FAIRNESS PERCEPTIONS AND INCOME TAX VOLUNTARY COMPLIANCE AMONG OWNERS OF MICRO ENTERPRISES IN JIGAWA STATE, NIGERIA: THE MODERATING ROLE OF TRUST

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ABSTRACT

Taxation represents a very important source of revenue for the government of any nation for economic growth and is being looked upon as a panacea to the myriad of societal needs. Hence, this study examines the fairness perceptions in Jigawa State and their effects on voluntary tax compliance. Further, the study examined the moderating role of trust in explaining voluntary tax compliance in Jigawa State. For that purpose, a cross sectional study was conducted. 249 questionnaires were collected from the 450 questionnaires issued in Jigawa State. The data was analyzed using SPSS and PLS to answer the research questions. In particular, factor analysis was conducted to determine the type of fairness dimensions in Jigawa State after the amendment of the Personal Income Tax Act 2011. The Partial Least Square (PLS) path modeling was used in examining the relationship between fairness perceptions and voluntary tax compliance and the moderating role of trust. Findings from the factor analysis reveal that there are four dimensions of fairness perceptions in Jigawa State. The dimensions are exchange fairness, horizontal fairness, personal fairness and vertical fairness. Moreover, the results reveal that fairness perceptions and trust in authority have significant and positive relationships with voluntary tax compliance. Additionally, trust moderates the relationship between fairness perceptions and voluntary tax compliance. Based on these findings, the contributions, implications and the limitations of the study were discussed.

Key word: Voluntary tax compliance, fairness perception, trust, moderating, PLS.

ABSTRAK

Percukaian merupakan sumber pendapatan yang sangat penting bagi pertumbuhan ekonomi dalam sesebuah negara. Percukaian juga dianggap sebagai penawar kepada pelbagai keperluan masyarakat. Sehubungan itu, kajian ini meneroka persepsi kesaksamaan di *Jigawa State* dan kesannya ke atas pematuhan cukai secara sukarela. Selain itu, kajian ini juga menguji peranan kebolehpercayaan sebagai pemboleh ubah perantara dalam menerangkan pematuhan cukai secara sukarela. Oleh itu, kajian keratan rentas telah dijalankan. Sejumlah 249 soalan kaji selidik dikumpulkan berbanding 450 soalan kaji selidik yang diedarkan di *Jigawa State*. Data dianalisis menggunakan *Statistical Package for Social Sciences (SPSS)* dan *Partial Least Square* (PLS) untuk menjawab soalan kajian. Secara khususnya, analisis faktor dijalankan dalam menentukan dimensi persepsi kesaksamaan di *Jigawa State* selepas pindaan Akta Cukai Pendapatan Individu 2011. Model PLS) telah digunakan dalam menguji hubungan di antara persepsi kesaksamaan dan pematuhan cukai secara sukarela serta kebolehpercayaan sebagai pemboleh ubah perantara. Dapatan daripada analisis faktor menunjukkan bahawa terdapat empat dimensi persepsi kesaksamaan di *Jigawa State*. Dimensi tersebut ialah kesaksamaan *reciprocal,* kesaksamaan mendatar, kesaksamaan menegak, dan kesaksamaan umum. Seterusnya, dapatan kajian menunjukkan bahawa persepsi kesaksamaan dan kebolehpercayaan kepada pihak berkuasa mempunyai kesan positif yang signifikan ke atas pematuhan cukai secara sukarela. Tambahan lagi, kebolehpercayaan merupakan pemboleh ubah perantara yang penting di dalam hubungan di antara persepsi kesaksamaan dan pematuhan cukai secara sukarela. Berdasarkan dapatan ini, sumbangan kajian, implikasi dan limitasi kajian juga dibincangkan.

Kata Kunci: Pematuhan cukai secara sukarela, persepsi kesaksamaan, kebolehpercayaan, perantara, PLS.

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LIST OF ABBREVIATION

AF	Administrative Fairness
AVE	Average Variance Extraction
CIA	Central Intelligence Agency
EF	Exchange Fairness
GDP	Gross Domestic Product
GF	General Fairness
HF	Horizontal Fairness
ITMA	Income Tax Management Act
KMO	Kaiser-Meyer-Olkin
NCI	Nigerian Council of Industry
PAYE	Pay As You Earn
PF	Personal Fairness
PITA	Personal Income Tax Act
PLS	Partial Least Square
SBIR	State Board of Internal Revenue
SEM	Structural Equation Modeling
SSF	Slippery Slope Framework
TA	Tax Authority
VF	Vertical Fairness
VIF	Variance Inflation Factor
VTC	Voluntary Tax Compliance

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Tax compliance in Nigeria has been declining over time as revealed by tax as percentage of Gross Domestic Product, which is the most commonly global measure of tax compliance by country. Indeed, tax compliance declined from 7% in 2013 (Okonjo-Iweala, 2013) to 3.7% in 2015 (CIA World Factbook, 2015). This situation can be seen as insufficient to build a strong economy.

A comparison with other African countries also indicates various countries low tax compliance. Evidence from CIA World Factbook, 2015 reveals that African countries like Ghana, South Africa, Angola and Uganda are performing better than Nigeria in terms of tax as a percentage of GDP. Table 1.1 shows tax as percentage of GDP of Nigeria and the aforementioned African countries.

Table 1.1
Comparison Tax as a Percentage of GDP between Nigeria and Other Selected African Countries

Country	Tax as a percentage of GDP
Angola	32.2%
Ghana	23.2%
Nigeria	3.7%
South Africa	27.4%
Uganda	13.8%

Source: CIA World Factbook, 2015.

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As seen from Table 1.1 Nigerian tax as a percentage of GDP was only 3.7% in 2015, which is far below that of Angola (32.2%), Ghana (23.2%), South Africa (27.4%) and Uganda (13.8%). This indicates the need for an investigation of the factors mitigating against low tax compliance in Nigeria. While the above statistics are for tax generally, specific compliance with personal income tax is also low in Nigeria. Statistics over of decade indicated that the personal income tax as a percentage of total revenue was less than 2% for the decade from 1999 to 2008 (Alabede, Ariffin, & Idris, 2012).

Several factors have been determined to influence tax compliance in Nigeria such as ethnicity diversity, noncompliance opportunity, governance quality, perceived tax service quality, tax system structures, moral reasoning, tax knowledge, attitudes, risk preference, personal financial condition and demographic variables (Alabede, et al., 2011). However, to the researcher knowledge three studies have examined the influence of tax fairness perception on tax compliance in Nigeria (Mustapha, 2010; Gberegbe, Idornigie & Davies 2015; Mohammad & Dabor, 2016).

The first study was conducted before the amendment of Nigerian personal income tax act in 2011. Such an amendment was opined to be fairer as middle-class taxes were reduced and a small tax increase was placed the rich so as to demonstrate equity in the tax system (Oyedele, 2012). The second and third study investigate only one dimensions out of ten popular dimensions, for example Gberegbe et al., (2015) examined only exchange with government which is one out of the ten dimensions of fairness perceptions. On the other hand, Muhammad and Dabor (2016) examined only tax rate which is also one of the dimensions of fairness perceptions. However, the following

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dimensions has not been examined by those studies such as general fairness, vertical fairness, horizontal fairness, personal fairness, retributive fairness and administrative fairness, hence the need to investigate whether the amended tax law can lead to change in the perception of fairness and eventually tax compliance. The purpose of the amendment is to improve fairness of the personal income tax among taxpayers, the reasons is that Personal Income Tax is also a weapon, which could be used to reduce inequality in society, encourage manufacturing industries, by the use of tax incentives, and discourage undesirable industries (Akintoye, 2013; Asabor, 2012; Oduh, 2012; Ariwodola, 2000; Angahar, 2012; Okpe, 1998).

Another issue in Nigeria is that of corruption, which can affect negatively the trust citizens have in the tax system (Dike, 2005). The fact is that Nigeria ranked among the most corrupt countries across the world standing at 139th in 2012 and 144th in 2013 in Transparency International's Corruption Perceptions Index though it remained stable at 136th in 2014 and 2015. In many aspects, corruption is related to trust, and trust, in turn, is related to fairness perceptions. Basically, trust affects the fairness perception in many respects, whereby citizens believe and trust the authority of their government. For its part, government can influence their perceptions. When a citizen believes that the government or authorities are trustworthy in handle their resources judiciously and achieve important things in return, this same citizen will, in turn, pay their taxes because of the good perception and trust they have in the government (Alemika, 2004).

Tax compliance can be seen as a continuum (James & Alley, 2002), ranging from commitment to society's and government's objectives on the one hand, to law

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enforcement on the other. On the compliance side, McBarnet (2001) differentiates between (a) committed compliance, referring to taxpayers' willingness to pay taxes without complaining, (b) capitulative compliance, describing taxpayers who give in and pay taxes, and (c) creative compliance, which covers activities addressed to reducing taxes within the brackets of the law. Voluntary and enforced compliance as well as tax avoidance and evasion are described as resulting from the interaction between taxpayers' trust in authorities and authorities' power to monitor taxpayers. When trust in the authorities is high, taxpayers will pay their taxes voluntarily.

In contrast, when trust in the authorities is low, taxpayers are assumed to be motivated to withhold their contributions. When trust is low, but authorities' power to effectively audit and sanction wrong behavior is strong, taxpayers' compliance is enforced (Kirchler and Wahl, 2010).

Corruptions can affect fairness perception from the perspective of distributive justice fairness, this is because distributive justice fairness assert provisions of exchange with authority which means the authority are expected to provide provisions of good and service virtually equivalent or even more than the contribution made by the taxpayers(Gillingan & Richardson; 2005; Gerbing, 1988). However, where government failed to deliver what the taxpayers are expected from it, then taxpayers can perceive the tax system as unfair there by deliberately deciding not to comply with the tax rules. Hence, a need exists to investigate the role that trust plays in influencing the fairness perception with respect to voluntary tax compliance in Nigeria (IT, 2016). This need has led this research to investigate the moderating effect of trust in the relationship between

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fairness perception and voluntary tax compliance in Nigeria. Personal income tax administration was assigned to the states, which however, been given mandate to tax individuals who reside within its territory for the particular fiscal year (Odusola, 2006). He further states that Personal Income Tax Act (PITA) coordinates virtually all the subsidiary legislations of withholding taxes and Pay as You Earn (PAYE) system as stated by the Ministry of Finance. More so the PITA was mandated the joint Tax Board to coordinate and administer the tax all over the country, on the other hand State Board of Internal Revenue (SBIR) were solely responsible for administering withholding tax and PAYE (Odusola, 2006).

This study focuses on owners/managers of micro enterprises such as block lock molding factories, pure sachet water factories, Livestock feed sale milling, Rental Service, Cement Business, Ice Block and Frozen Food and poultry farms in Jigawa State, Nigeria. The aforementioned businesses are the most common types of micro business found in Jigawa State, which create many job opportunities for average citizens, and generate much revenue for the owners. Hence, the need exists to investigate how the fairness perception influences their voluntary tax compliance.

1.2 Problem Statement

Tax compliance among Micro Enterprises (Here after MEs) in Nigeria is poor. The most crucial factors behind MEs tax noncompliance are: tax rate, lack of proper enlightenment, multiple-taxation and complex filling procedures (Atawodi & Ojeka, 2012). Tax compliance cost is another problem for MEs with respect to their tax compliance in Nigeria. For example, the compliance costs of smaller MEs have been

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found to about N219,601 per annum as against N123,047 per annum for larger MEs, which indicates the existence of tax regressive among MEs in Nigeria (Eragbhe & Modugu, 2014). Based on the foregoing discussion of factors related to MEs noncompliance, need exists to investigate the fairness perception with respect to voluntary tax compliance among owners/managers of micro and small and medium enterprises in Jigawa State Nigeria.

