on the evasion of taxes are, taxation and fiscal factors, demographic factors, administrative factors, and economic factors.

The study has conducted by Enoch (2013) to examine factors that influence tax avoidance and evasion in Nigeria. The researcher has been used a survey research design and a quantitative research approach. The researcher also used both descriptive and inferential statistics to analyze the data. The results of the analysis found that tax avoidance and evasion in Nigeria is not

significantly influenced by the low quality of the service return. Also, the tax system and perception of fairness, low transparency and accountability of public institutions, and high level of corruption do considerably influence tax avoidance and evasion in Nigeria. Finally, the researcher suggested that the government able to take imperative steps to measure expectations once transparency, accountability and therefore the fight against corruption are involved.

The study that has been conducted by Marshal (2014) to determine factors for increasing evasion and established a mechanism to reduce the problem. The researcher has been used both quantitative and qualitative approach to collect the necessary data and descriptive statistics used for analysis. According to his finding, there are several factors that have been related with tax evasion such as high tax rates, the complexity of tax systems and procedures, the perception by the taxpayer of the government's ability to use the collection for welfare, limited resources and the ability to administer taxes, low literacy and lack of tax education, tax laws, and low tax morality. Since its impact is high in Tanzania and Tanga region, the researcher recommended to the government to emphasis on education of citizens to have the best understanding of the laws taking the extent of income level into consideration. In addition, the researcher indicated that, the tax rate should be reasonable, and the government be able to focus on the implementation of adequate incentive systems to the tax officers.

In Ethiopia, it is difficult to get evidence to justify the relationship between the emergence of the administration and taxation. Ethiopian modern tax system introduced "beginning of 1940" where the government made tax reforms. As an institutional reforms, the government united the three institutions, specifically the National Lottery of the Federal Government, Federal Inland Revenue Authority, and Ethiopian Customs Authority, which established the Ethiopian Revenue and Customs Authority (ERCA) in 2008 and supported a business re-engineering study (Tadesse, 2012).

For the past years, tax administration in Ethiopia was an appendage of ministries that did not have administrative specialization over the determinants and collection of taxes. But the most recent reorganization and restructuring of tax administration, which happened in 2008, merged three revenue agencies which are Federal Inland Revenue Authority, Ethiopian Customs Authority and National Lottery of the Federal Government into one authority, Ethiopian Revenues and Customs Authority (ERCA). Recent tax administration reforms have delivered

21

some of the adjustments to Ethiopian tax administration, including registration of taxpayers (fingerprints) and issuance of tax identification numbers (TIN), broadening the Value-Added Tax (VAT) tax base, development in tax administration and change facilitation were a number of the measures taken by Ethiopian Revenue & Customs Authority (ERCA).

The tax reform includes two additional substances: the redesign of the tax direction and the upgrade of the tax administration. In step with the study performed by using MoFED (as cited in World Bank Group, 2016) noted the tax reform initiatives are: an effort to streamline and simplify the tax system, the Government of Ethiopia has adopted a series of tax reform measures focusing on reducing tax rates, removing fruitless taxes, increase the tax base and improving and modernizing tax revenue collection. The reform aims establishing a justifiable domestic revenue base, encouraging trade and investment, confirm fairness, equity, and transparency in the administration of the tax laws (Ylmatesfa, 2011). Nevertheless, developing countries like Ethiopia, where there is many informal sectors, low tax moral, uncontrolled evasion, and total distrust between tax administration and taxpayers may not make the tax successful. One of the reasons is lack of simplified procedures for the tax administration (Tekulu, 2011).

## 2.3.1 Tax evasion in Ethiopia

In most developing countries, like Ethiopia, there could be many economic activities that are not constantly referred to and captured by professional statistics. Revenues generated by the government are not equal to the expenditure spent. This low tax revenue yield must be attributed to the reality that tax law enforcement is often a contentious issue, and this is definitely the case in Ethiopia (Abdella & Clifford, 2010).

The practice of tax evasion reached 10% of the economy. The result has important implication for tax policy and incentive structure towards the small and medium scale enterprises if these sectors are to be the deriving engines of Ethiopia's transformation (Emrta, 2010). Regardless of the fact that, the contribution of tax revenue as the percent of GDP is declining currently, as consistent with the document of IMF (as cited in UNDP, 2016) Ethiopia is also losing 6 percent of its GDP every year in the form of illegal outflows. According to the Ethiopian Ministry of Finance and Economic Development (MoFED) 2<sup>nd</sup> growth and transformation plan (2016) sowed that the contribution of tax revenue-to-GDP in Ethiopia is one of the lowest in sub-Saharan Africa which is 13.3% as compared to over 18% for the rest of Sub-Saharan Africa."

In most developing countries, like Ethiopia, the revenue which is generated by the government is much less than the expenditures spent. This low tax revenue can only be attributed to the fact that tax provisions are not properly enforced either on account of the inability of administration due to the noncompliance behavior of taxpayers (Abdella and Clifford, 2010).

Tax evasion was higher during the 1970's and 1980's reaching as high as 10.4% of the recorded economy. Although the contribution of tax revenue as percentage of GDP is declining recently, it is growing on average by about 19 percentage points in nominal terms since 2000. It remained high but decreasing since 1991 while tax revenue to GDP ratio start to rise before it starts to bend downward since 2004. The declining trend in tax-to-GDP ratio since 2004 is mainly due to the rapidly increasing economy in the face of stagnated tax collection efforts (Emrtat, 2010). The tax evasion due to the prevalence of unreported economy could have been a critical resource for infrastructural and public service developments in the country. As Emerta (2010) stated that bringing the unreported economy to the tax net remained as a challenge for the responsible body with substantial implication on tax policy of the country.

Yidersal (2014) examined on the topic "determinants of tax compliance behavior in Bahir Dar city administration among category "A & B" business income taxpayers". The investigator has been used a random sampling technique and quantitative research approach. The raw data were collected through a structured questionnaire and used both descriptive and inferential statistics for data analysis. The results disclosed that tax compliance behavior was significantly affected by perception on government public spending, perception on equity and fairness of the tax system, penalties rate, personal financial constraint, and changes on current government policies and referral group (friends, relatives etc.) However, gender and probability of being audited have no significant impact on tax compliance behavior.

A study conducted by Amina & Saniya (2015) investigated on the determinants of tax compliance in the case of category "A" taxpayers in Jimma zone. The investigators have applied survey research design, and both qualitative and quantitative approach was employed by the researcher. They categorized the sample as stratified according to nature of the business and then randomized the sample from each segment. The raw data was collected by using structured questionnaires. Both descriptive and inferential statistics were used for data analysis. The result of the analysis was shown that age, sex, punishment, auditing, simplicity, fairness, and

perception of the government have had an impact on tax compliance. Finally, the investigator had recommended that making tax system fair to encourage voluntary compliance of taxpayers and the tax authority should work on the tax system for the younger generation.

Bisrat (2010) examined the relationship between tax administration and compliance with VAT. His research design was both qualitative and quantitative approach and primary and secondary data were used for the study.

Primary data collected through closed and open questionnaires. The researcher used descriptive statistics and case selection sampling technique to conduct the research. The results showed that the core determinants of VAT were the audit probabilities, the perceived fairness of VAT and the efficiency, and effectiveness of the tax authority.

A study conducted by Worku (2016) on the assessment of tax evasion the case of Lideta sub city small taxpayers branch office. The researcher has been used descriptive type of research, primary and secondary data were used for the study. Primary data was collected through structured questionnaire survey and secondary data has been drawn from the existing official documents and reports. The selection of entities was bases on non-random sampling technique. The researcher has been used both descriptive and inferential statistics for data analysis. The results showed that majority of the respondents pay tax due to fear of punishment and believe tax law should be respected. There was also an indication that taxpayers in the branch office can evade tax regardless of the strength of the tax law.

A study conducted by Endashaw (2019) Determinants of tax evasion in Addis Ababa administration city the case of Bole sub city category "A" taxpayers. The research applied an explanatory research method. And it carried out both the qualitative and quantitative aspects of the research method., Primary data was collected through structured questionnaire survey. The researcher has been used both descriptive and inferential statistics for data analysis.

The results showed that the tax being levied is not fair and equitable, awareness is a corner stone for enhanced voluntary compliance, legal enforcement, and penalties by itself cannot ensure voluntary tax compliance behavior. The research also showed that attitude and peer influence have a positive effect on tax evasion. Finally, the researcher has recommended that tax law must be simple, the branch office should improve the efficiency of the provision of services to taxpayers.

24

### 2.4 Summary and Knowledge Gap

The investigator tried to identify various arguments to justify determinants of tax evasion and its relationship. As a result of tax evasion, governments are faced with a lack of revenue, which leads to adequate underfunding of public services and the burden placed on citizens. The gap between tax revenues and public expenditures are unbalanced due to tax evasion and other factors. Tax evasion can be determined through four key determinants as it is known as Fischer's Model of tax compliance. This includes:

1. Noncompliance opportunity Factor (Tax rate and income level).

2. Tax System/ Structure (Probability of detection, Penalty, Complexity of tax system, and perceived role of government).

- 3. Attitude and peer influence of tax evasion.
- 4. Demographic factor (Age, Gender and Education).

According to the tax researcher argument, income components (source and level), which determine tax evasion significantly. However empirical evidence has shown that revenue from salaries and wages alone minimizes tax evasion. The other determinants are tax rates were widely recognized as the most important determinant of tax evasion. Empirical evidence concerning the effects of tax rates and tax evasion has a positive significant effect. The probability of detection and punishment is widely accepted as a hindering force to encourage the compliance of taxpayers. Aligning to this some empirical studies argue that these two factors do not promote voluntary compliance.

The other determinant is complexity of the tax system promotes tax evasion. Regarding to this it states that taxpayers seem to find a departure loophole constantly. If the government does not provide essential public goods and services, citizens are not preferred to pay regulatory taxes. And after that, evasion can have an effect. The demographic factor that determine tax evasion are young taxpayers, who are more willing to take risks and are less sensitive to sanctions because age socialization affects citizens' attitudes towards tax evasion. The tendency of gap between men and women to change the effects of gender on tax evasion is not significant, and general taxation knowledge (tax education) has an important effect by complying with legitimate rules and procedures.

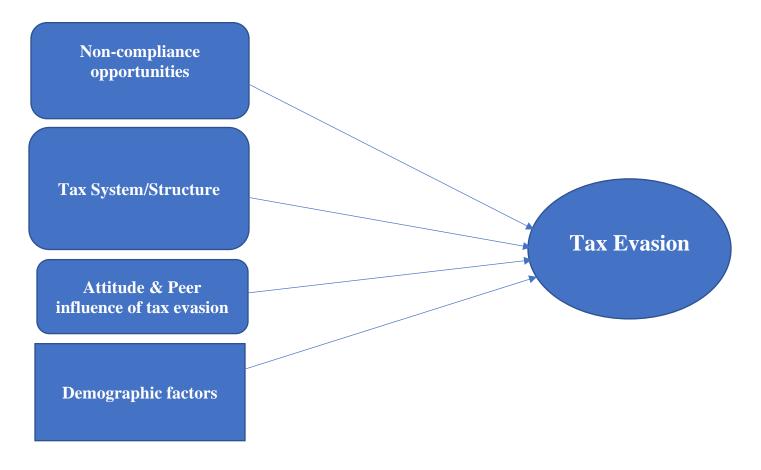
The findings of various researchers on the impact of a determinant on tax evasion are not conclusive. Therefore, this attracted the attention of the researcher. In terms of the researchers' knowledge, the examination of various scholastics has not specifically included selected determinants of tax evasion. This also leads the researcher to analyze key determinants and how to relate with tax evasion and fill the finding gaps.

### **2.5 Conceptual framework**

The overall framework to be followed for the literature review of determining the factors that causes tax evasion is the one given through, Orviska & Hudson, Amina & Saniya, (as cited in Gerald and Patrick, 2009; Fischer et al., 1992, and Marshal, 2014) depicted as combined below.

### Independent Variables

<u>Dependent Variable</u>



### Figure 2.1: Conceptual Framework on tax evasion study

Source: Adopted from Fischer's Model of tax compliance (1992, p 89.)

