

**MEKELLE UNIVERSITY
DEPARTMENT OF ACCOUNTING AND FINANCE
COLLEGE OF BUSINESS AND ECONOMICS**



**ASSESSMENT OF TAXPAYERS' VOLUNTARY COMPLIANCE WITH TAXATION:
A CASE OF MEKELLE CITY, TIGRAY, ETHIOPIA**

BY:

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Requirements for the Award of the Degree of Master of Science
In
Finance and Investment**

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DECLARATION

I Desta Kassa, hereby declare that the Research project entitled "**ASSESSMENT OF TAXPAYERS' VOLUNTARY COMPLIANCE WITH TAXATION: A CASE OF MEKELLE CITY, TIGRAY, ETHIOPIA**" submitted by me for the award of the Degree of Master of Finance and Investment of Mekelle University at Mekelle, is original work and it has not been presented for the award of any other Degree, Diploma, Fellowship or other similar titles of any university or institution.

Name_____ Signature_____

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CERTIFICATE

I certify that the Research project entitled "**ASSESSMENT OF TAXPAYERS' VOLUNTARY COMPLIANCE WITH TAXATION: A CASE OF MEKELLE CITY, TIGRAY, ETHIOPIA**" is a bona-fide work of Mr. Desta Kassa who carried out the research under my guidance. Certified further, that to the best of my knowledge the work reported here does not form part of any other thesis report on the bases of which a degree or award was conferred on an early occasion on this or any other candidate.

Aregawi G/Michael (Asst. Professor) Signature_____

Date_____

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ABSTRACT

Improved tax compliance boosts the revenues available for supporting public services without increasing the current tax burden on compliant tax payers. There appears to be a trend in tax compliance policies with initiatives by a number of tax authorities to move towards a more taxpayer focused approach. A number of tax authorities have been moving towards a more sophisticated approach to tax compliance. Traditionally there seems to have been an assumption that tax compliance can be ensured with the help of legal enforcement and penalties. These days this is ceasing to be the case, as the taxpayers are demanding more assistance and fair treatment from the tax authorities. Even there seems to have been a shift in attitudes towards treating the taxpayer less as a passive donor who simply has to be billed for taxes due and more as a customer sometimes requiring particular forms of assistance and support. The voluntary compliance behavior of the taxpayers is determined by various factors and identifying these factors and treating them accordingly should be the central premises of any tax system in order to maintain voluntary compliance at satisfactory levels. This study was meant to assess taxpayers' voluntary compliance with taxation in Mekelle city. Based on this fact, both primary and secondary data are used. Descriptive statistical tools and Reliability test, Factor analysis, correlation and multiple regressions are used in analyzing the data collected. According to the study, factors such as equity or fairness, organizational strength of tax authority, awareness level of tax payers, social factors, cultural factors and tax payers' attitude towards the government were found to be the determinant factors affecting taxpayers' voluntary compliance. Finally, based on the findings possible recommendations were given. These include, maintaining tax fairness and equity, building capacity of the tax authority, conducting extensive awareness creation programs, and providing social services to the general public.

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ACRONYM

ATG – Attitude of tax payers towards the government

AWR – Awareness level of tax payers

CFS – Cultural factors

FAS – Fairness or equity

FDRE – Federal Democratic Republic of Ethiopia

OSTA – Organizational strength of tax authority

SFS – Social Factors

TCOMP – Tax compliance

E_i – Residual term

β – Coefficient for X_i

H_a –Alternate hypothesis

H₀ –Null hypothesis

CHAPTER ONE

Introduction

1.1. Background of the Study

Tax may be defined (Bhatia, 2003) as a compulsory contribution (levy) by an economic unit to a government without expectation of direct and equivalent return (*quid pro quo*) from the government for the contribution made. Government needs financial resources to act as a government and play a role that is expected from it by the public. So what the government gives it must first take away. The economic resources available to society are limited, and so an increase in government expenditure normally means a reduction in private spending. In this regard James (2000) states that taxation is one method of transferring resources from the private to the public sector. Other writers (Auld & Miller, 1984) describe the role of taxes as an instrument that stabilizes the economy, and reduces private demand so that resources can be released for public sector use. Generally, governments levy taxes for multiple of purposes, but mainly to raise funds in order to cover public expenditures and on the other hand to properly allocate resources.

As stated in Misrak T. (2008), the history of taxation in Ethiopia has a relationship with the government structures of the country; there exist hardly any reliable documentary evidences to justify the relation of emergence of government and taxation, when exactly taxation was introduced. Different stories and evidences point out that Emperor Zeria-Yakob started taxation in Ethiopia during the 15th century. Governments which came to power in Ethiopia at different periods have frequently revised and repealed the statutory bases for various types of taxes providing for tax bases and tax rates, time and mode payment, exemptions and offenses. However, there has been no document or materials produced which compiles tax proclamations issued at different periods.

The initial statutory bases for all the tax proclamations was the 1931 Constitution of Ethiopia which later revised and become Revised Constitution of Ethiopia. Because most of the products on which tax was levied (tax bases) were agricultural products, the type of taxation in traditional periods was unstructured and mostly in kind. Taxation in that period was varying highly from area to area and was often arbitrary, i.e. the amount to pay and the mode of payment depends on the will of the chief tax collector and the kind of resources available in the area.

According to the Constitution of Federal Democratic Republic of Ethiopia, revenue sources are assigned between Federal government and Regional states. Regional states can endorse their income tax proclamation and regulations based on the constitution in conformity with the federal income tax proclamation. According to the federal income tax proclamation no.286/2002 taxpayers are categorized into three categories, namely category “A”, “B”, and “C” based on their volume of sales and form of business. Subsequently, the Tax Authority will determine whether the taxpayer shall continue in the same category or should be shifted from one category to the other.

Category “A” includes any company incorporated under the tax law of Ethiopia having annual turnover of Birr 500,000 and more. Those who are categorized under “A” have to maintain all records and accounts which will enable them to submit a balance sheet and profit and loss account disclosing the gross profit, general and administrative expenses, depreciation, and provisions and reserves together with supporting vouchers (Council of Ministers Regulation no. 78/2002: Article 18, Sub Article 2).Category ‘B’ includes those enterprises having annual turnover of more than Birr 100,000 and less than Birr 500,000. This category of taxpayers must submit profit and loss statement at the end of the year.

The law requires all entries in the records and accounts to be supported by appropriate vouchers (Council of Ministers Regulation no. 78/2002: Article 18, Sub Article 2). Category ‘C’ unless already classified in categories ‘A’ and ‘B’ include those taxpayers whose annual turnover is estimated by the Tax Authority at Birr 100,000 or less.

On the other hand, standard assessment is used to determine the income tax liability of Category ‘C’ taxpayers. This type of assessment is a fixed amount of tax determined in accordance with the Council of Ministers Regulation established Schedules. This category of taxpayers is the most problematic category of taxpayers and it is considered as hard to tax group. This is due to the fact that these taxpayers pay taxes at fixed rate on the income estimated by the tax authority rather than declaring their income by themselves. Their daily income is estimated by assessment committee and the taxpayers have little room to address their view.

Citizens’ inclination to cooperate with the state and its institutions in general and their willingness to pay taxes in particular, depend on a variety of variables. While economists stress the relevance of external variables such as tax rate, income and probability of audits and severity of fines, psychological research shows that internal variables are of similar importance: taxpayers’ knowledge of tax law, their attitudes towards the government and taxation, culture, personal norms, perceived social norms and fairness, as well as motivational tendencies to comply are determinants factors shaping tax behavior (Kirchler, 2007). Empirical research on determinants of tax behavior has shown mixed evidence on the specific weight of economic variables: some studies found audits and fines to increase compliance; other studies have not found any or even opposite effects (Fischer, Wartick & Mark, 1992; Andreoni, Erard & Feinstein, 1998). The inconsistency of patterns of results suggests that economic and psychological determinants operate differently under different circumstances. Kirchler, Hözl and Wahl (2008) developed a model suggesting that audits and fines are relevant under the condition of low trust in governmental institutions and tax authorities in particular, especially if the government has the power to exert audits effectively.

In a climate of mutual distrust, citizens can be forced to comply. On the other hand, if the climate is characterized by mutual trust, audits and fines would signal authoritarianism and distrust, and thus, rather than increasing compliance, be ineffective or even counterproductive. In a climate of mutual trust, citizens have positive representations of the tax systems and tax authorities and cooperate spontaneously. High subjective tax knowledge, favorable attitudes, personal and social norms of cooperation, as well as perceived fairness of the tax system are the basis of a motivational tendency to cooperate, of trust, and of voluntary compliance (Kirchler, 2007).

Hence, voluntary compliance is the desire or willingness of the taxpayers to act in accordance with the tax law and the voluntary effort they exercise to pay their tax liability on timely basis.

The tax system must be fair, both to promote the objective of an equitable distribution of income and to assure continued voluntary compliance by the taxpayer (Eckstein, 1979). Successful tax administration requires tax payers to cooperate in the operation of a tax system rather than to be forced to carry out every aspect of their tax obligation. That is tax law cannot cope with every eventuality and therefore has to be supplemented with supporting provisions (James and Wallschutzky, 1995). Administrative procedures and decisions as well as appeal arrangements all have a part to play but the tax system cannot work properly without a reasonable degree of voluntary compliance on the part of taxpayers' themselves.

The paper has, therefore, tried to assess factors that affect tax payer's voluntary compliance with taxation.

1.2. Statement of the Problem

As stated by Scholz (1998) cited in Fjeldstad (2004), without trust there is little basis for social co-operation and voluntary compliance with laws and regulations that could potentially benefit everyone. A topic which has interest from a variety of commentators is the issue of tax compliance. No tax system can function effectively without the co-operation of the great majority of tax payers, so the factors which affect compliance are important. The definition of compliance is usually cast in terms of the degree to which tax payers comply with tax law. It has been said that the degree of non-compliance can be measured in terms of the 'tax gap'.

This represents the difference between actual revenue and that which would be received if there were 100% compliance (James, 2000). Voluntary compliance is a function of public attitude towards taxation and organizational strength (efficiency and effectiveness) of the tax authority. Public attitude towards taxation is also in turn affected by the social, cultural, and political factors as well as awareness about tax and fairness of the tax system. If it is perceived that only those who are wealthy or dishonesty or both benefit from non- compliance, this might reduce 'tax morale' and the willingness of the rest of the population to comply.

Ethiopian modern tax administration is not older than half a century. It has undergone several legal amendments during this time. But the improvement is not as big as its age as far as citizen's voluntary compliance is concerned. The tax system in the country mainly stresses on legal enforcement as a remedy to ensure its proper functioning. For example, the income tax proclamation (no. 286/2002) has increased the amount of penalties and strengthened the means of enforcement while it states nothing about how to create and increase the awareness of the taxpayers. It gave the tax authorities the right to sell the property of evaders without going to courts in order to collect the outstanding tax liability. Most of the reform efforts basically targeted institutional capacity building and putting enforcing legal frameworks in place while only insignificant effort, if any was deployed to make the public aware of the benefits of paying tax to the nation.

In a country like Ethiopia where the contribution of revenue to the overall economic development is believed to be very much significant, more local studies on the assessment of tax payers voluntary compliance with tax law is required so as to provide the policy makers and the implementers in the area with relevant information that can help them in designing the appropriate tax system. According to the officials of Mekelle City Revenue Development Office, however, there are no documented researches undertaken on the assessment of tax payer's voluntary compliance with tax.

This study has, therefore, tried to assess tax payers' voluntary compliance with tax law with a special reference to category "C" tax payers in Mekelle, Tigray regional state.

1.3. Objectives of the Study

General objective

The main objective of the study is to assess tax payers' voluntary compliance with taxation in the study area.

Specific objectives

The specific objectives of the study include:

- To explore factors that motivates tax payers to pay taxes.
- To identify the determinant factors that affect tax payers' voluntary compliance with tax law.
- To suggest possible courses of action that can help the policy makers and implementers to improve the tax system.

1.4. Research Questions

The study is undertaken to address the following research questions:

- What are the factors that motivate taxpayers to pay taxes?
- What are the variables that generally affect taxpayer's voluntary compliance?

1.5. The Regression Model and Hypothesis

The Regression Model

$$TCOMPi = \alpha_0 + \beta_1 FAS_i + \beta_2 OSTA_i + \beta_3 AWR_i + \beta_4 CFS_i + \beta_5 SFS_i + \beta_6 ATG_i + E_i$$

Source: Richardson (2006)

Richardson had used the above model to identify the direct association between the five dimensions of tax fairness and the tax compliance but the current study has modified the model to identify the direct association between the six determinant factors and tax compliance in Mekelle City, Tigray Regional State. It is basically used to identify the determinant factors that affect tax payers' voluntary compliance with tax law (Research question number two) in the study area.

The abbreviations of the terms in the model are as follows:

FAS	- Fairness or Equity
OSTA	- Organizational strength of tax authority
AWR	- Awareness level of tax payers
CFS	- Cultural factors
SFS	- Social factors
ATG	- Attitude of tax payers towards the government
TCOMP	- Taxpayers compliance
Ei	- Residual term
β	- Coefficient for X_i

The Hypotheses

H₁: **H_a:** There is a positive relationship between Fairness and Tax Compliance.

H₀: There is a negative relationship between Fairness and Tax Compliance.

H₂: **H_a:** There is a positive relationship between Tax Authorities Strength and Tax Compliance.

H₀: There is a negative relationship between Tax Authorities Strength and Tax Compliance.

H₃: **H_a:** There is a positive relationship between Awareness and Tax Compliance.
H₀: There is a negative relationship between Awareness and Tax Compliance.

H₄: **H_a:** There is a positive relationship between Culture and Tax Compliance.
H₀: There is a negative relationship between Culture and Tax Compliance.

H₅: **H_a:** There is a positive relationship between Social factors and Tax Compliance.
H₀: There is a negative relationship between Social factors and Tax Compliance.

H₆: **H_a:** There is a positive relationship between Taxpayers' attitude towards government and Tax Compliance.
H₀: There is a negative relationship between Taxpayers' attitude towards government and Tax Compliance.