Moreover, the specific problem of PIT before the amendment of personal income tax as stipulated by Chartered Institute of Taxation in Nigeria (CITN) (CITN, 2002 pg 15) which states that, there are insufficient tax officials to cover the field, literacy level is very low, record keeping at deplorable stage of the PIT. The biggest problem which makes taxpayers to perceive the PIT as unfair is the fact that government in Nigeria are perceived as corrupt and selfish to which money should not be voluntarily given. The foregoing not only makes compliance difficult, but also enforcement problematic (CITN, 2002, Pg 15,). Personal Income Tax (PIT) to certain extent has remained disappointing, problematic and unsatisfactory (Onyekwelu & Ugwuanyi, 2014).

Ironically, based on the researcher knowledge the extant literature contains only three studies on tax fairness perception in Nigeria (Mustapha, 2010; Gberegbe et al., 2015; Mohammad & Dabor, 2016). Mustapha's (2010) study, even though it explored the influence of fairness dimensions and their effects on tax compliance, was conducted prior to the amendment of the Nigerian personal income tax act in 2011. It is unarguable that a change in tax laws can affect the perception of fairness, which eventually may affect compliance with the tax system (Saad, 2011). Additionally, although Gberegbe et

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al., 2015; Mohammad and Dabor study (2016) was conducted after the amendment of Nigerian personal income tax, this researches examined only one dimension of fairness perception out of the popular dimensions of fairness in the country, hence the need to examine other dimensions in order to ascertain the level of fairness perception in Jigawa State Nigeria after the amendment of personal income tax act of 2011.

Evidence shows that fairness perception is a multi-dimensional construct with many countries having a distinct number of dimensions. For example, Gerbing (1988) found only five dimensions of tax fairness in United States. Richardson (2006) found eight dimensions of tax fairness perception in Hong Kong. Saad (2009; 2011) found seven dimensions of tax fairness in Malaysia. Mustapha (2010) found five dimensions of tax fairness in Nigeria prior to the amendment of personal income tax act of 2011. However, since the recent amendment, no study has conducted in Nigeria that has examined the whole tax fairness dimensions in the country even though a change in tax law may affect the tax perceptions in the country (Saad, 2011).

Studies also are scant concerning the influence of tax fairness dimensions on the voluntary tax compliance in Nigeria, as most of the available studies have been in developed Western countries and Asia. Examples of studies include those in the United States (Gerbing, 1988), Australia and Hong Kong (Gilligan & Richardson, 2005), Hong Kong (Richardson 2006), and Malaysia (Azmi & Perumal 2008; Saad, 2009; 2011). The available evidence from Nigeria was found in studies conducted before the amendment of the personal income tax act 2011 (Mustapha, 2010) or those that failed to investigate the influence of tax fairness dimensions on voluntary tax compliance in Nigeria

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(Gberegbe et al., 2015; Muhammad & Dabor, 2016). Hence, the need exists to examine and investigate the influence of tax fairness dimensions on voluntary tax compliance in Nigeria after the amendment of personal income tax act of 2011. The available literature indicates that relatively inconsistence findings exist regarding the influence of tax fairness dimensions on tax compliance. For example, Richardson (2006) found that only three out of six dimensions examined had a significance effect on tax compliance.

Saad (2009) found that, with exception of horizontal fairness, all other dimensions had no significance effect on tax fairness, Mustapha (2010) found only two tax fairness dimensions out of five examined in Nigeria, Muhammad and Dabor (2016) which have examined only one dimensions that's tax rate found it to be negative relationship with compliance behaviour of salaried taxpayers in Nigeria, Gberegbe et al., (2015) which also examined only one dimension of fairness that's exchange with government in Nigeria found it to be accepted among personal income taxpayers in Ken Saro Wiwa Polytechnic, Bori Rivers State Nigeria. Thus, these mixed findings call for further investigations.

For Baron and Kenny (1986) argued, when mixed findings are seen, a moderating variable should be integrated into the model to stimulate the relationship. Therefore, considering Nigerian corruption index ranking which leads to low perception of trust for authorities, this current study proposed to investigate the moderating effect of trust in authority and the relationship between tax fairness dimensions and voluntary tax compliance in Nigeria.

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1.3 Research Questions

In line with the problem stated above, this study tends to answer the following research questions:

1.   What are the tax fairness dimensions in Nigeria after the amendment of personal income tax act of 2011?

2.   How does tax fairness perception influence voluntary tax compliance in Nigeria?

3.   How does trust in government influence voluntary tax compliance in Nigeria?

4.   How does trust in government moderate the relationship between tax fairness perceptions on voluntary tax compliance in Nigeria?

1.4 Research Objectives

In line with the above research questions, the study aims to achieve the following four specific objectives:

1.   To explore the tax fairness dimensions in Nigeria after the amendment of the Personal Income Tax Act 2011;

2.   To examine the relationship between tax fairness perception and voluntary tax compliance in Nigeria;

3.   To examine the relationship between trust in government and voluntary tax compliance in Nigeria; and

4.   To examine the moderating effect of trust in government on the relationship between tax fairness perception and voluntary tax compliance in Nigeria.

1.5 Scope of the Study

The present study is cross sectional in nature because the data were collected at one point in time in 2017. It covered three main variables including: 1) tax fairness perceptions, 2) trust in government and 3) voluntary tax compliance. The respondents of the study were limited to owners / managers of microenterprises in Jigawa state Nigeria. Quantitative research design was used in this study direct delivery of questionnaire were also used in the study. Jigawa State has numerous micro and medium enterprises in Northern Nigeria, amounting to 850,000. This number of enterprises is large enough to draw a good sample. Micro and medium sized enterprises have been defined by the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) (2013) as those enterprises with less than 10 employees and capital below (N5,000,000) Five Million Naira.

1.6 Significance of the study

The aim of this project work is to investigate the effect of tax fairness on voluntary tax compliance. An increase in voluntary tax compliance would have a positive effect on the country's economy as a whole. Thus, this research should be of significance to the Nigerian government, the State Inland Revenue Service, the literature on tax compliance, Jigawa State, and academics who are studying the problem.

The Nigerian government will be among the primary beneficiaries of this study. It is hoped that the outcome of this work will assist the legislature in reviewing, updating and formulating the laws that will be helpful both to the government and the ME taxpayers so as to increase the level of voluntary tax compliance through generation of massive tax

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revenue. The State Inland Revenue Service is the government agency that has the responsibility for regulating tax activities of the country and would benefit earnestly from this study. The study would assist the Inland Revenue Service in devising a plan that is capable of encouraging voluntary tax compliance among taxpayers. The study will stipulate the process by which the Inland Revenue service can boost fairness in the tax system so as to generate more revenue, thereby increasing the contribution of tax to the Nigerian economy.

This study contributes to the existing literature and knowledge in Africa with particular reference to Nigeria. The study will contribute to the tax compliance literature as it incorporates tax fairness perception, trust in government and voluntary tax compliance in a single model, which is the first study of its kind in the region. The study can also contribute not only to Jigawa State but to Nigeria as a whole and can be used as a basis of comparison between the tax compliance level in Nigeria and that of other developing countries. The finding of this research work will be of importance to other academics especially those interested in conducting research in the same area. In general, then, the research work contributes to the existing body of knowledge.

1.7 Organization of the Chapters

This research comprises five chapters. Chapter one is the introductory part of the study, which starts with the background of the study and shows that tax payment remains a serious issue in Nigeria especially when compared. Following the background is the problem statement, which highlights how the tax system in Nigeria has been considered inequitable thereby creating tax noncompliance issues among the taxpayers. The chapter

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further highlights research questions, research objectives, the scope of the study and the significance of the study. Chapter Two present past literature considering the variables under considerations. The Chapter starts with the categorizing different types of taxes at different tiers of government, followed by definitions and concept of SME in Nigeria. The chapter proceed with the definition and concept of the dependent variables, followed by the definitions and the concept of the independent variables as well as the moderating variables. In addition, the chapter also presents the research framework and hypothesis development. Chapter Three presents the research methodology, which comprises six sections: research design, population and sample of the study, questionnaire design, measurement of variables, and data analysis techniques.

Chapter Four presents the overall results and the findings of this study. The chapter comprises three difference analyses to achieve the research objectives. The analysis includes a preliminary analysis using SPSS, and factor analysis, which were used in achieving the first objective of the study. The third analysis was conducted using PLS to achieve the third, fourth and fifth objectives of the study. Chapter Five presents the discussions, contributions of the study, conclusions, and limitations of the study, recommendations and suggestion for future research.

CHAPTER TWO

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Introduction

This chapter discusses Nigerian tax, SME in Nigeria, tax compliance, enforced tax compliance, voluntary tax compliance, fairness perception and its dimensions, trust in government, the theoretical framework and hypothesis development.

2.2 Nigerian Tax System

As it was established in the Nigerian constitution that Nigerian taxations was enforced by three tiers of government that's federal, state and local government each where having varying degree of tax laws, tax administrations and tax policies (Micah, Ebere & Umobong, 2012; & Odusola 2006). However, the following are taxes enforced by federal government which includes: 1) Companies Income Tax (CIT), 2) Petroleum Profit Tax (PPT), 3) Value Added Tax (VAT), 4) Personal Income Tax (PIT) (Only residence of capital territory, Arm forces and officers of the Nigerian foreign services), 5) Withholding Tax (WHT), 6) Education Tax (EDT), 7) Stamp Duties (STD), and Capital Gains Tax (CGT) (Micah et al., 2012). Conversely, State government enforced the following taxes; 1) Personal Income tax, 2) License fees on television and wireless radio, 3) Stamp Duties, 4) Estates duties, 5) Gist tax, 6) Sales or purchases Tax, 7) Football tools and other betting taxes, 8) Motor vehicle tax and driver license fees, 9) Entertainment tax and 10) Land registrations and survey fees (Akenbor & Arugu 2014). Finally, the following taxes were enforced by local governments in Nigeria: 1) Property

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tax, 2) Market and trading license, and fees (Akenbor and Arugu (2014). The personal income tax which is the focus of this study was first established as community tax in North western Nigeria in the year 1904 prior to the amalgamation of the country in 1914 (Ola, 2001), it was later changed to Native Revenue Ordinance for western and eastern region in the years 1917 and 1982 respectively (Odusola 2006). The desire to tax personal income tax throughout the country leads to the establishment of Income Tax Management Act (ITMA) in the year 1961. Personal income tax for employment and salaried is based on PAYE which faces several amendments that resulted to the establishment of Personal Income Tax Act (PITA) of 1993 as amended (Odusola 2006). However, the last amendment was made in 2011 due to the lack of fairness in the previous act which triggered this study to investigate whether change in tax law would affect fairness perception of taxpayers in Jigawa State Nigeria.

2.3 SMEs In Nigeria

SME is defined using certain features which include: 1) Capital employed, 2) Number of employees, 3) Turnover, 4) Size of the firm within the industry and 5) Available finance (Etuk, Etuk & Michael 2014). The 1975 United Kingdom companies act stipulates that an enterprise with turnover below £ 1.4 Million consider small, others with turnover ranging from £ 1.4 to £5.7 million consider medium, and those with turnover more than £5.7 million were consider large, the act further categories the enterprises based on number of employee: those with less than 50 staffs are described as small enterprise, those with employee between 50 to 250 consider medium, and those enterprises with employees above 250 are considered large (Etuk, et al., 2014).   Correspondently,

European Union (EU) 1995 described SME as enterprise with workers less than 250, it further categorized SME in to micro (less than 10 workers), while small (10 to 49 workers) and medium (50 to 249 workers) (Etuk, et al., 2014). Nigerian National Council of Industry (NCI) (2003) classified enterprises based on the following categories: 1) Micro enterprise 1-10 employee and capital between N1-5 million naira, 2) Small enterprise 11-35 employee and capital between N1 to < 40 million, 3) Medium 36- 100 employee and capital between N40 to < 200 million, 4) Large above 101 employee and also capital N200 million and above (Etuk, et al., 2014). The Small and Medium Enterprise SMEs consist of different caliber of businesses at different level of economic sectors. Moreover, there used to be two essential categories of SMEs: those with potential growth in other word growth oriented and those micro and small enterprises operated virtually at subsistence level with potential of providing income and employment mainly for the owners and small portion of external employees.