# **CAPTER THREE**

# **RESEARCH DESIGN AND METHODOLOGY**

### **3.1 Chapter Overview**

This chapter presents a research methodology guide. It contains, the research design, population, sample and sampling method, data collection methods and tools, validity and reliability of the instrument, research procedure and data analysis.

### 3.2 Research site or location description

This research was conducted in one of the branch offices of the City Government of Addis Ababa Revenue Authority, the Gulele Sub-city category "A" and "B" Taxpayer's Branch Office.

### 3.3 Research Design

The research applied an explanatory (causal) research method. Causal research explains what is sometimes called a "cause and effect" relationship. The cause is referred to as the 'independent variable', the variable that is affected is referred to as the 'dependent variable'. The sampling designs for this study was category "A" and "B" taxpayers, supervisors, and team leaders of Gulele sub city small taxpayer's branch office.

The study used judgment to classify the range of scores obtained on the five-point Likert scale as follows: a variable with a mean score of greater than 3.0 to 5.00 have taken as agree/ strongly agree on the five-point Likert scale, a score of 3.0 as neutral on the five point Likert scale and a score of less than 3.0 as strongly disagree/disagree on the Likert scale. Secondary data was used to obtain tax authority reports and published / unpublished sources like relevant legislation enacted about the subject and tax journals which help the study to determine the relationship between tax revenue and tax evasion.

### **3.4 Research Approach**

The study was carried out by using both the qualitative and quantitative aspects of the research approaches. A qualitative approach was used for only triangulation and to enrich the explanation of key informants' opinion to increase the confirmatory of the information investigated in quantitative approach. Alternatively, self-administered survey was used in the quantitative approach for the reason of its flexibility in asking questions and its evaluation of the responses.

### 3.4 Population, sample, sample size and sampling techniques

The targeted population of the study was category "A" and "B" taxpayers under the sub-city tax authority because of the trustworthiness of these taxpayers is mandatory via law to declare their income or keep books of account. The taxpayer book of account is used to decide the income tax liability of category "A" and "B" taxpayers. This study was constituting several types of taxpayer which fall in category "A" and "B" by considering a cross sectional data for evaluation according to the nature of their business. These include, import, export, wholesale trade, retailer trade, constructions, service, and manufacturing companies with three form of tax: - business profit tax, value-add tax, and withholding tax.

Moreover, these categories taxpayers are also considered to be higher taxpayers having an annual turnover of more than one million ETB for category "A" and more than five hundred thousand but less than one million for category "B" according to revised income tax regulation No.979/2016.

This research had a total target population of 7,671 taxpayers' and among this total population 6,178 was category "A" and 1,493 was category "B" taxpayers. (source: Gulele sub city small taxpayers branch office). The sample size that has been taken from the population was adequately enough with the alpha degree of 0.05 which shows the extent of hazard the study has been taken.

The following formulation was used to decide the sample size (n).

$$n = \frac{t^2 * p * q}{d^2}$$

Where,

t = value for selected alpha level of 0.025 in each tail = 1.96

d = acceptable margin of error for proportion being estimated = 0.05

(P)(q) = estimate of variance = 0.25 (Taking p 0.5 gives the maximum sample size)

$$n = \frac{1.96^2 * 0.5 * 0.5}{0.05^2} = 384$$

However, the sample size was exceeding 5% of the population (7,671 \* 0.05 = 383) and it was applied "Cochran's (1977) correction formula to calculate the final sample size", Kotrlik, & Higgins, (2001).

$$\begin{array}{rll} n_{1} = & \underline{n} & & \\ & 1 + n/N & \\ n_{1} = & \underline{384} & = 365 \\ & 1 + 384/7,671 & \end{array}$$

Where,

N = Total population size for category "A" and "B" = 7,671

n = required return sample size according to Cochran's formula= 384

 $n_1$  = required return sample size because sample > 5% of population

This sample size determination was also true by using sample size calculator which was indicated by Qualtrics.com.

Initially, the study has been assumed the response rate of 80% so that, a maximum drawn sample size was 456 which was calculated as follows:  $n_2 = 365/0.8 = 456$ 

Where anticipated return rate = 80%.

Where  $n_2$  = sample size adjusted based on the estimated response rate.

Where minimum sample size (corrected) = 365

The sampling approach applied by the study was proportional with the stratified sampling which allowed the sample size dedication to be more representative followed by means of random sampling from every stratum (Category "A" and "B" taxpayers).

Proportion of sample for category "A" and "B" taxpayers from the total sample was computed as below:

$$6,178 = 80.5\%$$
 and  $1,493 = 19.5\%$   
7,671 7,671

Therefore, the maximum sample size for category "A" was 367 taxpayers (456\*0.805) and category "B" was 89 taxpayers (456\*0.195) respectively.

Initially, the target sample size was set to address 365 category "A" and "B" taxpayers in the sub city. By considering 80% return rate, a total of 456 questionnaires were distributed to randomly selected category "A" and "B" taxpayers and 381 questionnaires were returned which is 83.5% (381/456) of the total distributed questionnaires. 20 incomplete questionnaires were rejected from the collected 381 questionnaires, and 361 were used for analysis. The usable rate of questionnaires was 98.9% (361/365) which is good enough to represent the population.

#### **3.5** Type of data and data collection tools and method

Primary data collection was essential although a researcher cannot find the information wished from secondary sources. Correspondingly, the data acquired for this research was collected from primary sources through a self-administered questionnaire prepared using five-point Likert scale where 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. Respondents of the questionnaire was manager, owner, and employee of the company. For the purpose of triangulation, key informant interview was carried out with few numbers of employees of the branch office. Direct question about tax evasion was not used in the questionnaire and in the interview guides because of the sensitivity of the topic. Instead, various implicit and proxy questions was used for accumulating information on tax evasion. The data collected from the respondents was personal profile, demographic variables, and responses on determinants of tax evasion. The secondary data was gathered from the branch office reports through direct contacts of the concerned person. The data collection instrument used in this study is attached under Appendix 1 of this paper

#### **3.6 Data analysis techniques**

EViews (version 8.0) software in aggregating with excel spreadsheet was applied to process quantitative data obtained from the structured questionnaire. Each descriptive and inferential statistics were used to investigate the importance of independent variables on the structured variable that helps to determine the determinant of tax evasion variables which can be

independent and dependent are taken into consideration to observe the independent variables dedication on tax evasion.

The responses from the employees of the organization was screen for correctness and accuracy and then data was analyzed using statistical package for social sciences (SPSS) computer software version 23.0 as well as Microsoft excel and its result of Cronbach's alpha was 0.844 which is beyond the standard. Percent distribution for the categorical data which were obtained from the questionnaire and some econometrics models (multiple regressions) was used to measure the importance of data achieved from the explanatory variables.

### 3.7 Validity and Reliability of the tools

Before the main study started, a pilot study was carried out with randomly selected 5 taxpayers from each category of "A" and category "B" taxpayers from the branch office to check the validity and reliability of the questioners. Based on the result from pilot study, the questionnaire was translated into Amharic language in order to simplify the understanding of the question by the respondents. The study was carried out at 5% significant level and data analyzed using EViews (version 8.0) software. Correlation matrix and other tests was carried out to check the validity.

### **3.8** Ethical considerations in the study

Research ethics refers to the type of the agreement that the researcher enters with the research participants. It was clearly announce to the participants that the study has an obligation on the protection from stress, harm, or danger; right to privacy; confidentiality; and honesty with professional colleagues and an oral informed consent was obtained from research participants. Each questionnaire was administered together with a letter providing explanation and assurance that all information provided was treated confidentially and their identity kept anonymous from St. Mary's University and institutional consent from the Gulele sub city small taxpayers branch office.

# **CHAPTER FOUR**

## **RESULTS AND DISCUSSION**

### **4.1 Introduction**

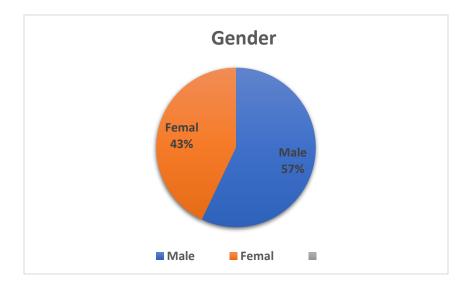
This chapter gives perceptions into the data presentation, analysis, and discussion of the study. The data was analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (correlation & multiple Regressions). The results are presented in tabular summaries, graphs, and the implications are discussed under the summaries.

### **4.2 Profile of the respondents**

The respondent 's variables involved gender, age, marital status, educational level, position of respondents, year of experience and nature of business.

### 4.2.1 Gender of respondents

According to figure 4.2.1 below, more than half of the respondents were male while the remaining were females. It can be seen male had a greater representation of the whole population of the study. The male complements therefore dominate the business environment, and this confirms males are willing to take more business risks than females.



# Figure 4.2.1 Gender proportion of respondents for the tax evasion study in Gulele Sub city, Addis Ababa

Source: Investigator's own compilation

### **4.2.2.** Age of respondents

Young people who fall in the working age group are engaged in different business types or sectors in the study area. As shown in table 4.2.1, the mean age of respondents was 34.74 with a standard deviation of  $\pm$  9.64. This indicates that there are young ages of respondents. Young taxpayers are more willing to take risks and are less sensitive to sanctions. Therefore, this is an indication of taxpayer's possibilities to evade tax because of their age distribution.

Variable	Number of observations	Mean	Std. Dev.	Min	Max
Age	361	34.74	9.64	20	66

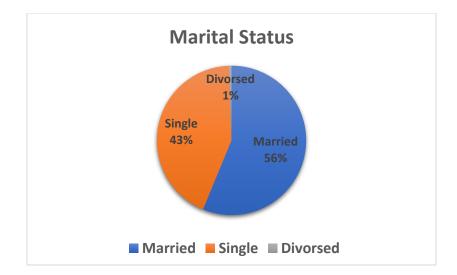
Table 4.2.1: Age of respondents for the tax evasion study in Gulele sub city, Addis Ababa

Std. Dev = Standard deviation, Min= Minimum, Max = Maximum

Source: Investigator's own compilation

# 4.2.3 Marital Status of respondents

According to figure 4.2.2 below, majority of the respondents were married, 43% were single, and minorities were divorced. This indicates that a married person who are taking the responsibility and made the responsibilities effectively than the single one because of their maturity, family responsibility and not to lose their wealth.



# Figure 4.2.2: Marital Status of respondents for the tax evasion study in Gulele Sub city, Addis Ababa

Source: Investigator's own compilation

# 4.2.4 Summary of respondent's Educational level, Position in the organization, Year of experience and Nature of businesses

Table 4.2.2 below summarizes that, few of the respondents were below the secondary school, 13.3% completed secondary school, 20.5% earned Diploma, as the majority completed first degree and the rest 11.08% earned a master's degree. This may indicate that the respondents have been formally educated and businessmen are transformed from illiterate to modern knowledge unlike the old times. Therefore, to avoid tax evasion, the tax authority has a chance to communicate and transmit messages to the taxpayer about the tax laws, rules and regulations.

According to table 4.2.2, majority of the respondents were employees, 26.59% were owners, 19.67% of the respondent were managers, and 18% were owners and managers and. This may confirm that the reliability of the data sources as they originated from key and responsible people in the organizations and make the research analysis based on good source of data.

According to table 4.2.2 39.61% of the respondent have 0-5 years of experience, 39.34% of the respondent have 6-10 years of experience and the rest 21.05% have 11-15 years of experience in related to tax report. This may indicate that the more year of experience of respondents related to tax report, the more tend to minimize their income and overstate their expanse as a result tax evasion will increase by decreasing government tax revenue, this implies that public service which is provide by the government will decline.

According to tax authority, the nature of business is classified into seven major sectors. These are Import, export, wholesale trade, retail trade, construction, service, and manufacturing (Source, Federal income tax proclamation). In this study, as per table 4.2.2, 21.89% were importers, 0.55% were exporters, 4.43% were whole sellers, 17.45% were retails, 15.79% were engaged in construction, 36.29% were service providers, and the remaining 3.60% were manufacturing companies. This category helps tax agency to create effective and strategic management of taxpayers.