1.6. Significance of the Study

Taxes are fundamental to the existence of governments for the tax revenues finances the bulk of services that government provides including education, welfare, public safety, infrastructure, and basic public services. Improved tax system improves the revenues available for supporting public services without increasing the current tax burden on compliant tax payers. Moreover, improved tax system bolsters citizen's satisfaction by increasing their faith in the system and promoting the perception that everyone pays its legal share.

The impact of tax payer's attitude towards taxation is the major factor that determines the success of a tax system. Unless these voluntary compliance determinants are pointed out and addressed properly, it may be difficult to design an efficient and effective tax system that helps to narrow the existing compliance gap.

Hence, this study will have a significance to provide relevant information to policy makers and other concerned bodies in addressing voluntary compliance problems.

Besides, the study is believed to trigger the importance for undertaking further research on the area as the tax payers voluntary compliance is not researched well.

1.7. Scope of the Study

This study is limited to the assessment of tax payers' voluntary compliance with taxation with respect to category 'C' tax payers found in Mekelle city, Tigray regional state because category 'C' tax payers are not required by law to declare their income or keep books of account, and considered as hard-to tax group. Moreover, the study focused on tax payers who are registered under category 'C' starting from 2005 to 2009.

Category 'A', 'B' and Some category 'C' tax payers whose taxable income is objectively determined based on source documents or according to their capacity (Income Tax Regulation No. 78/2002), are beyond the scope of the study.

1.8. Limitation of the Study

Taxpayers' voluntary compliance is affected by various factors. Against this view, had assessment of taxpayer's voluntary compliance with taxation had been made by including all the variables that are expected to affect taxpayers compliance behavior; the result would have been more precise and valid. Because of financial resource and time limitation, however, the study is mainly limited to the assessment of taxpayers' voluntary compliance with taxation considering only some variables.

1.9. Organization of the Study

This paper is divided into five chapters that covered Introduction, Literature Review, Research Methodology, Research Results, and Conclusion and Recommendation. The outlines of the five chapters are as below.

Chapter 1: Introduction

This chapter provides an overview of the study. It contains general introduction to the issues with which the study is concerned, problem statement, objectives and research questions, hypothesis and regression model, significance of study, scope of study, limitations and organization of the study

Chapter 2: Literature Review

This chapter assesses previous literature and studies relevant to the fields and related topics. A literature review also provides a rationale for the proposed study by placing it next to the previous studies.

Chapter 3: Research Methodology

This chapter describes and explains the research methodology used in the study. Key topics of this chapter include description of the study area along with the research methodology employed, research instrument, sampling design, data collection procedures, and data analysis techniques.

Chapter 4: Research Result

This chapter describes overall findings. It summarizes the statistics of respondents' demographics, respondents' response on their knowledge about taxation, respondents' response on motivational factors, content analysis of open ended questions, result of statistical analysis, and discussion of the research results. Results and data analysis are presented in the form of text, figures, tables, etc.

Chapter 5: Conclusions and Recommendations

And finally conclusions, recommendations and direction for future research are presented under this chapter.

CHAPTER TWO

Literature Review

2.1. Theoretical Framework

2.1.1. Definition of Tax Compliance

The definition of tax compliance in its most simple form is usually cast in terms of the degree to which taxpayers comply with the tax law. However like many such concepts, the meaning of compliance can be seen almost as a continuum of definitions. This ranges from the narrow law enforcement approach, through wider economic definitions and on to even more comprehensive versions relating to taxpayer decisions to conform to the wider objectives of society as reflected in tax policy.

Taking the narrow end of the continuum first, one suggestion is that the degree of non-compliance may be measured in terms of the ‘tax gap’. This represents the difference between the actual revenue collected and the amount that would be collected if there were 100 per cent compliance. Andreoni, Erard and Feinstein (1998) include a time dimension to compliance but are still mainly concerned with tax evasion as the central part of the tax gap definition. As they put it: ‘A popular indication of the magnitude of evasion is the tax gap - the difference between the federal income taxes households actually owe, and what they report and pay voluntarily on a timely basis.’ Regarding time dimension, James (2000) states that a tax payer might eventually pay his/her full liability but, if the payment is late, the taxpayer cannot be considered to have been compliant. A more recent definition of compliance by Brown & Mazur (2003) consists of three distinct types: payment compliance, filing compliance and reporting compliance. However, these basic concepts of the ‘tax gap’ of non-compliance seem to be far too simplistic for practical policy purposes.

Successful tax administration requires taxpayers to co-operate in the operation of a tax, rather than be forced to undertake every aspect of their obligations unwillingly. The Internal Revenue Service (IRS, 1996) has two definitions - gross tax gap and the net tax gap. The gross tax gap is the amount of 'true' tax liability that is paid 'voluntarily' and on time and the net tax gap is this amount less tax paid late or collected by the Internal Revenue Service through enforcement activities. Both the gross and net tax gaps can be subdivided into the three main components (Internal Revenue Service, 1996) - the non-filing gap, the under-reporting gap, and the underpayment gap. The underreporting gap is in turn made up of three elements - underreported income, overstated offsets and net arithmetical mistakes.

A major concern with such definitions is that they might be taken to indicate a certainty in the measurement of tax compliance that does not exist. Tax law is not always precise. Indeed, although legal definitions are often of the tax gap form, there are sometimes practical difficulties of interpretation. Bergman (1998) suggests that tax compliance 'is what the state assumes is legally owed by taxpayers, but the state and taxpayers do not necessarily share the same interpretation'. The extent to which taxpayers dispute the meaning of the tax law can depend on a number of things, including their basic willingness to comply with a tax system. The basic concept of the 'tax gap' of non-compliance seems to be inadequate. The 'tax gap' definition and measure are far too simplistic for practical policy purposes since successful tax administration requires taxpayers to cooperate in the operation of a tax system rather than to be forced to carry out every aspect of their tax obligations. Tax law cannot cope with every eventuality (James and Wallschutzky, 1995) and therefore has to be supplemented with supporting provisions.

Administrative procedures and decisions as well as appeal arrangements all have a part to play but the tax system cannot work properly without a reasonable degree of willing compliance on the part of taxpayers themselves. There is the question whether 'compliance' refers to voluntary or compulsory behavior. If taxpayers 'comply' only because of dire threats or harassment or both, this would not appear to be proper compliance even if 100 per cent of the tax were raised in line with the 'tax gap' concept of noncompliance.

Instead, it might be argued that successful tax administration requires taxpayers to comply willingly, without the need for enquiries, obtrusive investigations, reminders or the threat or application of legal or administrative sanctions. A more appropriate definition could therefore include the degree of compliance with tax law and administration, which can be achieved without the actual application of enforcement activity. This ‘voluntary’ aspect appears in the definition supplied by Andreoni et al. (1998) which recognizes a basic difference in terms of compliance between tax paid without direct enforcement activity and tax paid as a result of it.

If taxes were considered to be intrusive or unfair, taxpayers might wish to reduce their tax liability by working less. Even though this will have a cost to themselves that might be outweighed by a feeling of revenge. It is also possible that taxes might be used as an excuse to avoid unwanted overtime or other obligations. It is not known how powerful any spite effects might be but it is clearly possible that, apart from the direct costs of compliance themselves, difficulties in the willingness of taxpayers to comply might affect the revenue potential itself. The ‘tax gap’ definition of non-compliance might then have been partly satisfied because there is less to collect.

A fuller economic definition of compliance should also take into account other possible economic effects of the tax system and its enforcement. There has been some economic analysis of such possibilities, for example, by Cowell (1985) who considered the case where a worker can choose not just between working in the legal or illegal sectors but how much time to spend in work of any sort as opposed to leisure. It has also been specifically shown that uncertainty in tax audits could affect labor supply (Horowitz & Horowitz, 2000). It seems reasonable to conclude that tax administration could reduce potential tax revenue by discouraging taxable economic activity. Paradoxically, therefore, a severe tax enforcement policy could even claim to have improved tax compliance by the narrow ‘tax gap’ definition because it would have reduced the amount there was to collect. Timing issues will also affect the value of the potential revenue available. A taxpayer might eventually pay his or her full liability but if it is paid late it cannot be considered to be full compliance or worth as much as tax liability paid on time or even before the due date. In economic terms, money in the future is worth less than the same nominal sum of money now.

If the Government does not receive tax payments on time it either increases the amount it has to raise elsewhere or reduces the revenue available for public expenditure. Although late payments of tax fit many of the ‘tax gap’ measures, they do not represent full compliance. As already indicated above, tax compliance may be seen in terms of tax avoidance and tax evasion. The two activities are usually distinguished in terms of legality, with avoidance referring to legal measures to reduce tax liability and evasion to illegal measures. James (2000) describes tax avoidance as the legal manipulation of an individual’s affairs in order to reduce tax. Clearly tax evasion is a form of non-compliance.

However, if taxpayers go to inordinate lengths to reduce their liability, this could hardly be considered ‘compliance’ either. Such activities might include engaging in artificial transactions to avoid tax, searching out every possible legitimate deduction, using delaying tactics and appeals wherever this might reduce the flow of tax payments and so on. ‘Tax exiles’ even seem to prefer to emigrate rather than fulfill their obligations as citizens.

Even if such activities are within the letter of the law, they are clearly not within the spirit of the law. Compliance might therefore be better defined in terms of complying with the spirit as well as the letter of the law. Many of the studies of compliance are concerned with intentional non-compliance. There is, however, considerable scope for unintentional non-compliance. Full compliance may require positive actions on the part of the taxpayer to discharge his or her legal duties in full. It may be that taxpayers innocently fail to meet their tax obligations because they fail to complete their tax returns correctly or are unaware of, or misunderstand, various provisions of the tax system, or for similar reasons. Attempts by different tax authorities to improve tax administration in this respect have often found the problem of assisting taxpayers more difficult than might at first appear (James et. al., 1987 and James, Sawyer & Wallschutzky, 1998).

The tax avoidance/evasion issue may be important with respect to tax compliance for another reason. The two activities are defined the way they are with an implicit assumption that it is always possible to distinguish between the two. Of course, this is not always true.

Since taxation is not always precise, Seldon (1979) in James et al (2003) has coined the term tax ‘aversion’ to denote those areas of the tax system where the law is unclear. To the extent that there is such uncertainty in a tax system, it follows that tax compliance should follow the spirit of the law. It would therefore seem that compliance is a much wider issue than simply the gap between actual revenue and some concept of 100 per cent of revenue collected.

In all the expressions, compliance can be understood as acting in accordance with the law and non compliance is deviation from the law. Based on the above expressions the definition of tax compliance can be shortly refined as the desire or willingness of the taxpayers to act in accordance with the tax law and the voluntary effort they exercise to pay their tax liability on timely basis.

2.1.2. Factors Determining Tax Compliance Behavior

Jackson and Milliron (1986) listed fourteen main factors that have influenced tax compliance as discussed by various researchers. These factors are age, gender, education, income, occupation or status, peers’ or other taxpayers’ influence, ethics, legal sanction, complexity, relationship with taxation authority (IRS), income sources, perceived fairness of the tax system, possibility of being audited and tax rate. Various researchers have listed factors that influenced tax compliance such as demographic, income, compliance cost, and tax agents (Mohani, 2003), in addition to moral or ethical factors (Singh, 2003; Kasipillai et al., 2003).

Other researchers (Sour, 2002; Keller, 1997; Trivedi, 1997; Hamm, 1995; Chang et al., 1987) listed enforcement element factors (such as penalty, audit, and tax rates) as having a great influence on tax compliance behaviors. Tax compliance behaviors of a taxpayer usually differ from the compliance behaviors estimated in economics models. Taxpayers are greatly influenced by other taxpayers. Besides, the rate and quality of audit will also influence tax compliance behaviors of a taxpayer (Trivedi, 1997).

Due and Friedlaender (1981) also state that a person’s preference for a tax may be influenced if the tax- or an increase in it- is tied directly to the expenditures he strongly favors. Generally, attitudes toward choice of taxes and tax structures are greatly influenced by various criteria- often called principles- of taxation that have come to be widely accepted.

A comprehensive review of determinants of tax payers' voluntary compliance with taxation such as cultural background of tax payers, their awareness level, fairness/equity, tax payers' attitude towards government, socio-political factors, organizational strength of tax authority, will be touched. The empirical work of various researchers and other reference materials are scanned to have basic conceptual framework of the subject matter.

2.1.2.1. Fairness/Equity

As stated in Bhatia (1976), a good tax system, in order to achieve various objectives, chooses and adheres to certain principles which become its characteristics. A good tax system, therefore, is one which is designed on the basis of an appropriate set of principles, such as equality or fairness and certainty. Since fairness of a tax system is its corner stone a brief overview can be presented in the following paragraphs.

According to James (2000), the most obvious requirement of equity or fairness is to treat equal people in equal circumstances in an equal way. The problem here is in deciding who is equal to whom. Similarly, Due and Friedlaender (1981), also argue that what is fair or equitable in taxation is inevitably a value judgment; no scientific specification of an equitable distribution pattern is possible, or people may be equal income wise while they may be unequal regarding their expenditure, wealth, total utility and so on. Such a pattern can be specified only on the basis of a consensus of attitudes of persons in the contemporary society.

Lemessa (2005) also adds that a major responsibility is to ensure that all taxpayers dealt with by a given official are accorded similar treatment and that all officials dealing with a given taxpayer would accord the same treatment. Similarly, Brooks (2001) states that fairness has always been widely regarded as the most important criteria in judging a tax system.

The problem of unfairness is that a tax system allows taxes to be shifted from dishonest to honest taxpayers. The fairness of a tax system may also be perceived in different ways by the taxpayers and tax authorities. What is fair in the eye of the tax authorities may not have the same image in the mind of the taxpayers.

According to Bhatia (1976), the attitude of taxpayers is an important variable determining the contents of a good tax system. It may be assumed that each taxpayer would like to be exempted from taxpaying, while he would not mind if others bear that burden. In any case, he would want his share to be within the general level of tax burden being borne by others. If this is not so, he will feel exploited.

