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**THE DETERMINANTS OF TAX COMPLIANCE BEHAVIOUR
AMONG INDIVIDUAL TAXPAYERS IN GOMBE STATE,
NIGERIA**

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**MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)
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The Determinants of Tax Compliance Behaviour Among Individual Taxpayers in Gombe State, Nigeria

By

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Universiti Utara Malaysia, in Fulfilment of the Requirement for the
Master of Science (International Accounting)**

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ABSTRACT

The issue of tax non-compliance is a general phenomenon hampering efficient tax generation in both developed and underdeveloped nations. The contribution of income taxes to the total revenue of developing nations remained consistently low and is relatively decreasing because of low tax compliance particularly in African countries. Nigeria is an African and a developing nation that is facing the problem of low tax compliance, recently it lost about N950 billion in 2017 which represent almost 20 percent of its target as a result of high tax non-compliance by taxpayers. The main objective of this study is to examine the factors that determine tax compliance among individual taxpayers and to determine the significant differences between demographic factors and tax compliance in Gombe State, Nigeria. For achieving these research objectives, the primary data were collected through self-administered questionnaire and were analysed using multiple regression analysis. The findings of the study reveal that corruption and tax rate have a negative relationship with tax compliance and penalty has a significant positive relationship with tax compliance. On the other hand, the perception of government and religiosity do not have a significant effect on tax compliance. In relation to the second objective one way ANOVA and t-test were used and revealed that only educational level has a significant difference. Therefore, it is recommended for the policymakers to incorporate the perception of government, corruption, religiosity, tax rate and penalty as a model for a better understanding of the individual taxpayers' compliance in Gombe state, Nigeria. It is recommended for the Gombe State policymakers to focus more on the significant factors as revealed in this research in the formulation of strategies and policies to improve tax compliance and ultimately can help to reduce if not totally alleviate the problem of non-compliance in Gombe state, and Nigeria in general.

Keywords: Tax compliance, Perception of Government, Corruption, Religiosity, Tax Rate, and Penalty

ABSTRAK

Isu ketidakpatuhan cukai adalah fenomena umum yang menghalang penjana cukai yang efisien di negara-negara maju dan kurang maju. Sumbangan cukai pendapatan kepada jumlah pendapatan negara-negara membangun kekal rendah secara konsisten dan secara relatif berkurang kerana pematuhan cukai yang rendah terutamanya di negara-negara Afrika. Nigeria adalah negara Afrika dan negara membangun yang menghadapi masalah pematuhan cukai yang rendah, baru-baru ini ia kehilangan sekitar N950 bilion pada tahun 2017 yang mewakili hampir 20 peratus daripada sasarannya akibat ketidakpatuhan cukai yang tinggi oleh pembayar cukai. Objektif utama kajian ini adalah untuk mengkaji faktor-faktor yang menentukan pematuhan cukai di kalangan pembayar cukai individu dan untuk menentukan perbezaan ketara antara faktor demografi dan pematuhan cukai di Daerah Gombe, Nigeria. Untuk mencapai matlamat penyelidikan ini, data utama dikumpulkan melalui soal selidik dan dianalisis menggunakan analisis regresi berganda. Penemuan kajian mendedahkan bahawa rasuah dan kadar cukai mempunyai hubungan negatif dengan pematuhan cukai dan penalti mempunyai hubungan positif yang signifikan dengan pematuhan cukai. Sebaliknya persepsi kerajaan dan keagamaan tidak mempunyai kesan yang signifikan terhadap pematuhan cukai. Berkaitan dengan objektif kedua satu cara ANOVA dan ujian-t digunakan dan mendedahkan bahawa hanya tahap pendidikan yang mempunyai perbezaan yang signifikan. Oleh itu, adalah disyorkan untuk pembuat dasar memasukkan persepsi kerajaan, rasuah, keagamaan, kadar cukai dan penalti sebagai model untuk pemahaman yang lebih baik mengenai pematuhan pembayar cukai individu di Daerah Gombe, Nigeria. Oleh itu, disyorkan untuk pembuat dasar di Daerah Gombe memberi tumpuan lebih kepada faktor-faktor penting seperti yang dijelaskan dalam penyelidikan ini dalam pembuatan strategi dan dasar untuk memperbaiki pematuhan cukai dan pada akhirnya dapat membantu mengurangkan jika tidak sepenuhnya mengatasi masalah ketidakpatuhan di Daerah Gombe dan Nigeria pada umumnya.

Kata kunci: Pematuhan cukai, Persepsi Kerajaan, Rasuah, Ketenteraman, Kadar Cukai dan Penalti

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

All government around the globe either developed or underdeveloped needs funds to finance its activities. One of the means through which it can raise funds is by imposing a tax on the profit of the corporate organization within its region and income of its citizens (James, Murphy & Reinhart, 2005). The government levies tax on its citizens because of its intention to stabilize the economy and generate revenue in order to provide social amenities to its citizens (Fasina & Olowookere, 2013). Thus, as prescribed by law in order to have adequate resources to carry out the project, all eligible citizens have to pay tax to the government.

Though, Frey (2003) described tax collection as the most difficult task to government because of the human attitude and their behaviour towards paying a tax ranging from refusing to pay tax at all or under paying tax. The revenue collected from income tax depends on the ability of individual taxpayers to pay their tax liabilities and to abide by relevant tax authorities (Mcbarnet, 2003). More so, Alm, Martinez-Vazquez and Schneider (2003) revealed that some taxpayers did not like paying taxes and this makes collection and imposition of taxes very problematic whenever it is due. Refusing to adhere to the relevant tax laws according to Kirchler (2007), an act of non-compliance would be committed.

Both developed and developing economies are facing the challenges of non-compliance and will have its consequences to them. Non-compliance is described by McGee (2006) as a global issue facing both developed and developing economies, for example, it was estimated that the global revenue loss in 2016 is around to USD650 billion yearly, in relation to the developing countries that should be around one-third. In addition, the Internal Revenue Service (IRS) of United States (US) shows that federal taxes not complied voluntarily and on time was USD450 billion (tax gap) in 2006 and USD458 billion tax gap in 2010 (IRS 2012).

Terkper (2003) opined that, the tax income loss in developing nations due to tax non-compliance is proportionately higher than the amount in developed nations as a result of so many nations that operate within the shadow economy. He further maintained that in developing nations the tax income loss as higher as 35 per cent to 55 per cent of the GDP in 2002. According to Cobham (2005), maintained that, statistical evidence in developing countries revealed that almost \$285 billion tax income was lose yearly because of tax non-compliance. The vast tax income loss to governments in the developing nations is due to tax non-compliance (Abdurazaq, 1993).

Like any other developing nations in the world, Nigeria is facing the problem of tax non-compliance which turning to be a severe problem to revenue collection and tax administration if good measures are not taken. According to Okonjo-Iweala (2014), the tax income contribution to the GDP in Nigeria is only 7 percent in comparable with 15 percent

of other countries such as South Africa and Ghana. Furthermore, there were 784 cases of tax non-compliance resulting in N300.2 billion revenue collection and also 126 tax cases were investigated which yielded N89.48 billion as revenue in 2015 (FIRS, 2016). This shows that Nigeria is confronted with the difficulties of high tax non-compliance. Therefore, it is of great significant to study or look into why residents and businesses decided to evade tax in the first place in order to provide permanent lasting solution to this problem.

In addition, despite the increased in the number of business, the tax income contribution paid by self-employed businesses relatively remains low. Most of the self-employed business operate mainly within the shadow economy with this they tends to evade taxes (Modugu, Eragbhe & Izedonmi, 2012). Recently FIRS reported that Nigeria lost N950 billion in 2017 which represent almost 20 percent of its target (FIRS, 2017). Thus, this vast tax loss could be because of tax non-compliance.

The recent considerable increase in taxes received in 2017 is a signal that Nigeria is on part of attaining full tax compliance by relying less on crude oil revenue, which has sunk since 2014, following a decline in the prices of crude oil in the global market. FIRS was able to collect almost N4.03 trillion in 2017. This is an increase of over 20 percent relative to 2016 collection. Despite the recent improvement, more effort need to put in place in order to close this tax gap. However, in order to solve the problem of tax non-compliance, study

needs to be taken to determine the factors that lead to the tax compliance to provide the lasting solution to the problem.

1.2 Problem Statement

The issue of tax noncompliance is a general phenomenon hampering efficient tax generation in both developed and underdeveloped nations (Chau & Leung, 2009; Alabede, Zaimah & Idris, 2011). For instance, not only United States is affected in billions of tax loss due to tax noncompliance (Cobham, 2005). Nigeria also is among the developing countries that in 2013 lost almost USD550 million to tax non-compliance (Bismarck, 2013). Furthermore, a report by African Development Bank (ADB) reveals that only 30 percent of the self-employed business in Nigeria are complying with relevant tax authority (ADB, 2015). More so, it was discovered by the FIRS (2011) that 350,000 businesses in Nigeria have never complied or paid their tax since their commencement into business. Bodea and LeBas (2016) said that, this occurred as a result of having low morale which affect tax compliance of businesses.

However, in Nigeria, despite the increased in the number of its population and small businesses, the income tax contribution paid by both individual taxpayers and small businesses relatively remains low (Bismarck, 2013). In 2014, Central Bank of Nigeria (CBN) reported that there are increase in the number of registered small businesses by almost 20 percent but the total income tax recorded from self-employed business in the

same year declined by 5 percent. Most of the self-employed business operate mainly within the shadow economy with this they tends to evade taxes (Modugu, Eragbhe, & Izedonmi 2012).

Additionally, of all the taxes, personal income tax has also remained the most nonperforming, disappointing, problematic and unsatisfactory in the Nigerian tax system (Kiabel & Nwokah, 2009; Nzotta, 2007; Odusola, 2006; Sani, 2005; Asada, 2005). Nigerian tax contribution to GDP stood at 3.2% of the total GDP between 2005 and 2015 in which if compared with other developing countries such as Ghana and Ivory Coast, both have tax contribution to GDP of 14.1% and 14.7% respectively. According to Paying Taxes Report (2015); a survey conducted by Price Water House Cooper's (PwC), Nigeria has a distance to frontier 39.15 which was below the 50% minimum benchmark and being rank 179th out of the 189 countries on the paying taxes ranking. Therefore, it will be of great significant to investigate or study the determinants factors that influence tax compliance among individual taxpayer in order to overcome the problems of tax non-compliance.

Many studies have been carried out on the determinants of tax compliance or factors that influenced tax compliance behavior. For example some of the economic factors that have received scholarly attention related to tax compliance over the years include tax rates, penalty, the probability of detection, tax audit, (Allingham & Sandmo, 1972; Becker, 1968; Fischer, Wartick & Mark, 1992); taxpayers' attitude (Alabede, Ariffin & Idris,

2011); unfair tax system (Helhel & Ahmad, 2014); tax knowledge, (Palil & Mustapha, 2011); education level (McGee & Lingle, 2006).

Specifically to the tax compliance, most of the studies focused on developed countries (Allingham & Sandmo, 1972; Becker, 1968; Fischer, Wartick, & Mark, 1992; Saad, 2014; Torgler, 2005; McGee & Lingle, 2016). Even though, some studies analyzed the determinants of tax compliance in developing countries (Alabede, Ariffin & Idris, 2011; Helhel & Ahmad, 2014; Palil & Mustapha, 2011) like Nigeria. In Gombe State, the previous study focused on tax non-compliance by Gurama and Mansor (2016). The difference in relation to the study is on the variables with an additional of perception of government, religiosity, and penalty but maintained the measured variables such as tax rate and corruption. Therefore, this study would enhance the previous studies and specifically be focusing on the determinants of tax compliance among individual taxpayer in Gombe State, Nigeria.

In addition, many studies such as Birch, Peter, and Sawyer (2003); Devos (2007), (2008); Mason and Cavin (1978); Richardson (2004); Mansor and Gurama (2016) etc. have investigated the important role of demographic factors in understanding taxpayer compliance behaviour. Thus, this study is including demographic factors.

1.3 Research Questions

The following research questions are formulated in order to answer them:

1. What is the relationship between perceptions of government, corruption, religiosity, tax rate as well as penalty and tax compliance among individual taxpayers in Gombe state, Nigeria?
2. Is there any significant differences between gender, age, marital status, educational level as well as employment status and tax compliance among individual taxpayers in Gombe State, Nigeria?

1.4 Objectives of the Study

1. To determine the relationship between perceptions of government, corruption, religiosity, tax rate as well as penalty and tax compliance among individual taxpayers in Gombe State, Nigeria.
2. To determine whether there are significant differences between gender, age, marital status, education level as well as employment status and tax compliance among individual taxpayers in Gombe State, Nigeria.

1.5 Significance of the Study

This research is intended to fill the identified gaps and make a contribution both theoretical and practical. This study is intended to be significant and useful to researchers, professional bodies and student of accounting, economics, business administration and other related disciplines by enabling them to have a better understanding of the factors that influence taxpayers' compliance behaviour theoretically and practically.

1.5.1 Theoretical Significance

Many studies have been carried out on the determinants of tax compliance or factors that influenced tax compliance behavior in developed nations, example Allingham and Sandmo (1972); Becker (1968); Fischer, Wartick, and Mark (1992); Saad (2014); Torgler (2005); McGee and Lingle (2016). However, all of these studies focused on developed nations, nevertheless limited studies focused on the developing nations, for instance, Alabede, Ariffin, and Idris (2011); Helhel and Ahmad (2014); Palil and Mustapha (2011). In relation to Gombe State, most of the studies focus is on tax administration by Mansor (2015); tax evasion by Mansor and Gurama (2016). This study, for instance, focused on tax compliance in terms of factors affected the compliance behaviour among individual taxpayers in Gombe state, Nigeria. The study further identifies for the differences of demographic factors and tax compliance which is a difference from other previous studies. Therefore, this study would contribute to the body tax compliance literature by examining the perception of government, corruption, religiosity, tax rate and penalty.

1.5.2 Practical Significance

This study is very significant because the findings of the research highlight the important determinants of tax compliance behaviour in Gombe state, Nigeria. The outcomes are useful in helping the states as well as Nigerian government in formulating strategies for tackling the challenges of non-compliance and providing a long lasting solution to the challenges. This research will provide and enhance a better understanding of tax compliance behaviour for policymakers and would be useful to tax administrators by improving their knowledge on taxpayer's compliance behaviour, which will equally provide them with understanding on what they will concentrate on towards enhancing tax compliance behaviour. Again, this research might still provide a basis of valuable information to tax authorities regarding the influence of the deterrent factors and behavioural factors on tax compliance and other non-compliance behaviours.

The results of this research would help the tax officials in amending the existing procedures and policies on tax collection and practice. This should be done by taking the factors that encourage taxpayers to comply with taxes laws into consideration. Also, standard setters would find this research very useful in understanding the attitude of individuals and their perceptions of paying tax. In addition, the research discloses the perception of taxpayers and their reason for non-compliance and engaging in tax evasion. This is very vital to standard setters and tax authorities in understanding the compliance behaviours of taxpayers.

1.6 Scope of the Study

This study is intended to investigate the determinants of tax compliance among individual taxpayer in Gombe both employed and self-employed taxpayers. Due to the limited resources and time constraint, no single research can validly cover all areas of the topic. Therefore, this study would be focusing on how perception of government, corruption, religiosity, tax rate and penalty are influencing tax compliance behaviour in northern region of the country specifically Gombe state, Nigeria. Among the northern region state of Nigeria, Gombe State is the center and therefore, as preliminary study of the determinants of tax compliance in Nigeria, Gombe State is going to be a fair representation of the northern region taking its size and location into consideration. In addition, this research is a preliminary research and therefore, the outcomes would be interpreted with care because Nigeria very vast country with 36 states which Gombe State is among them, thus, cannot represent the whole population.

1.7 Definitions of key Terms

Tax: According to Soyode and Kajola (2006), refers tax as any amount imposed by the government upon its citizens or individual and businesses in order government to provide public goods and services as rendered by the state. It is not a donation or voluntary payment but an enforced amount made on the directive or pronouncement of legislative authorities (Hamid, 2008).

Tax compliance: Tax compliance has been defined as the ability and willingness of taxpayers to obey or comply with the relevant tax laws and authorities, which are influenced by legal environment, ethics and other factors at a given place and time (Song & Yarbrough, 1978).

Perception of government: Perception of government means how the taxpayers trust their government and how they sensed their government on the provision of social goods and services in exchanged for the amount of money they paid as tax (Bodea & LeBas 2016).

Corruption: Corruption is define as an unlawful or unauthorized act engaged in by a public official using his or her position to receive a bribe, directly or through a family member or associate, in exchange for making a benefit available to a member of the public (e.g., a taxpayer) (Imam & Jacobs 2014).

Religiosity: Religiosity means the level at which an individual is dedicated to the teaching of a particular religion in which he or she agrees, so that this dedication or commitment will reflect the individual behaviour and attitudes (Johnson, Jang, Larson & De Li 2015).

1.8 Organisation of the Thesis

This study examines the determinants of tax compliance among individual taxpayer in Gombe state, Nigeria. This study is divided into five chapters. Chapter one covers the background of the study, the problem statement, the research questions, the objectives of the study, the significance of the study, definitions of key terms as well as the scope of the study. The next chapter, which is chapter two emphasizes on the literature reviews in relation

to tax compliance and its correlation with other variables in this study. More so, would cover previous empirical studies as well as related theories. Chapter three contains the research methodology used, which comprises the research design, population, and sampling, measurement variable and data analysis techniques. The second to the last chapter, is chapter four which covers the analysis on findings and interpretation of the data to answer the objectives of the study. Finally, the last one is chapter five which covers the discussion, recommendations and lastly the gap for future research.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on tax compliance and presents the factors that might influence tax compliance behaviour of individual taxpayer in the Gombe state, Nigeria. This chapter starts with an overview of the tax system in Nigeria, defines the concept of tax compliance and reviews the relevant studies related to tax compliance. Then followed by the relevant literature related to the factors that might influence tax compliance behaviour of individual taxpayer in Nigeria.

2.2 An Overview of Personal Income Tax law in Nigeria

In Nigeria, personal income tax was the first tax policy to be introduced. It was started in northern Nigeria in 1906 as a community tax. The authorities that are vested by law with the power and responsibility of collection and administration of personal income tax are Federal Inland Revenue Service (FIRS), State Inland Revenue Service (SIRS) and the Local Government Revenue Committee (LGRC).

In Nigeria, the power of imposing taxes including taxes on individuals is emanated from 1999 Constitution of the Federal Republic of Nigeria an amended through the national assembly. State governments are left with the collection and administration of some

itemized taxes, which include personal income tax under the Concurrent Legislative List. The State House of Assembly is empowered to make laws to impose taxes and rates within the jurisdiction of the local government on individuals taxpayers as stipulated under the Residual List. Hence, in Nigeria, the law of regulation and imposition of tax on the income of individuals is a product of the exclusive list as an act of the national assembly. The first law in Nigeria in relation to personal income tax was Native Revenue Ordinance of 1906. Odusola (2006) opined that the foundation for latest personal income tax administration in Nigeria, however, is Income Management Act (ITMA) of 1961.

In order to have uniform personal income tax administration within Nigeria, the Income Tax Management Act (ITMA) of 1961 was published a year after independence. This act in Nigeria brought some changes in personal income tax administration. For example, under the act, the income from the workers was assessed under 'Pay As You Earn' (PAYE).