The Ethiopian government initiate investors to participate in a manufacturing sector and export goods and to be a "dominant role" in the economy over the next decade. Nevertheless, the result indicated that huge number of investors take part mainly on international trade (import more goods than exports) which is suffering a negative trade balance.

Table 4.2.2: Summary of respondents Educational Level, Position in the organization, yearof experience and nature of businesses for the tax evasion study in Gulele sub city, AddisAbaba

Variables (N = 361)	Frequency	Percent	Cumulative
Educational level			
Below Secondary School	26	7.2	7.2
Complete Secondary School	48	13.3	20.5
Diploma	74	20.5	41.0
Degree	173	47.9	88.9
Master's Degree	40	11.0	100
Total	361	100	
Position in the Company			
Manager	71	19.6	19.7
Owner	96	26.5	46.5
Owner and Manager	65	18.0	64.3
Employee	129	35.7	100
Total	361	100	
Year of Experience			
0-5 Years	143	39.6	39.6
6-10 Years	142	39.3	78.9
11-15 Years	76	21.1	100
Total	361	100	
Nature of Business			
Import	79	21.9	21.9
Export	2	0.6	22.4
Wholesale trade	16	4.4	26.9
Retail trade	63	17.5	44.3
Construction	57	15.8	60.1
Service	131	36.3	96.4
Manufacturing	13	3.60	100
Total	361	100	

Source: Investigator's own compilation

### 4.3 Study results from the collected data for determinants of Tax Evasion

This section presents the results of the statistical analysis and interpretations of the data using mean and standard deviations. The self-administered questionnaire was prepared and presented using a five-point Likert scale where 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. For the triangulation purpose a key informant interview was conducted with few tax office employees.

The study used judgment to classify the range of scores obtained on the five point Likert scale as follows: - a variable with a mean score of greater than 3.0 have taken as agree/ strongly agree on the five point Likert scale, a mean score of 3.0 as neutral on the five point Likert scale and a mean score less than 3.0 as strongly disagree/disagree on the Likert scale.

# **4.3.1** Effects of tax evasion on resource accumulation, public service, and government debt

As shown the table 4.3.1 below, the mean value of 3.99 and standard deviation 1.28 that, the respondents agreed on tax evasion had a negative impact on the development of the country economy and spending on public goods and services.

Table 4.3.1:Effects of tax evasion on resource accumulation, public service and<br/>government debt in Gulele sub city, Addis Ababa

	N=361	Frequ	iency an	d Perc under					
S/No.		_				_	Total Freq.		
	Statement: Tax Evasion	1	2	3	4	5	(%)	Mean*	Std. Dev.
	The expansion of tax evasion								
1	increases the amount of resources	65	58	25	105	108	361		
1	accumulated by the individuals.	(18%)	(16%)	(7%)	(29%)	(30%)	(100%)	3.37	1.50
	The expansion of tax evasion								
2	reduces the amount of public								
2	services supplied by the	29	22	14	108	188	361		
	government.	(8%)	(6%)	(4%)	(30%)	(52%)	(100%)	4.12	1.23
	Tax evasions lead the								
3	government to unnecessary	22	11	14	144	170	361		
	debt to bridge the fiscal gap.	(6%)	(3%)	(4%)	(40%)	(47%)	(100%)	4.19	1.07
	The overall mean and Std. Dev. of tax evasion							3.99	1.28

\*a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree *Freq = Frequency, Std. Dev = Standard deviation, Min= Minimum, Max = Maximum* 

Freq= Frequency, Std. Dev = Standard deviation, Min= Minimum, Max = Maxii Source: Investigator's own compilation

### 4.3.2 Impacts of tax Rate on tax evasion

From the results of table 4.3.2 below, showing mean value of 2.89 and standard deviation of 1.32) indicating that the respondents disagree the current tax rate imposed on category "A" and "B" taxpayers are fair. They are also of the opinion that an increased tax rate motivates tax evasion. Majority of the key informants indicated that, "the amount of tax that the taxpayers had paid is beyond their ability to pay, which encourages tax evasion."

	N=361		equency respond						
S/No.	Statement: Tax Rate	1	2	Mean*	Std. Dev.				
5	In general, business tax rate imposed in category "A" and "B" taxpayer are fair.	69 (19%)	141 (39%)	90 (25%)	47 (13%)	14 (4%)	361 (100%)	2.43	1.06
6	Taxpayers evade tax if tax rates are too high.	61 (17%)	144 (40%)	94 (26%)	40 (11%)	22 (6%)	361 (100%)	2.50	1.09
7	The tax rate is unfair which enhances tax evasion.	36 (10%)	50 (14%)	22 (6%)	119 (33%)	134 (37%)	361 (100%)	3.73	1.35
	The overall mean and Std. Dev. of tax rate							2.89	1.32

Table 4.3.2: Impacts of tax rate on tax evasion in Gulele sub city, Addis Ababa

### 4.3.3 Impacts of income levels of taxpayers on tax evasion

As table 4.3.3 indicated below, the mean value of 3.06 and standard deviation of 1.31, people perceived that those taxpayers who are earning enough profits should not evade taxes since their income is increasing but the result indicated that taxpayers with high business incomes were more evasive than those who are earning smaller income. Majority of the key informants described, "*employees are the true taxpayer those who earned high or low monthly salary while business peoples mostly do not comply.*"

Table 4.3.3: Impacts of income levels of taxpayers on tax evasion in Gulele	sub city, Addis
Ababa	

	N=361		equency respond	·		0			
S/No.	Statement: Income Level	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
8	Considering your ability to pay tax increased over time, your tax liability is also increased.	36 (10%)	87 (24%)	32 (9%)	155 (43%)	51 (14%)	361 (100%)	3.27	1.25
9	Taxpayers with higher business income are more evasive.	29 (8%)	40 (11%)	72 (20%)	108 (30%)	112 (31%)	361 (100%)	3.65	1.25
10	Taxpayers with smaller business income are more evasive.	72 (20%)	177 (49%)	65 (18%)	33 (9%)	14 (4%)	361 (100%)	2.28	1.01
	The overall mean and Std. Dev. of Income level							3.06	1.31

# **4.3.4** Impacts of probability of detection and capacity of investment of all income reports on tax evasion

According to the table 4.3.4 below, the mean value of 3.22 and standard deviation 1.46, the respondents reflect that the probability of being detected determines one's compliance. Simultaneously, they are of the belief that they doubt the tax administration ability to investigate the accuracy of the reported income. Thus, evasion has become habitual.

	N=361 Frequency and Percentage of each respondents under each weight								
S/No.	Statement: Probability of detection	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
11	Taxpayers might not be evaded tax if the probability of detection is high.	43 (12%)	69 (19%)	32 (9%)	123 (34%)	94 (26%)	361 (100%)	3.43	1.37
12	The tax administration office has the capability to investigate all income reported by the taxpayers.	119 (33%)	108 (30%)	36 (10%)	62 (17%)	36 (10%)	361 (100%)	2.41	1.34
13	Tax evasion is habitual if probability of getting caught is low.	36 (10%)	36 (10%)	29 (8%)	126 (35%)	134 (37%)	361 (100%)	3.82	1.28
	The overall mean and Std. Dev. of Probability of Detection							3.22	1.46

# Table 4.3.4: Impacts of probability of detection and capacity of investigation of all income reports on tax evasion in Gulele sub city, Addis Ababa

# **4.3.5** Effects of penalty, good legal enforcement, and awareness creation on tax evasion

As summarized in table 4.3.5 below, mean value of 3.86 and standard deviation 1.14, taxpayers perceived that the penalty rate matters on the behavior of tax compliance. This does not mean, however, that higher penalty rates always result tax compliance since some taxpayers might not be aware of high penalty rate. High penalty rate particularly effective among those taxpayers who are aware of the penalty of the tax rate and those who have been penalized with high penalty rate sometime in the past. These results are consistent with the key informant interview results. According to majority of the key informants said that, "*tax authority should work to improve voluntary compliance by using different awareness-raising programs instead of fear of punishment.*" In addition, the other minority of key informant pronounced that, "*tax authority that the severity of the penalty imposed on any tax evasion has positive impact on the level of compliance.*"

 Table 4.3.5: Effects of penalty, good legal enforcement, and awareness creation on tax evasion in Gulele sub city, Addis Ababa

	N=361	F		cy and I ondents					
S/No.	Statement: Penalty rate	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
	If penalty rate is high, there is no possibility that taxpayers evade tax.	18 (5%)	25 (7%)	33 (9%)	145 (40%)	140 (39%)	361 (100%)	4.01	1.10
	A good legal enforcement practice increases your tendency on tax compliance.	22 (6%)	22 (6%)	11 (3%)	137 (38%)	169 (47%)	361 (100%)	4.13	1.13
16	Taxpayers who have an awareness of penalties for tax evasion are more compliant.	29 (8%)	18 (5%)	50 (14%)	188 (52%)	76 (21%)	361 (100%)	3.73	1.10
	The past penalties paid for tax evasion behavior affect positively one's current compliance behavior.	25 (7%)	47 (13%)	58 (16%)	162 (45%)	69 (19%)	361 (100%)	3.56	1.14
	The overall mean and Std. Dev. of Penalty rate							3.86	1.14

# **4.3.6 Impacts of complexity of tax law and its administration system on tax evasion**

The table 4.3.6 below showed that, mean value of 3.68 and standard deviation of 1.33, respondents' belief that there is negative relationship between tax compliance and the complexity of tax system. As the complexity of tax system increases, the probability of compliance decreases. The complexity evident itself into two ways, i.e., inconsistent application of the tax administration over the years and the need to seek professional assistance for filing yearly income. The respondent is of the opinion that having an easily understandable tax law, encourages the compliance of taxpayers. The qualitative result also points that the existing tax system is complex. Majority of the key informant tax office employees said that: *"the current tax rules and regulations are too complex and have ambiguities."* This presents the impossibility of detecting undeclared tax liabilities, and underreporting income complies with the tax law confirming that the tax office was tolerant for tax offenses

# Table 4.3.6: Impacts of complexity of tax law and its administration system on tax evasion in

	N=361	Free re	quency sponde	and l ents u	Percen nder ea	tage of ch wei	each ght		
S/No.	Statement: Complexity of tax system	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
18	Complexity of tax system creates an obstacle to comply the tax law.	25 (7%)	36 (10%)	22 (6%)	130 (36%)	$     \begin{array}{r}       148 \\       (41\%)     \end{array} $	361 (100%)	3.88	1.29
19	Tax administration system in the authority is consistent with each other across years.	72 (20%)	94 (26%)	33 (9%)	108 (30%)	54 (15%)	361 (100%)	2.94	1.40
20	Other professionals are required to assist in formulating tax liabilities due to unclear treatment of tax systems.	19 (5%)	25 (7%)	25 (7%)	144 (40%)	148 (41%)	361 (100%)	4.04	1.13
21	If tax laws are easy to understand it encourages tax compliance.	25 (7%)	40 (11%)	25 (7%)	144 (40%)	127 (35%)	361 (100%)	3.85	1.21
	The overall mean and Std. Dev. of Complexity of tax System							3.68	1.33

### Gulele sub city, Addis Ababa

# **4.3.7 Impact of perceived roll of Government on the use of tax revenue to public service on tax evasion**

As the table 4.3.7 indicates, mean value of 3.88 and standard deviation of 1.18, that the opinion of tax the extent to which the government effectively delivers its role determines the level of compliance. If the government was inefficiently managing its resources, spending it on unnecessary welfare assistance, taxpayers are not encouraged to comply. In contrast, the effective delivery of public goods encourages the compliance of taxpayers. Equally important is also how taxpayers perceive about the fairness of the tax. Whenever the perception of the tax as fair, they are likely to comply. According to majority of the key informant explained: *"the government should spend the tax collected on the development of the country, allow society to benefit equally from the provision from the government and to feel confident about the fruit of its payment on its own country."* 

 Table 4.3.7: Impacts of perceived role of government on the use of tax revenue to public service on tax evasion in Gulele sub city, Addis Ababa

	N=361	F	Frequency and Percentage of each respondents under each weight						
S/No.	Statement: Perceived role of government	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
22	If the government spends too much tax revenue on unnecessary welfare assistance it encourages tax evasion.	40 (11%)	50 (14%)	58 (16%)	105 (29%)	108 (30%)	361 (100%)	3.53	1.34
23	If peoples are getting comparable public services from the government for, they tax paid, it enhances taxpayer's compliance.	14 (4%)	36 (10%)	22 (6%)	141 (39%)	148 (41%)	361 (100%)	4.03	1.11
24	If taxpayer's perceptions of tax fairness increases, the level of tax evasion will also decrease.	10 (3%)	22 (6%)	18 (5%)	184 (51%)	126 (35%)	361 (100%)	4.07	0.99
	The overall mean and Std. Dev. of Perceived role of Government							3.88	1.18

### 4.3.8 Impacts of taxpayer's attitude to government programs on tax evasion

From the result in table 4.3.8 below, the mean value of 3.76 and standard deviation of 1.17, indicates that a good governance and the desirability of government programs have positive impact on the attitude of taxpayers towards avoiding tax evasion. Whenever taxpayers feel that there is good governance and the state has desirable government programs, they are likely to comply with the tax laws. This is true even if almost all the taxpayers think that it is their responsibility to pay taxes. For them, fear of punishment is not as such enough cause to comply the tax law. They are also of the opinion that effective enforcement of the tax law also encourages tax compliance. Most of key informant tax office employees described: "voluntary compliance is promoted not only by punishment but also be clear, simple and user-friendly administrative systems and procedures."