Hence this study focuses on the owner managers of micro enterprise in Jigawa State Nigeria, such as block molding business, water factory, livestock feed sale and milling business, poultry farms, rental service, cement business, ice block and frozen food and finally event planning, cake baking and decoration business

2.4 Tax Compliance, Enforced and Voluntary Tax Compliance

Tax compliance refers to the compliance of relevant tax laws regardless of the motives for compliance (Kirchler, 2007). Compliance with tax rules is a duty of the citizens, some category of taxpayers can only comply because the cost of non-compliance is too high when compare with the cost of compliance, while other taxpayers can comply

because they believe paying tax is an obligation to do as good members of the community. Moreover, solely depending on economic factor appear to be inconsistence with tax compliance (Kirchler, 2007). They further state that the assumptions on taxpayers will avoid taxes due to them must be doubted, this because extant literature reveals that the majority of taxpayers are willing to comply with relevant tax laws.

Enforced tax compliance claims that threat of penalties, fines and punishment could encourage tax compliance. However, coercion for non-compliance and incentives for compliance are not always useful mechanisms for maintaining and creating compliance behavior (Kirchler, 2007). Enforce compliance entails ability of tax official to detect illicit tax evasion, through the effective use of tax audits and punishing evaders to certain extent. Available literature on audit probabilities regarding tax compliance were found weak (Fischer, Wartick, & Mark's 1992). Moreover, threatening taxpayers on field experiment and close examination of their anticipated income increased tax compliance just temporarily for low and middle-income taxpayers while opposite for high income taxpayers (Slemrod, Blumenthal, & Christian, 2001).

Voluntary tax compliance taxpayers are encouraged to cooperate, while tax cheating is totally absent (Wahl, Kastlunger & Kirchler 2010). Committed taxpayers consider contributions to public welfare as moral obligation or law, at the same time perceives the tax law and collections as fair (Braithwaite 2003). However, voluntary tax compliance usually succeeds when there are motivational factors because taxpayers need to be encourage on certain things that can influence them to comply, such factors should include trust between taxpayers and tax authority and above all introducing

transference and effective fairness in the tax system. In Switzerland for example a respectful and friendly treatment of taxpayers by tax authorities where been observed for long period of time as an important to enhance compliance (Feld & Frey, 2005). They further, argued that in such situations, social distance would be low, voluntary compliance would prevail, while individual is less likely to consider the chances of evading.

Based on the above definitions of tax compliance, enforced compliance and voluntary tax compliance this study focus on voluntary tax compliance because it appear to be more efficient and reliable determinant for generating huge amount of tax revenue from citizens and well-meaning taxpayers as argued by (Kirchler, 2007).

2.5 Voluntary Tax Compliance

Kirchler (2007) defined voluntary compliance as a phenomenon that result of trust and cooperation between taxpayers and the tax authority and it is the willingness and desire by the taxpayer to comply on his or her own with the relevant regulations and directives of the tax authority. Voluntary tax compliance encourages taxpayers to comply with the tax laws voluntarily without compulsion by the tax authority. Based on this, taxpayers are expected to calculate their tax liability, report their income and file a tax return (Quadri, 2010). According to the Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism (MONEYVAL, 2014), a voluntary tax compliance program is a program designed to facilitate the regulation of taxpayers' conditions vis-à-vis money and other assets that were previously incorrectly reported. The committee further argued that countries can introduce voluntary tax compliance for

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several reasons, which include among other things increasing tax compliance and honesty, raising revenue from taxes and/or encouraging asset repatriation because of economic policy. More importantly when a country is in an economic crisis, such a program can involve tax amnesty incentives and voluntary disclosure mechanisms among others. Based on the aforementioned reasons for introducing voluntary tax compliance by MONEVAL this study is in line with the first rescan which stipulate that voluntary tax compliance can be introduce in order to increase the level of tax compliance and cooperation between taxpayers and tax authority.

Debate exists about the reasons behind voluntary tax compliance. Scholars like Frey and Feld (2002), Feld and Tyran (2002) and Frey and Torgler (2007) have claimed that the response of voluntary tax compliance is an intrinsic motivation. Thus, the act of volunteering can also be part of a taxpayer's personal values, internal motivations, cognitive processes, social norms and sense of moral obligation, which can all help explain the rationale for voluntary tax compliance. Lubian and Aarri (2011) stated that numerous empirical studies have shown that taxpayers are adequately candid and may respond voluntarily to the fulfilment of their tax obligations.

They further stressed that an individual may be driven by a positive interest in paying taxes. Thus, positive interest may signal an increase in voluntary tax compliance; on the other hand, negative interest may signal lower voluntary tax compliance. Such an interest seems related to the association between perceptions of public good and tax payments. According to Levi (1998) when taxpayers perceive drastic reductions in public goods when compared with the taxes they paid; these taxpayers will rationalize

that government has failed in its contract with them. In turn, this may result in deteriorating voluntary tax compliance. Braithwaite (2002) said that taxpayer's commitment towards volunteering in terms of payment of tax must be encouraged without compulsion. Indeed, OECD (2007) said that providing good quality services to taxpayers strengthens their intention to embrace and comply voluntarily with the tax rules and regulations, which will, in turn, leads to the overall level of tax compliance.

Many variables have been studied with respect to voluntary tax compliance. For example, Hofmann, Hoelzl, and Kirchler (2008), who examined preconditions of tax compliance, stressed that if taxpayers and tax authority perceived each other as harmoniously pursuing the same community goals, then internal variables were more appropriate in encouraging taxpayer's willingness to cooperate. Moreover, variables like government influence, perceived social norms, tax fairness, and motivational tendency to embrace tax laws are psychological determinants of voluntary compliance. Other authors have also examined why taxpayers comply.

According to Tyler (1990) if people perceive that compliance with the law is indeed appropriate, they, in essence, will assume the responsibility to voluntarily pay their taxes. Bornman (2014) argued that voluntary tax compliance programs, if tailored effectively, will change the tax behaviour of taxpayers. He further explained that many business owners believe that such programs will not influence their behaviour as they are already tax compliant, but that it might change the behaviour of those taxpayers who are not compliant.

Several researchers have studied the issue of tax compliance in Nigeria. Modugu, Eragbhe and Izedonmi (2012) conducted a study on government accountability and voluntary tax compliance in Nigeria, with the aim of examining the connection between voluntary tax compliance and government accountability. The study was based on the theoretical frame work that a relational social/fiscal contract existed between citizens and state. They found that the perception of government accountability was a genuine factor that leads to the emergence and maintenance of voluntary tax compliance. Additionally, Bodea and Lebas (2014) looked at how social norms impact tax compliance in urban Nigeria, where tax enforcement has traditionally been weak. They found that individuals with a positive experience of state services delivery were more likely to express belief in an unconditioned citizen obligation to pay tax than those who did not.

2.3 Tax Fairness Perceptions

Tax fairness can be defined as a platform based on an ideal that aims to create a system of taxation that is fair, clear and equivalent for all taxpayers. Overall, tax fairness looks to limit the amount of tax legislation and rules that benefit one segment of the tax-paying population over another (*Investopedia*, 2017). Indeed, fairness has been considered as part of the attributes of a good tax system" (Tan & Chin-Fatt, 2000).

Tax fairness plays a significant role in tax reporting behavior (Kirchler & Scabmann, 2008). Where a tax system perceived to be inequitable and unfair, this system usually leads taxpayers to evade tax payments and, in turn, making the tax system less relevant (Rechardson, 2005). According to Gberegbe et al., (2015), Adam Smith, a political philosopher who laid the foundations of classical free market economics, recognized the

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importance of tax fairness. Smith, who penned an inquiry into the nature and causes of the wealth of the nations (1760) believed that fairness meant that a taxpayer needed to contribute to the development of their state based on their ability to pay or ultimately based on exchange of benefits they derived from government projects and development. Thus, fairness has been considered an attribute of a good tax system for centuries (Tan & Chin-Fatt, 2000). Therefore, looking at the importance fairness of tax system in encouraging taxpayers' compliance this study uses six dimensions of fairness and the dimensions are adopted from Saad (2011), this is because the six dimensions selected are more appropriate in the Nigerian context.

The dimensions include: vertical fairness, horizontal fairness, exchange fairness, personal fairness, general fairness, and administrative fairness (Saad, 2011). However, the presence of these dimensions varies by country and context. Perceived fairness relates to the equity and fairness of exchanges between people and their governments. In other words, it associated with the perception of the balance between public goods received, and the justice related to the breaking of rules (Wenzel, 2003). With respect to the concept of tax behaviour, perceived fairness can be described through the concepts of: 1) distributive justice, 2) retributive justice and procedural justice (Gberegbe, et al., 2015). Distributive fairness is defined as the fair exchange of benefits and costs as well as the fair exchange of resources, and, perhaps more importantly, how a taxpayer feels he is treated compared to another taxpayer (Kirchler, Kogler, & Muchlbacher, 2004).

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According to Gberegbe, et al., (2015) distributive justice fairness classified in to three main groups: 1) vertical, 2) horizontal, and 3) exchange fairness. Vertical fairness argues that different taxpayers of different ability and economic strength should be assessed using different tax rates (Kirchler, Niemirowski & Wearing 2006). This rationale clearly argues that lower incomes earners would pay tax lower than the higher income earner (Saad, 2010). Horizontal fairness refers to "equal treatment of same individual with same circumstances" (Roberts, 1994).

This is to say that individual taxpayers of the same economic situations should pay the same amount of tax. Finally, exchange fairness asserts that taxpayers can only cooperate in paying taxes based on the provision of public goods made available to them by the government. In other words, exchange fairness emphasizes that, only when a citizen perceives that there are good social amenities at their disposal in exchange for what they have paid as a tax, will they comply with tax law and pay their taxes (Hoelzl & Kirchler, 2008).

Thus, the perception of the exchange of taxes with the government is influenced by the benefits received (Tan & Chin-Fatt, 2000, Leder, Mannetti, Holzl, & Kirchler, 2010). Retributive justice is concerned with the norms or measures of the audit or punishment. Audit and punishment together with unjust penalties may create negative attitudes that create non-compliance with tax law (Hofmann et al., 2008). However, retributive justice is related to enforced tax compliance which mostly resulted to negative attitudes by taxpayers. Procedural justice is concerned with the perceived fairness and process of tax collection that relates to the distribution of scarce resource (Kirchler et al., 2004). This is

to say where relevant tax authorities employ a fair tax system taxpayer may be more likely to comply voluntarily (Tyler 2006; Rupp, Mohier, & Schminke, 2001, Saad, 2014). The allocation of decisions usually made by a tax authority is assumed to be fair when citizens are free to voice their concerns regarding any decision that authorities make, and, at the same time, a situation in which the authorities make accurate decisions without sentiment or self-interest (Magner, Johnson, Sobery & Walker, 2000). Compliance with tax laws will increase when tax authorities are perceived to be supportive (Kirchler et al., 2006).