Similarly, Due and Friedlaender (1981), argue that persons will oppose taxes that they feel strike them “unfairly” and allow others to escape a “reasonable” burden, and they will favor taxes they accept to concentrate on others, especially when “others” are non-humans such as corporations. To sum, regardless of this inherent problem ensuring the fairness or equity of a tax system is second to nothing. To put it differently, it is essential that a good tax system should appear equitable to the tax payers.

2.1.2.2. Organizational Strength of Tax Authorities

According to Bird and Oldman (1967), no tax will work effectively, unless its administrators maintain an aggressive attitude with respect to the correctness of the taxpayers’ actions. Some taxpayers will fail to file or make mistakes through ignorance or neglect; others will deliberately cheat. A passive attitude by the authorities towards these errors and falsifications will soon undermine the entire structure, since the diligent and honest taxpayers will almost in self-defense be forced to the level of the careless and dishonest. A tax administration which seeks compliance must protect those who comply or else compliance will not be forthcoming. Most commentators, policy makers, and tax administrators agree that voluntary compliance would be greatly facilitated by the existence of a simplified tax structure.

Indeed, without institutional simplification that enables tax payers to fulfill their responsibilities more effectively, even the most elaborate service offered to tax payers by the tax administration would be lost in a sea of confusion, waste, and widespread disrespect of the law (Bahl, 1989; Jenkins, 1992). A simpler tax structure will make it easier for tax payers to assess their tax liability and thus comply more fully with tax laws.

Bird and Oldman (1967) further state that the sure sign of ineffective tax administration is the presence of a very large delinquency in tax payments for it indicates the lack of taxpayer respect for the tax system. The taxpayer in effect is acting on his belief that the administrative machinery may bark, but that it has no bite. These writers argue that in large part the solution for the large delinquency lies in providing the bite. In this sense effective tax collection is a facet of the larger problem of providing adequate penalties, to which reference will later made. In other words tax is evaded to the extent that tax authorities are perceived as weak by taxpayers. A tax system doesn't function in a vacuum. Its relationship with at every turn are with the public, and since the combination of taxes reaches nearly every individual in one way or another, the administration finds itself dealing with the nation as a whole. Hence, inevitably its operations and effectiveness are affected by the attitudes of the nation towards the tax system (Bird and Oldman, 1967). But while tax administration is thus affected by these national attitudes (Bird and Oldman, 1967); it is equally true that the attitudes can in turn be affected by tax administration.

Rational and efficient procedures, higher personnel standards, better management, improvement in relation with the public and in the daily contacts between tax official and taxpayer, can operate to increase the public respect for the tax administration. Moreover, once the tax administration has been placed on a sound basis, it is in a position to assert that compliance must be forthcoming. Such an assertion would hardly be tolerated or even taken seriously, as long as tax officials were themselves inefficient and corrupt. But if the administration has brought stability and honesty to its own operations, the self-respect thus achieved can form the foundation for its demand of respect and compliance from the tax payer.

Lemessa (2005) states that tax systems that depend on ad hoc administrative procedures rapidly become discredited and endanger compliance. To encourage compliance it is equally important that tax authorities administer the law fairly. This implies both an absence of arbitrary or corrupt behavior on the part of the officials, and "normative standards" to ensure that the same laws are applied and administered in a standard fashion across the board. A taxpayer (Peacock and Forte, 1981) will be more receptive to information on his obligation if, in his efforts to comply, he receives a reasonable degree of service from the revenue administration.

Poorly drafted forms, long waiting lines and even charges for acquiring them, bureaucratic hassle in processing the case, rudeness from the officials, cumbersome appeal procedures, and the like, can repel even the most loyal taxpayers.

On the other hand the ways in which revenue authorities interact with taxpayers and their own employees have an impact on public perception of the tax system and the degree of voluntary compliance. Taxpayers who are aware of their rights and expect, and in fact receive, a fair and efficient treatment are more willing to comply. Voluntary compliance is promoted not only by an awareness of rights and expectations of a fair and efficient treatment but also by clear, simple and “user friendly” administrative systems and procedures. Voluntary compliance is enhanced when it is easier for taxpayer to do so.

2.1.2.3. Awareness level of Taxpayers

James (2000) argues that the norm is usually to comply rather than not to comply. As already pointed out for a tax system to be effective the majority of the taxpayers have to comply. It follows that there may be greater gains in assisting basically compliant taxpayers to meet their fiscal obligations than in spending more resources in pursuing the minority of non-compliers. Many taxpayers might be willing to comply in full, but are unable to do so because they are not aware of, or do not understand, their full obligations. Even if such tax payers understand their obligations, they may not know how to meet them or may be unable to do so for other reasons. On other side, other writers such as Smith and Kinsey (1987) argue that tax non compliance is an intentional behavior.

In countries like Ethiopia where most of the business community have no access to information, lack of awareness cannot simply be overlooked rather it can be assumed as a major determinant of tax compliance behavior.

2.1.2.4. Cultural Factors

Culture is considered to be a powerful environmental factor that affects the taxpayer's compliance. Different social norms and ethical values will create different incentives for tax compliance.

In fact, ethical values influenced by social norms may prohibit taxpayers from engaging in tax evasion (Blanthorne and Kaplan, 2008). The cultural framework most widely used is that of Hofstede (1980). Based on an attitude survey of about 116,000 employees, Hofstede identifies four underlying societal values; individualism, power distance, uncertainty avoidance and masculinity. Cultural research has found significant differences between the US and Chinese citizens (Hofstede, 1991).

Chan et al. (2000) suggests that the cultural dimension affecting tax compliance is collectivism and individualism. In Hofstede's model, individualism and collectivism refer to the degree of interdependence a society maintains among individuals (Hofstede, 1991).

The cultural dimension of individualism relates to the degree of integration a society maintains among its members. A high individualism culture is signified by people focusing on themselves rather than on the group to which they belong. Under this perspective, an individual is seen as separable from and independent of a group affiliation. People in such low individualism culture as Chinese citizens, they tend to be collectivists who are expected to follow and subscribe to the values of their in-groups in order to gain peer acceptance and social status (Hofstede, 1991). In contrast, a high individualism culture such as US citizens is signified by people focusing on themselves rather than on the group to which they belong. Under this perspective, they view themselves as distinct entities and place great value on individual rights. These cultural differences may have a direct impact on ethical values and moral development and ultimately affecting tax compliance decisions.

The study conducted by Chan et al. (2000) indicates that culture of the taxpayers has an impact on taxpayer compliance efforts. There is reason to believe that societal reasons may account for the way taxpayers behave. While tax evasion may be considered wrong and immoral in some societies, it may be regarded as socially tolerable in other (Schwartz and Orleans, 1967; Ekstrand, 1980; warneryd and walerud, 1982).

In countries with a tradition of high compliance with tax law; few tax payers would attempt tax evasion strategies. However, empirical evidence seems to suggest that tax payer compliance with the law is influenced by their perception about whether or not other tax payers are complying (Van den Doel, 1979; laver, 1981; lewis, 1982), especially when they fell that the taxes they pay are intended for worthy purposes (oldman, 1965; dean, keenan and kenney, 1980).

In Ethiopia where the system of government has evolved from feudal (where taxes were used by individuals in government) to current one, it is obvious that negative attitude towards tax has been developed in the society. In this sense it is difficult to conclude that there is a culture in the country that appreciates voluntary compliance.

2.1.2.5. Social Factors

The issue of (non-) compliance is not only a question of state-society relationships but also a question of relationship between citizens and/ or groups of citizens within local communities. There is an existing social bond between the society and this bond influences the members of the society in complying with the tax law. That is taxpayers may be influenced by their peer groups to comply or not to comply with the tax law. Peers are usually referred to taxpayers' associates and include friends, relatives and colleagues (Jackson and Milliron, 1986). The peer influence is reflected in an individual's expectations in relation to the approval or disapproval of that tax noncompliance behavior.

Sanvely, 1990 also stated that compliance behavior and attitude towards the tax system is affected by the behavior of an individual's reference group such as relatives, neighbors, and friends. Thus if a tax payer knows many people in groups important to him who evade taxes, his commitment to comply will be weaker. On the other hand, social relationship may also help deter individuals from engaging in evasion for fear of social sanctions imposed once discovered and revealed publicly (Grasmick and Green, 1980; Grasmick and Scott, 1982).

The survey conducted by Mason et al. (1975) finds that people committing tax noncompliance are more likely to discuss tax matters with their peers. The study conducted by Chan et al. (2000) also reveals that taxpayers may still commit noncompliance so long as this noncompliance is consistent with in-group expectations and norms.

As cited by Slemrod (2000) and Levi (1998) in (Fjeldstad and Ranker, 2003), the dimension of trust that seem to affect compliance is trust in other citizens to pay their share of service charges. In particular, trust in other citizens to pay their share seems to be important. The larger the fraction of the local population that is observed not paying, the lower perceived risk of being prosecuted. This has impacts on the individual taxpayer's perception of the credibility and trustworthiness of the revenue administration.

2.1.2.6. Taxpayers Attitude towards the Government

The presence of government expenditures may motivate compliance (Alm, Jackson, and McKee, 1992; Andreoni, et al., Cowell and Gordon, 1988). Individuals may pay tax because they value the goods provided by the government, recognizing that their payments are necessary both to help finance the goods and services and to get others to contribute. A tax payer therefore is seen as exchanging purchasing power in the market in return for the government services (Levi, 1988). Positive benefits may increase the probability that tax payers will comply voluntarily, without direct coercion. Without a material benefit, compliance becomes less assured. Although most tax payers cannot assess the exact value of what they receive from the government in return for taxes paid, it can be argued that they have general impressions and attitudes concerning their own and other' terms of trade with the government(Richupan).

It is then reasonable to assume that a tax payers' behavior is affected by his satisfaction or lack of satisfaction with his terms of trade with the government. Thus, if the system of taxes is perceived to be unjust, tax evasion may, at least partly, be considered as an attempt by the tax payer to adjust his terms of trade with the government. Wahlund (1992) also stated that tax compliance is related to political affiliation that is people favoring parties with social democratic values tend to comply more than people voting for liberal parties.

Similarly, Due and Friedlaender (1981), also argue that, attitudes toward the general level of taxation and tax increases are dependent, of course, on attitudes about the desirability of governmental programs and on attitudes toward the government itself . On the other hand, (Fjeldstad, 2004) citizens' willingness to pay taxes voluntarily rests on the local government's capacity to provide services and its demonstrated readiness to secure the compliance of the otherwise non-compliant.

2.1.3. Is non Compliance an Intentional Behavior?

Most theories of tax compliance, as well as empirical works (Smith and Kinsey, 1987) have until recently been premised on the assumption that tax under reporting is an intentional behavior. Behavior that is unintentional has either been ignored or set aside in a footnote or can be safely ignored as random noise.

However, as noted earlier, the evidence is accumulating that unintentional noncompliance is neither small nor inconsequential. Nor it is necessarily random in nature. As far as Ethiopia's practice is concerned tax non compliance is not only an intentional behavior it is also attributed to lack of ability to pay, lack of awareness and weak institutional capacity of the revenue administrations and other factors.

2.1.4. Dimensions of Ensuring Compliance Behavior

Edmund Burke in (Long and Swingen, 1991) states 'the revenue of the state is the state'. Put another way, without the legal authority to collect taxes and the compliance of the citizenry to these laws, government is a sham. It is this fact that taxes are profoundly essential to the existence of all successful states- that makes the age-old question of why people pay or fail to pay their taxes of central interest. Clearly much depends (James, 2000) on the motives of taxpayers. This is a complex area and different commentators have offered different analyses.

The two main approaches are to concentrate on the probability of detection and on penalties for non-compliance (the 'carrot and stick' approach) or activities designed to motivate tax payers to pay tax (the 'responsible citizen' approach).

2.1.4.1. The ‘Carrot and Stick’ Approach

According to James (2000), the carrot and stick approach is based on a relatively narrow interrelationship of economic rationality. According to this approach, totally moral individuals maximize their utility by maximizing their income and wealth. They will evade tax if they consider that by doing so they can expect to increase their spending power. Non-compliance can therefore be explained by factors such as the level of tax rates, the probability of being caught evading, the penalties imposed and the degree of risk aversion.

2.1.4.2. The Responsible Citizens’ Approach

Regarding the responsible citizens approach James (2000) extends his discussion that, looking outside economics; other academic disciplines have suggested factors which might be important in influencing taxpayers’ behavior.

Sociology has offered a number of variables such as social support, social influence, attitudes and certain background characteristics such as age, gender, race and culture. Psychology reinforces this approach and has even created its own branch of ‘fiscal psychology’. The contribution from psychology includes the indication that attitudes towards the state, the revenue authorities are as important factors as perceptions of equity.

If psychological and sociological factors are important then a major drawback of the carrot and stick approach becomes apparent. While such an approach might be considered by some as suitable for donkeys, human beings might not respond so positively. The result might be a reduction in voluntary compliance. For instance, Strumpel (1969) and Schmolders (1970) as cited in James (2000) reported that the German tax system was very rigid in its assessment procedures, which led to an effective but expensive and confrontational system. The result was a high degree of alienation and resistance among taxpayers.

The conclusion would seem to be that a successful compliance policy should take account of a much wider range of motivations than simply rewards and punishments (James, 2000) and stated in (Eckstein, 1979) tax system must also be fair, both to promote the objective of an equitable distribution of income and to assure continued voluntary compliance by taxpayers.

2.1.5. The Relevance of understanding Tax Compliance

According to James et al (2003), a number of tax authorities have been moving towards a more sophisticated approach to tax compliance. Traditionally there seems to have been an assumption that with a basic level of assistance for taxpayers, together with an enforcement program, tax compliance could be expected to be maintained at satisfactory levels. However there seems to have been a shift in attitudes towards treating the taxpayer less as a passive donor who simply has to be billed for taxes due and more as a customer sometimes requiring particular forms of assistance and support.

According to Lemessa (2005), when compliance is not achieved on a voluntary basis, revenue authorities must identify and address the risk associated with non-compliance by developing strategies targeted at those risks. Voluntary compliance is maximized when revenue authorities are aware of major developments and trends in the business and legislative enforcement, and are responsive to their implications on tax administration and compliance.