Table 4.3.8: Impacts of taxpayer's attitude	to government	programs	on tax	evasion in
Gulele sub city, Addis Ababa				

	N=361	Fre	Frequency and Percentage of each respondents under each weight						
S/No.	Statement: Attitude of tax evasion	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
	A good governance positively impacts one's compliance behavior towards tax.	22 (6%)	40 (11%)	36 (10%)	141 (39%)	122 (34%)	361 (100%)	3.83	1.19
	Desirable government programs encourage tax compliance behavior.	29 (8%)	72 (20%)	76 (21%)	126 (35%)	58 (16%)	361 (100%)	3.31	1.19
	Paying tax is my own responsibility.	18 (5%)	14 (4%)	7 (2%)	94 (26%)	228 (63%)	361 (100%)	4.39	1.05
28	Taxpayers might not be evaded tax due to fear of punishments.	18 (5%)	$     \begin{array}{c}       14 \\       (4\%)     \end{array} $	72 (20%)	221 (61%)	36 (10%)	361 (100%)	3.67	0.89
/9	Effective administration of the tax law discourages tax evasion.	32 (9%)	47 (13%)	36 (10%)	159 (44%)	87 (24%)	361 (100%)	3.61	1.23
	The overall mean and Std. Dev. of Attitude of tax Evasion							3.76	1.17

<sup>\*</sup>a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree *Freq*= *Frequency, Std. Dev* = *Standard deviation, Min*= *Minimum, Max* = *Maximum Source: Investigator's own compilation* 

### **4.3.9 Impacts of Peer influence on tax evasion**

The result as summarized in the table 4.3.9 shows that, the mean value of 3.46 and standard deviation of 1.28, that the peer's behavior impacts their compliance. A non-complying peer negatively influences government tax revenue by affecting other taxpayer's complying behavior. If one's peer is penalized because of tax evasion, it is likely that it discourages their intention to evade. Majority of the key informant interview with the tax office employees said that: "*the expectations of an individual with regard to tax non-compliance have a significant impact on the compliant behavior.*"

**Frequency and Percentage of each** N=361 respondents under each weight Total Freq. S/No. 1 3 4 Statement: Peer influence of tax 2 5 % Mean\* Std. Dev. evasion The noncompliance of other 30  $\begin{array}{c}
 14 \\
 (4\%)
 \end{array}$ 18 (5%) 33 (9%) 130 361 (100%) taxpayers impacts negatively other 166 4.15 1.04 (36%) (46%) taxpayers' behavior. My friends attempt to reduce 31 taxes, affects me to attempt to pay 58 108 69 97 29 361 a reduced tax. (16%)(19%)(27%)(8%) (100%)2.81 1.22 (30%)Whenever a taxpayer is penalized 32 for tax evasion, it affects other not 361 40 54 54 36 177 (15%) (15%) to evade tax. (11%)(10%)(49%) (100%)3.42 1.23 The overall mean and Std. Dev. of Peer influence of tax Evasion 3.46 1.28

Table 4.3.9: Impacts of peer influence on tax evasion in Gulele sub city, Addis Ababa

# 4.3.10 Impacts of age of taxpayers on tax evasion

The table 4.3.10 below indicates that, the mean value 3.17 and standard deviation of 1.33 that, young taxpayers are likely to take more risks and as a result likely to engage in tax evasion.

Table 4.3.10: Impact of age of taxpayers on tax evasion in Gulele sub city, Addis Ababa

	N=361	F	Frequency and Percentage of each respondents under each weight						
S/No.	Statement: Age	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
	Young taxpayers are more likely to take risk and engage in tax evasion behaviors.	47 (13%)	90 (25%)	40 (11%)	123 (34%)	61 (17%)	361 (100%)	3.17	1.33
	The overall mean and Sdt. Dev. of Age							3.17	1.33

\*a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree *Freq*= *Frequency, Std. Dev* = *Standard deviation, Min*= *Minimum, Max* = *Maximum Source: Investigator's own compilation* 

# **4.3.11 Effect of gender of taxpayers on tax evasion**

According to table 4.3.11 below, the mean value of 3.52 and standard deviation of 1.27 that, the respondents agreed that women comply more with tax law than men. In addition, men are more risk- takers than women to evade tax.

	N=361		Frequency and Percentage of each respondents under each weight						
S/No.	Statement: Gender	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
34	Females are more likely to comply to the tax laws than men.	32 (9%)	58 (16%)	51 (14%)	130 (36%)	90 (25%)	361 (100%)	3.52	1.27
	The overall mean and Std. Dev. of Gender							3.52	1.27

#### 4.3.12 Impacts of education and awareness creation on tax evasion

As shown the table 4.3.12 below, the mean value of 3.54 and standard deviation 1.31 that, respondents do not feel that government conducted enough awareness creations that would reduce the non-compliance behavior of taxpayers. They think this is very important because knowing well what is required from the taxpayers based on the tax law is helpful for compliance behavior. Majority of key informant interview with the tax office employees described: "*tax authority does not provide sufficient education to taxpayers in order to enhance awareness.*"

Table 4.3.12: Impacts of	education a	nd awareness	creation on	n tax evasion	in Gulele sub
city, Addis Ababa					

	N=361	F	Frequency and Percentage of each respondents under each weight						
S/No.	Statement: Education	1	2	3	4	5	Total Freq. %	Mean*	Std. Dev.
35	The government conducted awareness creations to the taxpayers about the impact of tax evasion in the country economy.	76 (21%)	119 (33%)	40 (11%)	101 (28%)	25 (7%)	361 (100%)	2.67	1.27
36	Knowing my tax obligations helps me to comply to the tax laws.	14 (4%)	40 (11%)	22 (6%)	191 (53%)	94 (26%)	361 (100%)	3.84	1.09
37	Having a good knowledge of the tax law encourages tax compliance.	14 (4%)	32 (9%)	22 (6%)	127 (35%)	166 (46%)	361 (100%)	4.11	1.10
	The overall mean and Sdt. Dev. of Education							3.54	1.31

\*a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree *Freq*= *Frequency, Std. Dev* = *Standard deviation, Min*= *Minimum, Max* = *Maximum Source: Investigator's own compilation* 

Lastly, respondents were asked to list out any determinant which they think affects the tax evasion of taxpayer. Generally, the following were forwarded. First, officials of the tax authority are not ready to serve the taxpayers properly and they are biased by different factors: so, there must be a system which help to asses as well as the employees being given training and working towards free from corruption. Second, respondents complained that the tax rate and tax system is not fair and is not based on the taxpayer's ability to pay and they suggested that the rate and the system able to be fair and based on the taxpayer's ability to pay. Third, the tax authority imposes a higher penalty rate on non-compliance, as suggested by the respondents, this

discourages taxpayers from voluntarily paying their obligations and opens the way to finding evasive loopholes. The tax authority works to ensure that the taxpayer complies with the various mechanisms voluntarily. Many taxpayers are not satisfied with the current tax system; they recommend that the tax authority introduce a modern and efficient system of tax collection that saves time for both the taxpayer's and tax authorities.

#### 4.4 Inferential Statistics results for the study of determinants of tax evasion

Inferential statistics has been used for the study to determine the validity of the data on the different tests of importance for normality, autocorrelation, heteroscedasticity, multicollinearity, and parameter stability test. The data were classified according to each variable into a group of questions. Finally, analyzed the correlation between variables and their effect by correlation matrix and multiple regressions used to test hypothesis, measure the relationship between dependent and independent variables and test the model fitness of factors affecting determinants of tax evasion. Tests and analysis of the data, which is presented below.

### 4.4.1 Test of Heteroscedastic on tax evasion study in Gulele sub city, Addis Ababa

To test for the presence of heteroscedasticity, the Breusch-Pagan test has been employed in this study. This test involves testing the null hypothesis that the variance of the errors is constant (homoscedasticity) versus the alternative that the errors do not have a constant variance (heteroscedasticity). Since the p-values are greater than 0.05, the research could not accept the alternative hypothesis of homoscedastic. The table referring in appendix 4.2 shows that, the P-value is greater than 0.05 that is 0.2704. Therefore, at 5% significance level we do not reject the null hypothesis and there is homoscedasticity that means the variance of the error term is constant.

#### 4.4.2 Test of Autocorrelation on tax evasion study in Gulele sub city, Addis Ababa

It is the assumption of independent error reasonable test. If the errors are correlated with one another, it would be stated that there is a serial autocorrelated. The Durbin-Watson test is used to test for serial correlation between errors. As Brooks (2008) noted that "DW has 2 critical values: an upper critical value (dU) and a lower critical value (dL), and there is also an intermediate region where the null hypothesis of no autocorrelation can neither be rejected nor not rejected."

The rejection, non- rejection, and inconclusive regions are shown on the number line in figure 4.4.1. Hence, the null hypothesis is rejected and the existence of positive autocorrelation presumed; if DW is less than the lower critical value, the null hypothesis is rejected and the existence of negative autocorrelation presumed; if DW is greater than 4 minus the lower critical value, the null hypothesis is not rejected and no significant residual autocorrelation is presumed; if DW is between the upper and 4 minus the upper limits, the null hypothesis is neither rejected nor not rejected; if DW is between the lower and the upper limits, and between 4 minus the upper and 4 minus the lower limits.

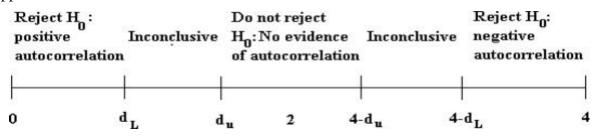


Figure 4.4.1 Durbin-Watson Test rejection and non-rejection area

Source: Brooks (2008) p. 147

Based on the DW test statistic value, the table referring in appendix 4.3 show that, the multivariate regression result is 2.205725. There are 361 observations and 11 explanatory variables in the regression. The relevant critical values from DW table for the test are dL = 1.76, dU = 1.89, so 4 - dU = 2.11 and 4 - dL = 2.24. The test statistic from regression result is clearly between the interval (2.11, 2.24), therefore no evidence for auto- correlation

# 4.4.3 Correlation between the variables on tax evasion study in Gulele sub city, Addis Ababa

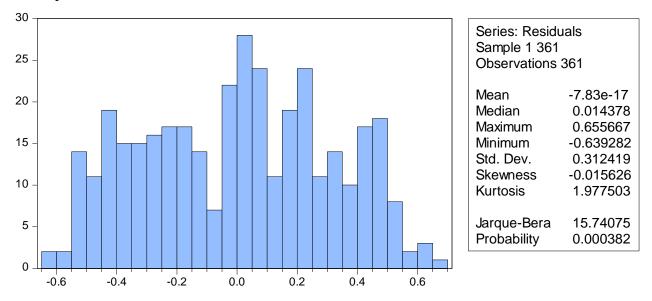
As Brooks (2008) noted that, "the correlation between two variables measures the degree of linear association between them." (p. 28). In addition, Brooks (2008) noted that, "correlation coefficient must lie between -1 and +1 by definition." (p. 108). The table referring in appendix 4.4 show that, the correlation matrix for dependent and independent variables close to 0 correlation coefficient with tax rate, income level, probability of detection, penalty rate, complexity of tax system, perceived role of government, attitude of tax evasion, peer influence on tax evasion, age, gender and education respectively. Therefore, it indicates that variables are mutually interdependent among each other as shown in the conceptual framework of chapter two of this study.