Other concepts connected with fairness include general fairness, personal fairness, administrative fairness, tax structures, special provisions. General fairness is concerned with the individual perception of whether the entire tax system is generally fair or not. Retributive fairness is centred on imposed rules and punishment, personal fairness deals with individual self-interest, and administrative fairness is concerned with the policy fairness; in other words, it is related to tax law procedures employed by the tax authority. Other tax fairness dimensions include a preference for either proportional or progressive taxation (Turman 1995), special provisions (Saad, 2011; Gilligan & Richardson, 2005; Richardson, 2005a: Gerbing, 1988).

Perceived fairness is interrelated with trust dimensions because just treatment of taxpayers helps in building and maintaining trust (Kirchler, 2007). The level of fairness varies across countries. In comparison between Asia and America, Chinese and Koreans weigh fairness perception more greatly in forming overall fairness than do Japanese and Americas. The effect of distributive justice fairness on overall fairness is significantly

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stronger for Chinese than for Japanese and Americas. Japanese and Americas weigh perceptions for procedures justice more highly in forming overall fairness perceptions than do Koreans and Chinese (Kim & Leung, 2007). From Nigerian point of view distributive justice is more relevant, this is because distributive justice relates to the allocations of scarce resources, promotions of equity across taxpayers and considerations of cost and benefit by taxpayers when comparing with what they receive in return of what they paid as tax.

Thomas's (2012) study, which assessed tax fairness dimensions in the small developing economy of Barbados, investigated taxpayers' perceptions of tax fairness and examined whether Gerbing tax fairness perceptions applied in a small developing economy. The dimensions measured in the study were general fairness, exchange with government and self-interest. The findings showed "that taxpayer perceived the Barbadian tax system as relatively fair while focusing only on general fairness rather than exchange with government and self- interest" (Thomas, 2012, p. 6.).

2.4 Trust in Government

Trust is defined as a special quality of relations for examples connected partners ascribe one another positive aspect and inner motivation to retain the relationship (Eberl, 2003). Trust simply refers to the belief that someone is safe and reliable, or someone is honest and good and will not harm you. Trust can be seen as a legal arrangement whereby a person or organization exercise influence or control money and properties for another individual or organization (*Cambridge Dictionary*, 2016). Trust in authority relates to the general perception by a social group or individual that the tax authorities are working

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beneficially and benevolently for the common good (Kirchler, Hoelzl, & Wahl, 2008).

The extant literature reveals that trust in authority is related positively to tax compliance (Torgler, 2003: Torgler & Schneider, 2005). Where tax authorities and officers treat taxpayers in a responsible and respectful manner, trust in the government as well as voluntary tax compliance may increase for individual, the group, or society at large (Kirchler, 2007).

Trust between a taxpayer and the tax authority usually results in a synergistic tax climate, and a synergistic tax climate asserts a mutual trust between the two parties (i.e., tax authority and taxpayer). In this synergistic climate, the tax authority believes that taxpayers pay their taxes due honestly, and, because of this mutual trust, the tax authority treats taxpayers with respect and humility and vice versa. Then, taxpayers comply by paying their taxes when due (Kirchler et al., 2008).

The taxpayers understanding of how they are being treated by tax authorities and the mutual relationship and respect that exist between them can, in turn, encourage or influence taxpayers' loyalty and enthusiasm with compliance and paying their taxes honestly. This process is also called a psychological contract (Field & Frey, 2007). The vital role of trust in authorities can never be over emphasized as it encourages the willingness and cooperation of taxpayers to pay their taxes (Lavoie, 2008). Trust has several dimensions as Robbins (2016) noted. He identified five key dimensions of trust: 1) integrity, 2) competency, 3) consistency, 4) loyalty and 5) openness. Integrity, truthfulness and honesty are considered to the back bone of trustworthiness. If a government is perceived to be trustworthy because of its integrity, then an individual

will be willing and enthusiastic in paying his/her taxes. The second dimension of trust is competence. Competence has to do with the interpersonal and technical skills and knowledge individual leader may have. Walking the talk, which means doing what you say you will do, is often considered to be a must for trustworthiness in a leader. Competence as one of the dimensions of trust has a significance influence on the perception of trust because a citizen who perceives that her government is trustworthy engages in high tax compliance because she is confident that the government will not either waste or embezzle her tax payments.

The third dimension of trust is consistency, which has to do with individual predictability, reliability and good judgment in tackling a situation. Where government is perceived to be consistent and simultaneously does what it promises to do, citizens will have more trust and, in return, comply with the relevance tax authority with honesty. They do this because they are seeing promises kept on the ground, the government is implementing good policies, and the policies align with the national interest.

The fourth dimension is loyalty, which refers to faithfulness or devotion to someone or some persons and advocates for their success. A citizen becomes more loyal to government especially where reciprocity exists; reciprocity here simply means that the government's provision of goods and services should align with the interests of the citizen, whereby a citizen is satisfied with government's effort toward providing social amenities. In return for the provision of these amenities, a citizen will become more loyal and eventually compliant.

The fifth dimension is openness. Openness relates to the ability of person or leader to give you the whole truth. Doing so is indeed among the most difficult of tasks because most times the sensitive nature of the whole truth and the understanding of that truth do not match between people. Openness without any doubts creates an excellent level of trust, wherein government becomes more open about its activities and citizens perceive and understand the government's direction. This process will, in turn, result in taxpayers complying with the tax law and eventually improving voluntary tax compliance.

However, both the above stated dimensions were relevant in this study, this is because the present study uses trust as moderating variables and citezens can only develop sense of trust when the government or tax authorities poses virtually all the dimensions stated above. Additionally, based on the researcher knowledge no study on taxations has tested the above-mentioned dimensions which this study could have used as the measurement to test the trust. However, the measurement of trust used in this study were adopted from Wahl et al., (2010).

2.5 Equity Theory

Equity theory was found to be suitable for this research because of its relevance in addressing the perception of fairness. Equity theory explains whether the allocation and distribution of resources are fair to relational parties, for example, taxpayers and tax authority. Equity is measured by looking at the costs to the benefits/rewards for an individual.

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The history of equity theory dates to the work of Adams (1976) a behavioural psychologist. Adams argued that employees strive to maintain equity between their contributions and the benefits they receive in return against the contribution and benefits of others (Adams, 1976). The emphasis here is that people respect fair treatment, which, in turn, influences their motivation to obey any law. Based on this relationship, the conclusion can be made that, where taxpayers perceive fair treatment from the relevant tax authority, they will voluntarily comply with tax regulations and government revenue will increase as a result of that voluntary compliance.

Equity theory argues that partners should receive equal advantage. For example, taxpayers need to receive equal care, love, consideration and equal distribution of income by government before they engage in voluntary tax compliance. Equity theory also proposes that people who perceive that they are under-rewarded, especially relative to the efforts they have made, may eventually experience discomfort and distress. Ultimately, this perception may lead to tension in or even dissolution of the relationship.

However, equity theory posits that individual factors influence each person's assessment and perceptions of their association with their relational partners, in this instance, between taxpayers and tax authorities (Guerrero, Valley, & Farinelli, 2008). Anger is caused by underpayment inequity (Adams, 1976), while guilt is caused by overpayment equity (Spector, 2008). In rationalizing Spector's statement with respect to taxation, taxpayers may avoid voluntary tax compliance when they perceive inequity from a tax authority or the government as a whole. Taxpayers demand fair treatment and need to be free of suspicions because when one segment of taxpayers feels suspicious, they may

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suspect the tax authority of bias, which causes tax noncompliance because the system is perceived as inequitable.

2.6 Conceptual Framework and Hypotheses Development

A conceptual framework is usually generated based on previous empirical literature, theories and practical problems in the area in which the researcher wants to investigate (Eisenhart, 1991). A conceptual framework normally contributes to a research in two ways: 1) the first is the identification of research variables, and 2) the second is the clarification of the relationship that exists among them (McGaghie, Bordage, & Shea, 2001). A conceptual model displays the construct selected for examination and the anticipated relationships that exist among the constructs selected. This is important in providing an explanation to the phenomenon under consideration (Eisenhart, 1991). Equity theory was used in explaining the relationship between the variables or effect of one variable on the other. It is in line with this theory that the conceptual framework of the current study is formulated (see Figure 2.1).

2.6.1 Dimensions of Fairness Perceptions

Several scholars have studied the dimensions of fairness perceptions in the context of tax systems. Saad (2009) found seven dimensions of fairness such as general fairness, horizontal fairness, vertical fairness, exchange fairness, administrative fairness, personal fairness and retributive fairness, while studying salaried taxpayers in Malaysia to assess the fairness of an income tax system. The findings revealed that taxpayers perceived the current income tax system as being fair, but no conclusive evidence existed of the

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question of whether such a perception influenced compliance behaviour; instead, subjective norms and attitudes were found to be the most influential. Mustapha (2010) investigated the impact of tax fairness and demographic factors on tax compliance in Nigeria. The study measured five dimensions, which included tax structure, exchange with government, special provision, self-interest and general fairness. The result found that only two of the five dimensions examined (special provision and exchange with the government) were significant.

Empirical literature indicates relatively inconsistence findings on the influence of tax fairness dimensions on tax compliance. For example, Azmi and Perumal (2008) examined whether tax fairness dimensions that existed in Western countries such as (United States and England) were comparable to those existing in Asian countries. Five dimensions of tax fairness were investigated and measured including: 1) self-interest, 2) general fairness, 3) exchange with government, 4) tax rate and 5) special provisions. The findings revealed that the sense of tax fairness in Asia differs from that of Western countries because, among the five dimensions examined, only three (General fairness, tax structure and self-interest) were found to be of significance in the Asian countries studied. In a cross-sectional study of 45 countries,

Other scholars studying other countries have found that country contexts matter with respect to dimensions of tax fairness. For example, Benk, Budak, and Cakmak (2012) examined whether dimensions of tax fairness existed in Turkey. They found that normative expectations of compliance and penalty magnitude had the most significant effect on tax compliance, but that Equity perceptions of the tax system have no

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significant statistical effect. In Malaysia, Saad (2009) found that, except for horizontal fairness, the other dimensions had no significance effect on tax fairness. Mustapha (2010) found that only two of the five dimensions he studied (special provision and exchange with the government) were significant with respect a perception of tax fairness. Muhammad and Dabor (2016) found tax rate has negative relationship with compliance behaviour of salaried taxpayers in Nigeria. In Barbados, Thomas (2012) found only one-dimension, general fairness, of the three that were studied had significance impact on perceptions of the fairness of the tax system. Perumal (2008) found that general fairness and self-interest has significance relationship in Malaysia. Belay and Viswanadham (2013) found that business income taxpayers have multidimensional perceptions on the fairness of the income tax system of Amhara Ethiopia.

Thus, the above enumerated literature indicates that fairness perception is a multi-dimensional construct with many countries having their own distinct dimensions. Based on the above argument, the following hypothesis is posited.

Hypothesis 1. SMEs taxpayers in Jigawa State perceive the fairness of the income tax system as multidimensional.

2.6.2 Fairness Perceptions and Voluntary Tax Compliance

Several empirical studies have produced evidence concerning the fairness perception and tax compliance. Mukasa (2011) conducted a study in Uganda that examined the relationship between perceived fairness and tax compliance in small and medium sized enterprises. The results showed a significance and positive relationship between tax

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compliance and fairness perception and suggested that improvement of taxpayers' knowledge and perceptions of fairness about taxes would lead to improved compliance. Richardson (2006) conducted research on the impact of tax fairness dimensions on tax compliance behaviour in Hong Kong. The result reveals that "with the intervening demographic variables, fairness, income tax burden and exchange with government significantly affect tax compliance with varying effects. In other words, fairness has significance influence in encouraging voluntary tax compliance" (p. 29). Roberts (1994) carried out an experiment to determine if televised public/social service announcements would increase taxpayers' perceptions of tax fairness and tax compliance. He found that showed that the attitudes of taxpayers in the United States about fairness and compliance were more positive after watching short announcements. Richardson (2006) found that the higher the level of perceived fairness, the lower the level of tax evasion across the countries.