The choice (Smith and Kinsey, 1987) between compliance and non compliance may only be a matter of opportunity, convenience, or even interpretation of the law. Legal validity, economic and social purpose, distributive justification, and revenue yield may all be defeated if a tax is not levied and collected well. No matter what the justifications advanced, a tax fails to the extent that it is avoided or evaded (Shultz and Harriss, 1949). Taxation is an inevitable phenomenon in any economy or nation as far as services and other roles are expected from governments. Even though the history of taxation is as old as that of states or governments, still there are gaps in every nation, particularly underdeveloped countries like Ethiopia as far as voluntary compliance is concerned. Taxes are considered by many citizens as necessary evils that cannot be avoided under normal conditions. Hence, the issue of voluntary compliance is a central idea when dealing with efficiency and effectiveness of a tax system. From the above review of literature several writers have discussed about factors that affect voluntary compliance behavior and how it is related with various socio-cultural, political legal and administrative aspects.

Legal enforcement (i.e. penalties and sanctions) are all exist in the tax laws of every nation in varying degrees. But still are gaps in tax compliance regardless of these laws. This clearly shows that tax compliance cannot be ensured only through enforcement or stick approach. Even though the existence of enforcement and penalties cannot be undermined when dealing with tax compliance, focusing on positive side i.e. encouraging voluntary compliance is by far rewarding as far as long lasting and consistent advantage is concerned. Hence, the understanding of tax compliance that is why people tend to comply and why they tempt to evade, gives a clear road map to the solution of this very classical problem in varying degrees. But still are gaps in tax compliance regardless of these laws.

This clearly shows that tax compliance cannot be ensured only through enforcement or stick approach. Even though the existence of enforcement and penalties cannot be undermined when dealing with tax compliance, focusing on positive side i.e. encouraging voluntary compliance is by far rewarding as far as long lasting and consistent advantage is concerned. Hence, the understanding of tax compliance that is why people tend to comply and why they tempt to evade, gives a clear road map to the solution of this very classical problem.

CHAPTER THREE

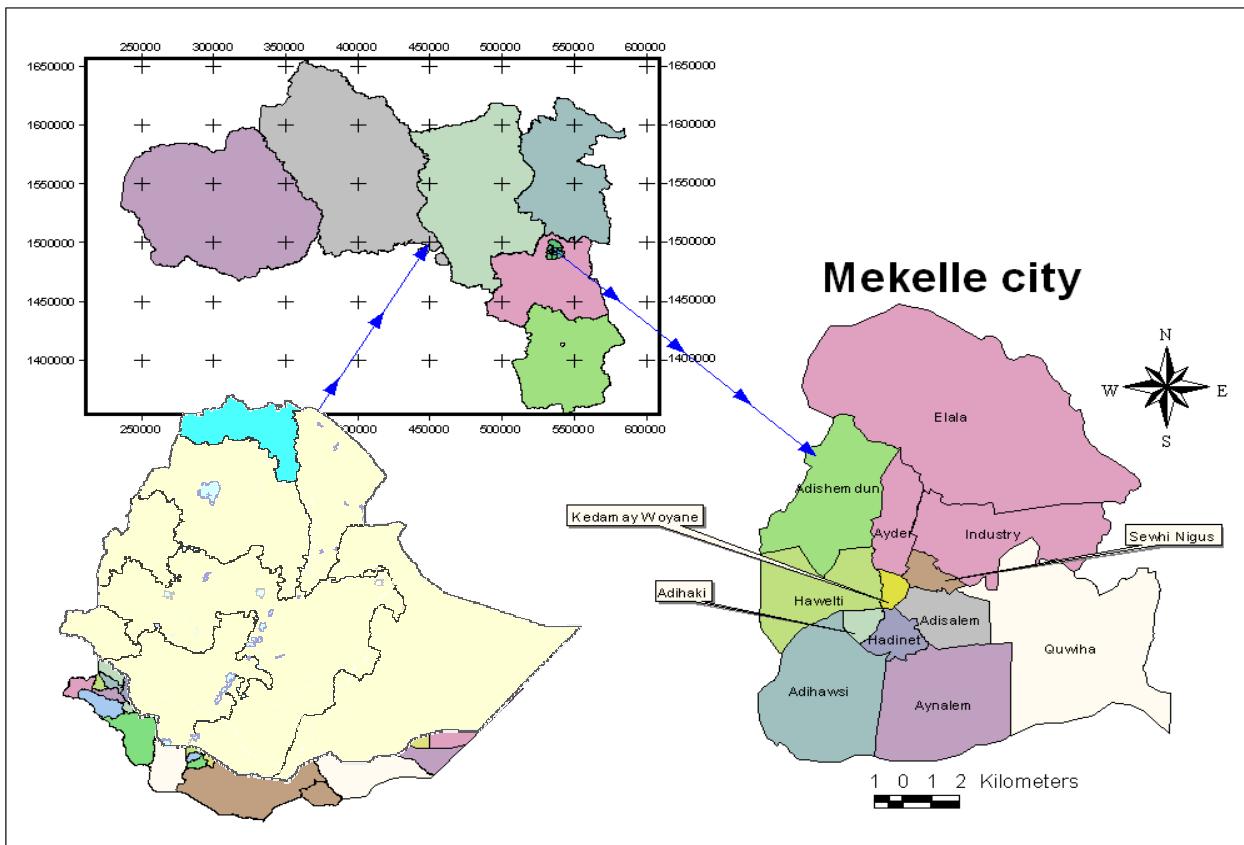
Materials and Methods

3.1. General Description of the Study Area

Mekelle which is the capital city of the Tigray regional state is one of the largest regional cities in Ethiopia. According to Tigray investment office, Mekelle is located in the northern part of Ethiopia at a distance of 778 km from Addis Ababa. It is situated at an average altitude of 2200 meters above sea level and its geographic coordinates are $39^{\circ} 28'$ east altitude and $130 32'$ longitude. The eastern side, Enda Eyesus ridges are the highest peaks of the city.

The major land form of the city territory can be classified into four categories namely: flat to gently sloping, gently sloping to rolling, sloping to moderately steep and steeply to very steeply sloping type. According to the report of the 2007 population and housing census, the city has a total population of 215,546 of which 104,758 and 110,788 are males and females respectively (FDRE population census commission, 2008)

Figure 1 Map of Mekelle City



Source: Tigray BoFED, GIS Department

3.2. Research Instrument

The survey instrument used in this study is a 9-page questionnaire with cover letter. The questionnaire is divided into five sections containing 37 items. Section one& two covers the background information of the respondents and questions related to tax payers' general knowledge about taxation. Section three covers questions related to motivational factors. Section four covers questions related to different determinant factors (the independent variables). Section five covers questions related to tax payers' compliance behavior (the dependent variable).

Each questions starting from section three to section five has specific number of items which was presented in a Likert type-scale with a 5- point scale from 1 – “Strongly Disagree” to 5 - “Strongly Agree”.

The Questionnaire was intended to identify the determinant factors affecting tax payers' voluntary compliance with tax law and factors that motivate tax payers to pay taxes voluntarily in Mekelle City. The determinant factors being measured are; fairness or equity, organizational strength of tax authority, social factors, cultural factors, awareness, and attitude of the tax payers towards the government.

Table 3.1 shows the different determinant factors and the number of the questions as stated in the questionnaire.

Table 3.1: Determinants and Statements measuring the Determinant Factors

Ser. No	Determinants	Number of Questions
1	Fairness or Equity	Question No. 8-11
2	Organizational Strength of Tax Authorities	Question No. 12-15
3	Awareness Level of Tax Payers	Question No. 16-19
4	Cultural Factors	Question No. 20-22
4	Social Factors	Question No. 23-25
5	Attitude towards the Government	Question No. 26-29

Table 3.2 shows questions on the dependent variable which is the tax compliance with seven items, also with 5 - point Likert type-scale from 1 – “Strongly Disagree” to 5 - “Strongly Agree” as stated in the questionnaire.

Table 3.2: Items to measure Tax Payers' Compliance (the Dependent Variable)

Item No.	Questions
TCOMP1	Tax payers should evade tax if tax rates are too high.
TCOMP2	Tax payers should evade tax if the tax system is unfair.
TCOMP3	Tax payers should evade tax if a large portion of the money collected from tax is wasted.
TCOMP4	Tax payers should evade tax if the probability of getting caught is low.
TCOMP5	Evading tax due to lack of ability to pay should not be considered as crime/problem.
TCOMP6	Tax payers should evade tax if everyone is doing it.
TCOMP7	Generally, Tax evasion should not be considered as a crime.

3.3. Sampling Design

The population of the study is category 'C' tax payers of the city due to the fact that these tax payers are not required by law to declare their income or keep books of account, and considered as hard-to tax group. According to the income tax regulation No.78/2002, category 'C' taxpayers are those whose annual turnover is up to or less than 100,000 Birr. A standard assessment method shall be used to determine the income tax liability of Category 'C' taxpayers. The standard assessment shall be a fixed amount of tax determined in accordance with a Council of Ministers Regulations establishing a schedule of standard assessment amounts that reflect variations in the type of business, business size, and business location.

Besides, the study is confined to category 'C' tax payers found in the capital city of the Tigray regional state- Mekelle. This is because the number of category 'C' tax payers in the city is large enough and hence will make the conclusions and recommendations that the study will come up with to be more valid and representative. According to Mekelle City Revenue Development Office, the total number of category 'C' tax payers in the city as of July, 2009 are 10990.

After the list of all these category 'C' tax payers is taken from the office, with the available time and cost 2.0 percent of the total population was selected as sample respondents. Thus, in total 220 tax payers was selected on systematic random sampling basis. Mekelle city is divided into seven sub-cities. Accordingly, through a proportionate sampling technique, sample respondents were selected from each sub-city. The detail sampling procedure is depicted in the table below.

Table 3.3: Number of Respondents included in the Sample

S. No.	Name of Sub-City	No. of Tax Payers (Category 'C')	No. of Sample Respondents
1	Kedamay Weyane	4987	$4987 \times 2\% = 100$
2	Hadinet	1504	$1504 \times 2\% = 30$
3	Semien	1422	$1422 \times 2\% = 28$
4	Hawilti	1324	$1324 \times 2\% = 27$
5	Aider	758	$758 \times 2\% = 15$
6	Quiha	525	$525 \times 2\% = 11$
7	Adi-haki	470	$470 \times 2\% = 9$
Total		10990	220

Source: Mekelle City Revenue Development Office Data Base

The survey covered 220 sample taxpayers from 10990 target population. The sample constitutes 2.0 percent of the target population. Questionnaires were distributed to these 220 taxpayers and only 200 taxpayers responded. This shows that 91.0 percent response rate. Analysis of the non-response shows it does not materially bias the sample. Considering the difficulty of collecting data in poor developing countries such as Ethiopia, a 91.0 percent rate was reasonably good.

3.4. Data Source and Collection Methods

The study made use of both primary and secondary data. The primary data were collected through standard questionnaire. The demographics of the respondents were firstly established in the questionnaire.

The questionnaire comprised of both closed and open ended questions. The popularity of the closed-ended questions provides less effort by respondents to complete the questionnaire and it is easy for analysis.

Most of the closed ended questions are designed on a Likert type-scale with a 5- point scale from 1 – “Strongly Disagree” to 5 - “Strongly Agree”. Adding open ended questions allows respondents to offer an answer that the researcher didn’t include in the questions. The replies of open-ended questions were analyzed by content under different categories. Clarifications of the purpose of the survey were given and taxpayers were told that this is a study to assess tax payers’ voluntary compliance with taxation in Mekelle City, Tigray Regional State. Generally, taxpayers’ were excited to take part and expressed some additional views and suggestions.

Data investigators or enumerators were hired and undertook the job after taking the necessary training. The questionnaire was translated into Tigrigna by taking into consideration the fact that English is not the language of the respondents.

Secondary data were also collected from Mekelle City Revenue Development Office data base. This data includes number of category ‘C’ taxpayers in each sub-city and their distribution with respect to business type/sector. While collecting and using these data for the study, more considerations were given to their time period, reliability, and relevance to the purpose of the study.

3.5. Data Processing and Analysis

The data was analyzed by using the statistical software program namely Statistical Package for Social Research (SPSS) version 16. Several techniques of analysis were used including Reliability test, Factor Analysis, Correlation and Multiple Regression.

In order to find answers to the specific objective one as stated in chapter one, descriptive statistical tools such as tables, percentages, averages, and charts were used. And to answer specific objective two as stated in chapter one, correlations and multiple regression analysis was used; so as to find out if there exist direct association between the determinants factors constructed as the independent variable with tax compliance constructed as the dependent variable.

3.5.1. Reliability Test

In statistics, reliability is the consistency of a set of measurements or measuring instruments, often used to describe a test. There are several different reliability coefficients. One of the most commonly used is called Cronbach's Alpha. Cronbach's Alpha is based on the average correlation of items within a test if the items are standardized. It has an important use as a measure of the reliability of psychometric instruments. It was first named as alpha by Cronbach (1951), as he had intended to continue with further instruments.

3.5.2. Factor Analysis

According to Coakes and Steed (2007), Factor Analysis is a data reduction technique used to reduce a large number of variables to a smaller set of underlying factors that summarize the essential information contained in the variables. Factor Analysis is more frequently used as an exploratory technique when to achieve the objective of summarizing the structure of a set of variables.

3.5.3. Correlation

In statistic, correlation, (often measured as a correlation coefficient), indicates the strength and direction of a linear relationship between two random variables. In general it refers to the departure of two variables from independence. A number of different coefficients are used for different situations as mentioned by Coakes and Steed (2007).

The best known is the Person product-moment correlation coefficient, which is obtained by dividing the covariance of the two variables by the product of their standard deviations. Person's correlation reflects the degree of linear relationship between two variables. It ranges from +1 to -1. A correlation of "+1" means that there is a perfect positive linear relationship between variables and a correlation of "-1" means that there is a perfect negative linear relationship between variables. A correlation of "0" means there is no linear relationship between two variables.