#### 4.4.4 Test of Multi-Collinearity on tax evasion study in Gulele sub city, Addis Ababa

As Wooldridge (2009) discussed that, "value 10 is chosen: if VIFj is above 10 (equivalently,  $R^2j$  is above .9), then we conclude that multi-collinearity is a "problem" for estimating  $\beta j$ ." (p. 99). The result of a multi-collinearity test in the table referring in appendix 4.5 indicated that, the maximal centered variance inflation factor (VIF) value among independent variables is 1.55 and the mean variance inflation factor (VIF) is 1.17. So, in this study there is not any variance inflation factor (VIF) higher than 10. The low variance inflation factor (VIF) indicates that, there is not a problem of multi-collinearity. Therefore, it can be concluded that there is no significant correlation between the explanatory variables of the study.

#### 4.4.5 Test of Normality on tax evasion study in Gulele sub city, Addis Ababa

As Brooks (2008) noted that, a normal distribution is not skewed and is defined to have a coefficient of kurtosis of 3. Figure 4.4.2 below indicate that, the coefficient of skewness close to 0 and Kurtosis 1.98 which is implying that the data were relatively closer to a normal distribution assumption.



# Figure 4.4.2 Normality test for residual test on tax evasion study in Gulele sub city, Addis Ababa

Source: Investigator's own compilation

### 4.4.6 Parameter stability test on tax evasion study in Gulele sub city, Addis Ababa

As Brooks (2014) noted that, we have implicitly assumed that the parameters ( $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ....) are constant for the entire sample period" and we can test this implicit assumption using parameter stability tests. The study has been used Chow test (analysis of variance test) to ensure whether the parameters are constant for the entire sample period or not. The table referring in appendix 4.6 indicated that, we do not reject the above assumption since the p- value (0.6930) is greater than significant level (0.05). Therefore, it concludes that, the parameters are constant for the entire sample period.

### 4.4.7 Regression results of various factors on their effects on tax evasion

The results of the multiple regressions measured the extent of relationship between the dependent variable and the independent variables are presented in table 4.4.1 below. As Brooks (2008) defined, goodness of fit ( $\mathbb{R}^2$ ) as some measure of how well the regression model actually fits the data and answer to the question, how well does the model containing the explanatory variables that was proposed actually explain variations in the dependent variable?

Table: 4.4.1 below demonstrates that, the regression summary of the dependent and independent variable and their results showed that all the explanatory variables tax rate (tr), income level (il), probability of detection (pd), penalty rate (pr), complexity of tax system (cts), perceived role of government (prg), attitude of tax evasion (ate), peer influence on tax evasion (pite), age, gender and education factors) explained the tax evasion (te) by 66.25% and the remaining 33.75% of the model is by extraneous uncontrollable variables (external factors).

Muijs (2004) discuss the rule of thumb in relation with goodness of fit ( $\mathbb{R}^2$ ) measure. The author indicated, "there is a rule of thumb which can be used to determine the goodness of fit ( $\mathbb{R}^2$ ) value as follows: 0.1: poor fit, 0.11 to 0.30: modest fit, 0.31 to 0.50: moderately fit, > 0.50: strong fit."

Therefore, in this study goodness of fit  $(R^2)$  is account 0.6625 (which is greater than 0.50) indicates, the model is strongly fit for predicting the tax evasion dependent variable. The P - value indicates at what percentage or precision level of each variable is significant and insignificant. Based on table 4.4.1 result, all the factors except attitude of tax evasion (ATE) are significant at 95 % confidence interval and their P-value are 0.0000 for TR , 0.0007 for IL, 0.0003 for PD, 0.0011 for PR , 0.0040 for CTS, 0.0000 for PRG, 0.1006 for ATE, 0.0000 for PITE, 0.0000 for AGE,0.0000 for GENDER and 0.0000 for EDUC respectively.

In addition to the explanatory variables the constant value ( $\beta_0$ ) is insignificant at 95 % confidence interval having P-value 0.8005. Based on table 4.4.1 below, Beta ( $\beta$ ) weight reveals that the impacts of each factor show that the change in the dependent variable for everyone unit increase in the explanatory variables, while other variables being held constant. Therefore, the coefficient tells us by average that when independent variable increases by 1 unit the dependent variable is negatively or positively affected by  $\beta$  amount.

The  $\beta_0$  is the constant, where the regression line intercepts of the y axis, representing the amount of dependent, when all the independent variables are 0. Here  $\beta_0$  is -0.03824 implies that if all independent variables are zero then tax evasion will be decreased by 0.03824 and the probability of the coefficient is insignificant at 5%. Therefore, the model that applied in this study is as follows:

# TE=\_0.038+0.094TR+0.081IL+0.076PD+0.085PR+0.066CTS+0.108PRG+0.050ATE+0.105PIT E+0.089AGE+0.112GEN+0.144EDUC+Ui

Based on this model, higher tax rate has a statistically significant positive coefficient of 0.094 at 5% significance level. This implies that, there is 0.094-unit increase in tax evasion for each unit increase in tax rate with respect to other factors held constant. This finding is in line with the findings of, Endashaw (2019), McGee R. W. (2016) and Marshal (2014) who found that tax evasion is increased by an increase in tax rate and in return increases tax burden for voluntary taxpayers.

The regression result both higher and lower income have a statistically significant positive coefficient of 0.081 at 5% significance level. This implies that there is 0.081-unit increase in tax evasion for each unit increase in income level (higher or lower) with respect to other factors held constant. This is in line with the findings of Endashaw (2019), Marshal (2014) cited from Witte and Woodbury (1983) in Richardson (2006) who found that "middle income taxpayers are usually compliant with tax laws, while low income level taxpayers and high income level taxpayers are relatively non-compliant with tax laws."

The regression analysis indicated in Table 4.4.1 states that lower probability of detection has a statistically significant positive coefficient of 0.076 at 5% significance level. This implies that there is 0.076-unit increase in tax evasion for each unit lower in probability of detection with respect to other factors held constant.

This is in line with the findings of Allingham & Sandmo (1972), Jayawardane & Low (as cited in Allingham and Sandmo,1972) found that "an increase in the probability of detection will always lead to a larger income being declared."

According to table 4.4.1 below the regression result, lower penalty and unfair legal enforcement has a statistically significant positive coefficient of 0.085 at 5% significance level. This implies that there is 0.085-unit increase in tax evasion for each unit in lower penalty rate and unfair legal enforcement with respect to other factors held constant. This is in line with the findings of Endashaw (2019), Allingham & Sandmo (1972) and Marshal (2014) who found that to control tax evasion the most strategy used are legal enforcement and severe penalties.

Based on table 4.4.1 below, complexity of the tax system has a statistically significant positive coefficient of 0.066 at 5% significance level. This implies that there is 0.066-unit increase in tax evasion for each unit in complex tax system with respect to other factors held constant. This is in line with the findings of Stankevicius & Leonas and Jayewardene & Low (as cited in Mohani, 2001; Bird, 1998; Silvani and Baer, 1997) who found that the most important determinant is complexity of tax system.

According to table 4.4.1 regression result below, perceived role of government has a statistically significant positive coefficient of 0.108 at 5% significance level. This implies that there is a 0.108-unit increase in tax evasion for each unit and lower perceived role of government with respect to other factors held constant. This is in line with the findings of Amoah, Asuamah, & Amaning (as cited in McGee & Gelman (2008) and McGee, Aljaaidi, & Musaibah, 2012) found that if the tax system is unfair and when the government abuses human rights, tax funds wind up in the pockets of corrupt politicians; tax evasion is more likely to be viewed as justifiable.

According to table 4.4.1 regression result below, attitude of tax evasion has a statistically significant positive coefficient of 0.050 at 5% significance level. This implies that there is 0.05-unit increase in tax evasion for each unit increase in attitude of tax evasion with respect to other factors held constant.

According to table 4.4.1 below, peer influence of tax evasion has a statistically significant positive coefficient of 0.105 at 5% significance level. They also will not comply with the tax rules and regulations. If taxpayer's friends and relatives are not paying their tax liability and are not detected or penalized even after detection, other taxpayers will follow their system of not complying which has a significant factor for tax evasion. This implies that there is 0.105-unit increase in tax evasion for each unit increase in peer influence on tax evasion with respect to other factors held constant. This is in line with the findings of Amoah, Asuamah, & Amaning (2014) and Alabede, Ariffin, & Idris (2011) who found that tax compliance in the group may result from group perceived that it is not fairly treated in respect to tax burden in relation to other groups.

As table 4.4.1 summaries that, the regression result, younger age has a statistically significant positive coefficient of 0.099 at 5% significance level. This implies that there is a 0.099-unit increase in tax evasion for each unit increase (new young taxpayer added) with respect to other factors held constant. This is in line with the findings of Endashaw (2019), Amoah, Asuamah, & Amaning (2014) found that people become more ethical as they get older.

The table 4.4.1 shows below that, the regression result, male has a statistically significant positive coefficient of 0.112 at 5% significance level. This implies that there is 0.112-unit increase in tax evasion for each businessman's join the business world. While other factors held constant. This is in line with the findings of Amoah, Asuamah, & Amaning (2014) cited from McGee (2005) found that ".... male respondents were slightly opposed to tax evasion than were women."

According to table 4.4.1 below the regression result, poor educational background has a statistically significant positive coefficient of 0.114 at 5% significance level. This implies that there is a 0.114-unit increase in tax evasion for each taxpayer's limited tax knowledge while other factors held constant. This finding is in line with the findings of Amoah et al. (as cited in McGee and Tyler, 2007) and Chau & Leung (as cited in Jackson and Milliron, 1986) found that an all-encompassing compliance of taxes are directly related to better education.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.038239	0.151185	-0.252928	0.8005
TR	0.093909	0.022767	4.124848	0.0000
IL	0.080764	0.023637	3.416872	0.0007
PD	0.076361	0.020696	3.689669	0.0003
PR	0.084993	0.025802	3.294081	0.0011
CTS	0.065979	0.022759	2.898987	0.0040
PRG	0.107861	0.020972	5.142997	0.0000
ATE	0.050413	0.030623	1.646275	0.1006
PITE	0.104981	0.025479	4.120285	0.0000
AGE	0.089917	0.013920	6.459592	0.0000
GENDER	0.111787	0.014522	7.697548	0.0000
EDUC	0.143940	0.021902	6.572073	0.0000
R-squared	0.662567	Mean dependent var		3.481994
Adjusted R-squared	0.651931	S.D. dependent var		0.537827
S.E. of regression	0.317304	Akaike info criterion		0.574762
Sum squared resid	35.13794	Schwarz criterion		0.704033
Log likelihood	-91.74463	Hannan-Quinn criter.		0.626157
F-statistic	62.29802	Durbin-Watson stat	2.205725	
Prob(F-statistic)	0.000000			

 Table 4.4.1: Regression results of various factors on their effects on tax evasion in Gulele

 sub city, Addis Ababa

Dependent Variable: TE Method: Least Squares Date: 04/11/20 Time: 13:07 Sample: 1 361 Included observations: 361

\*TE = Tax evasion, TR = Tax rate, IL = Income level, PD = Probability of detection, PR = Penalty rate,

CTS = Complexity of tax system, PRG = Perceived roll of Government, ATE = Attitude on tax evasion, PITE = Peer influence on tax evasion, EDUC = Education.

Source: Investigator's own compilation

Table 4.4.2 below illustrate that the summary result of hypothesis testing, hypothesis of  $HO_1 HO_2$  $HO_3 HO_4 HO_5 HO_6 HO_8 HO_9 HO_{10}$  and  $HO_{11}$  were rejected, that means tax rate, income level, probability of detection, penalty rate, complexity of tax system, perceived role of government, peer influence on tax evasion, age, gender and education were found to be significant determinants of tax evasion at 5% significance level. Hypothesis of attitude of tax evasion (HO<sub>7</sub>) were not rejected that means attitude of tax evasion insignificantly affect tax evasion.