Fairness perception is a relevant determinant for voluntary tax compliance. Gilligan and Richardson (2005) studied the importance of the perception of tax fairness in forming compliance behaviour in a cross-cultural study of Australia and Hong Kong. Faial and Palil (2015) conducted a study on fairness and individual tax compliance in Malaysia. The study divided the perception of fairness into three segments: 1) procedural fairness, 2) distributive fairness, and 3) retributive fairness. Only procedural fairness had a positive and significant correlation with tax compliance; distributive and retributive fairness had positive but insignificant correlations. In Malaysia, Azmi and Perumal (2008) found that like the United States and Australia, Malaysians perceived that the

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dimensions Gerbing (1988) identified were significance. Gberegbe et al., 2015 found significance relationship between perceptions of tax fairness and personal income tax compliance in ken saro Wiwa Rivers States Nigeria. Belay and Viswanadham (2013) found that taxpayers had mixed perceptions on the fairness of the income tax system in Amhara Ethiopia. Juhi (2001) found that tax compliance and tax fairness have positive correlation. Siahaan (2005) found the direct effect of tax fairness on taxpayer compliance behaviour is positive and significant, also found the indirect effect of tax fairness on taxpayer compliance behaviour is positive and significant and finally found the indirect effect of tax fairness on taxpayer compliance behaviour through commitment is positive and significance**.**

Based on the above findings, the following hypothesis was developed.

Hypothesis 2: There is positive relationship between fairness perceptions and voluntary tax compliance.

The above stated hypothesis is in line with the equity theory which postulates positives relationship between two connected parties.

2.6.3 Trust and Voluntary Tax Compliance

Several scholars have studied the relationship between trust and voluntary tax compliance. Murphy's (2004) study of 2,292 Australian taxpayers. The study shows positive relationship between trust in government and tax compliance. Additionally, Richardson (2008), in a comparison of 47 countries, found that trust is positively related to tax compliance. In a series of experiments using students in Austria, Wahl, et al., (2010) found that trust in government is positively related to voluntary compliance.

Empirical evidence in Sweden has shown a positive relationship between trust in authority and tax compliance (Hammer, Jagers & Nordblom 2005). Also, Benk and Budak, (2012) found positive relationship between trust and voluntary compliance Moreover, Fjeldstad (2004), who conducted a study in East and South Africa, found trust in government together with perceived procedural fairness has positive relationship with general tax compliance in South Africa. In a study of Italy, Kastlunger, Lozza, Kirchler, and Schabbman (2013) found trust in authority has positive and significant relationship with voluntary taxpayer compliance. Contrarily, Schabbman (2013) also found no significance relationship between trust in authority with coercive compliance. Benk and Budak (2012), Kastlunger, et al., (2013), and Mas'ud, Manaf & Saad (2014). Some of these studies have found no significant relationship between trust in authority and tax compliance.

Based on the above arguments, the following hypothesis was developed:

Hypothesis 3:   There is relationship between trust in government and voluntary tax compliance.

The above hypothesis is consistence with equity theory which assert that taxpayers need love, care and consideration which virtually leads to trust and cooperation between two parties.

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2.6.4 Trust as Moderator between Fairness Perception and Voluntary Tax Compliance

Trust in authority relates to the general perception by a social group or individual that the tax authorities are working beneficially and benevolently for the common good (Kirchler et al., 2008). For instance (Torgler 2003; Torgler & Schneider 2005 & Fjeldstad (2004) found that perceived fairness and compliance in South Africa has positive and significance relationship. Correspondingly, Feld and Frey (2007) found positive relationship between perceived fairness and voluntary tax compliance. (See also, Kichler, 2007; Kirchler et al., 2008). Perceived fairness is another significant variable that has been found to influence voluntary cooperation.

For example, Benk, and Budak, (2012 found that trust in authority was statistically significant with respect to voluntary cooperation. Mas'ud et al. (2014) tested the assumptions of the slippery slope framework and found an insignificant relationship between Trust and Tax Compliance. Gberegbe et al., (2005) found significance relationship between fairness perception and personal income tax compliance in Nigeria. Mustapha (2010) found that only two of the five dimensions he studied (special provision and exchange with the government) were significant with respect a perception of tax fairness in Nigeria. Contrarily, Muhammad and Dabor (2016) found negative relationship between tax rate and compliance behaviour of salaried taxpayers in Nigeria. The mixed findings in previous literature have led to a call for further investigation. On their part, Baron and Kenny (1986), argued that, when mixed results are found, a

moderating variable should be integrated in the model to stimulate the relationship. This study proposes that trust in authorities can moderate voluntary tax compliance in Nigeria.

Therefore, in line with the above argument the following hypothesis has been developed.

Hypothesis 4: Trust in government moderates the relationship between fairness perception and voluntary tax compliance in Nigeria.

Based on the above stated hypotheses, the following framework was developed.

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Fairness Perception   Voluntary   Tax

Compliance

Trust

Figure 2.1. Conceptual Framework.

2.7 Chapter Summary

The chapter describes tax system in Nigeria, Background of SMEs in Nigeria, tax compliance enforced and voluntary tax compliance, tax fairness perception and its dimensions, trust in government. Hypothesis development and the research framework were also developed to provide direction towards attaining the research objectives.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology used in conducting this study. It presents the list of elements comprising the population of the study, the sample size and the sampling technique used by this research to take a portion of the population as fair representation of the entire population. The chapter also explains the method used in sourcing data, variable measurement, and the statistical method of data analysis.

3.2 Research Design

A qualitative research method is primarily exploratory in nature and is usually used to obtain an understanding of certain phenomenon. It helps in developing ideas and providing insight in to a given problem. Qualitative research can be semi-structured or unstructured. Qualitative research is often unstructured and unwieldy, and types of qualitative research method comprise transcriptions of interviews or discussions, observations of interactions, written documents, focus group discussions or field notes (Ritchie & Spencer, 2003).

Quantitative research is primarily used to quantify certain phenomenon or problems through generating data that can be changed in to meaningful statistics. These might be used to quantify opinions, attitudes, or behaviours and make generalizations of results to a larger population sample. Considering the nature of this study, a quantitative method of data collection is more suitable for examining the impact of tax fairness perception on

voluntary tax compliance. Moreover, when a need exists to examine interrelationships between variables, and, where theories and hypotheses are tested, the most suitable and logical methods to use are those of quantitative design. The variables under consideration can be measured using predetermine instruments, closed-ended questions, so that data and numbers could be analysed using statistical procedures (Creswell, 2009; Trochim & Donnelly, 2008).

3.3 Population

A population is defined as the whole group of people or events of interest that a researcher wants to examine or investigate (Sekaran & Bougie 2010). Sample size is defined as the number of items of a larger population from which conclusions concerning the total target population are drawn (Zikmund, 2000). Zikmund further states that population is defined as a specific complete group that is related and relevant to the entire population of the research. With respect to this current study, the population of this study comprises micro enterprises in Jigawa State Nigeria. There are about 850,000 micro enterprises in Jigawa State from which the sample of this study was drawn (SMEDAN, 2013).

3.3.1 Sampling Technique

. Proper sampling enables the researcher to make an estimate about unknown features of the population under investigation. Using a sample of a population instead of an entire population advantage offers several advantages including reduced labour requirements, cost and time savings and quick information accumulations (Zikmund, 2000). As have many previous studies (Olatunji, Taiwo, & Adewole, 2009: Mohammed, 2011), this

study will use simple random sampling. This sampling technique basically gives all respondents an equal chance of being selected.

3.3.2 Sample Size

Zikmund (2000) argues that, to determine the sample size of the population, statistical information must be identified, such as the estimated magnitude of acceptable error, the estimated variance of the population, number of observations and the confidence level. The sample size of this study was 382, which was drawn from the population of 850,000 the size, was determined by following the guidelines of Krejcie and Morgan (1970, p. 2). To get more responses and account for potential non-responses the sample size was increased to 450.

3.4   Method of Data Collection

Data collection refers to the gathering of information on selected variables systematically and enables the researcher to answer important questions to evaluate and assess outcomes. A survey is one method of data collection. A survey using a questionnaire was utilized as a method of data collection in this study. A survey refers to a set of fixed questions that can be administered or distributed by paper and pencil, the Web or an interviewer who follows a strict script (National Defense Research institute, 2016).

Direct administering of a questionnaire is expensive but has the potential of a good response rate, and this type of administration used in this study to optimize responses. Questionnaires were administered directly to the target group, which included owners/ managers of selected small and micro business through the help of research assistance.

This process yielded a response rate of 249 responses (55.33%) of the 450 questionnaires distributed.

3.4.1 Questionnaire Description

The questionnaire comprised four sections. The first section contained demographic information of each respondent including his/her age, gender, business type, business duration and their annual income. The second section comprised questions related to the dependent variable that was voluntary tax compliance, and Section Three comprised questions related to the independent variable, which was fairness perception and dimensions. The last section had questions related to the moderating variable, which was trust in authority. Both the sections were adapted from previous studies that were modified to suit the current study.

3.5 Measurements of Variables

Variable measurement or scale measures are used to describe the innate characteristics of information within the numbers or scale assigned to variables. There are four types of measurement scales: 1) nominal, 2) ordinal, 3) interval and 4) ratio (Stevens, 1937). The interval scale was appropriate for this study; this is because, according to Blumberg, Schindler and Cooper (2008), an interval scale has certain characteristics of both nominal and ordinal scales with the additional strength that an interval scale may be used to measure the distances between or from one point to another. An interval scale enables the researcher to classify individuals into groups, rank variables based on their order, and explain the features of the respondents. This current research employed 5-point Likert-scale. This study adopted a Likert-type scale for several reasons. The first

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reason is that a Likert-type scale is an ordered scale that allows respondents to choose one option that best aligns with their interest or view. The second reason is that the study measured peoples' beliefs and behaviour regarding tax compliance. Likert-type scales are often used to measure the level of agreement by a respondent on certain questions or statements, and options typically range from strongly agree to strongly disagree. The third reason is the fact that the adopted questionnaire comprises negative and positive response options that are more appropriate for a Likert-type scale.

3.6 Operational Definition of Variables and Dimensions

This study uses a framework that comprises three main variables were derived from the literature. The variables were defined to suit the present study.

3.6.1 Voluntary Tax Compliance

Voluntary tax compliance in this study is defined as the willingness of a taxpayer on his or her own to comply with tax authority regulation and directives such as filling self-assessment form within the relevant period and ultimately paying their tax liability at the right time. Voluntary tax compliance is a system by which taxpayers voluntarily comply with the tax laws without being compelled by the relevant tax authority. This definition was adopted from Quadri (2010). Voluntary tax compliance measurement has six items that were adopted from Wahl et al. (2010).

3.6.2 Trust

Trust is defined as the general phenomenon of an individual or a social group in which the tax authority is perceived as benevolent and working purposely and beneficially for the common good. This definition was adopted from Kirchler et al. (2008).   This

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definition refers to the relational aspect of trust as well as social trust that distinguishes it from calculative trust (Tyler, 2003). Trust measurement had three items that were adopted from Wahl et al. (2010).