3.5.4. Multiple Regressions

According to Coakes and Steed (2007), multiple regressions is an extension of bivariate correlation. They state that the result of regression is an equation that represents the best prediction of a dependent variable from several independent variables. Regression analysis is used when independent variables are correlated with one another and with the dependent variable.

CHAPTER FOUR

Results and Discussions

This chapter deals with five sections. First section contains a summarized description of the personal characteristics of the respondents followed by their respective business type or sector.

The second section shows tax payers general knowledge about taxation. The third section shows respondents' responses on motivational factors. The fourth section shows the contents analyses of open ended questions. Analysis of measures, testing of hypothesis and summary of Regression analysis are examined under fifth section of the chapter.

The data are collected and then analyzed in response to the problems posed in the first chapter of this study. The findings are based on the responses of sample tax payers with the help of a structured questionnaire in the study area.

4.1. Characteristics of the Respondents

Table 4.1: Respondents Profiles

Age category in years	Frequency	Percentage
Bellow 30	36	18.0
30 to 39	98	49.0
40 to 49	37	18.5
50 to 59	28	14.0
60 years and above	1	0.5
Total	200	100.0
Gender	Frequency	Percentage
Male	146	73.0
Female	54	27.0
Total	200	100.0
Educational status	Frequency	Percentage
Illiterate	10	5.0
Secondary school or below	96	48.0
TVET certificate	39	19.5
Diploma	53	26.5
Degree and above	2	1.0
Total	200	100.0

Source: Author, field survey, 2010

Table 4.1 shows that the age factor of the respondent's profile was 18.0 percent (below 30); 49.0 percent (30-39); 18.5 percent (40-49); 14.0 percent (50-59); and 0.5 percent (60 years and above). As it is shown in the table above, the majority of the tax payers fall in the working age group accounting to 49.0 percent, almost half of the total population.

This shows that the young people who fall in the working age group are engaged in different business types or sectors in the study area. However, males were dominant, comprising 73.0 percent and females were 27.0 percent of the total respondents.

This high ratio of males reflects the structure of income earners in the study area. That is in most developing countries; including Ethiopia, husbands and single males are responsible for the earning of income and providing money for wives to purchase goods and services. And may be due to the cultural influences that Females are not capable of running a business; their participation in different business sectors is very minimum as compared to the participation of males. Almost 48.0 percent of the respondents had at least high secondary school education or below. As the hierarchy goes up TVET certificate and diploma holders represented 46.0 percent and a smaller number of 1.0 percent were even more highly educated.

According to Income Tax Regulation No. 78/2002, there are 69 categories of business sectors and for the purpose of this study only the major ones were surveyed and their distribution is presented in the table below.

Table 4.2: Distribution of Business Sectors included in the Sample

Business sectors	Frequency	Percentage
Barberry and Beauty Salon	11	5.5
Hotel, Bar and Restaurant	9	4.5
Juice and Coffee house	7	3.5
Cafeteria and Snack bar	9	4.5
Business center, Tele center and Stationery	22	12.0
Pharmacy and Health cares	7	3.5
Super market, Cosmetics and Retail shops	27	13.5
Boutique and Shoe trade	9	4.5
Cereals and Pulses trade	9	4.5
Electronics and house utensils	17	8.5
Construction materials	9	4.5
Fruit and Vegetables	4	2.0
Music and Video center	7	3.5
Garage and Spare parts	13	6.5
Wood work, Metal work and Glass work	30	15.0
Fabrics and threads and Tailoring	10	5.0
Total	200	100

Source: Author, field survey, 2010

4.2. Taxpayers' General Knowledge about Taxation

In order to know the general knowledge of the respondents about taxation in the study area, different questions were forwarded to them on different issues. The responses of the respondents are briefly summarized in the following tables and figures.

Table 4.3: Responses on Overstatement/Understatement of Tax

Considering your ability to pay how do you think the amount of tax liability you have paid?				Total
	Overstated	Understated	Normal	
Frequency	165	10	25	200
Percentage	82.5	5.0	12.5	100.0

Source: Author, field survey, 2010

Table 4.3 shows majority of the respondents (82.5 percent) said that the amount of tax liability they have paid is overstated whereas only 12.5 percent of the respondents said it is fair and equitable and even understated (5.0 percent). As stated by Brooks (2001), fairness or equity is one of the main variables that determine the compliance of tax payers. If there is fairness or equity in the tax system, voluntary compliance of tax payers with tax law can be easily assured. But the response from table 4.3 indicates the amount of tax that the tax payers had paid is beyond their ability to pay which implies unfairness in the tax system in the study area.

Table 4.4: Reasons why Tax Payers Pay Taxes

Possible answers	Frequency	Percentage
To avoid disturbance	4	2.0
In the anticipation of public service	43	21.5
There is no opportunity to evade	2	1.0
It is an obligation towards the government	151	75.5
Total	200	100.0

Source: Author, field survey, 2010

Table 4.4 shows when tax payers were asked why they pay taxes, 75.5 percent of the respondents said that they pay taxes because it is an obligation to the government or state and in the anticipation of public services from the government (21.5 percent).

This indicates there is a positive understanding as to why people pay taxes and if successive works are done probably better results can be registered. On the other hand, some of them (1.0 percent) said that they have no opportunity to evade, and the remaining 2.0 percent of the respondents said that they pay taxes to avoid disturbances.

Particularly with respect to those who said they pay taxes to avoid disturbances, the response indicates that the revenue collection regime is not considered by majority of taxpayers (at least 98 percent) to be harsh and unpleasant. In other words, only 2.0 percent of the respondents think that way. The response of others who said there is no opportunity to evade, it indicates that they have the intention not to pay if they have the opportunity to do so or their compliance behavior is questionable.

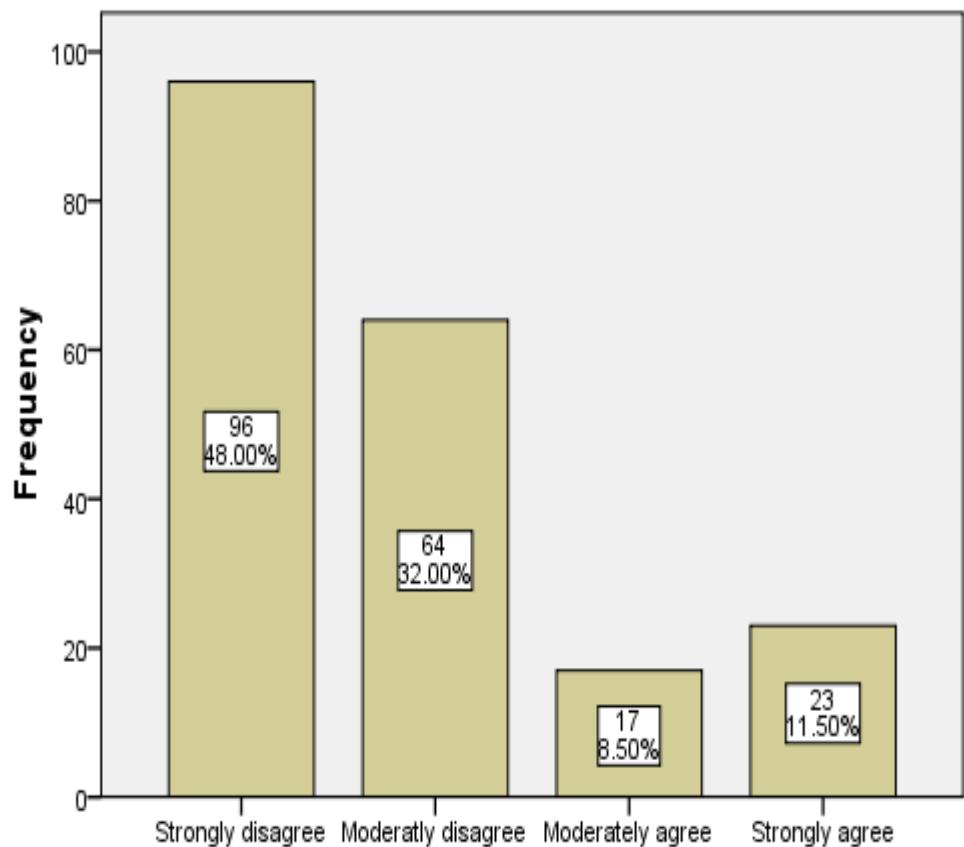
Table 4.5: Rank of Tax Evasion with respect to other Crimes

Types of crimes	Frequency	Percentage
Drunken driving	36	18.0
Stealing some ones mobile	13	6.5
Tax evasion	56	28.0
Hi-jacking	95	47.5
Total	200	100.0

Source: Author, field survey, 2010

Table 4.5 shows that taxpayers understand that tax evasion is a crime and as it can be observed from the table above, 47.5 percent of the respondents ranked Hi-jacking as the most serious crime and 28.0 percent of the respondents said tax evasion is a serious crime while the remaining respondents chosen drunken driving and stealing some ones mobile. From this response one can understand that taxpayers perceive tax evasion as a crime, even though it is ranked second, and this indicates that there is an attention towards taxation by taxpayers. But the problem here is there is poor compliance even though tax evasion is considered as crime by the taxpayers. Perceiving tax evasion as crime is a normal and desired behavior has to prevail in the society to build a positive attitude towards taxation and to discourage the problem of non-compliance.

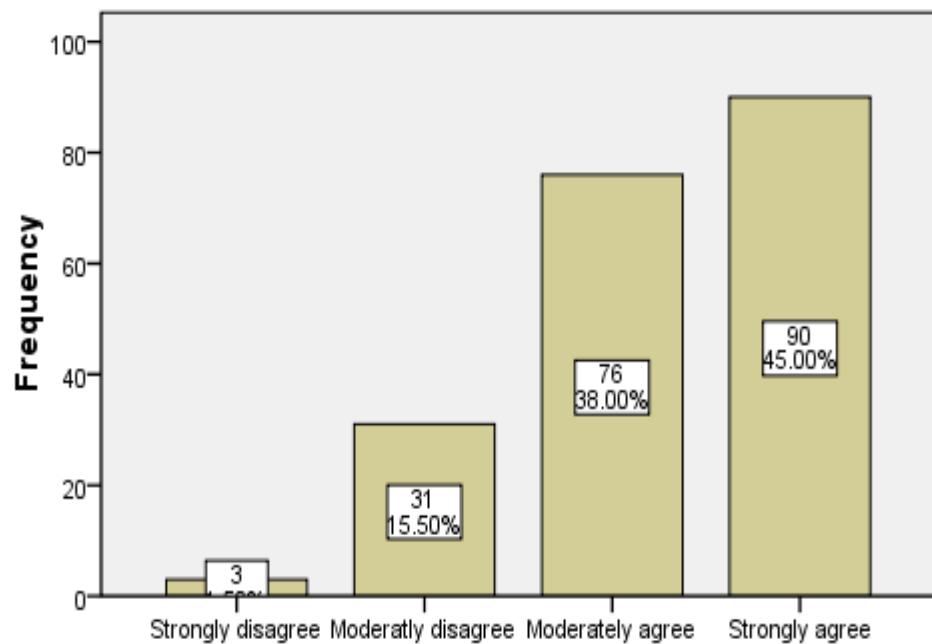
Figure 4.1: Tax payers response on paying tax is unfair



Source: Author, field survey, 2010

Figure 4.1 shows when tax payers were asked paying tax is unfair, 80.0 percent disagreed with the statement and 20.0 percent said it is unfair to pay tax. From this it is clear that majority of the population (80.0 percent) knows that it is fair to pay their legal share of tax. But 20.0 percent are in agreement with the statement showing that there is lack of awareness among the tax payers as to whether paying their legal share of tax is fair or not.

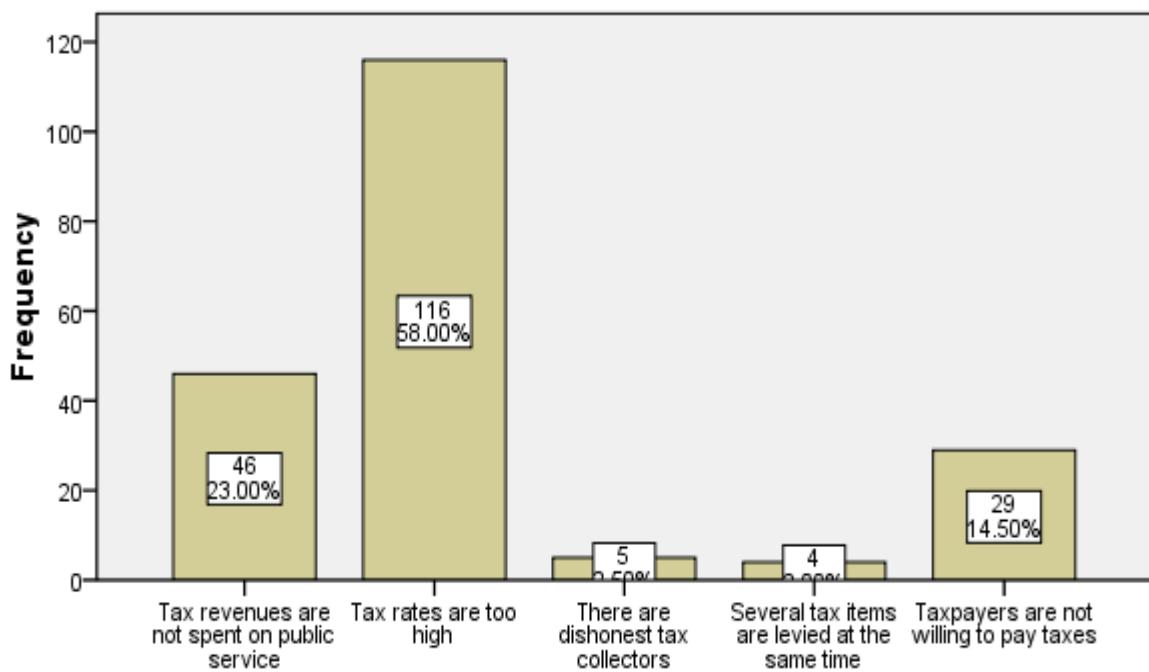
Figure 4.2: Tax payers response on tax law should be respected



Source: Author, field survey, 2010

Figure 4.2 shows when tax payers were asked about respecting the tax law, 83 percent were in agreement with the statement and 17 percent said it is not mandatory to respect the tax law. From this it is clear that majority of the population (83 percent) knows respecting the tax law is mandatory. But the response of those who said the tax law should not be respected (17 percent) implies they have the intention to participate in evading tax if they have the opportunity to do so which in turn may have its own impact on the compliant tax payers.