# Table 4.4.2 Summary of hypotheses result on the study of tax evasion in Gulele sub city,A.A

Hypothesis	P-value Expected		Result / Interpretation of	Decision
		Relationship	P-value	Accept/Reject
<b>H0</b> <sub>1</sub> : Higher tax rate encourages tax evasion positively but insignificantly.	0.0000	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, tax rate significantly determines tax evasion since p-value less than its standard error (0.05). The smaller is the p-value, the less plausible is the null hypothesis.	Reject H01
<b>H0<sub>2</sub>:</b> Income level has a positive but insignificant relationship with tax evasion.	0.0007	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, income level significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H0 <sub>2</sub>
H0 <sub>3</sub> : Lower probability of detection through audit encourages tax evasion and have a positive but insignificant effect.	0.0003	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, lower probability of detection significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H0 <sub>3</sub>
<b>H04:</b> Lower penalty have insignificant positive correlation with tax evasion.	0.0011	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, lower penalty rate significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H04
H0 <sub>5</sub> : The complexity of the tax system insignificantly and having positive effect on tax evasion.	0.0040	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, complexity of tax system significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H0₅
H0 <sub>6</sub> : Low perceived role of government's influence on taxpayers' compliance and insignificantly having a positive	0.0000	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, low perceived role of government significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H06

encouragement in tax evasion.				
Hypothesis	P-value	Expected Relationship	Result/ Interpretation of P-value	Decision Accept/Reject
<b>H07:</b> Tax attitude and tax evasion are insignificantly and positively correlated.	0.1006	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, tax attitude insignificantly determines tax evasion since p-vale greater than its standard error (0.05). The higher is the p-value, the more	Do not Reject H07
			plausible is the null hypothesis.	
<b>H0</b> <sub>8</sub> : The influence of the reference groups (that is friends and families) are positively but significantly correlated with tax evasion.	0.0000	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, influence of reference group significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H0 <sub>8</sub>
<b>H0<sub>9</sub>:</b> Younger age and tax evasion are positively but insignificantly correlated.	0.0000	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, younger age significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H09
H0 <sub>10</sub> : Males are not tax evader tax than females.	0.0000	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, males are significantly determining tax evasion that females since p-value less than its standard error (0.05)	Reject H010
H0 <sub>11</sub> : Limited tax knowledge have a positive but insignificant relationship with tax evasion.	0.0000	Positive but insignificant	P-value (plausibility of the null hypothesis) indicated that, limited tax knowledge significantly determines tax evasion since p-value less than its standard error (0.05)	Reject H011

Source: Investigator's own compilation

### **CHAPTER FIVE**

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary

In most developing countries, like Ethiopia, tax evasion has been a general and persistent problem throughout history with serious economic consequences, as a result, the revenue generated by the government is quite less than the expenditures spent. In general, tax evasion increases the amount of resources accumulated by entrepreneurs, but it also reduces the amount of public services supplied by the government, thus leading to negative consequences for economic growth. Recently, W/o Adanech Abebe, who is the former minister of ministry of revenue, has been announced list of business owners who has evaded their income. Ethiopian ministry of revenue announced that Ethiopia has lost 14 billion birr in tax evasion in which 135 companies involved and the minister office will follow the case by the court (Source: : Walta Television, Feb 27, 2019 G.C). There is also complain from taxpayers about the tax system and its administration which is providing by the tax revenue office that lead them to minimize their income as well as overstating their expenses.

The general objective of the study is to determine the factors that causes tax evasion in Addis Ababa city administration revenue authority, the case of Gulele Sub City category "A" and "B" taxpayers branch office. In this research, there were elven potential determinants of tax evasion were analyzed; namely, tax rate, income level, probability of detection, penalty, complexity of tax system, perceived role of government, attitude of tax evasion, peer influence on tax evasion, age, gender and education.

The study findings will be hoped to contribute mainly to the ministry of revenue to have better understanding of why some taxpayers evade their income and prepare themselves to solve this problem and also to contribute towards the understanding of tax evasion in developing countries. The study is limited only to Gulele sub city category "A and B" taxpayer's branch office and those who perform their business in this sub city under category "A" and "B". The research was covering the profit tax, value added tax, and withholding tax collected by the branch office whereas personal income tax, turn over tax, custom duty and excise tax type are excluded from the study. The selection of this three-tax type was be based on the availability and adequacy of sample units and the ability to manage the work within the specified time frame. The study applied both theoretical and empirical literature review.

The research applied an explanatory (causal) research method. Causal research explains what is sometimes called a "cause and effect" relationship. The study was carried out by using both the qualitative and quantitative aspects of the research method. A qualitative approach was used for only triangulation and to enrich the explanation of key informants' opinion to increase the confirmatory of the information investigated in quantitative approach. Alternatively, self-administered survey was used in the quantitative approach for the reason of its flexibility in asking questions and its evaluation of the responses. The sampling designs for this study was category "A" and "B" taxpayers, supervisors, and team leaders of Gulele sub city small taxpayer's branch office. The study was constituting several types of taxpayer which fall in category "A" and "B" by considering a cross sectional data for evaluation according to the nature of their business. The targeted population of the study was category "A" and "B" taxpayers under the sub-city tax authority because of the trustworthiness of these taxpayers is mandatory via law to declare their income or keep books of account

The study had a total target population of 7,671 taxpayers' and among this total population 6,178 was category "A" and 1,493 was category "B" taxpayers. A total of 456 questionnaires were distributed to randomly selected category "A" and "B" taxpayers and 381 questionnaires were returned which is 83.5% from the total distributed questionnaires. 20 questionnaires were incomplete and rejected. and 361 questionnaires were used for analysis.

EViews (version 8.0) software in aggregating with SPPS and Microsoft excel was applied in the study to process quantitative data obtained from the structured questionnaire. Each descriptive and inferential statistics were used to investigate the importance of independent variables on the structured variable that helps to determine the determinant of tax evasion variables which can be independent and dependent are taken into consideration by the study to observe the independent variables dedication on tax evasion. The collected raw data was analyzed using descriptive and inferential statistics. The regression analysis showed that tax rate, income level, probability of detection, penalty rate, complexity of tax system, perceived role of government, peer influence on tax evasion, age, gender, and education factors are statistically significantly affected the tax

evasion while attitude of taxpayers to wards tax evasion is insignificantly affected the tax evasion.

### **5.2 Conclusion**

The general objective of the study was determining the factors that causes tax evasion in Addis Ababa city administration revenue authority, the case of Gulele Sub City category "A" and "B" taxpayers branch office. From the qualitative data collected by using self-administer questionnaire and the triangulation informant interview which has been done by the study, it is reached to the following conclusions about tax evasion:

- According to respondents, the tax being levied is not fair and not based on taxpayer's ability to pay. As a result, it decreases one's motivation for voluntary compliance.
- From the interview as well as the quantitative finding, awareness is a corner stone to improved voluntary compliance.
- From respondent's perception, legal enforcement as well as penalties by itself cannot confirm voluntary tax compliance behavior.
- The study has seen from the responses of the staff that the complexity of tax system encourages tax evasion because taxpayers can identify the loopholes to escape from tax paying.
- The study also showed that attitude and peer influence have a positive effect on tax evasion.
- The regression analysis of the dependent and independent variable showed that all the explanatory variables [tax rate (tr), income level (il), probability of detection (pd), penalty rate (pr), complexity of tax system (cts), perceived role of government (prg), attitude of tax evasion (ate), peer influence on tax evasion (pite), age, gender and education factors] explained the tax evasion (te) and almost all explanatory variables were statistically significant for tax evasion except attitude of tax evasion (ate).
- Goodness of fit, normality, multi-collinearity, heteroscedastic, auto-correlation test of models and parameter stability tests were conducted. The assumption of ordinary least square (OLS) is satisfied with the above tests and the regression model is most probably best linear unbiased estimator (BLUE). Therefore, the study revealed that almost all factors identified in the objectives has played key role in the tax evasion

### 5.4 Recommendation

- According to the study, one of the factors that enhance tax evasion is the degree of tax rates which are considered as high and unfair and discouraging to taxpayers. Therefore, tax authorities and other responsible parties need to analyze the current tax system including tax rate.
- The research findings have showed that the tax authority able to work more on awareness raising to the taxpayers concentrating on the purpose of collecting taxes, how they are calculating taxable amounts and on what they are invested in. If taxpayers understand all these and other related concepts through awareness and capacity development programs, it will reduce the negative perception on tax and at the same time it will increase tax compliance.
- The Gulele sub city taxpayers branch office requires a strong and fair tax evaluation system and good audit coverage at all levels in order to control the customers are pay the right tax extent at the right time, with the minimum administrative and compliance cost for both the tax office and customers. Simultaneously, high probability of early detection will promote compliance with taxes and prohibit tax evasion.
- The tax authority also requires to ensures penalties to tax defaulters and made official to public. This helps to create awareness among the taxpayers and encourage voluntary compliances.
- Tax authorities need to have an inclusive and straightforward approach to improve tax compliance. This means that authorities need to establish easy and understandable tax laws. As the result, tax laws must be simple, easy to understand and certainly, it has an essential effect to remove any confusing loopholes that give room for different interpretation.
- In compliance with tax laws, the influence of reference groups meaning friends and family members are important. Therefore, awareness raising on personal compliance and educating about the benefit and importance of voluntary compliance to the entire society will help to minimize the negative attitudes of families and friends. This will in turn, help to improve tax compliance.

- The ability to evade tax by taxpayers because of the employee of the branch office are incapable to investigate all income reported by taxpayer. So, the branch office able to improve the efficiency of the provision of services to taxpayers.
- To create an efficient tax administration by the branch office, it must capacitate its employee through education and training, computing and supporting the system's operations and allocating additional resources.
- The study recommended the branch office that instead of applying enforcement approach and high penalty rate, it is better to understand the question that has been raised by taxpayers and work together by mutual benefit.
- Finally, in further research area, the investigator suggests that interested researchers can add more new variables to the model, which are expected to affect tax evasion, with the same title. Another conceivable research would be to increase and incorporate taxpayers of categories such as large tax office (LTO) in the federal level into the population, increasing the sample size and finally, conduct a comparative study between taxpayers in the federal and sub city level.

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### **APPENDICES**

# APPENDIX-1: Questionnaire prepared for sample of taxpayers. Questionnaire

## St. Mary's University School of Graduate Studies

## **Department of Accounting and Finance**

## **MBA in Accounting and Finance**

#### Dear Respondents,

The aim of this questionnaire is to seek information about the *Determinants of Tax Evasion: The Case of Gulele Sub City Category "A" and "B" Taxpayers Branch Office*. It is conducted by Tewodros Seyoum and the information you provided in response in the questionnaire will be used as part of the thesis paper in partial fulfilment of the requirements for the MBA in Accounting & Finance at St. Mary's University. Its main objective is to identify and understand the determinants of tax evasions.

As stated above, the data is needed to obtain your perceptions and views regarding various aspects of determinants of tax evasion. Therefore, there is not right or wrong answer.

The information provided is purely for academic purpose and strictly confidential. In order to accomplish this study, you are kindly request to answer every question; your kind cooperation is highly appreciated.

Thank you in advance for your cooperation for your invaluable time to complete this questionnaire.

Researcher's Name: Tewodros Seyoum

MBA student at St. Mary's University Phone number 0911-70 25 79 E-mail: tedisha2@gmail.com

## Questioners

Section I: Background information
Please tick ( $$ ) where appropriate
1) Gender: Male Female
2) Age (in years):
3) Marital Status: Single Married Divorced
4) Educational Level:
Below Secondary School Complete Secondary School
Diploma Degree Master's Degree Above Master's Degree
5) Your status/position in the business company:
Owner Manager Owner and Manager Employee
6) How long is your job experience in the business company in years?
0- 5 years 6-10 years 11-15 Years > 15 Years
7) What is your main business activity?
Import Export Wholesale Trade
Retail Trade Construction
Services Manufacturing
Other,

Section II Questions regarding the determinants of tax evasion

Kindly respond to the following statements to indicate your opinion to each of the statements. (Please put a tick ( $\sqrt{}$ ) mark in the space provided according to your opinion.)