3.6.3 Fairness Perceptions

Fairness perceptions is defined as the way in which taxpayers perceive the tax system as being fair and equitable. Fairness can take many forms for example, vertical fairness which postulate that taxpayers with different incomes should be charged based on their income levels using a differential rate. This definition was adopted from Erich et al. (2006). The second dimension of fairness perception is horizontal fairness, which is defined as equal treatment of taxpayers with the same level of income. This definition was adopted from Michael (1978). A third component of fairness perception is exchange fairness, which postulates that taxpayers will have fair perceptions of the tax system especially where the benefits received from the government equate to the amount of taxes paid.

This definition was adopted from Gilligan and Richardson (2005) and Gerbing (1988). The fourth dimension, which is general fairness deals, deals with the measurement of individual perception whether the tax system is generally fair. The fifth dimension of fairness, which is personal fairness, deals with self-interest while the last fairness perception dimension used in this study is administrative fairness, which deals with the content of the tax law (policy fairness and procedural fairness). This definition was adopted from Saad (2011). Fairness perceptions had 17 items that were adopted from Saad (2011).

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Table 3.1

Statements used to Measure Dimensions

Variables	Item	Source
Tax Fairness/ Dimensions		
General fairness	I believe the government utilizes a reasonable amount of tax revenue to achieve social goals, such as the provision of tax revenue to achieve social goals.	Saad (2011)
	I believe everyone pays their fair share of income tax under the current income tax systems.	
	I think the government spends too much tax revenue on unnecessary welfare assistance.	
Exchange Fairness	I received fair value from the government in return for my income tax paid (e.g., benefit).	Saad (2011)
	It is fair that low income earners received more benefits from the government compared to high- income earners.	
	The income taxes that I have to pay are high considering the benefits I received from the government.	
Vertical Fairness	It is fair that high incomes are subject to tax at progressively higher tax rate than middle income earners.	Saad (2011)
	It is fair that middle income earners are taxed at a lower rate than high income earners.	
	The share of the total income taxes paid by high income earners is much too high.	
Personal Fairness	I believe that I pay my fair share of the tax burden under the current tax system.	Saad (2011)
	Compare to other taxpayers, I pay more than my fair share of income tax. Middle income earners pay their fair share of income tax.	
Administrative Fairness	There are a number of ways available to me to correct errors in the calculation of my tax liability, if necessary, at no additional cost.	Saad (2011)
	The administrative of the income tax system by the Inland Revenue is consistence across years and taxpayers.	

Table 3.1 (Continued)

Variables	Item	Source
Tax Fairness/ Dimensions		
Trust in Authorities	The governmental authorities in Nigeria act fairly towards their citizens.	Wahl, Kastlunger and Kirchler (2010)
	In Nigeria, the interest of a few are considered stronger than the interest of the community.	
	The governmental institutions of Nigeria act upon their citizens' interest.	
Voluntary Tax Compliance	I feel a moral obligation to pay my tax in Nigeria.	
	Paying my tax ultimately advantages everyone.	
	Overall, I pay my tax in Nigeria with good will.	
	I think of tax paying as helping the government of Nigeria do worthwhile things.	
	I accept responsibility for paying my fair share of tax.	
	Paying tax is the right things to do.	
	Paying tax is a responsibility that should be willingly accepted by all citizens of Nigeria.	

Sources: Saad (2011) and Wahl, Kastlunger and Kirchler (2010).

3.6 Pilot Study

According to Hulley (2001), a pilot study is an overture investigation conducted by a researcher that is aimed at assessing the viability, duration as well as the cost expected to be incurred in order to estimate a suitable sampling size for the study and also to improve the format of the study before undertaking the major research Also, Altman, Burton, Cuthill, Festing, Hutton, and Playle (2006) stressed the significance role of pilot test, noting that a pilot study is very vital for a researcher to conduct because this study may show the imperfections of the structure and design of the study. It may also show errors in the questions to be asked, the metrics used for measurement, and the instructions. Thus, this process should be undertaken before deeply engaging in the main

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research project. Therefore, in line with this statement and, as advocated by Malhotra (1999), a total of 30 questionnaires were distributed. The results of the pilot study are presented in Table 3.2 below.

Table 3.2
Reliability and Validity Analysis of the Instrument (Pilot study)

Variables	Number of items	Cronbach's alpha
Voluntary Tax Compliance	6	0.716
Fairness Perception	17	0.712
Trust	3	0.668

The Cronbach's alpha revealed that the reliability of dependent variable, which was Voluntary Tax Compliance, was 0.716 as shown in Table 3.2 above. The Cronbach's alpha of Fairness Perception was 0.712. The Cronbach's alpha of the moderating variable (trust) was 0.668. Hair et al.'s (2010 guidelines states that a Cronbach's alpha of .6 is considered weak, 0.7 is considered average, 0.8 is considered good and 0.9 is considered excellent. Using these guidelines Voluntary Tax Compliance and Fairness Perception were average and Trust was weak. The weakness seen in trust dimensions has to do with low sample this is because extant literature reveals that the more the sample increases the more the reliability of date increase. Hence, the Crombach alpha of trust are expected to reach the excellent stage after field survey.

3.7 Method of Data Analysis

This study used SPSS for preliminary analysis and Partial Least Square (PLS) for measurement modelling and structural modelling to analyse the data. Analysis of data enabled the determination of the relationship between the dependent and the independent variables. The following were used to analyse the data: normality test, multicollinearity,

descriptive analysis of variables, factor analysis and reliability analysis using Cronbach's alpha, and structural model analysis for hypothesis testing.

3.7.1 Normality test

Normality is a relevant assumption of multivariate analysis (Tabachnick & Fidell, 2007). An initial assumption of PLS is that PLS generates accurate statistical estimates despite a highly non-normal data set (Cassel, Hackl, & Westlund, 1999; Wetzels, Odekerken Schroder, & Van Oppen, 2009). In recent times, the initial assumption for PLS has gradually relaxed. However, bootstrapped standard error can be inflated by extremely skewed and kurtotic data (Chernick, 2011; Hair, Hult, Ringle, & Sarstedt, 2013). A normality test was conducted in this study, and the results that are presented in the next chapter indicate that the data were normal and suitable for the analysis.

3.7.2 Multicollinearity Test

Multicollinearity refers to the situation in which two or more exogenous variables have a high level of correlation (Tabachnick & Fidell, 2007). The essence of this test is to identify whether the latent variables are saying the same thing in a given research model. Using PLS tolerance and the Variance Inflation Factor (VIF) are the two common criteria now used in determining the normality of latent variables in a given model (Hair et al., 2013). VIF is defined as the reciprocal of tolerance while tolerance is defined as the variance of one exogenous variable not explained by other exogenous variable in a given model (Hair et al., 2013).

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3.7.3 Descriptive Analysis of Variables

Zickmud (2000) described descriptive statistics as the basic characteristics of data that summarized the data in a meaningful manner. In this current study, frequencies and percentages were used to describe the demographic information of the respondents, additionally, mean and standard deviation were used to describe the set of data.

3.7.4 Factor Analysis

Factor analysis refers to statistical methods used to describe variability within observed correlated variables with respect to a potentially small number or lower number of unobserved variables called factors. One good example is that the variations in six observed variables reflect mainly the variations in two unobserved variables (Steele, Galbraith, & Moustaki, 2008). Exploratory factor analysis was carried out in this study to achieve the first objective of the study. Refer to appendix B.

3.7.5 Reliability Using Cronbach's alpha

A reliability test using Cronbach's alpha is usually carried out to measure the consistency and stability of the instruments to be measured. Additionally, the text shows how well the items in a set of constructs are positively related to one another. In this study, Cronbach's alpha was used to measure the reliability of the instrument. Reliability of more than 0.8 is considered very good, of 0.7 is considered moderate, and less than 0.6 is considered very weak (Sekaran & Bougie, 2009).

3.7.6   Partial Least Square Path Modeling

Partial Least Square (PLS) has two types of structural Equation Modeling (SEM).
Covariance-SEM and Component-based-SEM are the two types of Structural Equation
Modeling. Although different views exist on which of the categories to use in a research
work (Hair, Ringlem, & Sarstedt, 2011), several rules of thumb stipulated by Hair et al.
(2011) justified the use of PLS-SEM in this study. The following subsection discusses
the process for evaluating measurement and structural models when using PLS-SEM.

3.7.6.1 Measurement Model Evaluation

The measurement model comprises indicator reliability, internal consistency reliability,
convergent validity, discriminant validity, and model fit evaluation (Hair et al., 2011;
Henseler, Ringle & Sinkovics 2009 and model fit Henseler et al., 2014). Regarding
validity, the reflective construct needs to meet convergent and discriminate validity
conditions. In convergent validity, conditions are assessed using Average Variance
Extracted (AVE). The requirement is that this be above 0.5, which indicates that the
variance explained by the latent construct related to its indicator is 50% and above (Hair
et al., 2011). In discriminant validity, on the other hand, the Average Variance
Extraction (AVE) of each construct should be greater than the highest squared
correlation of the latent construct in the model. Indicator loadings should be greater than
all of its cross-loadings (Hair et al., 2011). Lastly, reliability can be measured in either
of two approaches. In the first approach, reliability can be measured through Cronbach's
alpha or composite reliability. The cut-off point of internal consistency should be greater
than 0.7 using Cronbach's alpha and composite reliability. However, in cases in which

the research is exploratory in nature an indicator ranging from 0.6 to 0.7 is acceptable, and an indicator loading higher than 0.7 is required (Hair et al., 2011).

3.7.6.2 Structural Model Evaluation

Structural models are usually evaluated using four assessments. These assessments are: a) assessment of the significance of path coefficients through bootstrapping process, b) assessment of R^2 values, c) assessment of the model's predictive relevance and d) assessment of the effect size of each of the independent variables to the latent variables.

a) Path coefficient: To assess the path coefficient in PLS-SEM bootstrapping is normally used in assessing the significance of the path coefficients. The minimum number of the bootstrapping sample is 500 to 5000 while the number of cases should be same as the number of observations. Additionally, the critical value for path coefficients relating to t- values for two-tailed test are 1.65, 1.96 and 2.58 at 10%, 5% and 1% significance levels respectively (Hair et al., 2011).

b) R-square: R square or R^2 is an important assumption in the predictive ability of the structural model. A R^2 value indicates the total variation in the latent dependent variable explained by independent variables (Saad, 2011). R^2 usually can be assessed in two ways. The first way is the effect of the independent variable(s) on the dependent variable(s), and the second way is on the endogenous latent variables in the structural model. Regarding the effect of the independent variable on the dependent variable, values ranging from 0.02, 0.15 and 0.35 are categorized as small, medium, and large effect respectively (Cohen, 1988). Additionally, on the effect of endogenous latent

variables, values of 0.25, 0.50 and 0.75 categorized as weak, moderate, and substantial respectively (Hair et al., 2011).

c) Predictive Relevance: This is the method of evaluating a structural model through the assessment of the model's capability to predict. Geisser's Q2 is the most popularly known way of predictive relevance, which normally proposes that the model must be able to predict each of the indicators of the endogenous construct (Hair et al., 2011). A Q2 value above zero highlights that exogenous variables have a predictive relevance for the endogenous variable under consideration.

d) Assessment of Effect Size: This assessment relates to the extent to which all the independent variables contribute independently towards the explanation of the dependent variables. This is assessed using *f2*. According to Cohen (1988) *f2s* of 0.2, 0.15, and 0.35 are considered small, medium and large respectively.

3.8 Summary of the Chapter

The chapter illustrates and describes the research design adopted to achieve the objectives of this study. Moreover, populations of the study, sampling technique, sample size, data collections procedures, the pilot study conducted, variables measurement and statistical methods of data analysis were discussed in the chapter.