Odusola (2006) maintained that in evaluating ITMA, the application of ITMA differed from one state to another state of Nigeria thereby bringing or causing the problem of multiple taxes on personal income tax. Observing this problem, the Federal Government of Nigeria in 1991 in order to solve or review the problem of personal income tax they set up two groups of studies. The results from these studies resulted in the cancelled and replaced of ITMA of 1961 with the Personal Income Tax Act (PITA) No 104 of 1993. PITA of 1993 was amalgamated with different modifications to promulgate the PITA of 1993, Cap p8 LFN 2004, which is the latest personal income tax law in Nigeria.

In Nigeria, the personal income tax is operated as a progressive tax and this is reflected in the tax rates. The tax rate was in 1981 as high as 55 per cent but in 1993 reduced to 30 per cent and decreased further to 25 percent in 1996. On the income of N30, 000 or less monthly, the minimum tax rate is 0.5 per cent.

The table 2.1 below shows the personal income tax rates as per PITA 1993 as amended:

Table 2.1

Nigeria Personal Income Tax Rates (%)

Taxable Income	Tax Rate (%)
First ₦30,000	5
Second ₦30,000	10
Next ₦60,000	15
Next ₦60,000	20
Above ₦160,000	25

Sources: Alabede (2012)

2.3 Tax Administration in Nigeria

Bariyiman and Gladson (2007) reported that several tax authorities in Nigeria conduct tax administration based on the prescription pertinent tax laws. Section 100 of the “Personal Income Tax Decree, 1993 and amended by Decree No 18-finance Miscellaneous Taxation Provisions Decree 1998” defined tax authority as the Federal Board of Inland Revenue (FBIR), the State Board of Internal Revenue (SBIR) or the Local Government Revenue Committee (LGRC). Also, tax authority is defined by the Joint Tax Board as the combination of the Body of Appeal commissioners and Joint State Revenue Committee which constitutes the tax administration organs in Nigeria.

According to Oluba (2008), the Federal Inland Revenue Service (FIRS) serves as the operational arm by which the Federal Board of Inland Revenue (FBIR) manages both the corporate bodies and the Personal Income Tax for particular set of people such as the External Affairs officials, the Armed forces, the Nigerian Police, and the residents of federal capital Territory Abuja (FCT) as well as the non-residents. The federal government set up the FBIR and entrusted it with the powers and responsibility to administer the act in addition to executing all the stipulated act that may be considered pertinent and convenient for assessing and collecting tax and are required to account for all the money collected in the manner prescribed by the Federal Ministry of Finance. The Board reserves all powers which it deems not fit for delegation to some individual to execute. For instance, the power to acquire, power for satisfaction of returned forms, claims and notice, holding and disposition of any organization's property in line with the requirements of tax/ judgment debt. Moreover, taxes collected are remitted to the federal government.

In terms of the state, Oluba, (2008) highlighted that the State Internal Revenue Service which serves as the operational arm of the State Board of Internal Revenue receives taxes from designated people and residents. The State Internal Revenue Service remits the taxes collected to the state government. The Local Government Revenue Committee collects a specified taxes within the local government area.

2.4 The Joint Tax Board

With regards to the fact that every state collects and administers personal tax administration through its Internal Revenue Board, the Joint Tax Board on the other hand functions as the central body with the mandate of resolving conflict that may ensue or arise between states as it relates to individual residence and income tax claim. The Joint Tax Board was established under “section 27(1) Income Tax Management Act 1961 as amended”. Its main priority as stipulated in Personal Income Tax Decree PITD (1993) is to coordinate and promote unity especially in terms of administering tax laws at both the state level and federal level.

The JTB is headed by the executive chairman of the FBIR and the same time functions as the board chairman. In terms of JTB, all the state of the federation is expected to have a representative nominated by the commissioner who is responsible for the states’ income tax. Normally, the chairman of SIBR of every state is represented separately. The Federal Public Service Commission is in charge of nominating the board secretary who is not supposed to be a board member. He is expected to be a senior officer with cognate experience in income tax related matters. One other member that supposed to participate in JTB meeting is the board adviser. The JTB usually plays the role of the highest unifying body with regards to tax authority in Nigeria. Specifically, peculiar issues and emerging disputes among tax authorities are usually being managed by the JTB which was mainly set up to adjudicate such matters.

2.5 Theoretical Assumptions of Tax Compliance

Studies on the determinants of tax compliance have been conducted and concluded that there are various determinants of tax compliance and this makes various disciplines such as accountants, psychologists, economists, and sociologists to develop their own theories. This is because the use of one theory by all the disciplines to explain the factors that influence tax compliance due to their interest in tax compliance and non-compliance is not sufficient to explain the phenomenon, because of this, they proposed that theories from sociology, psychology and anthropology should be important in explaining compliance behaviour (Jackson & Millron, 1986; Alm, 1991; 1999).

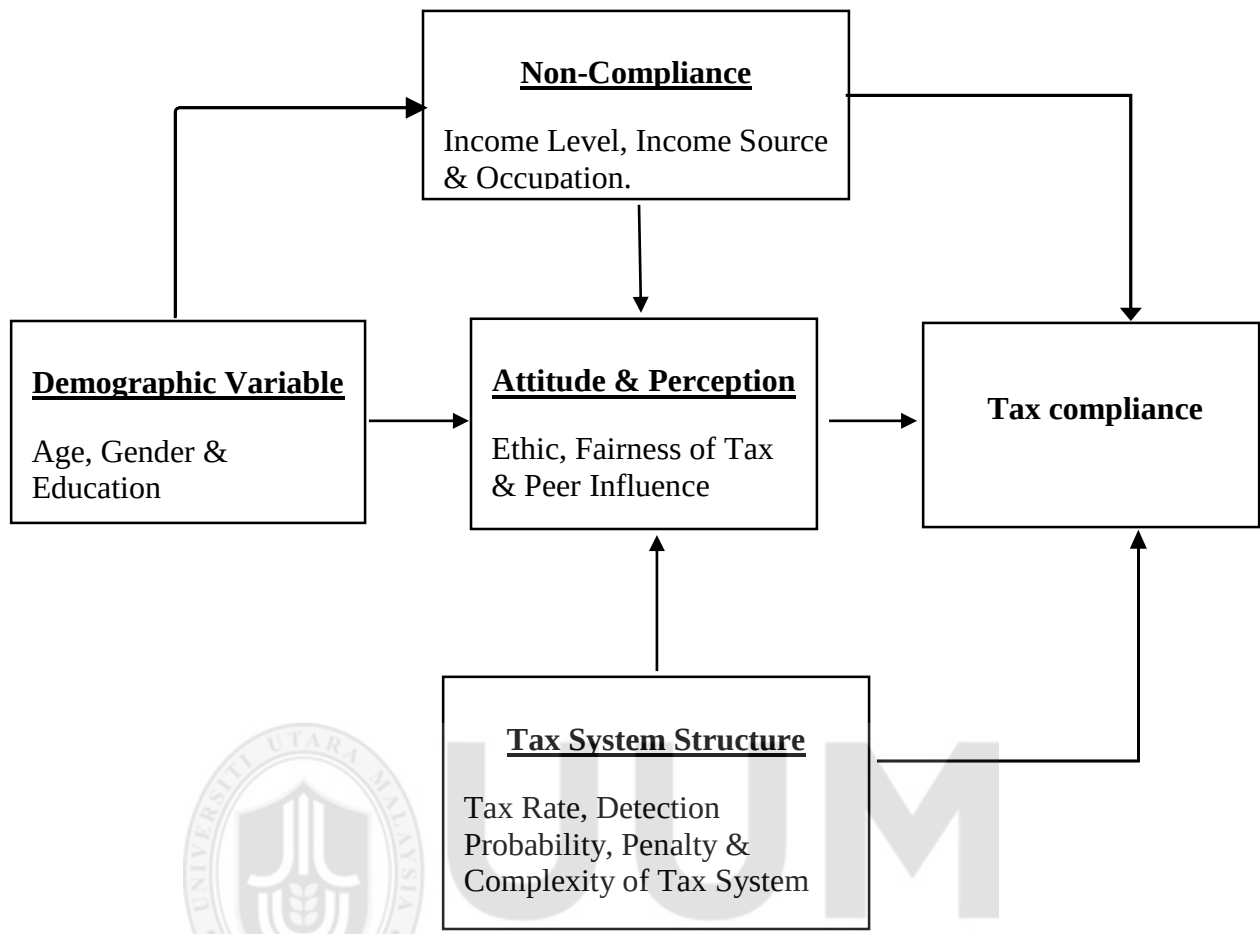
2.5.1 Fischer's Model of Tax compliance

Jackson and Milliron (1986) introduced fourteen key determinants for tax compliance in formulating the tax compliance model. The fourteen variables are gender, education, age, occupation, income level, IRS contact, sanction, fairness, ethics, complexity, compliance peer, probability of detection, withheld income level and tax rate. Later, the variables were regrouped by Fischer et al (1992) to incorporate into economic, sociological and psychological factors. The model consists of tax system structures, non-compliance opportunity, demography of taxpayers and attitude and perceptions. Fischer et al. model has contributed immensely in tax compliance research and underpinned many studies such as Palil and Mustapha (2011b), Palil & Mustapha (2011a) and Alabede, Ariffin and Idris (2011). It was argued that just like other models of tax compliance, Fischer's model did not capture many other determinants of tax compliance.

Fischer's model is a comprehensive model incorporating economic, sociological and psychological factors. The model consists of the following constructs:

- i. Demographic Variables: This group comprises of age, gender and education
- ii. Tax System Structure Variables: This group consists of tax rate, penalty, and probability of detection, complexity of tax system and tax authority contact.
- iii. Noncompliance Opportunity Variables: This group includes income level, income sources and occupation.
- iv. Attitude and perception: This comprises fairness, ethics, and peer influence

Fischer's model made the variables under the tax system structure, noncompliance opportunity and, attitude and perception the direct determinants of tax compliance with demographic variables as the antecedent variables linking noncompliance opportunity as well as attitude and perception. Just like other models of tax compliance, Fischer's model did not capture many other determinants of tax compliance and this study incorporates perception of government, corruption and religiosity into the Fisher's model. Fischer's model is shown below in Figure 2.1



Source: Fischer's Model of Tax Compliance Behaviour. (Fischer, 1993)

2.6 Tax Compliance

The problem of tax compliance has been quite long a topic of study since 1972, which attracted the attention of many scholars and researchers in the field of study. Toward this study, Allingham and Sandmo (1972) developed A-S models theory to explain the problem of tax compliance behaviour. This theory was originated from the deterrence theory of Becker (1968). The general conclusion of this theory is that the crucial factors in which compliance depends upon largely are penalty and tax audit.

Tax compliance is an issue that attracted so many debates. Yusof et al. (2014) revealed that there is no universal standard definition of tax compliance. Many scholars have a different understanding of tax compliance. Tax compliance has been defined as the ability and willingness of taxpayers to obey or comply with the relevant tax laws and authorities, which are influenced by legal environment, ethics and other factors at a given place and time (Song & Yarbrough, 1978). In addition, Marti (2000) describes tax compliance as a complex term to define. He said that tax compliance means to fulfill all tax laws as prescribed by the law completely and freely. Additionally, Palil and Mustapha (2011), defined tax compliance as the willingness and ability of the taxpayers to comply with the tax authorities, state the exact income, claim the correct deductions, relief and rebates and pay all taxes on time. Recently, Ayuba, Saad and Ariffin (2016), defines tax compliance as the taxpayers' willingness and ability to comply with the tax laws, state they are true income and pay the right amount of taxes to the appropriate tax authority or jurisdiction on a due date.

There are some studies that described tax compliance from other perspectives. For example, McBarnet (2003) describes tax compliance in three categories, which are committed compliance this refers to taxpayers' ability and willingness to comply with tax laws with no grudges; capitulative compliance this refers to taxpayers' ability to reluctantly comply with tax laws, and creative compliance this refers to an arrangement by the taxpayer to reduce taxes by redefining incomes and deduct expenditures within the boundaries of tax laws.

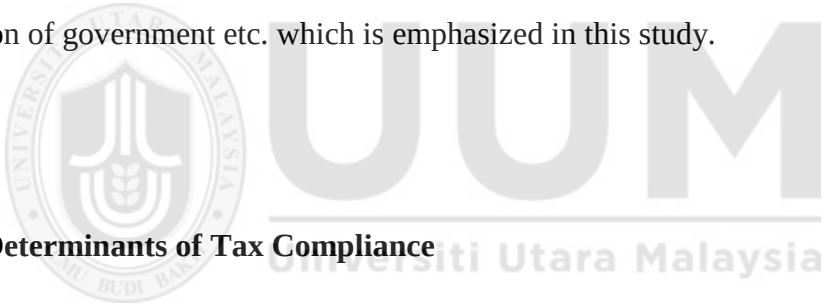
Kirchler (2007) revealed that compliance can be either voluntary or enforced compliance. Voluntary compliance refers to the willingness and ability of the taxpayer to comply with the relevant tax authorities and regulations on his/her own. However, in the presence of lack of trust and cooperation between the taxpayer and the authority, which brings tax hostile climate, regulations can enforce compliance. He further maintained that taxpayers who are reluctant to comply with tax laws, compliance is enforced to them through threat, penalty, and application of audit.

Furthermore, the Organization for Economic Cooperation and Development (OECD, 2001) classified tax compliance into two classes that are administrative compliance is made up in line with the combination of reporting compliance, regulatory compliance, as well as procedural compliance. While technical compliance refers to the technical requirement of tax regulations in computing tax liability. Chatopadhyay and DasGupta (2002), and Franzoni (2000) revealed that compliance with tax authorities involves correct reporting of the tax source; true calculation of the tax liabilities; filing tax returns in time and timely payment of the tax due. An act of non-compliance would be constituted if the taxpayer's behavior deviated from the above.

James and Alley (2002), and Soos (1991) classified tax non-compliance into four classes: underreporting of taxable income; failure to file tax returns; overstating of the tax claim, and the unwillingness of the taxpayer to pay tax liability when due. Tax non-compliance may take different forms such deliberate and unintentional non-compliance. The first one

is the deliberate action by the taxpayers to take advantage of the relevant tax laws for their personal gain, and the former takes place due to lack of knowledge or lack of awareness (Alabede, Zainol Ariffin & Idris, 2011). The taxpayer behavior is, however, determined by so many factors.

According to Brooks (2001), posited that the determinants factors of tax compliance could be psychological factors such as moral, norm, taxpayers' attitude; economic factors, such as income, tax penalty, tax rate; and social factors such as demographic factors. However, the behaviour of the taxpayer can be determined by many other factors like corruption, the perception of government etc. which is emphasized in this study.



2.7 Determinants of Tax Compliance

Based on several literature, tax compliance is determined by several factors (Brook, 2001; Alm, 1999). Researchers recognised and classified these variables as economic, social and psychological variables (Devos, 2005; Kirchler, 2007; Brook, 2001; Alm, 1999; Fischer et al., 1992; Jackson & Millron, 1986). To ensure the problem of tax non-compliance is solved, it is of great significant to have knowledge of the factors that determining the decision of individual taxpayers to comply with the relevant of tax laws. The earlier scholars based their study on the economic factors of tax compliance and they revealed penalty, tax rate and detection probability as the determinant of taxpayers' compliance behaviour (Dubin et al., 1988; Allingham & Sandmo, 1972).

In Nigeria, many of literature have provided likely explanations on why Nigerians taxpayers are not complying or paying their taxes to the required tax authorities and factors that determining their behaviour on tax compliance. Anyanwu (1993) provided the possible reasons why individual taxpayers do not comply with tax laws in Nigeria, specifically engaging in tax evasion, were revealed as economic reason and psychological reason. Further, Nzotta (2007) recognized many factors that influence high tax non-compliance in Africa as a whole and Nigeria particularly. He maintained that in developing countries, the main factors that courses tax non-compliance are the lack of fiscal transparency and high level of corruption among government officials at all levels.

The study of Sani (2005) revealed that the factors that block individual taxpayers from complying with tax laws, specifically in Nigeria, comprise high tax rates, which make tax non-compliance more economical and attractive as well as the absence of trust in the ability of the government to use the taxes collected from the taxpayers for the benefit of the society. Again, Odinkonigbo (2009) found other factors, which comprise political commotion, corruption among tax authorities and other level of government and culture. For the government of every country to continue surviving in the long run, tax compliance is of great significance (Hammar, Jagers & Nordblom, 2005). The details discussion on each variables are covered in this subsection.

2.7.1 Perception of Government and Tax Compliance

Perception of the taxpayer on the government for taxes refers to how social groups provide an appreciation or even into opposition over the existing tax system (Edlund, 1999). The taxpayer's perception of government is a significant factor that is being explained best by Theory of Fiscal Psychology. The Theory of Fiscal Psychology was introduced by Schmolders (1959) at the first place, which stresses on the loss of confidence by the taxpayer to comply to pay taxes due to lack of real advantage or benefits of tax compliance. Psychological contract calls for an equal relationship between taxpayers and tax officials. In addition, the success of the tax depends on how much taxpayers and tax officials have mutual trust and adhere to commitments in this psychological contract.

Feld and Frey (2007) said that the relationship between the taxpayer and the tax authority is a contract that involves a complex interaction between the taxpayer and the government in establishing a fair reciprocal relationship. The viability of the contract between the taxpayer and the government is depend very much on the perception of the taxpayer on government (Damayanti & Supramono, 2015). If taxes paid by the taxpayers and public services provided by the government is considered equitable, taxpayers may tend to comply with tax authorities (Torgler, Demir, Macintyre, & Schaffner, 2008; Feld & Frey, 2007).

In another study by Kiow, Salleh, and Kassim (2017) studied the factors that lead to taxpayers' compliance behaviour in Peninsular Malaysia, the study used perception of

government as one of the independent variables and found a significant relationship between perception of government and tax compliance behaviour. In addition, Kogler et al. (2013) stated that the level of voluntary tax compliance is more determined by the taxpayer's perception of government, particularly against the tax administration. Therefore, the taxpayers would comply voluntarily with the relevant tax authority only if the government spend the taxes collected from the taxpayers wisely in exchange for public goods and social amenities.

Trust in government which in turn led to a positive perception of government significantly make taxpayer comply (Mohdali, 2013). Therefore, a government needs to advance the trust of its citizens in order to increase their tax compliance behaviour. Therefore, the government can win or gain the trust of its citizens and make them comply when they can satisfy or meet the need and expectation of the taxpayers. Damayanti, Sutrisno, Subekti and Baridwan, (2015) carried out a study with the sample of 323 individual taxpayers in Indonesia and discovered that the behavior of tax compliance is determined by the intent to comply, and the intent to comply is also determined by the perception of government and of the subjective norms.

A recent study by Aronmwan, Imobhio and Izedonmi (2015) shows that perception of the government by the taxpayers has a significant positive influence on personal income tax compliance. They further revealed that taxpayers assessment of the government in terms of integrity, accountability, transparency, proper management and others virtues are a

fundamental factor when considering tax compliance. This study supports the findings of Uadiale, Fagbemi and Ogunleye (2010), and Modugu et al. (2012). The study was further supported by Ortega, Ronconi and Sanguinetti (2016) who said that taxpayers are more likely to comply when they notice the government is doing a great job. Therefore, the citizens can pay their taxes to the tax authority when they have the positive perception of government.

Furthermore, Kucher and Götte (1998) revealed that trust in government has a significant influence on the taxpayer behaviour in comparison to the common assumption made by many economists. Similarly, Jimenez and Iyer (2016) conclude that trust in government has a significant effect on both tax compliance decision and perceived fairness of the tax administration. In addition, McKerchar, Bloomquist and Pope (2013) in their study found that taxpayers' ability to comply with the tax laws are being encouraged by the good attitude of the government which is commonly based on their trust in government as well as the perception of tax fairness.