Variables	Questions related with each variable	Strongly	Disagree	Neutral	Agree	Strongly
		disagree (1)	(2)	(3)	(4)	agree (5)
	1. The expansion of tax evasion will increase the amount of					
	resources accumulated by the individuals.					
	2. The expansion of tax evasion will reduce the amount of					
	public services supplied by the government.					
Tax Evasion						
	3. Tax evasion lead the government to unnecessary debt to					
	bridge the fiscal gap.					
	4. In general, business tax rate imposed in category "A" and "B" taxpayer are fair.					
Tax Rate	5. Taxpayers evade tax if tax rates are too high.					
	6. The tax rate is unfair which enhances tax evasion.					
	7. Considering your ability to pay the amount of tax liability you					
Income	have paid increased/large amount year to year.					
	8. Taxpayers with higher business income are more evasive.					
Level	9. Taxpayers with smaller business income are more evasive.					

Variables	Questions related with each variable	Strongly	Disagree	Neutral	Agree	Strongly
		disagree (1)	(2)	(3)	(4)	agree (5)
	10. Taxpayers might not be evaded tax if the probability of					
Probability of detection	<ul> <li>detection is high.</li> <li>11. The tax administration office has the capability to investigate all income reported by the taxpayers.</li> <li>12. Tax evasion is habitual if probability of getting caught is low.</li> </ul>					
	13. If penalty rate is high, there is no possibility that taxpayers evade tax.					
Penalty rate	<ul> <li>14. A good legal enforcement practice increase your tendency on tax compliance.</li> <li>15. Taxpayers who have an awareness of penalties for tax evasion is more compliant.</li> </ul>					
	16. The penalty that taxpayers have paid in the past, it affects the liability of tax that will paid in the next.					
	17. Complexity of tax system create an obstacle to comply the tax law.					
Complexity of tax system	18. Tax administration system in the authority is consistent with each other across years.					
	19. Other professionals are required to assist in formulating tax liabilities due to unclear treatment of tax systems.					
	20. If tax laws are easy to understand, it encourages tax compliance.					

Variables	Questions related with each variable	Strongly	Disagree	Neutral	Agree	Strongly
		disagree (1)	(2)	(3)	(4)	agree (5)
	21. If the government spends too much tax revenue on					
	unnecessary welfare it encourages tax evasion.					
Perceived role of government	<ul> <li>22. If peoples are getting comparable public services from the government for, they tax paid and it enhance taxpayer's compliance.</li> <li>23. If taxpayer's perceptions of tax fairness increases, the level of tax evasion will also decrease.</li> </ul>					
	24. A good political system has positive impact on taxpayer's attitude towards to avoid the tax evasion.					
	25. Taxpayer's behavior towards the general level of tax evasion is dependent on the desirability of the government program.					
Attitude of tax evasion	26. Paying tax is my own responsibility.					
tax evasion	27. Taxpayers might not be evaded tax because of fear of punishments.					
	28. If the tax law should be respected it discourages the attitude of tax evasion.					

Peer				
influence of	29. The noncompliance of other taxpayers has a negative impact on compliant taxpayer behavior.			
tax evasion	30. My friends' action that affect my decision to reduce tax liability.			
	<ul><li>31. If one taxpayer is penalized due to tax evasion that may affects others not to evade tax.</li></ul>			
Age	<ul><li>32. Young taxpayers are more willing to take risks and it has more sensitive to tax evasion.</li></ul>			
Gender	33. Females are more likely to comply tax compliance than men.			
Education	34. The government conducted awareness creations to the tax payers about the impact of tax evasion in the country economy.			
	35. I know all what is required from me in respect of my business obligations, this helps to comply tax compliance.			
	36. Having of good tax knowledge that encourages tax compliance.			

• Is there anything to add in relation to determinants of tax evasion? THANK YOU FOR TAKING TIME TO PARTICIPATE IN THIS SURVEY. CONFIDENTIALITY: The views expressed in the completed questionnaire will be treated in the strictest confidence. Any information identifying the respondent will not be disclose ቅድስት ማርያም ዩንቨርሲቲ

አካውንቲንግ እና ፋይናንስ ትምህርት ክፍል

ውድ የተከበራችሁ ምላሽ ሰጪዎች

ይህ ጥናት የግብር ማጭበርበር ወሳኝ ንላጮች በ አዲስ አበባ ንቢዎች ባለስልጣን በን ለሌ ክፍለ ከተማ ደረጃ "ሀ" እና "ለ" ግብር ከፋዮች የሚል አርዕስት ሲኖረው ፤ አጥኚው ቴዎድሮሰ ስዩም ቅድስት ማሪያም ዩኒቨርሲቲ አካውንቲንግ እና ፋይናንስ ትምህርት ክፍል የሁለተኛ ዲግሪ ተማሪ ነው። ይህ ጥናት የሁለተኛ ዲግሪ ማሙያ ተደርጎ ይወሰዳል።

ዋነኛው የዚህ ጥናት ዓላማ የግብር ከፋዮችን ተፅእኖዎችን መለየት ፣ መረዳት እና የግብር ከፋዮችን ተፅእኖዎች ተዛማችነታቸውን ማወቅ ነው። ስለዚህም ትክክል ወይም የተሳሳተ መልስ የለም።

ይህ ጥናት ትምህርታዊ ለሆነ አንልግሎት ብቻ የሚውል ሲሆን ፤ የእርስዎ ሀሳብ እና አስተያየት ለጥናቱ በጣም አስፈላጊ እና ከፍ ያለ ክብር የሚሰጠው ሲሆን በሚስጥርም የሚያዝ ይሆናል። በዚህ መጠየቅ ላይ መሳትፍ በፈቃደኝነት ላይ የተመረኮዘ ነው። ሰለዚህ ይህን አጠር ያለ መጠየቅ በጥንቃቄ እንዲሞሉ በትህትና እና በላቀ አክብሮት እጠይቃለሁ። ጥራት እና ብዛት ያለው መረጃ በመስጠትዎ ለጥናቱ ተአማኝነት የበኩሎን ሚና ይጫወታሉ።

በመጨረሻም ተሳታፊዎች የጥናቱን ማኝት ጠቅላላ መማለጫ ቢጠይቁ አጥኚው ጥናቱን ከጨረሰ በኋላ ሊያን ች

ይችላሉ። ለሚያደርጉት የላቀ ትብብር እና ፈጣን ምላሽ በቅድሚያ አመሰግናለሁ።

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# ጦጠይቅ

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እባክዎ ከ<mark>መ</mark>ጠይቆቹ አጠንብ ካባሉት ሳጥኖች የሚስማሙበትን ምልክት ያድር*ጉ* 

1.	ፆታ፡ ወንድ ሴት
2.	ዕድሜ፡
3.	የትዳር ሁኔት፡ ያላንባ/ች ያንባ/ች የፈታ/ች
4.	የትምሀርት ደረጃ ፡
	ሁለተኛ ደረጃ በታች ሁለተኛ ደረጃ ያጠናቀቀ/ች ዲፕሎማ
	የጮጀጮሪያ <i>ዲግሪ</i> ሁለተኛዲ <i>ግሪ</i> ሁለተኛ ዲ <i>ግሪ</i> በላይ
5.	በድርጅቱ ውስጥ ያለዎት የሥራ ድርሻ፡
	ባለቤት በራ አስኪያጅ
	ባለቤትእናስራአስኪያጅ ሰራተኛ
6.	በንግድ ድርጅት ውስጥ ምን ያህል የስራ ልምድ አለዎት፡
	0-5 ዓመት 6-10 ዓመት 11-15 ዓመት ከ15 ዓመት በላይ
7.ድ	ርጅቱ ዋና የንግድ እንቅስቃሴ፡
	አስጦጪ ላኪ በጅምላ ንግድ ችርቻሮ ንግድ ግንባታ አንልግሎት ሰጪ ምርት
	ሌላ

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		በእጅ <i>ጉ</i>		ንለልተኛ ነኝ		በእጅ <i>ጉ</i>
<i>ገ</i> ለഞ	ከእያ <i>ንዳንዱ  ገ</i> ላጭ <i>ጋ</i> ር የተዛጮዱ ጥያቄዎች	አልስማማም	አልስማማም	/አይጦለከተኝም	እስማማለሁ	እስማማለሁ
/ላጭ ታክስ ስወራ		(1)	(2)	(3)	(4)	(5)
	1. የግብር ስወራ					
ታክስ ስወራ	2.የግብር ስወራ					
	ያቀጭጫል።					
	3. በታክስ ስወራ ምክንያት መንግስት የበጀት ክፍተትን ለመሙላት					
	3. በይጣጠበሠራ ምግብ አብ ወደ የግበት የበደት ብዱትት በላይ መካከ ወዳልተፈለን ብድር ያመራል።					
	4.በአጠቃላይበደረጃ "ሀ" <i>እና "</i> ለ"					
	ቀረጥ ፍትሃዊ ነው።					
	5. የግብር ቀረጥ በጣም ከፍተኛ ከሆነ ግብር ከፋዮች ግብር ጦሰወር					
	አለባቸው።					
የግብር ተሞን	6. የግብር ቀረጥ ፍትሃዊ ያልሆነ ከሆነ ግብር ስወራን ያበረታታል።					
	7. የሚከፍሉት ግብር የሞክፈል አቅምዎን ከግምት በማስንባት ከዓሞት ወደ ዓሞት					
	እየጨሞረ ነው።					
	8. ከፍተኛ የንግድ ትርፍ ያላቸው ግብር ከፋዮች ግብርን ይበልጥ					
	ይሰውራሉ።					
የንቢ ደረጃ	9.አነስተኛ የንግድ ያላቸው ግብር ከፋዮች ግብርን ይበልጥ ይሰውራሉ።					

	10.ግብርን አለሞክፈልየሞታወቅ እድሉከፍተኛ ከሆነ ግብር ከፋዮች በትክክል እንዲከፍሉ ያበረታታል፡፡		
የጦ <i>ጋ</i> ለጥ እድል	11.የታክስ አስተዳደር ቢሮ የተሞዘንበውን ንቢ ሁሉ ለሞሞርሞር የሚያስችል አቅም አለው።		
	12.በግብር አስተዳደሩ በኩል የጮንኝት እድሉ ዝቅተኛ ከሆነ ግብርን ጮሰውር ትክክለኛ ነው።		
	13.የቅጣት		
	14.ሞልካምየህግ አፈጻጸም ልምዶች የእርስዎን ለሀግተንዢነት ያለዎትን ዝንባሌ ይጨምራል።		
የቅጣት  ጣበን	15.ግብርከፋዮች ግብር ጦሰወር የሚያጦጣውን ቅጣት ካወቁ ግብር አይሰውሩም፡፡		
	16.ቀደም ባሉት  ጊዜያት  ማብር ከፋዩ የከፈለው የቅጣት		
	17. የግብር ሥርዓቱ ውስብስብ ጦሆን የግብር ግዴታን እንዳልወጣ እንቅፋት ይሆናል።		
	18.የባለስልጣኑ የግብር ስርአት አስተዳዳር በሁሉም ዓሞታቶች ላይ ተጦሳሳይነትአለው።		
የግብር ስርዓት ውስብስብነት	19.የግብር ስርዓቱ  ግልጽ  ባለሞሆኑ  ምክንያት ከግብር ጉዳዮች <i>ጋር</i> በተያያዘ የሌሎች ባለሙያዎች እርዳታ ያስፈል <i>ጋ</i> ል፡፡		
	20.የግብር ሀሳች ለጦረዳት ቀላል ቢሆኑ የግብር ስወራንይቀንሳል።		
ከሙንግስት	21.ሞንግሥት ከግብር ከፋዩ የሰበሰበው ንግብር አላስፈላጊ ለሆኑዘርፎች ድ <i>ጋ</i> ፍ ቢያደርግ የግብር ስወራን ያበረታታል፡፡		
የተንኙ ሚናዎች	22.ህዝቦችለሚከፍሉት ግብር ከሙንግሥት ተንቢውን አንልግሎት ቢያንኙ የግብር ስወራን ያጠፋል፡፡ 23. በግብር ከፋዩ አመለካከት የግብር ፍትሃዊነት የተስተካከለ ከሆነ የግብር ጦሰወር ደረጃም እየቀነሰ ይሄደል፡፡		