CHAPTER FOUR

RESEARCH FINDINGS

4.1 Introduction

This chapter presents the overall results and findings of this study. Three different analyses were conducted in achieving the research objectives. Preliminary analysis was conducted using SPSS for treatment of missing value, outliers, the normality test and the multicollinearity test. Factor analysis was conducted to identify the dimensions accepted in Nigeria., which was the first objective of the study. The third analysis were conducted using Partial Least Square (PLS), which was used to achieve the second, third and fourth objectives of this study. These objectives examined the relationship between fairness perceptions and voluntary tax compliance, trust in government and voluntary tax compliance and trust as moderating variable between fairness perception and voluntary tax compliance respectively.

4.2 Response Rate

Four hundred and fifty questionnaires (450) were distributed to respondents during the period from 3 March 2017 to 21 March 2017. Afterwards 243 questionnaires were collected and analysed. Table 4.1 below shows the response rate of the study. Of the 249 questionnaires returned, 243 representing 54% of the total sample size were valid and usable. While 6 questionnaires approximately 1.3% of the questionnaires distributed were not included in the analysis as they were incomplete or incorrectly filled in by the

respondents. Some potential respondents did not answer questions that be against their

organizational policies.

Table 4.1
Summary of Survey Response

Description	Number of Questionnaires	% Total
Questionnaires Distributed	450	100.0
Returned Questionnaires	249	55.3
Invalid Questionnaires	6	1.3
Usable Questionnaires	243	54.0

4.3 Background of Respondents

This section describes the respondent's demographic background, which comprised

gender, age, educational background, business type, duration of the business and their

income levels. Table 4.2 shows the demographic information of the respondents.

Table 4.2
Profiles of the Respondents (N 243)

Category	Frequency	%
Gender		
Male	182	74.9
Female	61	25.1
Age Group		
Below 30	73	30
31-40	155	63.8
41-50	10	4.1
51 and above	5	2.1
Educational Background	75	30.9
SSCE/GCE	115	47.3
NCE/ND	37	15.2
BSC/HND	16	6.6
MASTERS/PhD		
Business Type (BT)	102	42.0
Block Molding	44	18.1
Water Factory	17	7.0
Livestock feed sale and milling	80	32.9
Poultry Farm		

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Table 4.2 (Continued)		
Category	Frequency	%
Business Duration (BD)		
Below 10 years	197	81.1
11-20	17	7.0
21-30	16	6.6
31 and above	13	5.3
Annual Income		
Below N1.5M	79	32.5
N1.5-N2M	37	15.2
N2M-N2.5M	61	25.1
Above N2.5M	66	27.2

Table 4.2 above shows the demographic characteristics of the respondents. Of the total 243 respondents, 182 were males (74.9%) and 61 were females (25.1%), and four age groups were present in this study. The age group between 31 to 40 years had the highest number of responses with 155 representing 63.8% of the total, followed by below 30 years with 73 respondents representing 30.0%, followed by 41 to 50 years representing 4.1% and finally 51 years and above with 5 respondents representing 2.1%. This clearly indicated that most respondents of this study were young, falling in the 30 to 40-year range.

Regarding educational qualifications the respondents of this study, National Diploma/National Certificate of Education ND/NCE had 115 respondents representing 47.3% of the responses followed by Senior Secondary Certificate of Education or General Certificate of Education SSCE/GCE with 75 respondents representing 30.9% of the responses, followed by Bachelor of Science or Higher National Diploma Bsc/HND

with 37 respondents representing 15.2% and lastly Master/PhD with 16 respondents representing 6.6%. Thus, the educational qualifications of most respondents of this study fell within NCE/ND, SSCE/GCE with few respondents having a Bsc/HND and or a Masters/PhD.

With respect to the type of business of the respondents, the block moulding business had 102 respondents representing 42% of the total responses, followed by poultry farming with 80 respondents representing 32.9% followed by water factory with 44 respondents representing 18.1% and lastly livestock feed sale and milling with 17 representing 7% of the total responses.

The length that a business was in operation fell into following responses: below 10 years with 197 representing 81.1%, followed by 11 to 20 years with 17 representing 7%, followed by 21 to 30 with 16 representing 6.6% and finally 31 years and above with 13 respondents representing 5.3% of the total valid responses. This highlights that most the respondents worked in enterprises that had been in business for 10 years or less with a few exceeding 10 years in operations.

Regarding the annual income of the respondents below N1.5M with 79 respondents representing 32.5% had the highest number of respondents, followed by above N2.5M with 66 representing 27.2%, followed by N2 to N2.5M with 61 representing 25.1% and lastly N1.5M to N2M with 37 representing 15.2% of the responses.

4.4 Survey Results

Data from the survey were analysed using both SPSS and Partial Least Square (PLS). SPSS was first used to analyse the demographic profile of the 243 respondents, and the data were subjected to response rate analysis, followed by screening and preliminary analysis. Descriptive statistics of all the latent variables were also analysed using SPSS. With respect to PLS path modelling, however, the results were presented in two models: 1) the measurement model and 2) the structural model. Under the measurement model assessment of individual item reliability, internal consistency reliability, discriminate validity and convergent validity and model fit evaluation were presented. For structural model, the significance level of paths coefficient, assessment of the R^2, value, effect sizes, and model predictive relevance were generated.

4.4.1 Data Screening and Preliminary Analysis

Screening of data and its preliminary examination are important to determine if the data set meets the requirements necessary for multivariate analysis. Additionally, such analysis increases the researchers understanding of whether the assumptions of multivariate data analysis have been violated (Hair, Money, Samouel & Page 2007). Moreover, conducting this type of analysis enables the researcher to get a good grasp of the extent of data fitness for the intended analysis.

Hair, Babin, Black, and Anderson (2010) argued that data screening and preliminary analysis comprise four issues. The four issues are: 1) identification and treatment of missing values, 2) identification and treatment of outliers, 3) normality, and 4) multicollinearity. The four identified categories of analysis have been followed in the

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screening and preliminary analysis of the data. However, before the commencement of data screening, the 243 usable responses were entered and coded in to SPSS software. Frequencies were tabulated for maximum and minimum values to determine if there were outliers or abnormalities. The results of this exercise show that no items with values outside the scale or categorical range were labelled as such in SPSS.

4.4.2 Identification and Treatment of Missing values

The study had 6318 data points, which was computed as 26 items (excluding categorical items) multiplied by 243 cases. Of this total, 7 data points were missed, which amounted to about .11% of the total data points calculated above. Exchange Fairness 3 had 2 missing data points, General Fairness 2 had 2 missing data points and Horizontal Fairness 3 had 3 missing data points. Thus, all the missing data were contained in the main variable of this study which was fairness perception. No missing values were found for other variables.

Researchers are of the opinion that missing values of 5% of the total or less should be considered to be insignificant (Tabachnick & Fidell, 2007). One of the most common ways to deal with missing values of less than 5% is the mean replacement of a nearby point (Tabachnick & Fidell, 2007). Looking at the above recommendation all the missing values were replaced with the series mean using SPSS, and the output of missing values replacement is contained in Appendix A. Table 4.3 below presents the variables and their respective missing values.

Table 4.3
Missing Values Analysis

Variables	No of Missing Values
Fairness Perception	7
Trust	0
Voluntary Tax Compliance	0
Total Missing	7
Total data point	6,318
Percentage Missed	.11%

4.4.3 Identification and Treatment of Outliers

Outliers are defined as a data point with a value that is highly different from the rest of the data base for some measure (Aggarwal & Yu, 2001). The appearance of outliers within a data set might cause arbitrary distortion of t values for estimators, which, in turn, may cause the result to be meaningless for practical application. To examine for the presence of this problematic syndrome, the data were examined for univariate and multivariable outliers. However, no outliers were found in this study.

4.4.4 Normality Test

Normality is a relevant assumption of multivariate analysis (Tabachnick & Fidell, 2007). An initial assumption on PLS has been that PLS can generate accurate statistical estimates even in a highly non-normal data set (Cassel, et al., 1999; Wetzels, Odekerken-Schroder & Van Oppen, 2009). In recent times, the initial assumptions with respect to PLS have been gradually relaxed, however, debate among scholars has led to the conclusion that bootstrapped standard error can be inflated by extremely skewed and kurtotic data (Chernick, 2011; Hair, et al., 2013). Invariably, this may affect the statistical estimation of the path-coefficients (Ringle, Sarastedt, & Straub, 2012).

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Thus, the recommendation has been made that researchers who use PLS should conduct normality tests (Hair, Sarstedt, Ringle, & Mena, 2012). Hair et al. (2013) said that normality tests using the Kalmogorov-Smimov test and the Shapiro-Wilk test provide limited guidance on whether data is normally distributed. The recommendation on normality of data rests with skewness and kurtosis is that they should be within the thresholds of ±2 for the skewness and ±7 for the kurtosis (Hair et al., 2010, Tabachnick & Fidel, 2007)

Therefore, in line with the current trend in using of PLS path modelling, normality tests were conducted using skewness and kurtosis so as to improve the statistical accuracy of path coefficients estimations. The results of skewness and kurtosis for the normality test are contained in Appendix B, and the skewness and kurtosis of all the observed variables were less than 2 and less than 7 respectively. Thus, the data satisfied the normality assumptions as presently required in PLS path modelling.

Additionally, argument persists that it is preferable to test normality using both visual and statistical methods (Ghasemi & Zahediasl, 2012). Based on Ghasemi and Zahedias's (2012) recommendation, skewness and kurtosis as well as normality of data are now assessed using visual methods. Thus, normal probability plot is used to ensure that the complete dataset does not violate the normality assumption. The histogram and P-P plot below provide a visual presentation of the normality of data, which, by inspection, indicates that the data did not violate the assumption of normality.