In another study by Kirchler (2007), maintained that government can increase the tax compliance by achieving or attaining the promise made to its citizens. The government can promote tax compliance of individual taxpayers by providing or increasing the quality of public goods and services (Molero & Pujol, 2012). In the same view, Alm, McClelland and Schulze (1992) in their study found that the taxes paid by the taxpayers are equitable to the public goods and services provided by the government. Thus, when the quality of

public goods and services is poor, the taxpayer's ability to comply will be very low because they will perceive that the government is not given them back what they earned.

On the other hand, Engida and Baisa (2014) examined factors that determine taxpayers' compliance in Mekelle City, Ethiopia, the study used a cross-sectional survey method of research design with 102 respondents, and the findings revealed that the relationship between perception of government spending and tax compliance is negative. Similarly, Vadde and Gundarapu (2012) conducted a study in the same country and city on determinants of tax compliance and used the perception of government as one of the independent variables and found that a negative relationship between perception of government and tax compliance exist.

The studies that showed the negative relationship between tax compliance and perception of government are limited. Thus, the way and manner in which taxpayers perceived or understood government base on the fairness of tax system are very vital in increasing and maintaining the positive attitude of taxpayers. It is of great significance for the government to win the trust of its citizen and make them have confidence which will raise their tax compliance. So, taxpayers' perception of government is among the independents variable under study because of its important towards tax compliance behaviour.

2.7.2 Corruption and Tax Compliance

The issues of corruption and tax non-compliance are not new, both are essential problems facing both developed and developing economies (Alm et al., 2016). Nigeria as a developing economy is recently ranked 148 out of 180 countries assessed in 2017 on the perception of corruption (Transparency International, 2018). There are many studies about corruption in Nigeria such as Gurama (2015); Akinyomi and Akpala (2013); Oladipupo and Obezee (2016) among others. All these studies have tested corruption and found the negative relationship between tax compliance and positive relationship with tax non-compliance.

Additionally, Alm et al. (2016) describe corruption as among the factors that encouraged tax non-compliance and discourage tax compliance. They further maintained that corruption among tax officers is an economically and statistically essential factor that discourages tax compliance. A society or government that is more corrupt may discourage tax compliance as corrupt tax officers seek more income through bribes, equally, higher levels of tax compliance may be discouraged and this drives corruption by bringing more opportunities for bribes.

Many studies have been conducted on corruption and revealed its negative impact toward economic growth (Mauro, 1995; Campos, Lien & Pradhan, 1999). In another study by Imam and Jacobs (2014), conducted this study in the Middle East on the impact of

corruption. They concluded that low revenue generation in terms of its share to the Gross Domestic Product (GDP) in comparison to other middle-income regions, and this was because of corruption which affected taxes more. Again, Okpala (2013) conducted a research about corruption in Nigeria. A cross-sectional survey research design was employed with the sample size of 140 respondents and questionnaire were used in collecting data. He concluded that corruption and tax non-compliance have significant positive relationship. Therefore, a high level of bribery and corruption equally resulted to high levels of tax non-compliance, agreeing that the level of tax compliance depends to a great extent on the quality and trustworthiness of the tax authorities.

Furthermore, Rahmani and Fallahi (2012) explained that if an economy is characterized by a low level of corruption, the willingness, and ability of the taxpayers may improve and increase tax compliance, which means that, indirectly tax compliance and ability of a taxpayer to comply may be affected negatively by high level of corruption. Then, when the taxpayers observed the government or tax authorities to be corrupt, that is the lowest amount of tax paid by the taxpayer is not efficiently and wisely utilized in the form of public goods and service provision, the citizens' may feel being deceived and may thus influence his/her compliance decision. In line with this, Ayuba, Saad and Ariffin (2016) argue that, the level of corruption being discovered by the taxpayers may affect their compliance decision regardless of whether the probability of detection is high or not, or the tax rates are high or the complexity of the tax administration is also high or not.

Nur-tegin (2008) carried out a study on the determinants of tax non-compliance and the survey data was obtained from 4,538 firms in 23 developing economies. He discovered that fighting corruption is more essential in deterring tax non-compliance than conventional measures. In another study by Awan and Hannan (2014) in Pakistan, conducted a research on determinants of tax evasion and found that corruption among tax administration as among the factors that discourage tax compliance. Wadhwa and Pal (2012) concluded that main causes of tax non-compliance are corruption, high tax rates, inefficient tax administration and multiple tax rates. Therefore, corruption has been discovered by many literatures as among main factors that discourage tax compliance and encourages tax non-compliance, thus, in order government to improve and encourage full tax compliance, the issue of corruption especially among tax administrators and government in general need to be addressed.



Many scholars have found the negative relationship between corruption and tax compliance such as Kafkalas, Kalaizidakis and Tzouvelekas (2014); Debacker, Heim and Tran (2015); Gupta (2008); Pirttila (1999) among other. On the other hand, some scholars showed the positive correlation between corruption and tax noncompliance. For example, Tijani and Mathias (2013) studied factors that influence tax compliance in Nigeria and discovered that a positive relationship existed between corruption and tax noncompliance in Nigeria. In view of this mixed results, so, corruption is among the independents variable under study which worth to study in this tax compliance context.

2.7.3 Religiosity and Tax Compliance

In tax compliance studies, religiosity has not been widely known and received little attention as one of the essential element that explain the problem of tax compliance, till some scholars such as Stack and Kposowa (2006); Welch, Xu, Bjarnason, Petee, O'Donnell and Magro (2005) and Torgler (2003) stressed its position. For instance, Stack and Kposowa (2006) have emphasized the significance of religiosity in explaining taxpayers' compliance decision. Religiosity in this perspective is the degree at which level of taxpayer's religiousness influences their tax compliance decision. Margolis (1997) supported this argument which stated that those individuals that strictly stick to certain belief religion will have high ethical value and will not attempt to cheat. Thus, the inner element such as religiosity can be used by taxpayers to conclude whether to pay tax or not.

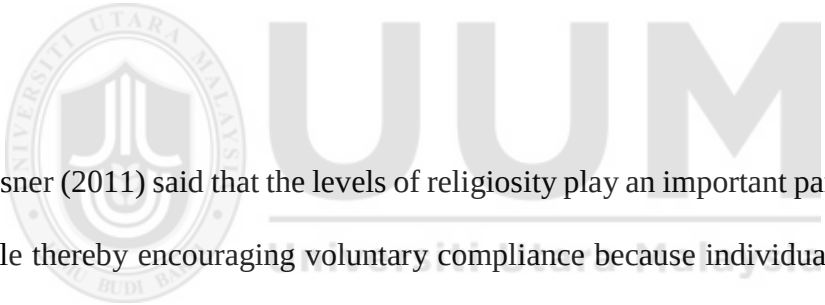
Pope and Mohdali (2010) revealed that religious commitments and religious affiliation are the two main groups in which earlier researches have perceived religiosity. Religious commitment is the degree to which an individual sticks to the teaching of specific religion while the religious affiliation is a specific religion that an individual belongs to, such as Islam and Christianity (Johnson, Jang, Larson & De Li, 2001). Stack and Kposowa (2006) documented that individuals with no religion belief affiliation were more likely expected to take tax fraud as acceptable.

Leornado and Martinez-Vazquez (2016) viewed the term religiosity as those ethical forces which obligate people to behave in a certain manner. Richardson (2008) conducted a study with the sample size of 47 nations and confirmed a positive correlation between individuals with high levels of religiosity and tax compliance. This research does not refer to any religious association but instead, religiosity is taken from the point of view of religious commitments, which implies the degree or level of religiousness of an individual in respect of his/her religious affiliation. Religious duty is the degree or extent to which a person or individual adheres to the teaching of a particular religion.

Eiya, Ilaboya, and Okoye (2016) investigated religiosity and tax compliance in Nigeria. The data were collected with the help of a questionnaire and analyzed with descriptive statistics, Analysis of Variance (ANOVA) and Ordinary least squares regression analysis and the findings revealed and concluded that religious values is among the factors that influence taxpayers' compliance behaviour. The religious values believed by most people are essential and generally expected to effectively and efficiently encourage positive attitudes and discourage negative attitudes in a people's daily life. Religiosity is assumed to positively encourage taxpayers to comply voluntarily with tax authorities (Eiya, Ilaboya & Okoye, 2016).

Similarly, Torgler and Schneider (2007) explained that taxpayer's inner values which include religiosity are being used by taxpayers in making compliance decision although they stressed that religiosity plays a different role from moral values in tax compliance

decision. Torgler (2003) carried out a study on the role of religiosity and found a strong evidence that taxpayer's morale depends on religiosity, therefore, individuals with strong religious belief will comply and pay their tax more than those with smaller religion belief with the teachings of the specific religion. Individuals with strong religious beliefs are likely to act more correctly and in a more moral and ethical manner (Strielkowski & Čábelková, 2015). Therefore, it is believed that tax non-compliance (tax evasion) is not only illegal and prohibited but also unethical and unlawful. Likewise, Pope and Mohdali (2010) revealed that individual with strong religious belief will prevent them from doing an illegal behaviour via a self-induced guilt. Thus, religiosity has an effect on the tax compliance



Kirchgässner (2011) said that the levels of religiosity play an important part in determining tax morale thereby encouraging voluntary compliance because individuals that take their religion with passion will find it unethical to evade. In this regard, Schaltegger and Torgler (2007) supported the above study and found the religiosity and tax morale have a positive relation. Therefore, individual's religiosity will influence how they will act in any situation. It is understood that every religion preaches its believers to act in a good manner.

Several studies, generally indicated the relation between religiosity and tax compliance is positive or negative relationship between religiosity and tax evasion, but the study by McKerchar, Bloomquist, and Pope (2013) investigated the indicators of tax morale: an exploratory study and discovered that the relationship between religiosity and tax morale

is negative. And Welch et al. (2005) carried out a study and deposited a negative relationship between religiosity and tax compliance.

Welch et al. (2005) described the view of tax evasion inside a community were found to similarly affect the members of community irrespective the levels of their religiosity. This may be because, a strongly emphasized in Islam (Jalili, 2012) or even in Christianity (McGee, 2012) tax evasion can be seen as either ethical or unethical, contingent upon the way a nation is managed and whether the government entirely or just halfway takes after the religion's laws. It is contended that the personal trustworthiness of individuals has a stronger influence on their tax compliance behaviour contrasted with their own religious convictions. Though, in conclusion, the general literature reveals that religiosity is playing a significant role in helping government and tax authorities to achieve their objectives in promoting tax compliance voluntarily. Therefore, religiosity is among the variables under study, thus, this research will explain it due to its worthiness in this context.

2.7.4 Tax Rates and Tax Compliance

Numerous scholars have carried out the studies on the effect of tax rate and tax compliance, and most studies indicated that the high tax rate is negatively related to tax compliance and positively related to tax evasion, other literature revealed either positive correlation between tax rate and tax compliance or no relationship (Mas'ud et al., 2014). In addition, Hai and See (2011) found that most of the studies deposited that the high tax rate decreases

tax compliance. Therefore, it is suggested that the tax authorities or government can increase the taxpayers' compliance when the tax rate is low.

In a similar study, Spicer and Becker (1980) carried out a study on tax evasion and concluded that taxpayers always make comparison to see if tax rate paid by them is higher than the tax rate paid by other, this make them to evade tax. By implication, when the taxpayers see that the tax rate that they are paying is high, they can offset their overpayment via tax evasion. Thus, taxpayers take advantages of the high tax rate as a reason to dodge from paying taxes or under-report their earnings to the tax regulators. Abiola and Asiweh (2012) carried out a study and found the relationship between tax rate and tax compliance is negative.



In a similar study by Gurama and Mansor (2016), carried out a study in Nigeria, Gombe State, and deposited that the relationship between tax rate and tax evasion positive, and tax evasion is also known as tax non-compliance. Also, Mariam and Judith (2013) conducted a study and revealed tax non-compliance is increasing if the tax rate is high. Another by Adebisi and Gbegi (2013) found the relation between tax rate tax non-compliance is significantly positive. Many studies have shown the relationship between tax rate and tax non-compliance as positive which might be negative between tax rate and tax compliance, therefore, it very essential for tax authorities to discourage tax non-compliance by lowering the tax rates and encourage tax compliance.

Many studies across the globe have found the correlation between tax rate and tax compliance as negative such as Spicer and Becker (1980); Clotfelter (1983); Malkawi and Haloush (2008); Chau and Leung (2009); Abiola and Asiweh (2012); Freire-Seren and Panades (2013); Gambo (2014); Yusof et al. (2014); among others.

On the other hand, several studies discovered the relationship between tax rate and tax compliance is positive such as Fasina et al. (2013) and Adebisi et al. (2013) among others. For example, Feinstein (1991) and Alm, Sanchez and De Juan (1995) said high tax rate increases tax compliance. Furthermore, some studies found neither positive nor negative correlation between tax rate and tax compliance such as Modugu, Eragbhe and Izedonmi, (2012); Ibadin and Eiya (2013).

The review of the literature shows that there is evidence of mixed results on the correlation between tax rate and tax compliance. Indeed, different studies have affirmed this trend of clashing finding (Richardson, 2006). Along these lines, it recommended that since the economic literature on the impact of tax rate and tax compliance is inconclusive because of mixed results by several studies, the problem still requires additional research (Freire-Serén & Panadés, 2013). Therefore, this study is undertaken to provide more to the literature on the influence of tax rate on tax compliance. Thus, the tax rate is among the variables under study.

2.7.5 Penalty and Tax Compliance

Allingham and Sandmo (1972) developed the economic deterrence model, the model presumes that rational taxpayers construct their decisions absolutely based on economic calculation. The compliance will be achieved if the costs of evasion that anticipated are higher than benefits. In the event that anticipated costs of evasion are lower than the likely advantages, then there will be motivation to be compliant. Therefore, it is sufficient to check taxpayers frequently and levy more extreme penalties to make tax evasion low. The penalty is imposed on the amount of tax evaded (Allingham & Sandmo, 1972).

Many studies have talked about the issue of penalty and tax compliance in both developed and developing economies and found the positive relationship between these variables. These studies include Swistak (2016); Oladipupo and Obazee (2016); Allingham and Sandmo (1972); Kirchler (2009) Twum (2014); Cummings et al. (2009); Devos (2005); Alm et al. (1992). Found that the amount of tax compliance increase with an increase in penalty rate. In support of this, Allingham and Sandmo (1972) mentioned that taxpayers disclose their actual income when the penalty rate increases. They further said that penalty is charged on the amount of tax evaded.

In a similar study by Twum (2014) discovered that the relation between tax compliance and penalty rate is positive. Kamil (2015) confirmed that penalties encourage taxpayers to comply with the relevant tax authorities. Thus, penalties make taxpayers pay their taxes

especially when the penalty rates are higher than the compliance cost. To confirm this, Doran (2009) carried out a study and revealed that taxpayers are always motivated by the penalty rates, particularly when the compliance cost is lower than penalties. The threat of detection and punishment encourage compliance (Becker, 1968). Non-compliance with the relevant tax authorities resulted to increases penalties (Blank, 2014).

Furthermore, Castro and Scartascini (2015) stated that compliance behaviour increased when the penalty rates increased. Similarly, Oladipupo and Obazee (2016) examined the correlation between tax compliance and penalties and found that the relationship is positive.

On the other hand, some studies found that the relationship between these variables is negative. For instance, Aronmwan, Imobhio and Izedonmi (2015) conducted a study in Nigeria on determinants of taxpayers' compliance and found the negative relationship between penalty and tax compliance; Helhel and Ahmed (2014) carried out the study in Yemen on the influence of penalty on tax evasion and revealed the positive result.

Based on the literature reviewed, the relationship between tax compliance and penalties showed inconsistency findings, therefore, this study would also investigate these variables in order to contribute to the literature. Thus, the penalty is among the variables under study.

2.7.6 Demographic Factors

The influence of demographic factors on tax compliance is debatable in the literature. Different studies render empirical evidence of a significant correlation between tax compliance and demographic factors, whereas other studies do not find a significant relationship. For instance, McGee and Tyler (2006) emphasizes that tax compliance is more acceptable behavior for female taxpayers than their counterpart (male). Spicer and Becker (1980) reveal that male taxpayers are more likely to evade taxes more than their counterpart (female). Feinstein (1991) stresses that people who are average taxpayers are more likely to comply compare to those that own business. He further discovers that persons who are 65 years or older are likely to pay taxes and that unmarried persons are more likely to comply. The following will be discussed on demographic factors gender, age, marital status, education level, and employment status in detail.

2.7.6.1 Gender

Research has provided evidence signifying differences in the conduct of male and female to risk-taking (Alabede, 2014). Studies have confirmed that the male has proven to be less risk taker than female in making a financial decision (Bernasek & Shwiff, 2001; Meier-Pesti & Penz, 2008). Various biological and social-psychological theories have provided the theoretical explanations for differences in the male and female behaviour. The biological theorists ascribed the variances in the risk behaviour of male and female to sex variance in the name of gene and hormone (Saad & Gill, 2000; Meier-Pesti & Penz, 2008) explained that in social-psychological theories the gender variance in behaviour may be

because of a sex-specific role in socialization. This behavioural distinctive also have an influence on the tax compliance decisions of both man and woman.

Mostly, studies reveal that female taxpayer obeyed and complied with tax laws compare to male taxpayers (Richardson & Sawyer, 2001). However, Ross and McGee (2011) conducted a study in Malaysia on demographic variables and found that females are more in support of tax compliance more than male. Similarly, Torgler and Schneider (2004) also revealed male to have low tax morale and female to have high tax morale in the context of Belgium and Switzerland. Another study in Nigeria by Alabede (2014) confirmed that female complied more than male. A similar study in Tirana, Albania by Gërxhani (2007), the study explained the tax behaviour differences between male and female and found that male is more exposed to tax evasion.

Hai and See (2011) described that gender play a significant role in tax evasion in Batu Pahat District on the behaviour of sole-proprietors. Manaf, Hasseldine and Hodges (2005) also revealed that more females are compliant with the tax laws than males in Malaysia. A similar result was recorded in Katstlunger et al. (2010); Lew, Carrera, Cullis and Jones (2009); Gutpa (2009); McGee (2006); Richardson (2004) and Grass and Kaplan (1998).

On the other hand, some studies show the males are more compliant to the tax laws compare to females such as Spicer and Becker (1980); Young (1994); Hassldine and Hite

(2003); Kirchler and Maciejovsky (2001). For instance, Friedlend, Maital and Rutenberg (1978) reported that females are more likely to evade tax than males. And again some researchers found that there is no essential different between males and females towards compliance as reported by Mustafa and Asri (2007). For instance, Kasipillai and Jabbar (2006) conducted a study in Malaysia on gender differences on tax compliance and claimed that gender does not have a direct relationship with compliance behaviour but has on compliance attitude. And also found that between male and female there are equal or similar aversion to tax evasion.

2.7.6.2 Age

Several kinds of researches have resolved that taxpayers who are 65 years or older are more likely to comply with the tax authorities than younger taxpayers (Wenzel, 2002; Serwinek, 1992; Bosco & Mittone, 1997; Mason & Calvin, 1978). This because of taxpayers with old age demand more of public goods and services such as healthcare and social security increases. Older taxpayers might, therefore, treasure the advantages of taxes more than youthful ones and be more compliant. Likewise, older taxpayers might be in a right financial position than youthful ones. It is less demanding for them to afford to be tax compliant because of fewer budget constraints.