Figure 4.3: Tax payers response on major problems in the tax system



Source: Author, field survey, 2010

Figure 4.3 shows when the respondents were asked to rank the major problems in the tax system from the list of most probable options, majority of the respondents (58.0 percent) felt that the tax rates are too high, 23.0 percent said tax revenues are not spent on public services, and 14.5 percent said taxpayers are not willing to pay taxes. From this response it is clear that the tax rate is not based on the ability-to-pay principle or it is perceived to be unfair by taxpayers. Even though the principle says, tax should be based on the ability- to pay; the problem here is in determining this ‘ability’ for each taxpayer.

the communication gap between the tax authority and taxpayers might have created this perception (i.e., the tax rates are too high) and it continues to be the issue as far as the understanding of the taxpayers regarding tax rates, assessment, calculation etc is low.

On the other hand, significant number of respondents (23.0 percent) said that tax revenues are not spent on public services. Theoretically tax revenue is used to finance services provided by the government. This might be practically true, but the public must be made aware of these social services which are being financed by the taxpayers' money. As long as there is a gap in communicating these facts to the public, the above attitude problem will not be changed. The other issue which was raised as a problem thirdly is that taxpayers are not willing to pay taxes (14.0 percent). This problem is the central problem as far as tax compliance is concerned and it is related with variety of factors.

4.3. Motivational Factors

As stated in the literature part, there are two main approach (i.e. the carrot or stick approach and the responsible citizens' approach) that is forwarded by different scholars as a motivational factors. The stick or carrot approach relies heavily on penalties and sanctions to motivate tax payers to pay taxes. This approach was not effective in many developed countries because human beings are not donkeys. The same result was reflected in the study area that strengthening legal enforcement and penalties cannot motivate them to pay taxes voluntarily. This should not be misinterpreted as if the taxpayers do not want the presence of penalty or legal enforcement, but it simply means penalty or legal enforcement is not the best way to ensure tax compliance. As it is shown bellow in Table 4.6, the respondents were in favor of the responsible citizens' approach such as educating tax payers, improving relationship with public, providing necessary information about the utilization of the revenue collected, and making the collection system simple and transparent as motivational factors. More details of the results are depicted in table 4.6 below.

Table 4.6: Responses on Motivational Factors

Possible Measures	Agree		Disagree	
	Frequency	Percentage	Frequency	Percentage
Strengthening legal enforcement and penalties	83	41.5	117	58.5
Improving relationship with the public	196	98.0	4	2.0
Educating the tax payers and conducting consultation sessions	189	94.5	11	5.5
Providing necessary information to tax payers regarding the provision of services and utilization of taxes collected	185	92.5	15	7.5
Reducing tax rates and making the collection procedures simple and transparent	197	98.5	3	1.5

Source: Author, field survey, 2010

Table 4.6 shows a significant size (58.5 percent) of taxpayers do have a reservation that strengthening legal enforcement and penalties by itself can ensure voluntary tax compliance behavior. These people rather have the belief that encouraging the responsible citizens' approach has to be the axis of the motivational factor. Regarding the other measures almost all (i.e. from 93-98 percent) of the respondents strongly agreed with the possible measures proposed in the study. It is evident from the table that the majority of the respondents felt that improving relationship with the public and making the collection procedures simple and transparent (98 percent) could motivate them to pay their fair share of taxes voluntarily. Similarly, conducting different consultation session and educating tax payers (94.5) percent is another possible measure which is strongly proposed by the respondents as other motivational factors in the study area.

4.4. Content Analysis of Open-ended Questions

The respondents were also given the opportunity to give their general comment on the overall tax system. Accordingly, they issued several comments regarding the problems and measures that have to be undertaken. These additional comments forwarded by the tax payers are generally summarized under six points as listed below in Table 4.7.

Table 4.7: Responses on Open-ended Questions

Comments	Frequency	Percentage
The tax system lacks fairness or equity	166	83.0
Many business operators are not accommodated by the tax system and there is high prevalence of illegal trade	155	77.5
Less effort to create awareness, and poor communication between tax authority and tax payers	152	76.0
No adequate provision of social services	145	72.5
Weakness in tax collection and enforcement	163	81.5
Absence of transparency in the overall tax system	159	79.5

Source: Author, field survey, 2010

As shown in Table 4.7 above, several respondents firmly commented that the tax system lacks fairness or equity (83.0 percent). They further elaborated their comment that individuals having equal income are not paying equal tax and this highly affects the taxpayers' motivation to be compliant and remaining compliant. In other words, as long as the tax system lacks horizontal equity (individuals with equal income pay equal tax) it is difficult to change taxpayers' attitude in order to bring about voluntary compliance.

The other point strongly raised by the respondents is that there are several individuals who are doing business but not paying tax or not known as tax payers (77.5 percent). Similarly, they said that there are many individuals who are engaged in illegal (contraband) trades.

According to their view, all these abnormal acts are hampering their business activities and as a result unfair competition has prevailed in the study area. The respondents have said that the tax authority has done little to curb these acts so as to reduce tax evasion.

The other comment given by the respondents is that the tax authority does not provide sufficient education to taxpayers to boost awareness (76.0 percent). According to the respondents the root cause of all the problems in the overall tax system is lack of awareness which is attributed to poor tax education practice and absence of consultation sessions between taxpayers' and the authority. That is, there is no culture of communication and consultation between both parties and this resulted in the existence of a gap.

On the other hand the respondents indicated that there is no sufficient provision of social services by the government (72.5 percent). According to their comment, tax payers need various social services from the government in return of what they have paid as a tax. If there is no provision, the willingness and motivation of the taxpayers to pay their tax obligation in full and on timely basis may be affected.

The respondents also commented that the tax authority is not effective with respect to tax collection and enforcement (81.5). They further explained that there are several tax payers who are not included in the tax bracket and large amount of uncollected tax exist in arrears. Moreover, the tax authority exercises little effort in enforcing the tax law. This could be as a result of the tax authority's lack of capacity.

Finally, the respondents indicated that there is no transparency in the tax system (79.5 percent). That is, the procedures in tax assessment and computations are not objectively understood by taxpayers.

4.5. Analysis of Measures

4.5.1. Reliability Test

The Cronbach's coefficient alpha was tested for both determinant factors and tax compliance items for the reliability of the measures. Table 4.8 reports the alpha scores for all the variables. As proposed by Nunnally (1967 & 1978), The Cronbach's alpha coefficient was within the acceptable level of reliability of 0.70 for scale acceptability.

Table 4.8: Cronbach's Alpha for Determinant Factors and Tax compliance

Variables	Cronbach's Alpha	No. of items
Determinant Factors	.752	22
Tax Compliance	.722	7

Source: Author, field survey, 2010

4.5.2. Factor Analysis

Before conducting factor analysis, items have been classified into seven domains, namely fairness or equity, organizational strength of tax authority, awareness level of tax payers, cultural factors, social factors, taxpayers' attitude towards government and tax compliance. Factor analysis was run by using principle component analysis according to items in each domain across and components extracted by way of varimax rotation.

The Bartlett's test of sphericity should be significant and Kaiser-Meyer- Olkin (KMO) is between the ranges of 0 to 1, with 0.6 as the minimum level. The results of the Barlett's test were significant for all variables and KMO is the above recommended value of 0.6 for all variables meaning that factor analysis is appropriate for the data. More details of KMO and Bartlett's test, and Factor analysis are presented under Table 4.9 and 4.10

Table 4.9: KMO and Bartlett's Test

Variables				
FAS	Kaiser-Meyer-Olkin measure of sample adequacy			.695
	Bartlett's test of sphericity	Approx. Chi-square		289.174
		df		3
		Sig.		.000
OSTA	Kaiser-Meyer-Olkin measure of sample adequacy			.753
	Bartlett's test of sphericity	Approx. Chi-square		310.024
		df		10
		Sig.		.000
AWR	Kaiser-Meyer-Olkin measure of sample adequacy			.680
	Bartlett's test of sphericity	Approx. Chi-square		124.725
		df		6
		Sig.		.000
CFS	Kaiser-Meyer-Olkin measure of sample adequacy			.678
	Bartlett's test of sphericity	Approx. Chi-square		123.876
		df		5
		Sig.		.000
SFS	Kaiser-Meyer-Olkin measure of sample adequacy			.731
	Bartlett's test of sphericity	Approx. Chi-square		249.876
		df		7
		Sig.		.000
ATG	Kaiser-Meyer-Olkin measure of sample adequacy			.691
	Bartlett's test of sphericity	Approx. Chi-square		269.876
		df		5
		Sig.		.000
TCOMP	Kaiser-Meyer-Olkin measure of sample adequacy			.751
	Bartlett's test of sphericity	Approx. Chi-square		269.354
		df		6
		Sig.		.000

Source: Author, field survey, 2010

Table 4.10: Factor Analysis

variable		Factor loading
FAS	In general, would you agree that the business income tax burden imposed upon category C tax payer is fair?	.880
	Personally, would you agree that the business income tax burden imposed upon you is fair?	.938
	Would you agree that tax payers including you are paying tax based on your ability to pay?	.874
OSTA	How do you evaluate the strength of the tax authority with respect to law enforcement	.700
	How do you evaluate the strength of the tax authority with respect to awareness creation	.786
	How do you evaluate the strength of the tax authority with respect to tax collection efficiency	.796
	Do you agree that the tax assessors' committee is unbiased in determining your income tax liability?	.766
	Tax payers have trust in the tax system, assessment, and collection procedures	.654
AWR	Tax payers who possess an awareness of the penalties for non compliance are more compliant than those who do not possess such awareness	.816
	Tax payers feel guilty if they are evading tax provided that they remain unnoticed	.722
	If there is no penalty or legal enforcement there is a possibility that tax payers may not pay tax	.527

Source: Author, field survey, 2010

**Only factor loadings greater than 0.40 are displayed.

Table 4.11 (Continued): Factor Analysis

variable		Factor loading
CFS	In societies with a tradition of high compliance with tax law, few tax payers would attempt tax evasion strategies?	.722
	As the culture of paying tax is high, the level of tax compliance is also high	.722
SFS	As tax payers know many people in group important to them are evading taxes, their commitment to comply will be weaker	.762
	Do you agree that tax payers including you may commit non compliance as long as your non compliance is consistent with in group expectations & norms	.762
ATG	Do you agree that tax payer's behavior including you is affected by your satisfaction or lack of satisfaction with your terms of trade with the government?	.780
	Do you agree that tax payers attitude including you towards the general level of taxation and tax compliance are dependent on attitudes about your desirability of government	.780
TCOMP	Tax payers should evade tax if a large portion of the money collected from tax is wasted	.874
	Tax payers should evade tax if tax rates are too high	.874
	Generally, tax evasion should not be considered as a crime	.745
	Tax payers should evade tax if tax system is unfair	.745

Source: Author, field survey, 2010

4.5.3. Correlation

Table 4.12 bellow shows the correlation Matrix results. The correlation analysis has indicated that all variables were significant and positively correlated at the $p<0.05$ with $r = .262$ for FAS, $r = .148$ for OSTA, $r = .452$ for AWR, $r = .274$ for CFS, $r = .044$ for SFS and $r = .040$ for ATG.

Table 4.12: Correlation Matrix between Variables

		TCOMP	FAS	OSTA	AWR	CFS	SFS	ATG
TCOMP	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	200						
FAS	Pearson Correlation	.262**	1					
	Sig. (2-tailed)	.000						
	N	200	200					
OSTA	Pearson Correlation	.148*	.131*	1				
	Sig. (2-tailed)	.037	.035					
	N	200	200	200				
AWR	Pearson Correlation	.452**	.313**	.136	1			
	Sig. (2-tailed)	.000	.000	.045*				
	N	200	200	200	200			
CFS	Pearson Correlation	.274**	.173*	.009*	.166*	1		
	Sig. (2-tailed)	.000	.014	.023	.019			
	N	200	200	200	200	200		
SFS	Pearson Correlation	.044*	.052*	.164*	.064*	.112*	1	
	Sig. (2-tailed)	.032	.040	.020	.036	.015		
	N	200	200	200	200	200	200	
ATG	Pearson Correlation	.040*	.104*	.124*	.019*	.089*	.041*	1
	Sig. (2-tailed)	.041	.043	.030	.033	.020	.03	
	N	200	200	200	200	200	200	200

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

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

Source: Author, field survey, 2010

4.6. Testing of Hypothesis

To test the hypothesized relationship, correlation and then a series of multiple regression analysis were conducted. The output from this analysis, a beta coefficient, provides an assessment of the significance and the impact of the predicator variables on the dependent variable.

4.6.1. Independent Variables as Predictors to Tax Compliance (To Test H1 to H6)

The hypothesis number one to six of the study was tested and the result is as summarized in Table 4.13. The independent variables (Fairness or Equity, Organizational strength of tax authority, Awareness, Cultural factors, Social factors, and Attitude towards the government) together explained 52.40 percent of the variance (R^2) on tax compliance, which was significant, as indicated by the F-value of 77.816 in the following table. Even though the model is significant, the regression power of the model is relatively low implying that there are other independent variables (e.g. Jackson & Milliron, 1986 identified fourteen) as stated in the literature that are determinants to tax compliance. However, the present study only focused on six variables.