	36. ጥ수 የግብር ዕውቀት ያለው ግብር			
	35.በእኔየሥራግዴታዎችረንድከእኔየሚጠበቀውንሁሉአውቃለሁ፤ይህ ደግሞ ግብር እንድከፍል ያበረታታኛል።			
ዕውቀት	ተፅኖዎችን በተመለከተ ለግብር ከፋዩ የግንዛቤ ማስጨበጫዎችን ሰቷል።			
ትምሀርት/	34.			
ፆታ	33.ሴቶችከወንዶች በበለጠየግብርግዴታቸውን የጦወጣት እድላቸው ከፍተኛ ነው።			
ዕድሜ	32.በወጣትነት እድሜ ላይያሉ ግብር ከፋዮች ደፋር በጦሆናቸው ለግብር ስወራ ይበልጥ የተ <i>ጋ</i> ለጡ ናቸው።			
ለይ	31.የአንዱ ግብር ከፋይ ቅጣት ሌላኛው ግብር ከፋይ ላይ ተፅእኖ ያጦጣል።			
የአቻ ተጽእኖ በግብር ስወራ	30. የዘሞድ አዝሞዶቼ ተፅኖዎች የኔን የግብር ግዴታዬን ለሞቀነስ ያደረግሁትን ውሳኔ ይለውጣል።			
	29. የግብር ሀጎች በሌሎች ግብር ከፋዮች አለሞከበር በእውነተኛ ግብር ከፋዮች ላይ አሉታዊ ተፅእኖ ይፈጥራል።			
	28. የግብር ህግን ማክበር የግብር ሰወራ ዝንባሌን አያበረታታም።			
ዝንባሌ	27.ግብርከፋዮች ቅጣትን በሞፍራት ነው ግብርን የማይሰውሩት።			
የግብር ስወራ ህን ዓ	26.ግብር			
የመብር እጥ /	25. በአጠቃላይ የግብር ስወራ ደረጃ ላይ የግብር ከፋይ ባህሪው በሙንግስት ፕሮግራም አስፈላጊነት ላይ የተሞሰረተ ነው፡፡			
	24.ጥሩ የፖለቲካ ስርአት ካለ በግብር ስወራ ዝንባሌ ላይ ግብር ከፋዮች አዎንታዊ ተፅእኖ ይፈጥርባቸዋል፡፡			

ተጨማሪ ሃሳብ ካለዎት እባክዎ ይግለፁ።

# APPENIX-2: Test of Heteroscedastic result on tax evasion study in Gulele sub city, Addis Ababa

Heteroskedasticity Test: Breusch-Pagan-Godfrey

E statistic	1.000107	$\mathbf{D}_{11} = \mathbf{E} (11, 240)$		0.0704
F-statistic Obs*R-squared	1.222137 13.38996	Prob. F (11,349) Prob. Chi-Square (11)		0.2704 0.2686
Scaled explained SS	6.116515	Prob. Chi-Square (11) Prob. Chi-Square (11)		0.2080
A.	0.110515	1100. CIII-Squate (11)		0.8055
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 04/11/20 Time: 13:17				
Sample: 1 361				
Included observations: 361				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.055320	0.045761	1.208887	0.2275
TR	0.007919	0.006891	1.149189	0.2513
IL	-0.004450	0.007154	-0.622033	0.5343
PD	0.003428	0.006264	0.547168	0.5846
PR	-0.001888	0.007810	-0.241736	0.8091
CTS	-0.005402	0.006889	-0.784188	0.4335
PRG	-0.002035	0.006348	-0.320620	0.7487
ATE	0.012048	0.009269	1.299854	0.1945
PITE	0.009433	0.007712	1.223118	0.2221
AGE	0.007285	0.004213	1.728987	0.0847
GENDER	-0.006505	0.004396	-1.479814	0.1398
				0.3451
EDUC	-0.006268	0.006629	-0.945461	
R-squared	0.037091	Mean dependent var		0.097335
Adjusted R-squared	0.006742	S.D. dependent var		0.096367
S.E. of regression	0.096042	Akaike info criterion		-1.815385
Sum squared resid	3.219205	Schwarz criterion		-1.686114
Log likelihood	339.6769	Hannan-Quinn criter.		-1.763990
F-statistic	1.222137	Durbin-Watson stat		2.066282
Prob(F-statistic)	0.270444			

\**TE* = *Tax evasion*, *TR* = *Tax rate*, *IL*= *Income level*, *PD*= *Probability of detection*, *PR* = *Penalty rate*,

CTS = Complexity of tax system, PRG = Perceived roll of Government, ATE = Attitude on tax evasion, PITE = Peer influence on tax evasion, EDUC = Education.

## APPENIX-3: Test of Autocorrelation result on tax evasion study in Gulele sub city, Addis Ababa

Dependent Variable: TE						
Method: Least Squares						
Date: 04/11/20 Time: 14:03						
Sample: 1 361						
Included observations: 361						

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.038239	0.151185	-0.252928	0.8005
TR	0.093909	0.022767	4.124848	0.0000
IL	0.080764	0.023637	3.416872	0.0007
PD	0.076361	0.020696	3.689669	0.0003
PR	0.084993	0.025802	3.294081	0.0011
CTS	0.065979	0.022759	2.898987	0.0040
PRG	0.107861	0.020972	5.142997	0.0000
ATE	0.050413	0.030623	1.646275	0.1006
PITE	0.104981	0.025479	4.120285	0.0000
AGE	0.089917	0.013920	6.459592	0.0000
GENDER	0.111787	0.014522	7.697548	0.0000
EDUC	0.143940	0.021902	6.572073	0.0000
R-squared	0.662567	Mean dependent var		3.481994
Adjusted R-squared	0.651931	S.D. dependent var		0.537827
S.E. of regression	0.317304	Akaike info criterion		0.574762
Sum squared resid	35.13794	Schwarz criterion		0.704033
Log likelihood	-91.74463	Hannan-Quinn criter.		0.626157
F-statistic	62.29802	Durbin-Watson stat		<mark>2.205725</mark>
Prob(F-statistic)	0.000000			

TE = Tax evasion, TR = Tax rate, IL = Income level, PD = Probability of detection, PR = Penalty rate, CTS = Complexity of tax system, PRG = Perceived roll of Government, ATE = Attitude on tax evasion, PITE = Peer influence on tax evasion, EDUC = Education.

	TE	TR	IL	PD	PR	CTS	PRG	ATE	PITE	AGE	GEND	EDUC
TE	1.0000											
TR	0.2879	1.000000										
IL	0.2784	0.244172	1.000000									
PD	0.3164	0.258078	0.221022	1.000000								
PR	0.3882	0.130305	0.026047	0.253191	1.000000							
CTS	0.4403	0.168987	0.122166	0.152765	0.184668	1.000000						
PRG	0.4604	0.046170	-0.066648	0.187415	0.351635	0.358042	1.000000					
ATE	0.4399	0.047666	-0.024474	0.119586	0.278421	0.384695	0.428319	1.000000				
PITE	0.5050	0.025220	0.217777	0.145120	0.253823	0.408949	0.328541	0.395201	1.000000			
AGE	0.4082	0.087247	0.205183	0.012968	0.152724	0.143837	0.139666	0.193063 (	0.347568	1.000000		
GEND	0.3985	0.040087	0.001925	-0.003514	0.024474	0.118299	0.125082	0.232290 (	0.184998	0.152791	1.000000	
EDUC	0.3298	0.046719	0.073678	0.068263	0.160705	0.166235	0.120976	0.181662	0.062832-	0.084197	0.115925	1.00000

## APPENIX-4: Correlation Matrix result on tax evasion study in Gulele sub city, Addis Ababa

TE = Tax evasion, TR = Tax rate, IL = Income level, PD = Probability of detection, PR = Penalty rate, CTS = Complexity of tax system, PRG = Perceived roll of Government, ATE = Attitude on tax evasion, PITE = Peer influence on tax evasion, EDUC = Education

## APPENIX-5: Multi-Collinearity test result on tax evasion study in Gulele sub city, Addis Ababa

Variance Inflation Factors Date: 04/11/20 Time: 13:55 Sample: 1 361 Included observations: 361

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.022857	81.95430	NA
TR	0.000518	21.73022	1.160538
IL	0.000559	20.21576	1.242069
PD	0.000428	16.86778	1.201490
PR	0.000666	37.84156	1.271775
CTS	0.000518	27.95164	1.397900
PRG	0.000440	24.52096	1.441662
ATE	0.000938	48.44157	1.490223
PITE	0.000649	28.04801	1.550799
AGE	0.000194	7.692245	1.229956
GENDER	0.000211	10.23689	1.097737
EDUC	0.000480	23.13584	1.105337

#### Average 1.17

 $TE = Tax \ evasion, \ TR = Tax \ rate, \ IL = Income \ level, \ PD = Probability \ of \ detection, \ PR = Penalty \ rate, \ CTS = Complexity \ of \ tax \ system, \ PRG = Perceived \ roll \ of \ Government, \ ATE = Attitude \ on \ tax \ evasion, \ PITE = Peer \ influence \ on \ tax \ evasion, \ EDUC = Education.$ 

## APPENIX-6: Parameter stability test result on tax evasion study in Gulele sub city, Addis Ababa

#### Chow Forecast Test Equation: EQ01 Specification: TE C TR IL PD PR CTS PRG ATE PITE AGE GENDER EDUC Test predictions for observations from 180 to 361

F-statistic Likelihood ratio	Value 0.926643 252.0041	Df (182, 167) 182	Probability 0.6930 0.0005
F-test summary:			
	Sum of Sq.	Df	Mean Squares
Test SSR	17.65529	182	0.097007
Restricted SSR	35.13794	349	0.100682
Unrestricted SSR	17.48265	167	0.104687
Unrestricted SSR	17.48265	167	0.104687
LR test summary:			
	Value	Df	
Restricted LogL	-91.74463	349	
Unrestricted LogL	34.25745	167	

Unrestricted log likelihood adjusts test equation results to account for observations in forecast sample

Unrestricted Test Equation: Dependent Variable: TE Method: Least Squares Date: 05/06/20 Time: 18:34 Sample: 1 179 Included observations: 179

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
С	0.054537	0.237189	0.229932	0.8184	
TR	0.055958	0.031941	1.751932	0.0816	
IL	0.071378	0.034203	2.086913	0.0384	
PD	0.092776	0.027982	3.315607	0.0011	
PR	0.071697	0.037749	1.899316	0.0592	
CTS	0.084870	0.033363	2.543822	0.0119	
PRG	0.090854	0.030058	3.022641	0.0029	
ATE	0.021623	0.045857	0.471530	0.6379	
PITE	0.139822	0.036915	3.787699	0.0002	
AGE	0.092066	0.019926	4.620318	0.0000	
GENDER	0.095466	0.020342	4.693097	0.0000	
EDUC	0.169885	0.033378	5.089729	0.0000	
R-squared	0.654363	Mean dependent var		3.469274	
Adjusted R-squared	0.631597	S.D. dependent var	S.D. dependent var		
S.E. of regression	0.323553	Akaike info criterion		0.645778	
Sum squared resid	17.48265	Schwarz criterion		0.859458	
Log likelihood	-45.79717	Hannan-Quinn criter.		0.732424	
F-statistic	28.74240	Durbin-Watson stat		2.222868	
Prob(F-statistic)	0.000000				

## **APPENIX-7: Work confirmation letter**

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Ref No: smu-0699, 2019 Date: 21 March 2020, 2020

# **Request for Cooperation**

To: Addis Ababa City Revenue Authority Gulele Subcity Small tax payers branch office

Mr **Tewodros Siyoum ID No.SGS/0526/2011A** is a graduate student in the department of **MBA in Accounting and Finance**. He is working on his thesis entitled "Determinants of factors that cause tax evasion in Addis Ababa City Revenue Authority :The Case of Gulele sub city Category "A" and "B" Tax payers and would like to collect data from your institution.

Therefore, I kindly request your good office to allow him to access the data he needs for his/her research.

Any assistance rendered to him/her is highly appreciated.



Guidance Counselor & Thesis Coordinator