The taxpayers with old age have less responsibility because they already developed a comfortable home, having brought up children, and gaining more wage than more youthful taxpayers with young ages (Kirchler, 2007).

According to Nordblom et al. (2012) explained that as long as taxpayers are growing older they are accumulating skills with their business, with taxes and tax regulators. In a similar study by Eriksen and Fallan (1996) also said that with expanding age, citizens are getting more acquainted with the tax law which is related to improved tax compliance. The older individuals are more comfortable and familiar with the tax system by using their tax deduction and can design their taxation judiciously compared to younger taxpayers (Wenzel, 2002).

Chan, Troutman and O'Bryan (2000) found that the choice to comply with tax laws is determined by the age of the citizens. They further recommend that older citizens comply more than the youthful citizens. In another study, Spicer and Lundstedt (1976), carried out a study on demographic factors in the USA and discovered that age is essentially related to attitude on tax evasion. In other findings, Devos (2008); Richardson (2005); Birch, et al. (2003) also found similar outcome between taxpayer's age and tax compliance behavior.

Several studies such as Obid (2004); Slemrod and Sorum (1984); Friedland et al. (1978) and Vogel (1974) revealed that age has a positive influence on tax compliance behavior. For instance, Ross and McGee (2011) said that age is a determinant of tax compliance. Also Alabede (2014) found the age is among the factors that significantly affect taxpayers' compliance decision in Nigeria. However, there are also some studies that confirmed a negative relationship between age and non-compliance (Ritsema et al., 2003; Feinstein 1991; Mason & Calvin 1978).

Similarly, Hai and See (2011) found that age of citizen has a negative influence on tax compliance behavior. In another study, Ross and McGee (2011) carried out a study in Malaysia on demographic and discovered that age is found not among the determinants in Malaysia. Based on the literature reviewed shows the mixed outcomes. According to Richardson (2006) explained that not all citizens are impacted by age in their behavioral decision.

2.7.6.3 Marital Status

Unmarried taxpayers are found to evade tax more than Individual taxpayers who have wives (Asante & Baba, 2011). This situation or circumstance could relatively be explained by the fact that females turn to be compliant consistently more than males (Richardson & Sawyer, 2001). Therefore, married men can be influenced easily by their counterparts' women to be tax compliant as well. Similarly, Young (1994) also explained that married taxpayers tend to comply more than unmarried couples.

On the other hand, Bosco and Mittone (1997); Crane and Nourzad (1987); Friedland et. al. (1978) conducted a study on demographic variables and also agreed that single taxpayers have more tendency to comply and pay the tax than married couples. Slemrod (2007) single taxpayers have a significant level of tax compliance more than married taxpayers. Ross and McGee (2011), who studied on tax compliance in Malaysian, found that unmarried couples are in support of tax compliance more than married one. One reason may be as a

result of unmarried taxpayers have fewer obligations over the family compared to married taxpayers who have more obligations and commitments over the family, in this way, unmarried taxpayers have fewer responsibilities which make them comply with the tax laws. Feinstein (1991) also disclosed unmarried persons are more likely to comply than married persons.

2.7.6.4 Educational Level

The influence of education on tax compliance is not clear (Alabede, 2011). Ross and McGee (2011) explained that the higher the respect ones possess depend upon the level of education ones have and this would make ones to opposed tax evasion and vice versa. Furthermore, in an empirical study of taxpayers in the USA by Song and Yarbrough (1976) revealed that level of education had an effect on the taxpayers' ethical behaviour. The scholars further concluded that level of education is positively correlated with tax ethics. Also, Ritsema et al. (2003) discovered the positive correlation.

Gurama and Mansor (2016) studied tax evasion in Gombe state and positive relationship between educational level and tax evasion. Peter and Efiatoh (2013) studied tax evasion and avoidance of the self-employed in Nigeria and concluded that there is a positive relationship between educational level and tax evasion. The level of knowledge of the taxpayer determines the attitude to evade taxes. Similarly, Fasina and Olowekere (2013) conducted a study on taxpayers' education in Lagos State, Nigeria and found that

knowledge level of the taxpayer is one of the key determinant factors of tax evasion. Studies have also shown that taxpayers with low knowledge level are more likely to evade taxes because of inadequate awareness of the implication of doing so (Devos, 2006; Aziah et al., 2011).

In addition, on the study related to the correlation between attitude toward tax evasion and demographic factors among New Zealand college students, Birch et al. (2003) stated that the respondents with the advance level of educational background and knowledge of tax laws are least involved in tax evasion. Kasipillai, Aripin and Amran (2003) determined the impact of education on tax compliance among university students in Malaysia and found a significant connection between education level and tax compliance. Thus, education may impact an individual taxpayer in his/her tax compliance decision. This may be as a result of individuals with a certain level of education can understand tax laws and systems better, and hence, this leads them to comply as they apprehend their responsibilities and obligations to the government and even towards the nation as a whole.

Gërxhani (2007) that revealed the level of education increases tax evasion and decreases tax compliance. This may be because the taxpayer with a high level of education would get a better understanding of tax laws which may lead him to misuse the knowledge to find ways looking for loopholes and weaknesses in the tax laws and try to evade tax. In another study, Dubin and Wilde (1988) found a negative relationship between education level and tax compliance. Additionally, Obid (1994) found the negative correlation between tax

compliance and level of education. The tax noncompliance would be more complexity if one owns advance level of education (Ross & McGee, 2011). Individual taxpayers with an advanced level of education would be in a better position to evade taxes, this is because they will use their knowledge and understand the complexity of tax systems and search for loopholes and weaknesses of the tax laws in order to evade.

2.7.6.5 Employment Status

Employment is a significant source of taxable revenue. Individual taxpayers may derive taxable revenue from either employment or self-employment (businesses). The money got from self – employment business is more exposed and vulnerable to underreporting for the purpose of tax than money from employment profession. The explanation behind this is the money from employment profession in the tax administration is liable to outsider information reporting. For example, under Nigerian tax law, tax on money from employment is subtracted from the source under Pay as You Earn (PAYE) and dispatched to the relevant tax system.

Chau and Leung (2009) said that the chances of tax evasion are higher in self-employed businesses like a sole partnership, trader and other sources of money that are not liable to withholding tax. In addition, Fjeldstad and Semboja (2001) also reported that workers that pay their taxes at source have full chances of compliance. While Birch et al. (2003) is not

in support of the above findings, they fail to find a significant correlation between tax evasion and employment status.

In a similar study by Gupta (2009), revealed that tax evasion is statistically affected by employment status in New Zealand. The study of Groenland and VanVeldhoven (1983) opined that individual taxpayers who are self-employed businesses are not likely to comply and have the chances of commit various forms of tax noncompliance. Also, Andreoni et al. (1998) also confirmed that high percentage of sole proprietors engaged in an understatement of taxes. Whereas the study of Manaf et al. (2005) showed a different result that self-employed individual taxpayers are more likely to be in a tax compliant position.

Based on the literature reviewed, the relationship between tax compliance and demographic factors such as age, gender, marital status, education level and employment status showed mixed findings, therefore, this study would also investigate the relationship between these variables and tax compliance in order to contribute to the literature. Thus, the demographic factors are among the variables under study.

2.8 Summary of Chapter

Based on the studies reviewed, the issues of tax compliance have been discussed by many scholars in both developed and developing countries. In Nigeria, tax compliance has

attracted the attention of many scholars who are with the opinion of solving the menace of tax non-compliance, these studies concentrated on so many states in Nigeria and therefore, there are very few studies on tax compliance in Gombe state, Nigeria. The problem of tax compliance has been shunned in Gombe state compared to other parts of the country. Many factors are affecting tax compliance based on the previous studies. Many theoretical issues on tax compliance and its relationship with the variable in this study have been emphases in this chapter. The following chapter discussed on the methodology that was agreed in this study.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is about the research methodology. It will explain the methods, techniques, and instruments used in conducting the study. The chapter will be divided into several subheadings among which include; conceptual framework, hypotheses development, research design, operational definition and measurement of variables, the population of the study, and source of data, sample size, methods of data collection and techniques of data analysis.

3.2 Conceptual Framework

This study examines the determinants of tax compliance behaviour, in which tax compliance behaviour is a dependent variable. The independent variables, on the other hand, are public perceptions of government, corruption, religiosity, tax rates, penalty and demographic factors. This study has developed a model (as shown in Figure 3.1) to show the relationship between the dependent variable and the selected independent variables accordingly. In line with this, Hair et al. (2007) described conceptual framework as a chart that links variables based on logic and theory to visually show the hypotheses that will be tested. The framework helps in ensuring greater understanding of the independent variables which offers more value to the tax authorities in understanding the factors that influence tax compliance.

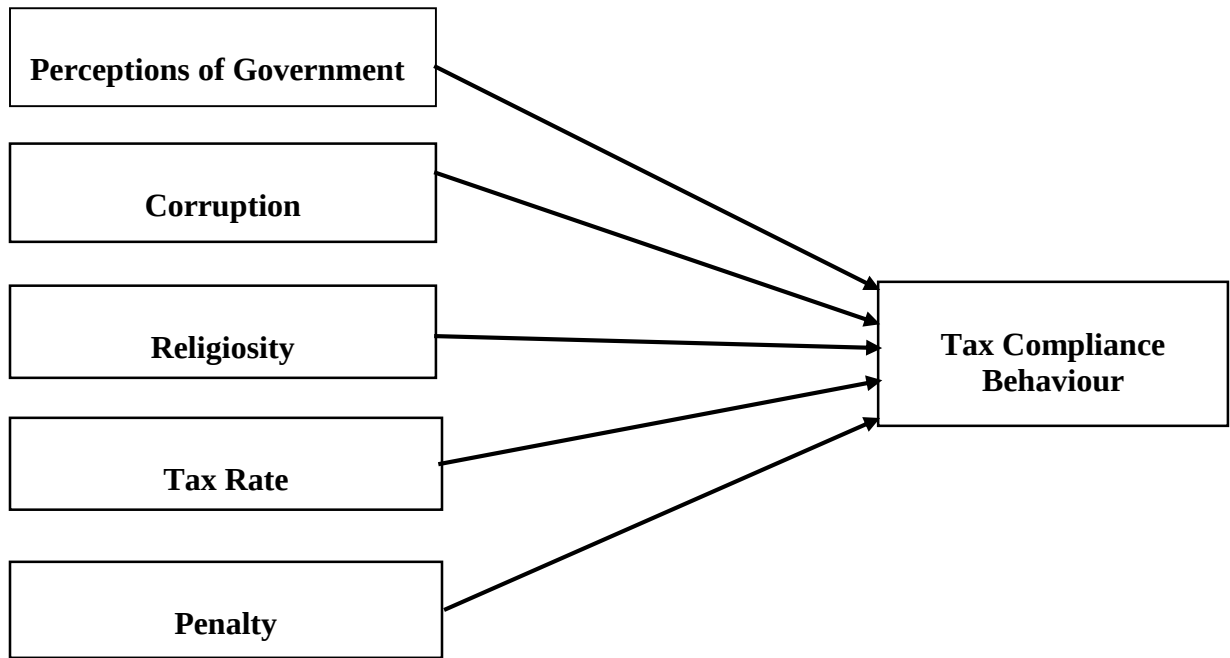


Figure 3.1: Research Frameworks

The difference between Gurama and Mansor (2016) study is that the study was conducted on the effect of tax system, tax rate, corruption, income level and education level on tax evasion in Gombe state, Nigeria, while this study is on the determinant of tax compliance among individual taxpayers in Gombe state Nigeria that comprises perception of government, corruption, religiosity, tax rate and penalty as independent variable. The similarities between these studies are that some independent variables like tax rate, corruption and educational level are included in both studies and both studies are carried out in Gombe state, Nigeria.

3.3 Hypotheses Development

In chapter one, the research questions brought up earlier shape the basis of outlining the hypotheses of the study. The hypotheses are similarly in accordance with the conceptual framework of the study.

3.3.1 Perceptions of Government and Tax Compliance

Tax compliance has been clearly explained by the literature and also the relationship that exists between the tax authority and the taxpayers' perception. It demonstrates a taxpayer's perception on the provision of service they received as an exchange for paying tax to the government shapes has impacts on taxpayers' compliance. As indicated by the social exchange theory, the correlation between the government and the taxpayer exist base the exchange of value, this implies a taxpayer anticipates the government to respond the gesture concurred to them by demonstrating public services in return to the taxpayer. Thus, this shows that there is a correlation between the taxpayer's compliance and how the taxpayer saw and perceived government.

Moreover, Kiow, Salleh, and Kassim (2017) revealed that when the taxpayers get the expected benefits for the taxes paid and the money collected from them by the government spent wisely in exchange of public goods and social amenities, they will voluntarily comply. Also, Mohdali (2013) revealed that the relationship that exists between tax compliance and perception of government is positive. This is similar to the findings of

Ortega, Ronconi and Sanguinetti (2016); Damayanti, Sutrisno, Subekti and Baridwan (2015); Aronmwan, Imobhio and Izedonmi (2015); Kogler et al. (2013); Modugu et al. (2012); Uadiale, Fagbemi and Ogunleye (2010); Kirchler (2010) and Alm, McClelland and Schulze (1992).

On the other hand, Engida and Baisa (2014) conducted a study in Ethiopia and found that perception of government is not the determinant of tax compliance. In a similar study by Vadde and Gundarapu (2012) also discovered that there is no any correlation between tax compliance and perception of government. Therefore, the studies that showed the negative relationship between tax compliance and perception of government are limited. Then, this study developed the following hypothesis:

H1: There is a positive relationship between the perception of government and tax compliance among individual taxpayers in Gombe state, Nigeria.

3.3.2 Corruption and Tax Compliance

One of the factors that determine tax compliance is corruption. Corruption in this study means an unauthorized or unlawful act involved in by a public official via his/her position to collect a bribe, directly or indirectly, in exchange for making an advantage available to an individual member of the public (e.g., a taxpayer). According to Alm et al. (2016) describe corruption as among the factors that encouraged tax non-compliance and discourage tax compliance. Again, Okpala (2013) carried out the study in Nigeria on factors that lead to tax non-compliance and found that the relationship between corruption

and tax non-compliance is significantly positive, and negative with tax compliance. These studies are consistent with other studies which also reveal that relationship between corruption and tax compliance is negative. (See for instance: Mauro, 1995; Campos, Lien & Pradhan, 1999; Pirttila, 1999; Nur-tegin, 2008; Gupta, 2008; Rahmani & Fallahi, 2012; Wadhwa & Pal, 2012; Debacker, Heim & Tran, 2012; Imam & Jacobs, 2014; Awan & Hannan, 2014; Kafkalas, Kalaizidakis & Tzouvelekas, 2014 and Ayuba, Saad & Ariffin, 2016)

In contrast, Tijani and Mathias (2013) opined there is a positive correlation between corruption and tax compliance. This study is among the few studies that revealed contrary results. Hence, this research developed this hypothesis:

H₂: There is a negative relationship between corruption and tax compliance among individual taxpayers in Gombe state, Nigeria.

3.3.3 Religiosity and Tax Compliance

One of the determinants that influence tax compliance is the taxpayers' religious belief. Religiosity in this study implies the level at which a taxpayer obeys the teaching of a specific religion in respect of his religious affiliation. According to Eiya, Ilaboya and Okoye (2016) said that a positive relationship exist between religiosity and tax compliance. In a similar study, Stack and Kposowa (2006) documented that individuals with no religion belief affiliation were more likely expected to take tax fraud as acceptable. These studies also found the positive relationship between religiosity and tax compliance. (See for example: Margolis, 1997; Torgler, 2003; Strielkowski & Čábelková, 2015; Pope &

Mohdali, 2010; Kirchgässner, 2011; Schaltegger & Torgler, 2007; Torgler & Schneider, 2007; Stack & Kposowa, 2006).

In contrast, McKerchar, Bloomquist and Pope (2012), and Welch et al. (2005) found the negative relationship between religiosity and tax compliance or positive relationship between religiosity and tax evasion. These studies are among the few studies that revealed contrary results. Hence, this research developed this hypothesis:

H₃: There is a positive relationship between religiosity and tax compliance among individual taxpayers in Gombe state, Nigeria.

3.3.4 Tax Rates and Tax Compliance

The tax rate is the ratio or percentage at which a person or business is taxed. Mas'ud et al. (2014) state that tax rate is one of the factors that negatively influence tax compliance. In addition, Hai and See (2011) opined that most of the researchers showed that the high tax rate resulted in high tax non-compliance and the low tax rate increases tax compliance. Also, Spicer and Becker (1980) postulated that if taxpayers observed that tax rate paid by them is higher than the tax rate paid by others lead to high tax evasion. In a similar study by Gurama (2015) reveals that tax compliance decreases when the tax rate increases and tax non-compliance increases when tax rate increases. Mariam and Judith (2013) opined that low tax rate encourages tax compliance. However, the following findings found the negative relationship between tax rate and tax compliance James and Moses (2012); Adebisi and Gbegi (2013); Clotfelter (1983); Malkawi and Haloush (2008); Chau and

Leung (2009); Jayeola (2010); Abiola and Asiwah (2012); Freire-Seren and Panades (2013); Gambo (2014) and Yusof et Al. (2014)

In contrast, some studies found that the correlation is positive such as Fasina et al. (2013); Adebisi et al., (2013); Feinstein (1991); Alm, Sanchez and De Juan (1995). Therefore, there are few studies that found the positive relationship between tax rate and tax compliance, thus, this research developed this hypothesis:

H₄: There is a negative relationship between tax rates and tax compliance among individual taxpayers in Gombe state, Nigeria.

3.3.5 Penalty and Tax Compliance

The penalty is imposed on the amount of tax evaded (Allingman & Sandmo, 1972). Many scholars have been conducted the studies and documented a positive relationship between penalty and tax compliance. These studies include Swistak (2016); Oladipupo and Obazee (2016); Allingham and Sandmo (1972); Kirchler (2009) Twum (2014); Cummings et al., (2009); Devos (2005) and Alm et al., (1992). For instance, Twum (2014) discovered that the relation between tax compliance and penalty rate is positive. Kamil (2015) confirmed that penalties encourage taxpayers to comply with the relevant tax authorities.

On the other hand, some studies found that the relationship between these variables is negative. For instance, Aronmwan, Imobhio and Izedonmi (2015) conducted a study in Nigeria on determinants of taxpayers' compliance and found the negative relationship

between penalty and tax compliance; Helhel and Ahmed (2014) carried out the study in Yemen on the influence of penalty on tax evasion and revealed the positive result. Therefore, there are few studies that found the negative relationship between penalty and tax compliance, thus, this research developed this hypothesis:

H₅: There is a positive relationship between penalty and tax compliance among individual taxpayers in Gombe state, Nigeria.

3.3.6 Demographic Factors

Demographic factors such as gender, age, marital status, education level, and employment status are generally included in this research in order to examine how personal background of individual taxpayer influences tax compliance behaviour or decision.

3.3.6.1 Demographic Factors: Gender

Many studies revealed that women are more supported to tax compliance than men do (Alabede, 2014; Ross & McGee, 2011; Gërxhani, 2007; Hasseldine & Hodges, 2005; Torgler & Schneidier, 2004; Spicer & Becker, 1980; Mason & Calvin, 1978; Katstlunger et al., 2010; Lew, Carrera, Cullis and Jones, 2009; Gutpa, 2009; McGee, 2006; Richardson, 2004 and Grasso and Kaplan, 1998).