Tables 4.13: Model Summary (Independent Variables as Predictors to Tax Compliance)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.724 ^a	.524	.520	.56577

a. Predictors: (Constant), ATG, AWR, SFS, CFS, OSTA, FAS

Source: Author, field survey, 2010

Tables 4.14:ANOVA^(b) (Independent Variables as Predictors to Tax Compliance)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	175.321	6	95.811	77.816	.000 ^a
Residual	160.143	193	.231		
Total	335.464	199			

a. Predictors: (Constant), ATG, AWR, SFS, CFS, OSTA, FAS

b. Dependent Variable: TCOMP

Source: Author, field survey, 2010

The coefficients Table (Table 4.15) below presented the strength of the six predictors (Fairness or Equity, Organizational strength of tax authority, Awareness, Cultural factors, Social factors, and Attitude towards the government) towards Tax compliance. It yielded the following result:

- 1) Fairness or Equity yield $\beta = 0.137$, std.error = 0.067, sig. (p) = 0.042<0.05
- 2) Organizational strength of tax authority yield $\beta = 0.122$, std.error = 0.141, sig. (p) = 0.046<0.05
- 3) Awareness yield $\beta = 0.110$, std.error = 0.115, sig. (p) = 0.00<0.05
- 4) Cultural factors yield $\beta = 0.078$, std.error = 0.081, sig. (p) = 0.003<0.05
- 5) Social factors yield $\beta = 0.064$, std.error = 0.063, sig. (p) = 0.030<0.05
- 6) Attitude towards the government yield $\beta = 0.035$, std.error = 0.089, sig. (p) = 0.029<0.05

Table 4.15: Coefficient ^(a) (Independent Variables as Predictors to Tax Compliance)

Model	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
1 (Constant)	.064	.177		4.892	.000
FAS	.137	.067	.137	5.051	.042
OSTA	.122	.141	.123	2.919	.046
AWR	.110	.115	.116	1.422	.000
CFS	.078	.081	.054	1.162	.003
SFS	.064	.063	.044	1.024	.030
ATG	.035	.089	.024	.389	.029

a. Dependent Variable: TCOMP

Source: Author, field survey, 2010

4.7. Summary of Regression Analysis

The findings indicate that the questionnaire to measure Fairness or Equity, Organizational strength of tax authority, Awareness, Cultural factors, Social factors, and Attitude towards the government exhibit acceptable psychometric properties in terms of both reliability and validity.

The result confirms the hypothesized relationship in the model as reported in Table 4.16.

Table 4.16: Result of Tested Hypotheses

Hypothesis	Association between variables	Significant	Conclusion
H1	TCOMP with FAS	Yes	Accepted
H2	TCOMP with OSTA	Yes	Accepted
H3	TCOMP with AWR	Yes	Accepted
H4	TCOMP with CFS	Yes	Accepted
H5	TCOMP with SFS	Yes	Accepted
H6	TCOMP with ATG	Yes	Accepted

Source: Author, field survey, 2010

Fairness or Equity, Organizational strength of tax authority, Awareness, Cultural factors, Social factors, and Attitude towards the government are found significantly influencing tax payers voluntary compliance with tax law in the study area. That is they are found to be determinant factors affecting tax payers voluntary compliance in the study area and it answered the second research question (what are the variables that generally affect tax payers' voluntary compliance with taxation). Among the independent variables, fairness or equity has been found to be the most important determinant factor to tax compliance and explained standardized coefficients (β) of 0.137. It follows by organizational strength of tax authority ($\beta = 0.123$) and awareness level of taxpayers ($\beta = 0.116$).

4.7.1. The Regression Model

$$TCOMP_i = \alpha_0 + \beta_1 FAS_i + \beta_2 OSTA_i + \beta_3 AWR_i + \beta_4 CFS_i + \beta_5 SFS_i + \beta_6 ATG_i + E_i$$

$$TCOMP_i = 0.064 + 0.137FAS_i + 0.122OSTA_i + 0.110AWR_i + 0.078CFS_i + 0.064SFS_i \\ + 0.035ATG_i + E_i$$

Regression analysis showed that the models were fit and the results were supporting the hypothesis. Since there was no other study that identified the determinant factors that affects tax payers voluntary compliance with taxation using the regression model except for one variable which is Fairness or Equity; thus no further comparison could be made.

CHAPTER FIVE

Conclusion and Recommendation

5.1. Conclusions

According to the officials of Mekelle City Revenue Development office, there is a substantial tax gap between the tax that is theoretically assumed to be collectable from economically active individuals in the city and the tax that is actually being collected. One of the main reasons for the tax gap is non-compliance of taxpayers and potential taxpayers, with the tax legislation. One of the causes for non-compliance has been demonstrated to be the attitudes and perceptions of people. Mekelle is a city that comprises a diverse collection of cultures, languages, beliefs and backgrounds. It is obvious that these different population groups may have differing perceptions of taxation resulting from their cultural backgrounds or social histories. These perceptions may, in turn, influence their attitudes towards tax compliance.

Against this background, it is of utmost importance to determine taxpayers' perceptions towards taxation in order not only to influence government policy regarding taxation and protecting the city's tax base but also to enable government to market itself and its services more effectively to the general public. This study was aimed at assessing a sample of taxpayers' voluntary compliance with the tax law in Mekelle city.

- ❖ Awareness is a corner stone as far as voluntary compliance is concerned. The survey data has shown that majority of the taxpayers know (75.5 percent) why they pay taxes. It can be concluded that there is a positive understanding as to why people pay taxes and if successive works are done probably better results can be registered.

- ❖ Tax authority is the responsible body for assessing and collecting the city's tax revenue. The amount of revenue collected is directly dependent on the efficiency and effectiveness of the authority. In light of this fact the survey result showed the tax authority of the city administration is not efficient and effective in various aspects such as improving the tax assessment and collection procedures, creating awareness, enforcing the tax law, providing services, and information regarding tax. It can be concluded that, so long as this is the fact, it is not easy to bring about voluntary compliance and narrow the tax gap.
- ❖ From this study it is concluded that the tax rate is a lot higher than what most taxpayers would like it to be. Most of the respondents feel that people should pay taxes according to their ability. In other words they feel that they do not pay about the same amount of tax as others in similar situations. Generally as long as the tax being levied is not fair and equitable it may reduce the motivation and voluntary compliance behavior of current taxpayers and also deter potential taxpayers from joining the tax system voluntarily.
- ❖ The study also indicated that almost all of the respondents do not feel paying tax is unfair but they suggest the amount that they pay has to be fair and based on their ability to pay. In addition to this, majority of the respondents agreed that every tax payer has a moral obligation to respect the tax law.
- ❖ The survey data also revealed that majority of the respondents (58.5 percent) do have a reservation that strengthening legal enforcement and penalties (carrot or stick approach) by itself can ensure voluntary tax compliance behavior. These respondents on average (96 percent) rather have the belief that encouraging the responsible citizens' approach (such as improving relationship with public, providing necessary information about the utilization of the taxes collected, making collection procedures simple and transparent, conducting different consultation session and educating tax payers) has to be the axis of the motivational factor. To put it in nutshell, currently the taxpayers are not satisfied with existing tax system to pay taxes voluntarily so that they strongly supported the possible measures proposed as motivational factors in the study.

- ❖ The study also examined the relationship among fairness or equity, organizational strength of the tax authority, awareness, cultural factors, social factors, attitude towards the government and tax compliance using the regression model and found a positive relationship among these variables.
- ❖ From the study, it is confirmed that fairness or equity, organizational strength of the tax authority, awareness, cultural factors, social factors and attitude towards the government are determinant factors that are affecting tax payers' voluntary compliance with tax law in the study area. Among the established variables, fairness or equity followed by organizational strength of the tax authority is found to be the most important determinant factors influencing tax payers' voluntary compliance with tax law in the study area.

5.2. Recommendations

Any strategy to prevent tax evasion should begin with a theory of why people cheat on their taxes. Economists approach begins the question “why people comply with the tax laws” by constructing a theory based upon the assumption about human behavior that underlies all of economics, namely, individuals generally act rationally in evaluating the cost and benefits of any chosen activity. According to Allingham and Sandmo (1972), based on Becker's (1968) economic theory of crime, the extent of deterrence, as the product of the probability of being detected and the size of fine being imposed, determines the amount of income tax evaded. On the other hand, psychologists tend to assume that individuals are moral beings with ideas and values of their own commands and their own impulses filter through and are affected by this moral screen. They would note that variables such as the probability of detection, size of fines are mediated through individual attitudes and perceptions.

According to Brooks (2001) sociologists also tend to see the cause of variation in human behavior in the structure of the social system. It is reasonable to assume that human behavior (Fjeldstad, 2004) in the area of whether or not to pay taxes is influenced by social interactions much in the same way as other forms of behavior. Compliance behavior and attitudes towards the tax system may thus be affected by the behavior of an individual's reference group such as relatives, neighbors, friends and political associates. Thus they explain people's actions by examining the forces that impinge on the positions that they occupy within the system.

Social scientists from almost every discipline have turned their attention to tax evasion as social phenomena. Edlund (2003) summarizes that those who have carefully studied the public's attitudes, perceptions, and knowledge of taxes and tax policy have generally found that citizens are indeed remarkably misinformed and/ or confused.

In similar vein Lewis (1982) claims that most people do not regard fiscal policy as an important issue and concludes that ‘the general public is fiscally ignorant’. In general theories of tax compliance are organized around the above three premises, namely, economic theories, psychological theories, and sociological theories.

Assessing all these theories help to know why people comply with the tax law from which an interested tax administration could deduce a comprehensive compliance strategy. In other words, the determinant factors of tax compliance behavior emanate from these theories in one way or the other so that the theories always serve as a baseline in understanding tax compliance behavior. There is no magic or quick solution to increasing tax compliance. A reform strategy to increase compliance requires a concerted, long-term, coordinated and comprehensive plan. It is vital that tax administrators ensure that every compliance policy instrument at their disposal is being used as effective as possible.

Based on the study conducted factors that determine taxpayers' voluntary compliance were identified and possible recommendations are forwarded so that it may help the tax authority and other policy makers to approach the issue accordingly.

Multiple approaches are needed to reduce the tax gap. No single approach is likely to fully and cost-effectively address noncompliance, since; it has multiple causes and spans different types of taxes and taxpayers. Generally, understanding better these factors, and their interrelationships, that impact on taxpayer behavior can help to develop targeted strategies which impact on the noncompliant without adversely affecting compliant taxpayers.

- ❖ The most obvious requirement for fairness or equity is to treat equal people in equal circumstances in an equal way. If there is a reason for not discriminating between equals, then this suggests that there should be discrimination between those who are not equal. Maintaining tax equity and fairness is not achieved only through levying equal taxes on individuals who have equal income but also each taxpayer should pay according to his ability- to pay. In addition, bringing non taxpayers to tax system has to be considered as a measure of ensuring tax equity. In other words, it is unfair to say that the tax system is equitable as long as several capable traders are not paying tax. Taxpayers will be discouraged to the extent that the tax is believed to be unfair and inequitable or so many others are not paying.

Hence, the question of fairness or equity is not only about dealing with current taxpayers but also concerned with people outside the tax system. Ensuring equity means encouraging and protecting honest and loyal taxpayers by adopting fair competition. This can be achieved by incorporating in to the tax system all those who are eligible. The authority must also involve the taxpayers or their representatives while estimating the daily sales or revenue of taxpayers to address the question of fairness and equity. Generally, the authority has to try its best in ensuring tax fairness and equity so that voluntary compliance behavior can be developed.

- ❖ An effective compliance program requires tax administration to have sufficient powers that enable it to enforce compliance effectively. Voluntary compliance is promoted not only by an awareness of rights and expectations of a fair and efficient treatment, but also by clear, simple and user friendly administrative systems and procedures. Tax systems that depend on ad hoc administrative procedures rapidly become discredited and endanger compliance. To encourage compliance it is equally important that tax authority administers the law fairly. The tax authority needs to be strong enough in order to implement the tax law effectively and efficiently. Functions such as tax assessment, collection, awareness creation, providing information, and enforcement has to performed effectively and efficiently, so that it will be perceived as strong and powerful by the taxpayers.

In addition to this, efficient service delivery to taxpayers is a key factor against which the strength of the authority is judged. Taxpayers tend to evade to the extent they feel that the authority is weak and unable to enforce the law. This directly hampers the compliance behavior of compliers and motivates non compliers to continue evading. Hence, to create an efficient tax administration, the tax authority needs to strengthen itself by educating and training its employees, by computerizing its operations and by devoting additional resources. Training should include customer service training and cross functional training for employees so that they can have an understanding of the entire system of tax administration.

In addition to this, the authority should make the tax law and procedures simple, understandable, and transparent. Voluntary compliance is enhanced when vibrant and efficient tax authority exists.

- ❖ One of the areas to stress on while dealing with the issue of voluntary compliance is the development of persuasive communications between the tax authorities and taxpayers. The most effective tool for making people more positive is to empower them with knowledge. It is believed that there is no better tool for government to positively influence the taxpayers than to provide them with knowledge on how taxpayers' money is utilized. Any resistance or inability by government to communicate this most important area, will lead to possible speculation and resistance. Taxpayers' attitude toward taxation is changed mainly through sustainable awareness creation programs.

Awareness creation should go beyond simply giving tax education to taxpayers. It should be extended to having consultative sessions with elderly, religious leaders, prominent personalities in the society or other influential individuals. This can help to influence the whole society through these influential persons who have acceptance in their respective groups. There should be more preventative education for the public and increased awareness of tax responsibilities in schools. Students should be educated early in their career about tax responsibilities. Only through tax education concepts of taxation and tax knowledge can be imparted. Furthermore, taxpayers' need more information about their tax obligations and their role in promoting the growth of the economy of the country and the well being of its citizens.

The tax education can be a tool to motivate voluntary compliance by taxpayers'. In the context of reaching to the society at large, the tax authority can use the electronic media such as radio, television, etc as a means to educate taxpayers' and change their perceptions about taxation. All of these promote a positive view to voluntary compliance. This is to inculcate in citizens a sense of responsibility toward taxes. There is a need for citizens to understand and accept their responsibilities of compliance.