On the other hand, some studies such as Friedlend, Maital, and Rutenberg (1978); Spicer and Becker (1980), Young (1994); Hassldine and Hite (2003); Kirchler and Maciejovsky

(2001) recorded that male is more compliant than female. However, the study by Kasipillai and Jabbar (2006) reported that no any significant difference between gender and tax compliance. Therefore, there are few literatures that found no significant differences between gender and tax compliance, thus, this research developed this hypothesis:

H₆: there is a significant different in tax compliance among individual taxpayers in Gombe state, Nigeria between male and female.

3.3.6.2 Demographic Factors: Age

Several studies have been conducted on age and tax compliance and found that older taxpayers are more compliant than younger one. For example, the studies of Serwinek (1992), Mason and Calvin (1978) Bosco and Mittone (1997); Devos (2008); Richardson (2005); Birch, et al. (2003) as well as Wenzel (2002). But others such as Richardson (2006) for example, said that not all taxpayers are impacted by age in their compliance decision. Thus, this research developed this hypothesis:

H₇: there is a significant different in tax compliance among individual taxpayers in Gombe state, Nigeria between age group.

3.3.6.3 Demographic Factors: Marital Status

Many literatures disclosed that unmarried taxpayers tend to comply with the tax laws than those with a spouse. For example, Bosco and Mittone (1997); Crane and Nourzad (1990); Slemrod (2007); Friedland et al (1978) and Ross and McGee (2011) said that unmarried taxpayers are complying more than the married taxpayer. Also, Asante and Baba (2011)

and Young (1994) reported that unmarried taxpayers are evading tax more than the married taxpayer. Therefore, all these studies revealed that there are significant differences in tax compliance level of marital status. Thus, this hypothesis is developed in this study:

H₈: there is a significant different in tax compliance among individual taxpayers in Gombe state, Nigeria between marital status.

3.3.6.4 Demographic Factors: Educational Level

Some literature found significant differences between educational level and tax compliance such as Ross and McGee (2011); Gerxhani (2007); Song and Yarbrough (1976); Dubin and Wilde (1988); Retsema et al. (2003); Birch et al. (2003) and Obid (1994). And some found that no significant difference between educational level and tax compliance, for example, Ross and McGee (2011). Therefore, there are few literatures that found no significant difference between educational level and tax compliance, hence, this research developed this hypothesis:

H₉: there is a significant different in tax compliance among individual taxpayers in Gombe state, Nigeria between educational level.

3.3.6.5 Demographic Factors: Employment Status

Various studies revealed that there are significant differences in the employment status and tax compliance like Chau and Leung (2009); Fjeldstand and Semboja (2001); Gupta (2009); Groenland and Van Veldhoven (1983); Andreuni et al. (1998) and Manaf et al.

(2005). But a study of Birch et al. (2003) found that no significant difference between employment status and tax compliance. Therefore, there are few literatures that found no significant different between employment status and tax compliance, hence, this research developed this hypothesis:

H₁₀: there is a significant different in tax compliance among individual taxpayers in Gombe state, Nigeria between employment status.

3.4 Research Design

Based on the objectives and nature of this research, the quantitative research approach will be adopted, since it comprises and will analyses many variables. According to Creswell (2009), quantitative research method is the most suitable method for a research that aims to analyse numerous variables. Additionally, McKerchar (2010) expressed that the quantitative research approach is the most proper approach to test patterns of the model that was based on existing studies of relationship and causal effects.

This quantitative approach has been used in many studies by many scholars on tax compliance in both developed and underdeveloped nations. For example study by Verboon and van Dijke (2007); Manaf (2004); Kasipillai and Jabbar (2006); Song and Yarbrough (1978).

3.5 Operational Definitions of Constructs and Measurement of Variables

In this study, there are ten variables in which five out of ten variables are demographic factors were chosen in order to determine their effect toward tax compliance. The dependent and independents variables were gotten from the past literature and are being measured in many ways in the past literature. The following are the definition of variables and their measurements in this research.

3.5.1 Tax Compliance

Based on this research, the dependent variable is tax compliance. Tax compliance is defined in this study as correct declaration of the tax base; true calculation of the tax charges; well-timed filling of tax returns and well-timed payment of the amount due as tax. Any behaviour conflicting the above definition by the taxpayer is regarded as tax non-compliance. In a study conducted by Roth et al. (1998), tax non-compliance arises when the taxpayers fail to file a tax income, misreporting allowable subtractions from taxable income or misreporting income or tax due (deductions, exemptions, tax credit, adjustment, etc.). In this study, the focus is on tax compliance behaviour and, for this purpose, the five Likert scale with five items were used to measure tax compliance and were adopted from the study of Richardson (2006). The five Likert scale is: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. Table 3.1 shows the measurement of items.

Table 3.1

Measurement Items for Tax compliance

Variable	Measurement Items	Source of Measurement
Tax compliance	• I use to trade or exchange goods and services with a friend or neighbour and report in my tax returns. • I fully declare my principal income, but not including my part-time income. • I do not report my income from interest or investment that is not registered with government. • I would understate income if the amount is relatively small. • It is wrong if a taxpayer does not report all of his/her earning in order to pay less income tax	Richardson (2006)

3.5.2 Perception of Government

Perception of government in this research means how the taxpayers perceived their government and how they sensed their government on the provision of social goods and services in exchange for the amount of money they paid as tax. Many scholars such as Bodea and LeBas, (2016); Ortega, Ronconi, and Sanguinetti, (2016); Yew, Milanov, and McGee, (2015); Leonardo, (2012); and Torgler (2003), perceived the perception of government in the same way and in a similar way. Five items were used to measure perception of government in this study with five Likert scale, and were adopted from Kirchler and Wahl (2010). The five Likert scale is: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. Table 3.2 shows the measurement of items.

Table 3.2
Measurement Items for Perception of Government

Variable	Measurement Items	Source of Measurement
Perception of Government	• The social amenities provided by the government satisfied the taxpayers. • The taxpayer is certain that resources are managed efficiently by the government. • Taxpayers Believed in government Transparency • Trust of the government official and parliament for making standard law. • Taxpayer is satisfied with Infrastructure quality	Kirchler & Wahl (2010)

3.5.3 Corruption

In this study, corruption means the abuse of power for personal gain. Several studies on tax compliance perceived corruption from the same dimension such as Alm, Martinez-Vazquez, and McClellan, (2016); Aguilera and Vadera (2008); and Shleifer and Vishny (1993). Five items were used to measure corruption in this research with five Likert scale, and were adopted from Abiola & Asiweh (2012), Gurama (2015). The five Likert scale is: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. Table 3.3 shows the measurement of items.

Table 3.3

Measurement Items of corruption

Variable	Measurement Items	Source of Measurement
Corruption	• High level of corruption in the government lead to low compliance. • Low level of corruption make taxpayers to comply. • When taxes collected from taxpayers are used wisely without corruption resulted to high compliance. • Taxpayers don't pay tax if there is corruption in the government. • Because of the corruption in the government, I have the right of not to pay tax.	Abiola & Asiweh (2012), Gurama (2015)

3.5.4 Religiosity

Religiosity in this research means the level or extent at which an individuals' abide by the teaching of a specific religion in respect of their religious affiliation. Many scholars on tax compliance defined religiosity from this dimension. For example, Pomeranz, (2015); Pope and Mohdali (2010); Torgler and Schneider (2007); Stack and kposowa (2006); Welch, (2005) and Torgler, (2003), defined religiosity in the similar perspective. Religiosity In this research, five items were used to measure it with five Likert scale and were adopted from Hashidu et al. (2017). The five Likert scale is: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. Table 3.4 shows the measurement of items.

Table 3.4
Measurement Items of Religiosity

Variable	Measurement Items	Source of Measurement
Religiosity	• The Level of the significance of religion in the life of taxpayer. • Regularity of involvement in religious activities. • The level at which religious belief influences person decision. • I live my life based on religion teaching. • I comply with the tax authorities because tax evasion is contrary to the teaching of my religion.	Hashidu et al. (2017)

3.5.5 Tax Rate

In this study, tax rate refers to the rate at which a taxpayer is a charge according to the taxable item whether it intangible or tangible in nature. For instance, Jonathan, and Linda (2013); James and Moses (2012); Hai and See (2011) and Spicer and Becker (1980) perceived tax rate in similar context. The tax rate in this research, five items were used to measure it with five Likert scales and were adopted from Abiola & Asiweh (2012), Gurama (2015). The five Likert scale is: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. Table 3.5 shows the measurement of the items.

Table 3.5
Measurement Items of Tax Rate

Variable	Measurement Items	Source of Measurement
Tax Rate	• Taxpayers don't pay tax if tax rate is high. • I believe that if the tax rates are reduced, more taxpayers would be motivated to comply. • It is not worth to comply or pay tax if the tax rate is high.	Abiola & Asiweh (2012), Gurama (2015)

-
- It is not worth to pay tax even if the tax rate is low.
 - I comply to pay my tax if the tax rate is low because the government is not entitled to take as much as it is taking from me.
-

3.5.6 Penalty

Penalty in this context, is refers to amount of money imposed on the amount of tax evaded. Scholars such as Allingman and Sandmo (1972); Swistak (2016); Oladipupo and Obazee (2016); Kirchler (2009) Twum (2014); Cummings et al. (2009); Devos (2005) and Alm et al. (1992) see penalty in similar perspectives. Five items were used to measure penalty in this study with five Likert scale, and were adopted from Masoud (2015). The five Likert scale is: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. Table 3.6 shows the measurement of the items.

Table 3.6
Measurement Items of Penalty

Variable	Measurement Items	Source of Measurement
Penalty	• Taxpayers don't comply if authority does not impose penalty. • I have the right not to pay tax if I get the opportunity to do it. • Taxpayers don't comply if the penalty is low. • Taxpayers complied if the penalty is high. • it is not worth to comply even if the penalties are high	Masoud (2015)

3.6 Population of the Study and Sample Size

Various scholars have emphasis the significant of sample size in research design and to the overall results of a study (Sekaran & Bougie, 2010; Hair et al., 2007; Bartlett, Kotrilik & Higgins, 2001). The targeted population of this research comprised the whole individual taxpayers in Gombe State, Nigeria. The total population of individual taxpayers in Gombe State is around 90,265 as at December 2017 (GSBI, 2017). This comprised both individual taxpayers in employment and individual taxpayers in business. Therefore, the suitable sample size chosen for this research is 380 taxpayers. The sample size for this population was ascertained using Krejcie and Morgan's (1970) sample size.

3.7 Data Collection Procedures

Data collection technique means the method used in gathering data for the purpose of analyses and making an informed judgment. Then, this research used a survey technique to gather a cross-sectional data. This is because the opinion of a taxpayer, survey technique is viewed as one of the best and commended methods for studying tax compliance behaviour (Torgler, 2007; Jackson & Millron, 1986; Roth et al., 1989). Another purpose of using survey technique is by Torgler (2007), who said that the technique helps the scholars in getting the relevant and related information relating to physiological, socio-economic and demographic variables. Thus, data was collected via the use of a self-administered questionnaire. In support of this, McKerchar (2010) revealed that this is the most commonly used approach in data collection in behavioural research.

3.7.1 Sampling Technique

Sekaran and Bougie (2010) explained the sampling technique as the procedures for choosing the sufficient number of respondents from the population so as to generalise. This research used a convenience sampling method due to most of the taxpayers are not willing to disclose their information with respect to tax behaviour because of fear that the scholar may be a tax official attempting to keep an eye on them (Sood & Nasu, 1995). Hence, consequently, convenience sampling technique was viewed as considerably more likely to deliver a valid number of responses.

3.7.2 Data Collection Method

The instruments that were employed in gathering and collecting data for testing the research hypotheses were questionnaires. A well-planned process was followed in order to get the necessary information from the respondents. This process comprises the outlining and designing of the questionnaire and subjecting the things/items in the questionnaire to validity and reliability test.

The validity test was conducted with the assistance of two tax specialists, two research specialists and a taxpayer both in Nigeria and Malaysia. Moreover, the pilot study was carried out with the target of justifying the face validity the construct validity is not carried out due to the adoption/adaptation of established questionnaires which had been validated

so many times previously. The response received will help in enhancing the research instrument.

At the level of developing a questionnaire, the question was assessed to perceive how the respondents comprehend the question. This was done by sending a duplicate of the questionnaire to two research specialists, two tax specialists and one taxpayer to assess the questionnaire and their remarks were consolidated so as to make the questionnaire brief and exact to taxpayers.

At last, the questionnaire was distributed with the help of a research assistant and a staff of state board of internal revenue from 25th March to 15th April within a period of three weeks. Whereby 380 questionnaires were distributed, out of 380, 262 questionnaires were retrieved and 15 out of 262 questionnaires comprised a lot of missing information and were removed left with 247 usable.

3.7.3 Questionnaire Design

Salant and Dillman (1994) described questionnaire design as a construct of measuring an instrument that comprises selecting the suitable formats and design, the suitable scales of measurement, selecting of exact and brief wording and lastly the precise presentation of the questionnaire.

This research used the questionnaire as an essential primary tool for gathering data from the respondents. It adopts and develops construct and measurement of some of the past researches on tax compliance. In this research, the questionnaire covered open ended and closed ended questions which were used from the past researches and adjusted to suit the present research.

The questionnaire covered two parts and are: the first part covered the demographic information of the respondents such as age, gender, marital status, education level, and employment status. And the second part is about the information relating to dependents variable (tax compliance) and independents variables (perception of government, corruption, religiosity, tax rate and penalty). The questionnaire contains thirty questions, design in form of five Likert scales (strongly disagreed, disagreed, neutral, agreed and strongly agreed). In support of this, a study additionally found that by Elmore and Beggs (1975), an increase from five scales to seven scales or nine scale does not really enhance the reliability of the ratings.

3.8 Technique of Data Analysis

Data retrieved in this research is analysed with the use of a descriptive analysis and inferential statistical techniques. The descriptive statistics approach was used in order to analyse the demographic data of the respondents and the overall mean and standard deviation of every variable in this research. Additionally, the t-Test and one-way ANOVA

was also utilised to measure if there is a statistically significant difference between the mean score of each of the demographic data of the respondents in contrast to tax compliance. And then, the data was screened via pre-analysis test before the correlation and regression analysis was conducted, where the outcomes showed that the data is fairly administered and have met the all the necessary requirement for conducting the analysis. Lastly, the correlation analysis was also utilised to investigate a correlation between variables as well as multiple regression analysis was utilised to examine the most significant variable among the independent variables.

3.9 Pilot Test

In order to test the reliability of the instruments before the data collection, a pilot study was carried out in this research. A 36 sample of the questionnaire was administered to an identified individual taxpayers in employment and self-employed businesses in Nigerians that dwell here in Universiti Utara Malaysia (UUM). The outcomes of the pilot's study reveal that the Cronbach's Alpha of all variables falls within the ranges of 0.751 to 0.860. The Cronbach's Alpha for the variables is above 0.6. This shows that the instruments are consistent and reliable in catching the information from the respondent. The study of Sekaran and Bougie (2010), concluded and recommended that reliabilities with a Cronbach's alpha below 0.6 are considered to be inconsistent and not reliable, Cronbach alpha above 0.8 are taken to be good and those range of 0.6 to 0.7 are also taken to be good. The following Table 3.7 provides a comprehensive information on the Cronbach's alpha of each variable.

Table 3.7

Pilot Study Reliability Test Result (n=36)

Variables	No. of Item	Cronbach's Alpha
Tax compliance	5	.758
Perception of government	5	.839
Corruption	5	.767
Religiosity	5	.751
Tax rate	5	.860
Penalty	5	.822

3.10 Summary of Chapter

This chapter provided the various research methods and procedures used in achieving the objectives of the study. The conceptual framework of the study comprised five independent variables which were derived from previous literature and dependent variable. Regarding the conceptual framework, five hypotheses were developed, and on the basis of demographic information also five hypotheses were developed in order to achieve the objectives of the study set up in chapter one. In order to achieve the objectives of this study, the qualitative research approach is used since it gives room for analyzing many variables at a time. The operational definition of variables was provided and measured using a five-point Likert scale. Also, the population of the study and sample size is utilized to determine the targeted population and suitable sample size, in collecting data, a questionnaire was designed and administered to the respondents with the help of research assistants. The data collected were analysed statistically using descriptive statistics, correlation analysis, reliability analysis and multiple regression analysis. The next chapter will provide the results of all the statistical analyses carried out on data.

CHAPTER FOUR

DATA ANALYSIS AND RESEARCH FINDINGS

4.1 Introduction

The data analysis and research findings were discussed in this chapter. The data analysis was carried out with the use of Statistical Package for the Social Science (SPSS) version 25.0, and descriptive statistics were used in the study to analyse the demographic information of respondents. This chapter also comprises analysis of response rate; assessment of outliers using both univariate and multivariate; normality test using graphical approach; multicollinearity via Variance Inflation Factor (VIF); t-test; one-way between groups' ANOVA and lastly multiple regression.

4.2 Analysis of Response Rate

In total, 380 questionnaires were distributed and only 262 questionnaires were retrieved from the respondents. This represents a 69 percent response rate. However, 15 out of 262 questionnaires that were retrieved were not completed (invalid response), and, therefore, discarded as invalid questionnaires leaving 247 as the usable or valid response. This response represents as 65 percent of total questionnaires distributed. Table 4.1 below shows how the questionnaires were distributed among individual taxpayers in Gombe State, Nigeria.

Table 4.1

Analysis of Response Rate

Description	Outcome	Rate (%)
Questionnaire Administered	380	100
Questionnaire Not Received	(118)	31
Response Received	262	69
Invalid Response	(15)	4
Valid/Usable Response	247	65

4.3 Pre- analysis Test

The data collected in order to carry out this research were properly go through pre-analysis test. The test was done based on the procedures proposed by Tabachnick and Fidell (2007); Hair et al. (2010) and Pallant (2013).

4.3.1 Assessment of Outliers

An assessment and treatment of the outliers is an important step of data screening data. According to Mahmoud, Muharam and Masud (2015) outlier is the extreme observations score which might perhaps have an important negative effect on the results. The issues of outlier commonly have an unusual high or low value, a unique mixture or construct of values upon many constructs, which cause the test emerge from the leftover rest (Hair et al., 2010; Bryne, 2010).

Using the multivariate analysis might consequently demonstrate the treatment and detection of outliers. Both the univariate and multivariate outliers were investigated in this research. The univariate outliers have been investigated through distinguishing the cases with higher z-score values. According to Tabachnick and Fidell (2007), any case with the value of a standardized or institutionalized z-score that is above ± 3.29 is viewed as a potential univariate outlier. And therefore, in this research, only 10 cases have been recognised and removed. Due to that, the final usable and valid respondents left with 237 only.

Then again, the Mahalanobis Distance (D) is performed in order to discover and treat the multivariate outlier problems (Hair et al., 2010). As indicated by Tabachnick and Fidel (2007), the numbers of items utilised in the research are checked under the chosen degree of freedom in the Chi-square table, for this situation, 30 items were adopted at the degree of freedom of $P < 0.05$ which showed the standard value to be 43.77. Thus, any value that has 43.77 or above Mahalanobis Distance is viewed as a multivariate outlier that should be erased. Luckily, in this research, there is no single case or item that has above the standard of 43.77 Mahalanobis distance. The result is attached in appendix.