There is also a need to publicize the tax burden carried by compliers versus the burden that would be carried if everyone complied. Hence, awareness creation must remain the tax system's central premise in building voluntary compliance so that robust revenue productivity will be ensured simultaneously.

- ❖ Tax resistance is likely to continue (and increase) if service provision does not improve, necessitating costly and coercive methods of tax enforcement that may undermining the legitimacy of the government. Improvement in service delivery for the majority of citizens is therefore a necessary condition to improve tax compliance. The existence of positive benefits in the form of public services, security, etc. may therefore increase the probability that taxpayers will comply voluntarily, without direct coercion. Hence, the city government has to provide social services to the public and it has to inform the taxpayers that these services are provided by their money. This is to convince the taxpayer that they are getting their money back and this in turn enhances voluntary compliance and increases the trust of the taxpayers on the government.

Tax compliance will be developed only with the voluntary participation of the society. Merely relying on stick approach has no far reaching outcome. Hence, the government and the tax authority have to capitalize on responsible citizens' approach in their effort of bringing about voluntary compliance. Tax evasion and non-compliance is inevitable in every society or nation. Therefore, it is worthwhile to recommend that the above approach has to be backed by legal enforcement and the efforts must complement each other.

5.3. Direction for Future Research

As identified by Jackson and Milliron (1986) there are fourteen main factors that affect tax payers' voluntary compliance behavior but the current study has used only six variables out of the fourteen variables to check whether these variables affects voluntary compliance of tax payers in the study area or not. The result from the study shows that these are the determinant factors affecting voluntary compliance of tax payers in Mekelle City, Tigray Regional State.

So, interested researchers can extend the same topic by incorporating more variables in to the model that are expected to affect taxpayers' voluntary compliance behavior.

Another possible research would be to change the sample population to category "A" and Category "B" taxpayers by increasing the sample size and then make a comparative study between taxpayers with book of accounts and taxpayers who have no book of accounts; to find out if there are any significant difference between these groups of taxpayers' attitude towards taxation.

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Annex 1: Research Questionnaire

Mekelle University
College of Business and Economics
Department of Accounting and Finance
Finance and Investment Program

The aim of this questionnaire is to assess information needed for the research report to be produced under the title “**Assessment of tax payers’ voluntary compliance with taxation: The case of Mekelle City, Tigray, Ethiopia.**” The information you provide is believed to have a great value for the success of this research. Besides to its academic purpose, the study is entirely devoted to assess tax payers’ voluntary compliance with tax law. The information you provide is to be used for academic purpose and will be strictly kept confidential. Desta Kassa is doing the research under the guidance of Mekelle University. In case you want to contact him, Desta Kassa can be reached at 0914744355 mobile number.

Kindly requesting you to give genuine response to all the questions hereunder, I am grateful to your cooperation.

I Thank You!

General Instructions:

- I. Please circle the letter that appropriately represents your response in each of the following questions..
- II. To the questions with alternatives that do not match to your response, please write your appropriate response on the space provided

Section I: Background information of respondents

Age :(in years)

1. Less than thirty
2. 30 to 39
3. 40 to 49
4. 50 to 59
5. 60 years or more

Gender:

1. Male
2. Female

Educational status:

1. Illiterate
2. General secondary school or less
3. TVET certificate
4. Diploma
5. Degree

If other specify_____

Family size: _____

Type of business: _____

For how many years you are in this business? _____

For how many years you are known as tax payer? _____

Section II: Questions related to Taxpayers' General knowledge about Taxation

1. Why do you pay taxes?
 1. To avoid disturbances (penalties, sanctions,)
 2. in the anticipation of public services
 3. There is no opportunity to evade.
 4. It is an obligation towards the government.
 5. Don't know.

State if any, _____

2. Considering your ability to pay, how do you think the amount of tax liability you have Paid?

1. Overstated
2. Understated
3. Normal

3. It is unfair to pay tax

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

4. The tax laws should be respected.

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

5. Which of the following is the most serious crime? (Rank them 1-4)

1. Drunken driving
2. Stealing some ones mobile
3. Tax evasion
4. Hi-jacking

State if any; _____

6. What are the major problems in tax system/ collection?

1. Tax revenues are not spent on public services
2. Tax rates are too high.
3. There are dishonest tax collectors.
4. Several tax items are levied at the same time.
5. Taxpayers are not willing to pay taxes.

State if any; _____

Section III: Questions related to Motivational Factors

7. Which of the following measures should the tax authority undertake to motivate Tax payers to pay tax?

Possible measures	Strongly disagree	Moderately disagree	Neither agree nor disagree	Moderately agree	Strongly agree
Strengthening legal enforcement and penalties					
Improving relationship with the public					
Educating the taxpayers and conducting consultation sessions					
Providing necessary information to taxpayers regarding the provision of services and utilization of tax revenues					
Reducing tax rates and making the collection procedures simple and transparent					

Section IV: Questions related to different Determinant Factors

8. In general, would you agree that the business income tax burden imposed upon category "C" tax payers is fair?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree
9. Personally, would you agree that the business income tax burden imposed upon you is fair?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree
10. Would you agree that tax payers with higher business incomes pay tax at higher rates than tax payers with lower business incomes?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree

11. As tax payers' perceptions of tax fairness increases, the level of tax compliance will also increase.

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

12. How do you evaluate the strength of the tax authority with respect to the following Parameters?

Parameters	Excellent	Good	Neither nor	Poor	Extremely Poor
Service delivery					
Tax collection efficiency					
Law enforcement					
Awareness creation					

13. Tax payers have trust in the tax system, assessment, and collection procedures

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

14. Do you agree that the tax assessors' committee is unbiased in determining your income tax liability?

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

15. Tax payers who perceive the tax authorities' enforcement actions to be ineffective are less Compliant

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

16. If there is no penalty or legal enforcement there is a possibility that tax payers may not pay Tax

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

17. Tax payers feel guilty if they are evading tax provided that they remain unnoticed

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

18. Tax payers who possess an awareness of the penalties for non-compliance are more compliant than those who do not possess such awareness.

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

Ser. no.	Questions	Excellent	Good	Neither nor	Poor	Extremely Poor
19	What do you think about the public attitude toward taxation, including you?					

20. As the culture of paying tax in a society is high, the level of tax compliance is also high

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

21. Do you agree that cultural differences have a direct impact on ethical values and moral development and ultimately affect tax compliance decisions?

1. Strongly disagree
2. Moderately disagree
3. Neither disagree nor agree
4. Moderately agree
5. Strongly agree

22. In societies with a tradition (culture) of high compliance with tax law, few tax payers would attempt tax evasion strategies.
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree
23. The non compliance of other taxpayers has a negative impact on compliant tax payers' Behavior
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree
24. Do you agree that tax payers including you may commit non-compliance as long as your non-compliance is consistent with in-group expectations and norms?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree
25. As tax payers knows many people in group important to them are evading taxes, their commitment to comply will be weaker.
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agrees
 4. Moderately agree
 5. Strongly agree
26. Would you agree that a good political system has positive impact on tax payers' attitude towards the tax system?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree
27. Do you agree that people are getting comparable social services from the government for the tax they pay?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree

28. Do you agree that tax payers' behavior including you is affected by your satisfaction or lack of satisfaction with your terms of trade with the government?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree
29. Do you agree that tax payers attitude including you towards the general level of taxation and tax compliance is dependent on attitudes about the desirability of the government programs and the government itself?
1. Strongly disagree
 2. Moderately disagree
 3. Neither disagree nor agree
 4. Moderately agree
 5. Strongly agree

Section V: Questions related to Tax Payers Compliance (Dependent Variable)

Ser. no.	Questions	Strongly disagree	Moderately disagree	Neither agree nor disagree	Moderately agree	Strongly agree
30	Tax payers should evade tax if tax rates are too high					
31	Tax payers should evade tax if the tax system is unfair					
32	Tax payers should evade tax if a large portion of the money collected from tax is wasted.					
33	Tax payers should evade tax if the probability of getting caught is low					
34	Evading tax due to lack of ability to pay should not be considered as crime/problem					
35	Tax payers should evade tax if everyone is doing it.					
36	Generally, Tax evasion should not be considered as a crime					

State if any; _____

37. Give your general comment on the overall tax system and how positive attitude towards taxation can be developed.

I thank you!!!

Annex 2: SPSS Output for the Determinant Factors

KMO and Bartlett's Test for FAS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.695
Bartlett's Test of Sphericity	Approx. Chi-Square df	289.174 3
	Sig.	.000

Factor loading for FAS

	Factor loading
In general, would you agree that the business income tax burden imposed upon category C tax payer is fair?	.880
Personally, would you agree that the business income tax burden imposed upon you is fair?	.938
Would you agree that tax payers including you are paying tax based on your ability to pay?	.874

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

KMO and Bartlett's Test for OSTA

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.753
Bartlett's Test of Sphericity	Approx. Chi-Square df	310.024 10
	Sig.	.000

Factor loading for OSTA

	Factor loading
How do you evaluate the strength of the tax authority with respect to tax collection efficiency	.796
How do you evaluate the strength of the tax authority with respect to law enforcement	.700
How do you evaluate the strength of the tax authority with respect to awareness creation	.786
Tax payers have trust in the tax system, assessment, and collection procedures	.654
Do you agree that the tax assessors' committee is unbiased in determining your income tax liability?	.776

Extraction Method: Principal Component Analysis.

- a. 1 component extracted.

KMO and Bartlett's Test for AWR

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.680
Bartlett's Test of Sphericity	Approx. Chi-Square df Sig.	124.725 6 .000

Factor loading for AWR

	Factor loading
If there is no penalty or legal enforcement there is a possibility that tax payers may not pay tax	.527
Tax payers feel guilty if they are evading tax provided that they remain unnoticed	.722
Tax payers who possess an awareness of the penalties for non compliance are more compliant than those who do not possess such awareness	.816

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics for TCOMP

Cronbach's Alpha	N of Items
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Cronbach's Alpha	N of Items
.722	7

KMO and Bartlett's Test for CFS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.678
Bartlett's Test of Sphericity	123.876
df	5
Sig.	.000

Factor loading for CFS

	Factor loading
As the culture of paying tax is high, the level of tax compliance is also high	.722
In societies with a tradition of high compliance with tax law, few tax payers would attempt tax evasion strategies?	.722

Extraction Method: Principal Component Analysis.

- a. 1 component extracted.

KMO and Bartlett's Test for ATG

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.691
Bartlett's Test of	232.876

Sphericity	df	5
	Sig.	.000

Factor loading for ATG

	Factor loading
Do you agree that tax payers behavior including you affected by your satisfaction or lack of satisfaction with your terms of trade with the government	.780
Do you agree that tax payers attitude including you towards the general level of taxation and tax compliance are dependent on attitudes about your desirability of government	.780

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

KMO and Bartlett's Test for SFS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.731
Bartlett's Test of Sphericity	Approx. Chi-Square df	249.876 7
	Sig.	.000

Factor loading for SFS

	Factor loading
As tax payers knows many people in group important to them are evading taxes, their commitment to comply will be weaker	.762
Do you agree that tax payers including you may commit non compliance as long as your non compliance is consistent with in group expectations & norms	.762

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics for Determinant factors

Cronbach's Alpha	N of Items
.752	22

KMO and Bartlett's Test for TCOMP

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.751
Bartlett's Test of Sphericity	Approx. Chi-Square df	269.354 6
	Sig.	.000

Factor loading for TCOMP

	Factor loading
Tax payers should evade tax if tax rates are too high	.874
Tax payers should evade tax if tax system is unfair	.633
Tax payers should evade tax if a large portion of the money collected from tax is wasted	.874
Generally, Tax evasion should not be considered as crime	.745

Extraction Method: Principal

Component Analysis.

a. 1 components extracted.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724 ^a	.524	.520	.56577

a. Predictors: (Constant), ATG, AWR, SFS, CFS, OSTA, FAS

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	175.321	6	95.811	77.816	.000 ^a
Residual	160.143	193	.231		
Total	335.464	199			

a. Predictors: (Constant), ATG, AWR, SFS, CFS, OSTA, FAS

b. Dependent Variable: TCOMP

Coefficients^a

Model	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
1	(Constant)	.064	.177	4.892	.000
	FAS	.137	.067	5.051	.042
	OSTA	.122	.141	.123	.046
	AWR	.110	.115	.116	.000
	CFS	.078	.081	.054	.003
	SFS	.064	.063	.044	.030
	ATG	.035	.089	.024	.029

a. Dependent Variable: TCOMP

Correlations Matrix between Variables

		TCOMP	FAS	OSTA	AWR	CFS	SFS	ATG
TCOMP	Pearson Correlation	1	.262**	.148*	.452**	.274**	.044	.040*
	Sig. (2-tailed)		.000	.037	.000	.000	.032	.024
	N	200	200	200	200	200	200	200
FAS	Pearson Correlation	.262**	1	.131*	.313**	.173*	.052*	.104*
	Sig. (2-tailed)	.000		.035	.000	.014	.048	.013
	N	200	200	200	200	200	200	200
OSTA	Pearson Correlation	.148*	.131*	1	.136*	.009*	.164*	.124*
	Sig. (2-tailed)	.037	.035		.045	.034	.020	.030
	N	200	200	200	200	200	200	200
AWR	Pearson Correlation	.452**	.313**	.136	1	.166*	.064*	.019*
	Sig. (2-tailed)	.000	.000	.045*		.019	.023	.025
	N	200	200	200	200	200	200	200
CFS	Pearson Correlation	.274**	.173*	.009*	.166*	1	.112*	.089*
	Sig. (2-tailed)	.000	.014	.023	.019		.015	.01*
	N	200	200	200	200	200	200	200
SFS	Pearson Correlation	.044*	.052*	.164*	.064*	.112*	1	.041*
	Sig. (2-tailed)	.032	.040	.020	.036	.015		.022
	N	200	200	200	200	200	200	200
ATG	Pearson Correlation	.040*	.104*	.124*	.019*	.089*	.041*	1
	Sig. (2-tailed)	.041	.043	.030	.033	.020	.03	
	N	200	200	200	200	200	200	200

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

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