4.3.2 Normality Test

Tabachnick and Fidell (2007) asserted that one of the fundamental assumptions for regression analysis is that the variables must be distributed normally. Normality is

generally measured by either graphical or statistical approaches. In graphical approach, normality can be obtained via the histogram residual plots; which means to the state of data distribution of the variables and their correspondence to a normal distribution. But the basic techniques for statistical normality are the skewness and kurtosis (Mahmoud, Ahmad & Poespowidjojo, 2018). Tabachnick and Fidell (2007) said that the residuals are independently and normally disseminated if the assumption is met. The normality assumption was analysed and diagnosed in this research via histogram residual plots. In view of this analysis, the residual seems to be normal. Therefore, the normality assumption was not disrupted or violated.

Similarly, Tabachnick and Fidell (2007) explained that the homoscedasticity test is related to the basic normality assumption, the correlation between the variables under study is presumed homoscedastic when the data is normal, hetroscedasticity is hence not present. Since the normality was attained, the assumption of homoscedasticity is similarly thought to be attained in this research. The normality graph is depicted in Figure 4.1.

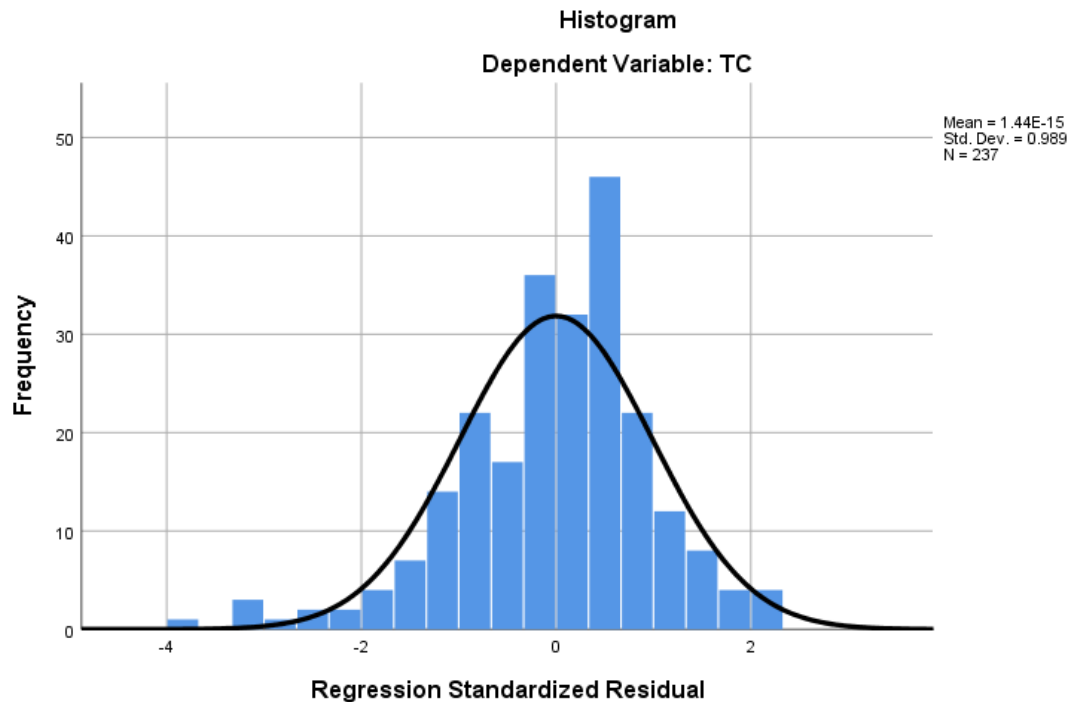


Figure 4.1: Normality Histogram Plot.

4.3.3 Multicollinearity

Multicollinearity demonstrates the degree of the relationship between two or more independent variables. Pallant (2007) revealed that Multicollinearity occurs when the relationship between certain independent variables is highly related. According to Maiyaki and Moktar (2011), multicollinearity will make the analysis weaker; due to, the interrelationship between two or more variables will develop the extent of error or mistake terms as the interrelated variables will contain unnecessary data. The solution for multicollinearity problem is to erase the interrelated variable (Mahmoud, Muharam & Masud, 2015; Mahmoud, Ahmad & Poespowidjojo, 2018). Furthermore, the study recommended that a correlation more than 0.90 is an indication that multicollinearity might

be an issue (Meyers, Gamst, & Guarino, 2006). The multicollinearity issue will, therefore, be verified through VIF/tolerance level analysis.

4.3.3.1 Variance Inflation Factor (VIF)

In this approach for screening and verifying the multicollinearity problem is the Variance Inflation Factor (VIF) and the tolerance level, which can be carried out through regression analysis in the SPSS (Mahmoud, Muharam & Masud, 2015; Mahmoud, Ahmad & Poespowidjojo, 2018). Any VIF above 10 and tolerance value below .10 indicates a problem of multicollinearity (Hair Jr. et al., 2010). When the VIF is less than 10 the result is good (Tabachnick & Fidell 2007). In another literature by Pallant (2007), there is no multicollinearity problem if the value of VIF is less than 10 and tolerance value is more than 0.10. Table 4.2 below will show the VIF and the tolerance value for each of the independent variables.

Table 4.2

VIF and tolerance values for multicollinearity test

S/No	Variables	Tolerance values	VIF
1.	Perception of government	0.940	1.064
2.	Corruption	0.595	1.679
3.	Religiosity	0.850	1.176
4.	Tax rate	0.437	2.287
5.	Penalty	0.524	1.908

From Table 4.3 above, we can see that there is no threat or risk of multicollinearity as a result of the VIF for all the independent variables (perception of government, corruption,

religiosity, tax rate and penalty) are less than 10 and the tolerance values are also more than 0.10. Therefore, since the VIF value for each level of the independent variable is not more than 10 which correspond to tolerance value of 0.10 there is no multicollinearity problem. This indicates that the assumption of multicollinearity has not been violated.

4.3.4 Internal Reliability Analysis

The reliability test was utilized in order to test the internal consistency of the instrument that was used in this research. According to Chua (2013), the reliability within the quantitative research measurement can be carried out in three ways of approaches, which are Cronbach's Alpha internal consistency approach; split-half approach; and lastly test-retest reliability approach.

For the purpose of this research, Cronbach's Alpha was used to analyse the internal correlation between the items of measurement and internal consistency of each of the variable. According to Sekaran and Bougie (2010) stated that reliabilities with a Cronbach's Alpha above 0.8 are taken to be good, from 0.6 to 0.7 are acceptable, and those range from 0.01 to 0.6 are considered to be poor. In another study, Cronbach's Alpha coefficient of 0.01 to 0.49 is regarded as poor reliability value, 0.50 to 0.95 is being considered as having great reliability value and Cronbach's Alpha with 0.95 to 0.99 are considered of having poor reliability value (Hair et al., 2010).

In this research, tax compliance, perception of government, corruption, religiosity, tax rate and penalty have a Cronbach's Alpha of 0.739, 0.923, 0.657, 0.698, 0.791, and 0.848 respectively. These coefficients are within the acceptable range 0.5 to 0.95 as stated by Hair et al. (2010); Sekaran and Bougie (2010). The outcome reveals that the responses or answers provided by the respondents of the questionnaire are reliable, stable and consistent. The table 4.3 below shows the detail of reliability test.

Table 4.3
Test of Reliability (n=237)

Variable	No. Of Items	Cronbach's Alpha
Tax compliance	5	0.739
Perception of government	5	0.923
Corruption	5	0.657
Religiosity	5	0.698
Tax rate	5	0.791
Penalty	5	0.848

4.4 Demographic Profile

In this research, descriptive statistics were employed to describe the demographic information of the respondents. The gender, age, marital status, education level, employment status and average monthly gross income were described and analysed with the help of descriptive statistics.

As indicated in Table 4.4 below, shows that 62.9 percent are male with 149 respondents while 37.1 percent are female with 88 respondents. This shows that majority of the individual taxpayers under the study are male in Gombe State, Nigeria.

Table 4.4 below also indicated the classifications of the respondents according to their ages; the table reveals that 9.7 percent of the respondents are between 18 and 23 years of age while the 24.9 percent of the respondents fall within 24 and 29 years. Again, 30.4 percent of the respondents are between the ages of 30 and 35 years, 16.5 percent of the respondents are within 36 and 41 years and 8.0 percent of the respondents are within the age of 42 and 47. Also, 4.2 percent of the respondents are within 48 and 53 years and lastly, 6.3 percent of respondents are above 54 years. This analysis shows that most of the respondents are between the ages of 30 and 35 years.

The marital status of the respondents also disclosed in Table 4.4. It shows that 96 respondents representing 40.5 percent are single, 119 respondents representing 50.2 percent are married, and 10 respondents representing 4.2 percent are divorced while 8 respondents representing 3.4 percent are widowed and lastly, 4 respondents representing 1.7 percent are separated. This shows that majority of the individual taxpayers in Gombe State, Nigeria in this research are married.

The education level of the respondents were also given in Table 4.4, the table indicates that only 2.5 percent of the respondents are with the primary certificate, 11.0 percent of the respondents are with the secondary school certificate, 21.1 percent diploma, 35.0 percent degree and 30.4 percent postgraduate. This indicates that majority of the respondents in this research are degree holders.

In relation to the average monthly gross income of the respondents, the Table 4.4 below revealed that level of income of 11.4 percent of the respondents fell in the low-income range of below ₦50,000 per months while 27.4 percent of the respondents fall within ₦51,000 - ₦100,000, then 31.6 percent are within ₦101,000 - ₦200,000. 5.5%, 8.9%, 11.8% as well as 3.4% of the respondents earned an average income that ranges between ₦201,000 - ₦300,000, ₦301,000 - ₦400,000, ₦401,000 - ₦500,000, as well as above ₦500,000 per months respectively. This reveals that average monthly gross income of the majority of the individual taxpayers (respondents) in Gombe State, Nigeria fell in within the range of ₦101,000 - ₦200,000 per month. Nigeria is a low-salary state; thus, the demographic information of the respondents on the level of pay or income is a reasonable and fair representation of the true pay or income distribution in Nigeria. Table 4.4 below gives the details of demographic information of the respondents.

Table 4.4

Demographic Information of the Respondents (n=237)

S/No	Items	Frequency	Percentages (%)
1.	Gender		
	Male	149	62.9
	Female	88	37.1
2.	Age		
	18 – 23	23	9.7
	24 – 29	59	24.9
	30 – 35	72	30.4
	36 – 41	39	16.5
	42 – 47	19	8.0
	48 – 53	10	4.2
	54 and above	15	6.3
3.	Marital Status		
	Single	96	40.5
	Married	119	50.2
	Divorce	10	4.2
	Widowed	8	3.4
	Seperated	4	1.7
4.	Education Level		
	Primary	6	2.5
	Secondary	26	11.0
	Diploma	50	21.1
	Degree	83	35.0
	Postgraduate	72	30.4
5.	Employment Status		
	Employed	141	59.5
	Self employed	96	40.5
6.	Monthly Average Gross Income		
	Below N50,000	27	11.4
	N50,000 – N100,000	65	27.4
	N101,000 – N200,000	75	31.6
	N201,000 – N300,000	13	5.5
	N301,000 – N400,000	21	8.9
	N401,000 – N500,000	28	11.8
	Above N500,000	8	3.4

4.5 Descriptive Statistic for Dependents and Independents Variables

The general mean score and standard deviation for both dependents and independents variable were shown below in Table 4.5. The items for dependents variable were expressed based on five likert scales. The outcomes indicate that the mean value for acceptance level by the respondent on tax compliance is 3.77 with a standard deviation (SD) of 0.76. This shows that most of the individual taxpayers (respondents) agreed and accepted that the statement in the instruments is justified, which by implication implies that they have a low level of tax compliance.

Again, the descriptive statistic for the independent's variables was measured based on a five likert-scale in which the outcome reveals that religiosity has the highest mean score and standard deviation of 4.12 and 0.56 respectively, while perception of government has the lowest mean score and standard deviation of 3.19 and 1.19 respectively. This revealed that religiosity has the highest positive response while the perception of government has the least response. The details of these are shown in the Table 4.5 below.

Table 4.5

Descriptive Statistic for Dependents and Independents Variables

Variable	n	Minimum	Maximum	Mean	SD
Tax compliance	237	2	5	3.7679	.76312
Perception of government	237	1	5	3.1932	1.18734
Corruption	237	1	4	1.9705	.61889
Religiosity	237	2	5	4.1207	.55612
Tax rate	237	1	4	2.1308	.74806
Penalty	237	1	5	3.7688	.89397

4.6 T-Test between Gender, Employment Status and Tax Compliance Behaviour

Since both gender and employment status are having only two variables each, therefore, t-test is employed in order to determine the significant difference between gender, employment status and tax compliance.

4.6.1 Gender

This research employed the use of an independent t-test in order to identify if there is a significant difference between the gender's mean score of the respondents and tax compliance. The outcomes from the independent t-test show that there were no statistical significant differences in the mean scores of male and female respondents. With a p-value of 0.240, this shows that tax compliance of both male and female respondents are equal. This is due to the difference in the magnitude of the mean score between male and female respondents is very small (all were under 0.061). Table 4.6 below provides the details about the outcomes of the independent sample t-test for the gender (male and female) respondents.

Table 4.6

T-Test for Tax compliance and Gender (n=237)

	Gender	n	Mean	Levene's Test for Equality of Variances	
				F	P- value
Tax Compliance	Male	149	3.7450	1.389	.240
	Female	88	3.8068		

4.6.2 Employment status

Table 4.7 below provides the detailed results of the independent samples t-test of employment status (employed and self-employed), it shows that there were no statistically significant differences in the mean scores of employed and self-employed respondents. With a p-value of 0.738, this demonstrates that tax compliance of both employed and self-employed respondents are the same. This is due to a very small difference in the magnitude of the mean score between employed and self-employed respondent (all were under 0.029).

Table 4.7
T-Test for Tax compliance and employment Status (n=237)

	Employment Status	n	Mean	Levene's Test for Equality of Variances	
				F	P- value
Tax Compliance	Employed	141	3.7560	0.112	0.738
	Self-employed	96	3.7854		

Note: *The mean difference is significant at the 0.05 level.

4.7 One-way between Groups' ANOVA between Age, Marital Status, Education Level, Average Monthly Gross Income and Tax Compliance Behaviour

In this research, a one-way between groups' ANOVA was carried out to measure the effect of age on Levels of respondents' tax compliance. Base on Table 4.8 below, the p-value of 0.174 at 5% level of significance demonstrates that there is no statistical significance difference between age group of the respondents.

The mean score of respondent's marital status was compared to measure whether there is a statistical difference between marital status and tax compliance. This was measured with a one-way between groups' ANOVA. The result revealed a p-value of 0.137 that is there is no statistical significance difference on marital status of the respondents and their tax compliance level. The details of the result are also shown in Table 4.8.

A one-way between groups' ANOVA was carried out to compare the impact of education level on the tax compliance of respondents. The result of the test showed a p-value of 0.000, that is there is statistical significance difference on respondent' education level between all groups and tax compliance and the details of the one-way ANOVA and post-hoc tests (Tukey HSD) for educational level of the respondents were provided in appendix B. Studies such as Torgler (2012) as well as Torgler, Demir, Macintyre and Schaffner (2008), have examined the relationship between the level of education and tax compliance and discovered that taxpayers that are more educated tend to be more compliant than taxpayers who have no formal education. The details of the results is depicted in Table 4.8.

The mean score of respondent's average monthly gross income was compared to test if there is a statistical significant difference between their average monthly gross income and the level of their tax compliance. This was tested with the help of between groups' one-way ANOVA. The result of the test postulated that a p-value of 0.006, that is there is statistical significance difference on respondent's average monthly gross income and their

level of tax compliance. The details of the result of the one-way ANOVA are presented in Table 4.8 below

Table 4.8

One-way between Age Groups' ANOVA Marital Status, Education Level, and Average Monthly Gross Income and Tax Compliance behaviour

		Sum of squares	Df	Mean square	F	P-value
Age	Between groups	5.223	6	.870	1.514	0.174
	Within groups	132.214	230	.575		
	Total	137.436	236			
Marital Status	Between groups	4.056	4	1.014	1.764	0.137
	Within groups	133.380	232	.575		
	Total	137.436	236			
Education Level	Between groups	17.661	4	4.415	8.552	0.000*
	Within groups	119.775	232	.516		
	Total	137.436	236			
Average Income	Between groups	10.314	6	1.719	3.110	0.006*
	Within groups	127.122	230	.553		
	Total	137.436	236			

Note: *The mean difference is significant at the 0.05 level

4.8 Correlation Analysis

In order to investigate the relationship between dependent and independent variables in this research, Pearson Correlation Coefficient was conducted. Piaw (2012) termed it as a parametric test that is utilised in analysing a linearity correlated data. A correlation coefficient of 0.10 is low, 0.30 is medium and 0.50 is referred to as high coefficient.

The outcomes of the Pearson correlation analysis were utilised to examine the correlation that exists between perception of government, corruption, religiosity, tax rate penalty and tax compliance.

The outcomes demonstrated that a relationship exists between perception of government and tax compliance with a correlation coefficient of .119 and p - value equal .034 at 5% level of significance. As shown in Table 4.9, statistical results revealed that there is a relationship between corruption and tax compliance by having a coefficient correlation of -.496 and p -value of 0.004. Also, the Pearson correlation analysis showed that there is a relationship between religiosity and tax compliance with a coefficient correlation of .261 having a p -value of .000. And again, the result of the analysis shows that there is a relationship between tax rate and tax compliance with correlation coefficient of -.497 and a p – value of .000. Table 4.9 also indicates that coefficient correlation of .454 with a p -value of .000 there is a statistical evidence to support the positive relationship between penalty and tax compliance. The details of the relationship between the variables is contained in Table 4.9.

Table 4.9
Correlation between the study variables

Variables	TC	PG	CR	RG	TR	PE
Tax compliance	1					
Perception of government	.119*	1				
Corruption	-.496**	-.170**	1			
Religiosity	.261**	.020	-.326**	1		
Tax rate	-.497**	-.168**	.605**	-.342**	1	
Penalty	.454**	.234**	-.501**	.178**	-.666**	1

** Correlation is significant at the 0.01 level (1-tailed).

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

4.9 Multiple Regression Analysis

Multiple regression is used to measure simultaneously the effect of many independent variables on a dependent variable. This process helps researchers to comprehend by how much a set of independent variables in explaining the variance in the dependent variable (Cavana et al., 2001). Thus, in this research, the relationship between tax compliance and its determinants were analysed with the use of standard regression analysis. This is because Sekaran and Roger (2013) stated that standard regression enables the whole variables of the study to be inserted into the model at one time and assessed based on the variance contribution.

The multiple regression analyses results using the standardized model are depicted below in Table 4.10. Showing the R-square of 32.8 percent and the adjusted R-square of 31.4 percent, this means that the variables such as perception of government, corruption, religiosity, tax rate and penalty as the determinants of tax compliance explained only 31.4 percent of factors that determined tax compliance.

Table 4.10

Summary of Standard multiple Regression Model (n=237)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.523 ^a	.328	.314	.63225
a. Predictors: (Constant), penalty, religiosity, Perception of Government, corruption, tax rate				
b. Dependent variable: tax compliance behaviour				

Then again, the coefficient analysis results revealed that corruption, tax rate and penalty have a significant impact on tax compliance. Base on Table 4.11, the outcomes of the variable are significant at $p < 0.05$. The results show that the factors; corruption, tax rate, and penalty have the p-value of .000, .021 and .016 respectively which implies that all these three factors are significant at 5% level of significance. Among the three factors that are significant in this study, corruption is the strongest indicator of tax compliance with a highest p-value of 0.000, t-value of -3.796 and Beta of 0.265. Therefore, corruption is the most significant factor that determines tax compliance among individual taxpayers in Gombe State, Nigeria. Table 4.11 below provides the detail of the results of regression analysis.

Table 4.11

The Result of Multiple Regression Analysis

Variables	Beta Values	t- Values	P- Values
Perception of government	-.002	-.036	.971
Corruption	-.265	-3.796	.000***
Religiosity	.077	1.325	.187
Tax rate	-.190	-2.327	.021**
Penalty	.181	2.433	.016**

** P value $\leq .01$, ***P value $\leq .05$

4.9 Summary of Results

This research tested the factors that determines tax compliance among individual taxpayers in Gombe state, Nigeria. Specifically, ten hypotheses have been developed and tested to attain the objectives of this research. The results reveal that H_2 , H_4 , and H_5 are statistically significantly to tax compliance while H_1 and H_3 are not statistically supported. And H_9 is

statistical significance difference to tax compliance while H₆ H₇ H₈ and H₁₀ are no statistical significance difference to tax compliance. Table 4.12 below presented the summary of results for each hypothesis.

Table 4.12

Summary of Results

No	Variables	Hypotheses	Results
H ₁	Perception of government	There is a positive relationship between the perception of government and tax compliance.	Not supported
H ₂	Corruption	There is a negative relationship between corruption and tax compliance.	Supported
H ₃	Religiosity	There is a positive relationship between religiosity and tax compliance.	Not supported
H ₄	Tax rate	There is a negative relationship between tax rates and tax compliance.	Supported
H ₅	Penalty	There is a positive relationship between penalty and tax compliance.	Supported
H ₆	Gender	There is a significant difference in the level of tax compliance between male and female among Gombe State individual taxpayers.	Not supported
H ₇	Age	There is a significant difference in the level of tax compliance between age group among Gombe State individual taxpayers.	Not supported
H ₈	Marital status	There is a significant difference in the level of tax compliance between marital statuses among Gombe State individual taxpayers.	Not supported
H ₉	Education level	There is a significant difference in education level towards tax compliance among Gombe State individual taxpayers.	Supported
H ₁₀	Employment status	There is a significant difference in the level of tax compliance among employment status in Gombe State.	Not supported

4.10 Summary of the Chapter

The result of the data analysis in the research was widely discussed in this chapter. The demographic information of the respondents and the overall mean and standard deviation

of each of the variables in this research was analysed using descriptive statistics approach. Also, the t-Test was conducted in order to test if there is any statistically significant difference between the mean score of the gender and employment status of the respondents in contrast with tax compliance and one-way between groups' ANOVA was also utilised to test whether there is a statistically significant difference between the mean score of age, marital status, education level as well as average monthly gross income of the respondents in relation to their tax compliance, where it was found that only education level of the respondents is statistically significant difference between all groups. Also, prior to multiple regression and correlation analysis, the pre-analysis tests were conducted to screen the data and the results of tests revealed that the data were fairly distributed and had met the whole necessary requirements for conducting the analysis.

Lastly, in order to ascertain the relationship amongst the variables, the correlation analysis was utilised, and regression analysis was also utilised to examine the independent variables that are the most significant of in the model. The result of multiple regression analysis reveals that corruption, tax rate, and penalty are having a significant effect on tax compliance. The following chapter will discuss the results, implication recommendations and conclusion.

CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

In this chapter, the research findings of the study are discussed. The implications of the research findings both theoretical and practical/policy are also reported and limitations of the study are also discussed, recommendations are made for possible future researchers in tax compliance area. Finally, conclusions are made on this research.

5.2 Discussion of Results

The main reason of this research is to examine the factors that determine tax compliance of individual taxpayers in Gombe State, Nigeria. In view of this objective, the research offers answers to the research questions earlier brought up in the first chapter. These answers are being discussed in details and supported by the correlation and regression analysis results in chapter four. Therefore, this chapter discussed the research findings to provide an answer to each of the research question raised in chapter one.

5.2.1 Relationship between Perception of Government and Tax Compliance

Based on the results of multiple regression analysis found in this research, the perception of government is obtained to be not significantly related to tax compliance. Hence, this reveals that in Gombe state, Nigeria, the taxpayers' perception of government on how the

government provides public goods and services does not affect their tax compliance behaviour. This is similar to the findings of Hashidu et al. (2017), they carried out a study in Gombe State, Nigeria about tax morale and found that there is no relationship between perception of government and tax morale whereby is not affecting the taxpayers' compliance behaviour.

However, this finding is opposite to the results of most of the literature that were carried out in other places such as Kucher and Götte (1998); Uadiale, Fagbemi and Ogunleye (2010); Modugu et al. (2012); Kogler et al. (2013); McKerchar, Bloomquist and Pope (2013); Palil, Akir dan Ahmad (2013); Mohdali (2013); Aronmwan, Imobhio and Izedonmi (2015); Ortega, Ronconi and Sanguinetti (2016); Jimenez and Iyer (2016); and Kiow, Salleh and Kassim (2017) all these studies discovered a positive significant relationship between perception of government and tax compliance. Hence, H_2 is not supported in this context where there is a positive relationship between the perception of government and tax compliance.

5.2.2 Corruption and Tax Compliance

The result of the regression analysis shows that there is a negative relationship between corruption and tax compliance in Gombe state, Nigeria. Regarding this, the hypothesis (H_2) which states that there is a negative relationship between corruption and tax compliance is supported by this research. The extent of corruption in the government or within the tax

authorities decreases the tax compliance level among individual taxpayers. When there is a high level of corruption among the government officials, taxpayers are more likely to run away from paying taxes because of the fear that the government officials will embezzle the money if taxes are paid. Indeed, if the level of corruption is very low among the government official there is a likelihood of having a high level of tax compliance. This is similar to the findings of Anyanwu (1993), carried out a study in Nigeria and found that tax non-compliance might result when there is a relative high level of corruption among the government officials as well as inefficiency in tax administration. Gurama (2015) also found a similar result in Gombe State, Nigeria.

The result of this research is supported by many findings, such as Alm et al. (2016); Ayuba, Saad and Ariffin (2016); Oladipupo and Obezee (2016); Awan and Hannan (2014); Kafkalas, Kalaizidakis and Tzouvelekas (2014); Akinyomi and Akpala (2013); Okpala (2013); Rahmani and Fallahi (2012); Wadhwa and Pal (2012); Debacker, Heim and Tran (2012); Nur-tegin (2008); Gupta (2008); and Pirttila (1999) where all of these studies found a negative relationship between corruption and tax compliance.

This result shows that the tax compliance is negatively affected by corruption among government officials in Gombe state, Nigeria. This is because of the high level of corruption that has perpetrated Nigerian society because recently Nigeria is ranked 148th least corrupt country out of 180 countries by transparency international (Transparency International, 2018).

5.2.3 Religiosity and Tax Compliance

The descriptive statistics of the responses given by the mean score on religiosity provide strong evidence which shows that there is no any relationship between religiosity and tax compliance among individual taxpayers in Gombe state, Nigeria. The result of this research is opposite to the findings of many studies such as Margolis (1997); Torgler (2003); Strielkowski and Čábelková (2015); Pope and Mohdali (2010); Kirchgässner (2011); Schaltegger and Torgler (2007); Torgler and Schneider (2007); Stack and Kposowa (2006) and Eiya, Ilaboya and Okoye (2016).

On the correlation between religiosity and tax compliance, the result of multiple regression analysis of this research is opposing the hypothesis (H₃) and established that there is positive relationship between religiosity and tax compliance, These findings suggest that strong religious values have an effect on taxpayer's intention to voluntarily comply, thus the higher the extent of taxpayer's religiosity, the higher their intrinsic motivation to comply with taxes laws.

Torgler and Schneider (2007) explained that taxpayer's inner values which include religiosity are being used by taxpayers in making compliance decision although they stressed that religiosity plays a different role from moral values in tax compliance decision. There is strong evidence that religiosity tends to increase taxpayer's compliance (Torgler,

2003). Hence, people with strong belief will comply more than those with lesser belief with the teachings of the particular religion.

The evidence from this research reveals that religiosity of the taxpayers is not significant on the decision to comply with tax laws in Gombe state, Nigeria. Therefore, religiosity is insignificant in this study. This is because, in Gombe state majority of the population are practicing islam and they prepared paying zakka than paying tax.

5.2.4 Tax Rate and Tax Compliance

The result from this research finding supports the (H₄) which states that there is a negative relationship between tax rate and tax compliance. This indicates that taxpayers in Gombe state, Nigeria are concerned with tax rate in making their compliance decision. This result goes with the findings many studies such as James and Moses (2012); Adebisi and Gbegi (2013); Clotfelter (1983); Malkawi and Haloush (2008); Chau and Leung (2009); Jayeola (2010); Abiola and Asiwah (2012); Freire-Seren and Panades (2013); Gambo (2014); Yusof et al. (2014) and Spicer and Becker (1980); Gurama (2015) as well as Mariam and Judith (2013).

The results of this study revealed that the individual taxpayer's compliance is not affected by the tax rate. If the government imposed high tax rate on individual taxpayers' income,

the tax compliance will be very low. This research, therefore, confirms that there is a negative relationship between tax rate and tax compliance. So, H₄ is supported.

This is because most of the taxpayers in Nigeria are low income earners, and if the government impose high tax rate on their low income they will react by evading tax in anyway. High tax rates leads to higher level of tax non-compliance. This phenomenon is explained by Marziana, Mohamad, Orkhazimah, and Mohmad (2010), have investigated the relationship between tax compliance and the level of income, and revealed that taxpayers with high income level tend to be more compliant than taxpayers who have low income level. Also, is confirmed by Obid (2004) that, an increase in tax rate definitely will reduce the usable income, and taxpayers have to pay higher tax in relation to higher income, therefore it can be more profitable if taxpayers choose to engage in tax non-compliance activities.

5.2.5 Penalty and Tax Compliance

This research hypothesized that significant relationship exist between penalty and tax compliance among individual taxpayers in Gombe state, Nigeria. The result obtained from the regression analysis supported the stated hypothesis (H₅) that there is a positive relationship between penalty and tax compliance. This indicates that the tax penalty can have a significant influence on tax compliance level among individual taxpayers. For example, fear of being audit and caught evading might prevent some taxpayers from

evading or under-reporting of taxes. The finding of this research is similar to the findings of Swistak (2016); Oladipupo and Obazee (2016); Allingham and Sandmo (1972); Kirchler (2009) Twum (2014); Cummings et al., (2009); Devos (2005) and Alm et al. (1992).

This result shows a positive significant relationship between penalty and tax compliance. This is because a human being is very rational, and this may be proved by the study of Allingham and Sandmo (1972), developed the economic deterrence model, the model presumes that rational taxpayers construct their decisions absolutely based on economic calculation. If they anticipate that costs of evasion are higher than benefits because of it, they will comply. In the event that anticipated costs of evasion are lower than the likely advantages, they have no motivation to be compliant. Therefore, it is sufficient to check taxpayers frequently and levy more extreme penalties to make tax evasion low.

In respect to research question one, it can be concluded that only corruption, tax rate and penalty have an influence on tax compliance among individual taxpayers in Gombe state, Nigeria while perception of government and religiosity do not affect tax compliance in this study.

5.2.6 Differences between Demographic Factors and Tax Compliance

This section discussed the difference between demographic factors and tax compliance, whereby all the hypotheses were discussed here in order to provide answers to the research questions two brought up earlier in chapter one. The discussion of the differences are presented in details in the following sub-section.

5.2.6.1 Difference between Gender and Tax Compliance

The findings from the independent t-test show that there is no statistical significant differences in the mean scores of male and female respondents. This shows that tax compliance level of both male and female respondents are the same. The result of this research is similar to the findings of some studies such as Mustafa and Asri (2007); Kasipillai and Jabbar (2006). H_6 is not supported.

Perhaps this result shows the implication of the bridging social gaps between males and females in Nigeria. Women are unprotected to greater economic opportunities today in Nigeria than ever and this has increased their risk seeking capacity thus influenced their tax compliance behaviour negatively. This argument is supported by the study of Richardson and Sawyer (2001), that the differences in the compliance behaviour between males and females may be narrowed as more generation of women are liberated socially.

5.2.6.2 Difference between Age and Tax Compliance

The results of one-way between groups' ANOVA indicated that there is no statistical significant difference between age groups of the respondents and tax compliance. The result of this research is similar to the findings of many studies such as Hai and See (2011); Ross and McGee (2011) and Richardson (2006). H_7 is rejected.

Nigeria has around 180 million population and 60 percent are below the age of 30 years and majority of these youth are unemployed which make them out of tax bracket by virtue of their economic condition. However, this make the level of tax compliance of young people the same with the older one. This means that the data adequately captured demographic information of Nigeria.

5.2.6.3 Difference between Marital Status and Tax Compliance

The mean score of respondent's marital status was compared to measure whether there is a statistical difference between marital status and tax compliance. This was measured with a one-way between groups' ANOVA. The result revealed that there is no statistically significant difference in the marital status of the respondents and their tax compliance level. This result does not support the findings of many scholars such as Asante and Baba (2011); Richardson and sawyer (2001); Feinstein (1991) etc. Therefore, H_8 is not supported. This because in Nigeria most of the population are youth and most of them are unmarried because of the economic condition of the country and this makes most of them out of tax

bracket. This makes the tax compliance level in the country the same between the married and unmarried persons.

5.2.6.4 Difference between Education Level and Tax Compliance

A one-way between groups ANOVA was carried out to compare the impact of education level on the tax compliance of respondents. The result of the test showed that there is statistical significance difference on respondent's education level between all groups and their tax compliance level. The result of this study is similar to the findings of many studies such as Gupta (2009); Gërxhani (2007); Devos (2005); Kasipillai et al. (2003); Birch et al. (2003); Song and Yarbrough (1976); Ross and McGee (2011) etc. which reported that the level of education has an influence on taxpayers' behaviour. Hence, H_6 is supported.

Since greater number of the respondents had attained high education, this result recommends that taxpayers with high education level may likely to be less tax compliant. The likely reason for this result might be that well-educated persons are more knowledgeable as a result, have a better understanding of tax laws and can easily devise the means of avoiding and evading tax than less educated people. In the same light, Groenland and van Veldhoven (1983) also argued that people with a better education level may be less compliant due to their knowledge of the loopholes in the tax law which may make them devise tax avoidance schemes easily.

5.2.6.5 Difference between Employment Status and Tax Compliance

The results from the independent samples *t*-test of employment status (employed and self-employed), it shows that there were no statistically significant differences in the mean scores of employed and self-employed respondents. With a *p*-value of 0.738, this demonstrates that tax compliance of both employed and self-employed respondents are the same. But Chau and Leung (2009) said that the chances of tax evasion are higher in self-employed businesses like a sole partnership, trader and other sources of money that are not liable to withholding tax. Thus, H_{10} is not supported.

The result suggests employment status of taxpayers does not significantly affect their compliance behaviour and it equally indicates that both employed and self-employed persons have an equal level of tax compliance. The result in respect of the employed was not anticipated because in Nigeria, the taxpayers working in the public or private sectors have their income taxes deducted through PAYE therefore they were unprotected to tax noncompliance behaviour. However, such result is not uncommon in the literature; for example the study of Manaf et al. (2005) showed that both employed and self-employed have the same tax compliance level.

In respect to research question two, it can be concluded that only education level is a statistically significant difference to tax compliance among individual taxpayers in Gombe

state, Nigeria. While gender, age, marital status and employment status do not have any significant difference to tax compliance in this study.

5.3 Implication of the Study

The results from this research have an important contribution which have both theoretical and practical implications, which are as discussed below:

5.3.1 Theoretical Implications

This research has made a substantial effort in recognizing factors that determine tax compliance among individual taxpayers in Gombe state, Nigeria. Hence, this research has largely contributed by adding to existing literature on tax compliance. Particularly, most of the studies watched the problems of tax compliance from the economic deterrence theories perspective (Riahi-Belkaoui, 2004; Dubin & Wilde, 1988; Allingham & Sandmo, 1972). Though, based on the recommendation that economic factors only cannot give a comprehensive explanation and understanding of the behaviour taxpayers' compliance (Riahi-Belkaou, 2004; Alm, 1999), scholars started to focus on the impacts of psychological and sociological factors on tax compliance (Recker et al., 1994; Mason & Calvin, 1984).

Fischer's tax compliance model is one of the outcomes of this study efforts. Fischer's model integrates economic, sociological and psychological variables into a comprehensive model for a better understanding of tax compliance behaviour. Chan et al. (2000) recommended Fischer's model as a viable conceptual framework for the study of taxpayer compliance behaviour. This study expanded the Fisher's model by incorporating perception of government, corruption, and religiosity.

Many studies have been carried out on the determinants of tax compliance or factors that influenced tax compliance behavior in developed nations, example Allingham and Sandmo (1972); Becker (1968); Fischer, Wartick, and Mark (1992); Saad (2014); Torgler (2005); McGee and Lingle (2016). However, all of these studies focused on developed nations, nevertheless limited studies focused on the developing nations, for instance, Alabede, Ariffin, and Idris (2011); Helhel and Ahmad (2014); Palil and Mustapha (2011). In relation to Gombe State, most of the studies focus is on tax administration by Mansor (2015) as well as tax evasion by Mansor and Gurama (2016). However, there is limited kind of this study in Gombe State, Nigeria. Therefore, this study contributes to the body of literature of tax compliance. In this study, the data is sourced from the self-administered questionnaire, unlike many tax compliance studies (Palil & Mustapha 2011; Nur-tegin 2008; Jimenez 2016) that sourced data from the secondary source. Therefore, this research contributes to the methodology part as well.

5.3.2 Practical/Policy Implications

Practically, the finding of this research proposed that there is a need for some recommendation to policies which consequently will enhance taxpayers' compliance behaviour, specifically, among individual taxpayers in Gombe state, Nigeria. Firstly, this research revealed a significant positive relationship between tax compliance and corruption. This is an indication that when government expended the money collected from taxpayers wisely without any corruption, this will make taxpayers comply voluntarily. If an economy is characterized by a low level of corruption, the willingness, and ability of the taxpayer may improve and increase tax compliance, which means that indirect tax compliance and the ability of a taxpayer to comply may be affected negatively by a high level of corruption (Rahmani & Fallahi, 2012).

Secondly, this research finding reveals a negative relationship between tax compliance and tax rate among individual taxpayers in Gombe state, Nigeria. This shows that in order the government to encourage tax compliance, there is a need to make the tax rate low. This can be proved by the study of Hai and See (2011), they said that most of the literature recorded that the high tax rate increase tax noncompliance. Therefore, by implication, when the taxpayers observe that the tax rate is high, they can offset their overpayment via tax evasion. Thus, taxpayers take advantages of the high tax rate as a reason to dodge from paying taxes or under-report their earnings to the tax regulators. Therefore, the government would encourage tax compliance by changing their tax policy to make tax rate low.

Thirdly, this study shows a significant positive relationship between penalty and tax compliance behavior. This is an indication that the rate of the penalty provided by the revenue authorities significantly influences tax compliance behaviour in Gombe state, Nigeria. A human being is very rational, always they tend to make an economic calculation before making a decision. This can be justified by the study of Allingham and Sandmo (1972), who developed the economic deterrence model. And many literatures have proved that high tax penalties increase tax compliance because of the rationality and nature of human being since the penalty is paid or levied on the amount of tax evasion. Hence, the government should strategize the process by making the penalties high in order to increase tax compliance.

5.4 Limitation of the Study

This research has some limitations. The first limitation that is related to this research is about a population of the study from which the sample was drawn for this research. This research is limited to individual taxpayers in Gombe local government within Gombe state, Nigeria which represents only one (1) local government out of twelve (12) local government in the state. Due to this limitation that is related to sampling, the findings of this research should not be generalised because of the difference in geographical settings and cultural differences. Therefore, reaching conclusion from the results of this research should be taken with caution.

The second limitation of this research, the factor that determined taxpayer's compliance that was incorporated in this research is not exhaustive. There are other relevant variables that might give a better understanding of tax compliance that was not taken in this research. Hence, the factors that might determine tax compliance among individual taxpayers in Gombe state, Nigeria have not been exhausted since in this research the variables have only 31.4 percent of adjusted R square. A single research cannot incorporate all the variables in one model (Alm, 1999).

5.5 Recommendation for Future Research

Considering the findings and also the limitation of this study discovered, possible and fruitful areas of tax compliance that may need the attention of future researchers is being suggested. First, future researchers can try the variables that were tested in this research with a more extensive sample size to see if consistency can be identified. Similarly, efforts by future researchers can be made in identifying other variables that determine tax compliance of the taxpayers in the whole state that would comprise all the local government areas. Many studies on tax compliance focused on some states of the country. Therefore, future researchers may try Gombe State as a whole.

Secondly, to minimize the limitation caused by measurement, future studies should utilize the chances of carrying out more research on tax compliance by utilizing a mixed research

method which might consist of both qualitative and quantitative research technique in order to limit the problem or issue of personal bias of respondents (Creswell, 2009).

5.6 Conclusion

In this research, empirical evidence is provided on how the perception of government, corruption, religiosity, tax rate and penalty influence tax compliance among individual taxpayers in Gombe state, Nigeria. And also empirical evidence is provided on how the demographic factors affect tax compliance. This research is basically carried out to offer answers to two research questions: “(1)What is the relationship between perceptions of government, corruption, religiosity, tax rate as well as penalty and tax compliance among individual taxpayers in Gombe state, Nigeria? (2) Is there any significant differences between age, gender, marital status, educational level as well as employment status and tax compliance among individual taxpayers in Gombe State, Nigeria?”

Generally, the findings of this research recommended that among these variables under the study, only corruption, tax rate and penalty play a significant positive role in shaping tax compliance among individual taxpayers in Gombe state, Nigeria whereas religiosity and perception of government are not significant. Also, the independent samples t-test was conducted and revealed that there are no statistical significant differences in the mean scores of male and female and also in term of employed and self-employed respondents. Again, the one way between groups’ ANOVA was conducted to find out the statistical

significant differences between age, marital status, education level and employment status to tax compliance, and the findings revealed that only education level has a statistical significant different to tax compliance.

Hence, a tax compliance model that incorporates the factors that influence tax compliance is recommended to policymakers for a better understanding of the compliance behaviour of individual taxpayers in Gombe, state, Nigeria for them to formulate strategies and policies that will positively enhance and encourage tax compliance behaviour among taxpayers.



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Appendix

Appendix A

QUESTIONNAIRE



**Othman Yeop Abdullah
Graduate School of Business**

Universiti Utara Malaysia

A SURVEY ON THE DETERMINANTS OF TAX COMPLIANCE AMONG INDIVIDUAL TAXPAYERS IN GOMBE STATE, NIGERIA.

Dear Sir/Madam,

I am a Masters student at Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia conducting a research on the determinants of tax compliance among individual taxpayers in Gombe State, Nigeria. This survey is for the purpose of academic exercise and part of the requirement for the award of Master's Degree. Therefore, this questionnaire is aim at obtaining your valuable opinion in order to obtain information needed for the success of the study. Your responses will be treated with ultimate confidence and used strictly for academic purpose. The questionnaire is expected to take only 10 minutes of your precious time to complete.

I greatly appreciate your participation in the study. Thank you for your cooperation and giving part of your time for the survey.

Best regards

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SECTION A

Please provide the appropriate information by ticking [☐] in the box to show your answer

1. Gender

Male [☐] Female [☐]

2. Age

18 – 23 years [☐] 24 – 29 years [☐] 30 – 35 years [☐] 36 – 41 years [☐] 42 – 47 years [☐] 48 – 53 years [☐] 54 and above [☐]

3. Marital status

Single [☐] Married [☐] Divorce [☐] Widow [☐]
separated [☐]

4. Education Level

Primary Education [☐] Secondary Education [☐] Diploma [☐] Bachelor degree [☐]
Postgraduate [☐]

5. Employment status

Employed [☐] self-employed [☐]

6. Average monthly gross income

Below ₦50, 0000 [☐] ₦51, 000 -- ₦100,000 [☐] ₦101, 000 -- ₦200,000 [☐] ₦201, 000 -
- ₦300,000 [☐] ₦301,000 -- ₦400,000 [☐] ₦401,000—500,000 [☐] above ₦501,000 [☐]

SECTION B

1. Tax Compliance

Please express your opinion for each of the following actions whether you think it can always be justified, never be justified, or something in between. The numbers below has the following meaning respectively

No	The statements	Strongly disagree	disagree	neutral	agree	Strongly agree
1	I use to trade or exchange goods and services with a friend or neighbour and report in my tax returns.	1	2	3	4	5
2	I fully declare my principal income, but not including my part-time income.	1	2	3	4	5
3	I do not report my income from interest or investment that is not registered with government.	1	2	3	4	5
4	I would understate income if the amount is relatively small.	1	2	3	4	5
5	It is wrong if a taxpayer does not report all of his/her earning in order to pay less income tax	1	2	3	4	5

2. Perception of Government

Base on the following scale, Please circle the appropriate number that best described you in each statement. The numbers below has the following meaning respectively

No	The statements	Strongly disagree	disagree	neutral	agree	Strongly agree
1	I pay taxes required by law because the amount I paid is compatible with social service provided by government.	1	2	3	4	5
2	I pay taxes required by law because I believe that the government is prudently managing its resources.	1	2	3	4	5
3	I pay taxes required by law because there is transparency in government's spending	1	2	3	4	5
4	I pay taxes required by law because I trust the government officials and legislators in Nigeria.	1	2	3	4	5
5	I will pay taxes as required by the law because I am satisfied with quality of Infrastructure	1	2	3	4	5

3. Corruption

Base on the following scale, Please circle the appropriate number that best described you in each statement. The numbers below has the following meaning respectively.

No	statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Tax compliance is very low if the level of corruption is high in the government.	1	2	3	4	5
2	I comply to pay my tax if the level of corruption in the government is low.	1	2	3	4	5
3	I pay my tax if the money collected is used wisely without corruption.	1	2	3	4	5
4	I don't pay my tax even if there is no corruption in the government.	1	2	3	4	5
5	Because of the corruption in the government, I have the right of not to pay tax.	1	2	3	4	5

5. Religiosity

Note: *In this study, Religiosity means the extent or level at which a person adhere to the teaching of a particular religion in respective of their religion affiliation*

Base on the following scale, Please circle the appropriate number that best described you in each statement. The numbers below has the following meaning respectively.

No	Statement	Strongly disagree	disagree	Neutral	Agree	Strongly agree
1	I believe that religiosity is very important to me because it answer many question of my life	1	2	3	4	5
2	I frequently participate in every activities of my religion	1	2	3	4	5
3	I consider my religious' position on every situation when making every decision in life	1	2	3	4	5
4	I try to live my life according to the teaching of my religion.	1	2	3	4	5
5	I comply with tax simply because tax evasion is against the teaching of my religion	1	2	3	4	5

6. Tax rate

Base on the following scale, Please circle the appropriate number that best described you in each statement. The numbers below has the following meaning respectively.

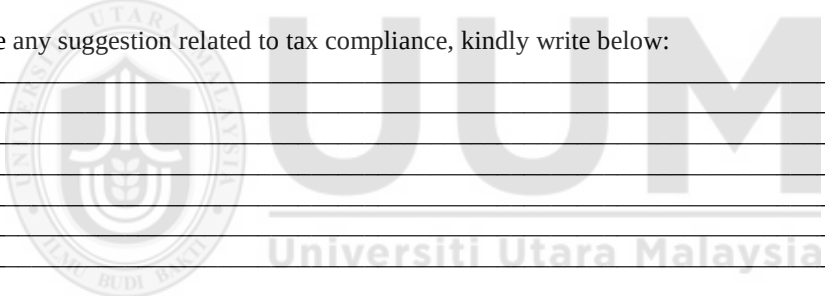
No	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Tax compliance is not acceptable if the tax rate is very high.	1	2	3	4	5
2	I comply to pay my tax if the tax rate is very low.	1	2	3	4	5
3	It is not worth to comply or pay tax if the tax rate is high.	1	2	3	4	5
4	it is not worth to pay tax even if the tax rate is low.	1	2	3	4	5
5	I comply to pay my tax if the tax rate is low because the government is not entitled to take as much as it is taking from me.	1	2	3	4	5

7. Penalty

Base on the following scale, Please circle the appropriate number that best described you in each statement. The numbers below has the following meaning respectively.

No	statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Tax compliance is not acceptable if the tax authority does not impose any penalties for it.	1	2	3	4	5
2	I have the right not to pay tax if I get a chance to do it.	1	2	3	4	5
3	I don't comply to pay my tax if the penalties are low.	1	2	3	4	5
4	I comply to pay my tax if the penalties are high	1	2	3	4	5
5	it is not worth to comply even if the penalties are high	1	2	3	4	5

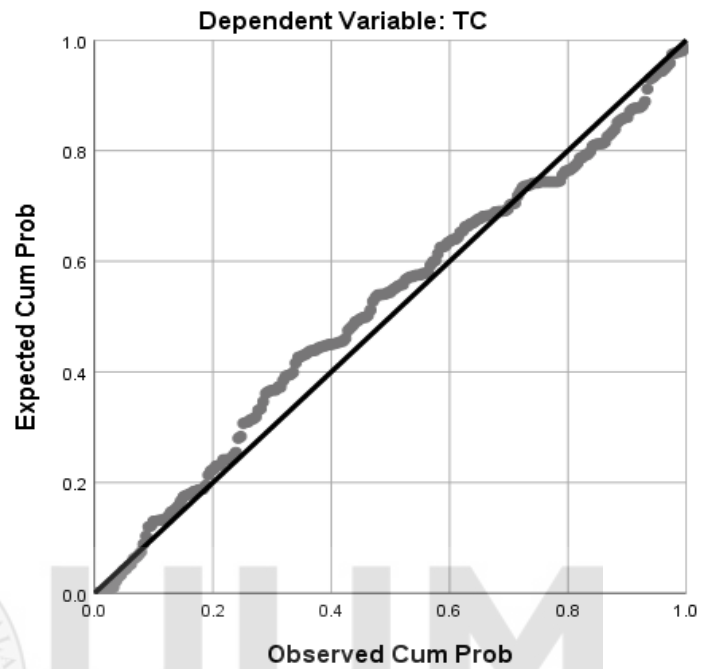
If you have any suggestion related to tax compliance, kindly write below:



Thank you

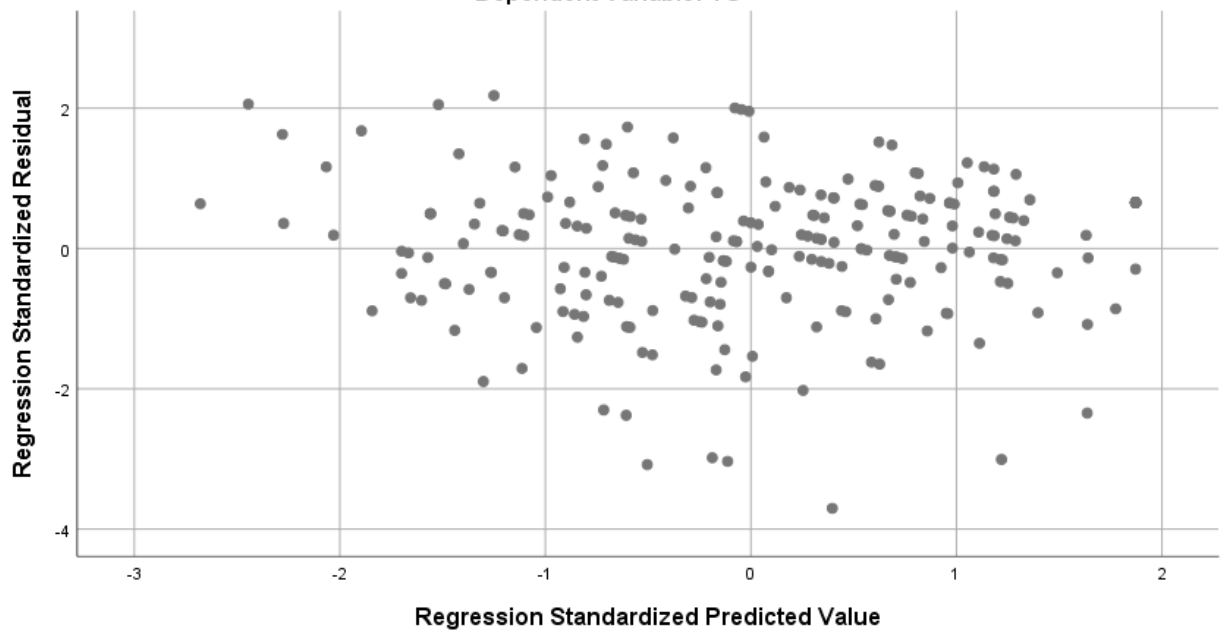
Appendix B

Normal P-P Plot of Regression Standardized Residual



Scatterplot

Dependent Variable: TC



Correlations

		TC	PG	CR	RG	TR	PE
TC	Pearson Correlation	1	.119	-.496**	.261**	-.497**	.454**
	Sig. (2-tailed)		.067	.000	.000	.000	.000
	N	237	237	237	237	237	237
PG	Pearson Correlation	.119	1	-.170**	.020	-.168**	.234**
	Sig. (2-tailed)	.067		.009	.757	.009	.000
	N	237	237	237	237	237	237
CR	Pearson Correlation	-.496**	-.170**	1	-.326**	.605**	-.501**
	Sig. (2-tailed)	.000	.009		.000	.000	.000
	N	237	237	237	237	237	237
RG	Pearson Correlation	.261**	.020	-.326**	1	-.342**	.178**
	Sig. (2-tailed)	.000	.757	.000		.000	.006
	N	237	237	237	237	237	237
TR	Pearson Correlation	-.497**	-.168**	.605**	-.342**	1	-.666**
	Sig. (2-tailed)	.000	.009	.000	.000		.000
	N	237	237	237	237	237	237
PE	Pearson Correlation	.454**	.234**	-.501**	.178**	-.666**	1
	Sig. (2-tailed)	.000	.000	.000	.006	.000	
	N	237	237	237	237	237	237

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

Multiple Comparisons

Dependent Variable: TC

Tukey HSD

(I) education level	(J) education level	Mean	Std. Error	Sig.	95% Confidence Interval	
		Difference (I-J)			Lower Bound	Upper Bound
PRIMARY	SECONDARY	.12051	.32543	.996	-.7742	1.0152
	DIPLOMA	.41867	.31044	.661	-.4348	1.2722
	DEGREE	.61245	.30375	.261	-.2227	1.4476
	POSTGRADUATE	.93056*	.30531	.021	.0911	1.7700
SECONDARY	PRIMARY	-.12051	.32543	.996	-1.0152	.7742
	DIPLOMA	.29815	.17373	.426	-.1795	.7758
	DEGREE	.49194*	.16148	.022	.0480	.9359
	POSTGRADUATE	.81004*	.16440	.000	.3581	1.2620
DIPLOMA	PRIMARY	-.41867	.31044	.661	-1.2722	.4348
	SECONDARY	-.29815	.17373	.426	-.7758	.1795
	DEGREE	.19378	.12863	.559	-.1599	.5474
	POSTGRADUATE	.51189*	.13227	.001	.1482	.8756
DEGREE	PRIMARY	-.61245	.30375	.261	-1.4476	.2227
	SECONDARY	-.49194*	.16148	.022	-.9359	-.0480
	DIPLOMA	-.19378	.12863	.559	-.5474	.1599
	POSTGRADUATE	.31811	.11572	.050	.0000	.6363
POSTGRADUATE	PRIMARY	-.93056*	.30531	.021	-1.7700	-.0911
	SECONDARY	-.81004*	.16440	.000	-1.2620	-.3581
	DIPLOMA	-.51189*	.13227	.001	-.8756	-.1482
	DEGREE	-.31811	.11572	.050	-.6363	.0000

*. The mean difference is significant at the 0.05 level.

Appendix C

Chi Square Table

Degrees of Freedom	Chi-Square (χ^2) Distribution Area to the Right of Critical Value							
	0.99	0.975	0.95	0.90	0.10	0.05	0.025	0.01
1	—	0.001	0.004	0.016	2.706	3.841	5.024	6.635
2	0.020	0.051	0.103	0.211	4.605	5.991	7.378	9.210
3	0.115	0.216	0.352	0.584	6.251	7.815	9.348	11.345
4	0.297	0.484	0.711	1.064	7.779	9.488	11.143	13.277
5	0.554	0.831	1.145	1.610	9.236	11.071	12.833	15.086
6	0.872	1.237	1.635	2.204	10.645	12.592	14.449	16.812
7	1.239	1.690	2.167	2.833	12.017	14.067	16.013	18.475
8	1.646	2.180	2.733	3.490	13.362	15.507	17.535	20.090
9	2.088	2.700	3.325	4.168	14.684	16.919	19.023	21.666
10	2.558	3.247	3.940	4.865	15.987	18.307	20.483	23.209
11	3.053	3.816	4.575	5.578	17.275	19.675	21.920	24.725
12	3.571	4.404	5.226	6.304	18.549	21.026	23.337	26.217
13	4.107	5.009	5.892	7.042	19.812	22.362	24.736	27.688
14	4.660	5.629	6.571	7.790	21.064	23.685	26.119	29.141
15	5.229	6.262	7.261	8.547	22.307	24.996	27.488	30.578
16	5.812	6.908	7.962	9.312	23.542	26.296	28.845	32.000
17	6.408	7.564	8.672	10.085	24.769	27.587	30.191	33.409
18	7.015	8.231	9.390	10.865	25.989	28.869	31.526	34.805
19	7.633	8.907	10.117	11.651	27.204	30.144	32.852	36.191
20	8.260	9.591	10.851	12.443	28.412	31.410	34.170	37.566
21	8.897	10.283	11.591	13.240	29.615	32.671	35.479	38.932
22	9.542	10.982	12.338	14.042	30.813	33.924	36.781	40.289
23	10.196	11.689	13.091	14.848	32.007	35.172	38.076	41.638
24	10.856	12.401	13.848	15.659	33.196	36.415	39.364	42.980
25	11.524	13.120	14.611	16.473	34.382	37.652	40.646	44.314
26	12.198	13.844	15.379	17.292	35.563	38.885	41.923	45.642
27	12.879	14.573	16.151	18.114	36.741	40.113	43.194	46.963
28	13.565	15.308	16.928	18.939	37.916	41.337	44.461	48.278
29	14.257	16.047	17.708	19.768	39.087	42.557	45.722	49.588
30	14.954	16.791	18.493	20.599	40.256	43.773	46.979	50.892