The homoscedasticity test refers to the assumption of normality, in which the data appear to be normal. At this point, the relationship between latent variables is assumed to be homoscedastic; in other words, heteroscedasticity is absent (Tabachnick & Fidell, 2007). Additionally, the two-variants of normality were confirmed in this study; they are univariate and multivariate normality. Thus, the homoscedasticity assumption in this study has been achieved.
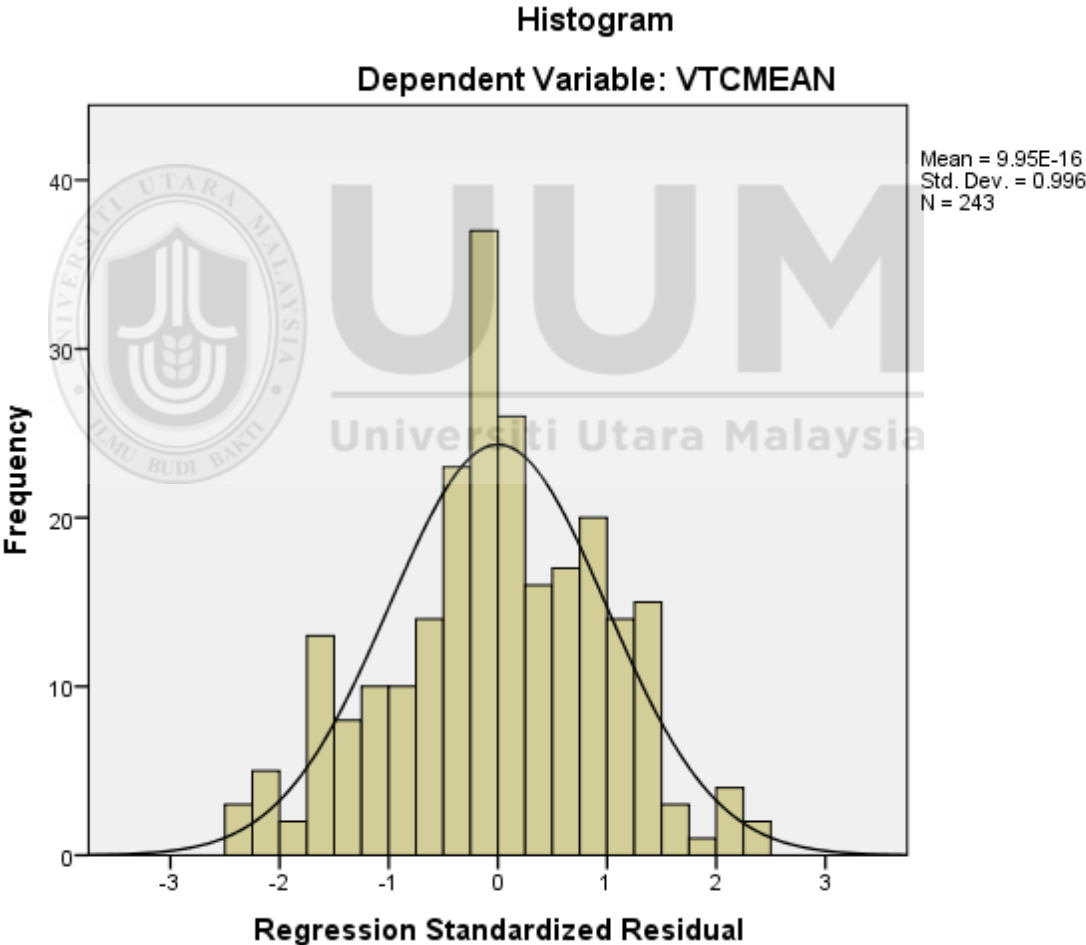
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: VTCMEAN
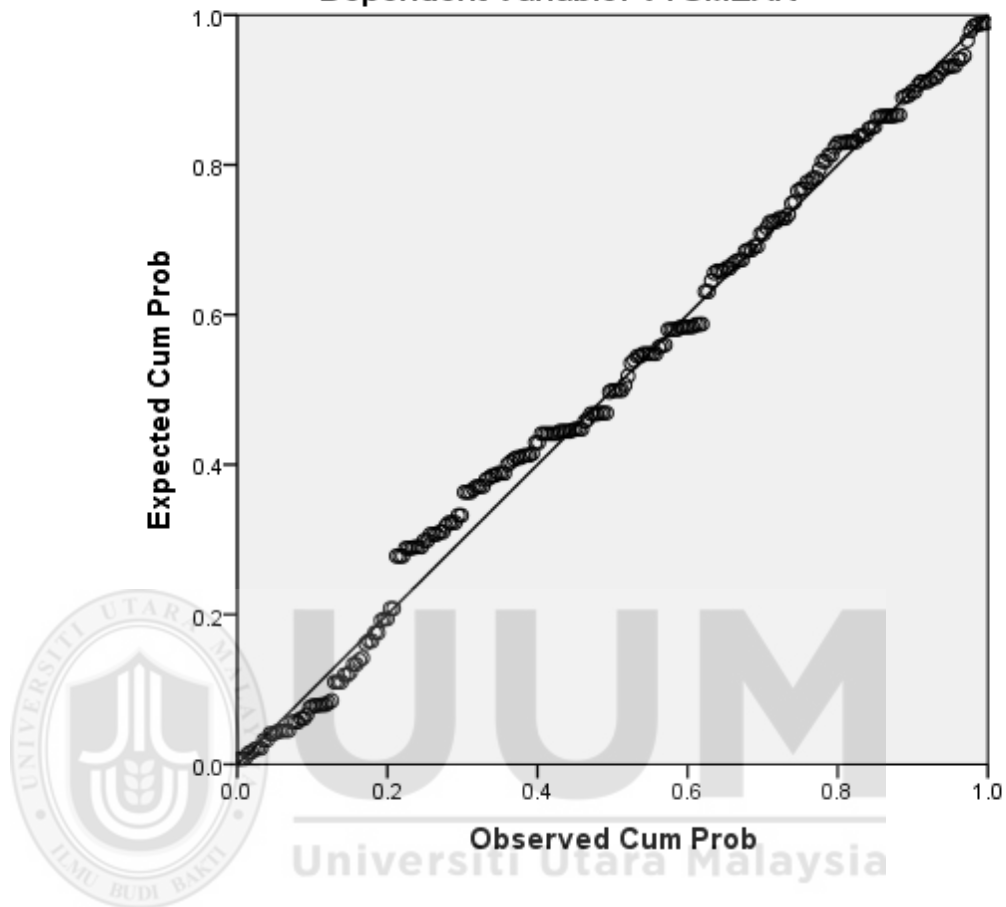
4.4.5 Multicollinearity Test

Multicollinearity refers to the way in which two or more exogenous variables have a high level of correlation (Tabachnick & Fidell, 2007). The essence of this particular test is to identify whether the latent variables are saying the same thing in a given research model. Using PLS tolerance and Variance Inflation Factor (VIF) happen to be the most two common methods being used in determining the normality of latent variables in a given model (Hair et al., 2013). VIF is defined as the reciprocal of tolerance while tolerance is defined as the variance of one exogenous variable not explained by other

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exogenous variable in a given model (Hair et al 2013). A tolerance value of .20 or below

and a VIF of 5 and above signifies problems of multicollinearity. Table 4.4 shows the

results of multicollinearity using tolerance and VIF values.

Table 4.4
Multicollinearity Test using Tolerance and VIF

Collinearity Statistics		
Exogenous Variables	**Tolerance**	**VIF**
Fairness Perception	.993	1.007
Trust	.993	1.007

Based on the above table 4.4, the tolerance and VIF values show no multicollinearity

among the independent variables. Both the tolerance values are more than the minimum

threshold of .20, and the VIF values are less than the threshold of 5 as Hair et al. (2013)

suggested.

4.4.6 Descriptive Analysis of the Latent Variable

This section described the descriptive statistics of latent variables, which include

voluntary tax compliance, fairness perception and trust. The measurement of all the

variables were based on a 5-point Likert-type scale with potential responses ranging

from 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 agree = and 5 = strongly agree.

The minimum and maximum scores, means and standard deviations were computed

using the Statistical Package for Social Science (SPSS) version 23 and are presented in

Table 4.5

Table 4.5
Descriptive Statistics for the Latent Variables (N 243)

Items Code	Minimum	Maximum	Mean	S D
VTC1	1	5	2.89	1.228
VTC2	1	5	2.95	1.247
VTC3	1	5	2.91	1.228
VTC4	1	5	2.98	1.223
VTC5	1	5	2.95	1.237
VTC6	1	5	2.96	1.222
TRUST1	1	5	3.44	0.966
TRUST2	1	5	3.39	0.918
TRUST3	1	5	3.45	0.963
GF1	1	5	2.77	1.257
GF2	1	5	3.21	1.168
GF3	1	5	3.01	1.223
EF1	1	5	2.98	1.323
EF2	1	5	2.79	1.249
EF3	1	5	3.22	1.157
HF1	1	5	3.03	1.211
HF2	1	5	2.98	1.327
HF3	1	5	3.21	1.178
VF1	1	5	2.73	1.188
VF2	1	5	2.89	1.298
VF3	1	5	3.21	1.169
PF1	1	5	3.04	1.205
PF2	1	5	2.95	1.309
PF3	1	5	2.76	1.213
AF1	1	5	2.94	1.273
AF2	1	5	2.74	1.205

Table 4.5 shows that the view of the respondents relating to voluntary tax compliance in Nigeria had mean scores ranging from 2.89 to 2.98 and standard deviations ranging from 1.222 to 1.247. This shows that the respondents had a moderate level of agreement with voluntary tax compliance by Nigerian citizens. Because the standard deviation was not far away from the mean, the dispersion is said to be moderate; thus, the stability of the respondents is not questionable. The descriptive statistics of trust had mean scores ranging from 3.39 to 3.45 and standard deviations ranging from .918 to .966. These indicate respondents' agreement that trust in authority can influence voluntary tax compliance in Nigeria.

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Table 4.5 above shows that the mean score of fairness perceptions ranged from 2.73 to 3.22 and standard deviations ranged from 1.157 to 1.323. This indicated the moderate agreement of respondents on the fairness perception of the tax system in Nigeria. Because the standard deviation is not far away from the mean, the dispersion is said to be moderate; thus, the stability of the respondents is not questionable.

4.5 Factor Analysis

Exploratory factor analysis was conducted in this study to determine the appropriate dimensions that are accepted in the context of Nigeria and to answer the first research questions of this study as well as achieving the first objective of this study. Of the six dimensions of fairness perception examined in this study, four dimensions appear to be accepted based on the factor analysis test using SPSS for Principal Component Analysis, Varimax Rotation and Rotated Component Matrix. (See Appendix B). The results of the factor loading analysis show a Kaiser-Meryer-Olkin (KMO) of .847, which is considered acceptable (Field, 2005; & Awais, Chee & Veera 2012). Awais et al., (2012) stated that, when a KMO value of factor analysis is greater than 0.60, this signifies that the sample is good enough for factor analysis, Moreover, the Bartlett's test had a significance value of .000, which indicates consistency between items (See appendix B). The two dimensions rejected was General Fairness and Administrative Fairness while the four dimensions accepted was Exchange Fairness, Horizontal Fairness, Vertical Fairness and Personal Fairness. See Table 4.6 below.

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Table 4.6
Rotated Component Matrix

Fairness Dimensions		1	2	3	4
Exchange Fairness	EF1	.894			
	EF2	.898			
	EF3	.872			
	EF4	.878			
	EF5	.910			
Horizontal Fairness	HF1		.849		
	HF2		.858		
	HF3		.818		
	HF4		.833		
	HF5		.860		
Personal Fairness	PF1			.829	
	PF2			.811	
	PF3			.816	
Vertical Fairness	VF1				935
	VF2				.928
	VF3				.931
	VF4				.830

Note: Extraction method: Principal Component Analysis with Verimax Rotation

Table 4.6 above shows the accepted dimensions in the Nigerian context based on the Principal Component Analysis; the dimensions are: 1) exchange fairness, 2) horizontal fairness, 3) personal fairness and 4) vertical fairness. Field (2005) stated that communalities after extraction should be more than 0.5. This criterion indicates that the above dimensions are qualified for the analysis because each of their loadings was above the threshold of 0.5 as Field (2005) stipulated. However, the four dimensions seen above was re- recoded from the initial result obtained in appendix B to come up with the real dimensions accepted in Jigawa State Nigeria.

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4.6 PLS Path Model Results

This section presents the measurement for the structural model of this study as mentioned in Chapter Three, Section 3.7 of this project. The method is a two-step process, and the two results generated from the software will be presented sequentially (Becker, Klein, & Wetzels, 2012; Hair, Hult, Ringle, & Sarstedt, 2014; Sarstedt, Ringle, Smith et al., 2016). Additionally, the assessment of the measurement model examines individual item reliability, internal consistency reliability, ascertaining discriminate validity, ascertaining convergent validity. While the other assessment of structural model includes evaluates the level of R^2, assesses the significance of path coefficients, ascertains predictive relevance, determines the effect size and examines the moderating effect.

4.6.1 Measurement Results for the Model

This section presents the measurement results of the model. These are indicator reliability, internal consistency reliability, convergent validity, discriminant validity, and model fit evaluation (Hair et al., 2011; Henseler et al., 2009; Henseler et al., 2014). The measurement models with a moderator will be presented after removing some items due to low loading. Hair et al. (2011) argued that, for any indicator to be reliable, it must have a loading of at least .7; hence, the need exists for the removal of items that failed to meet the acceptable threshold. See Figure 4.1 below.
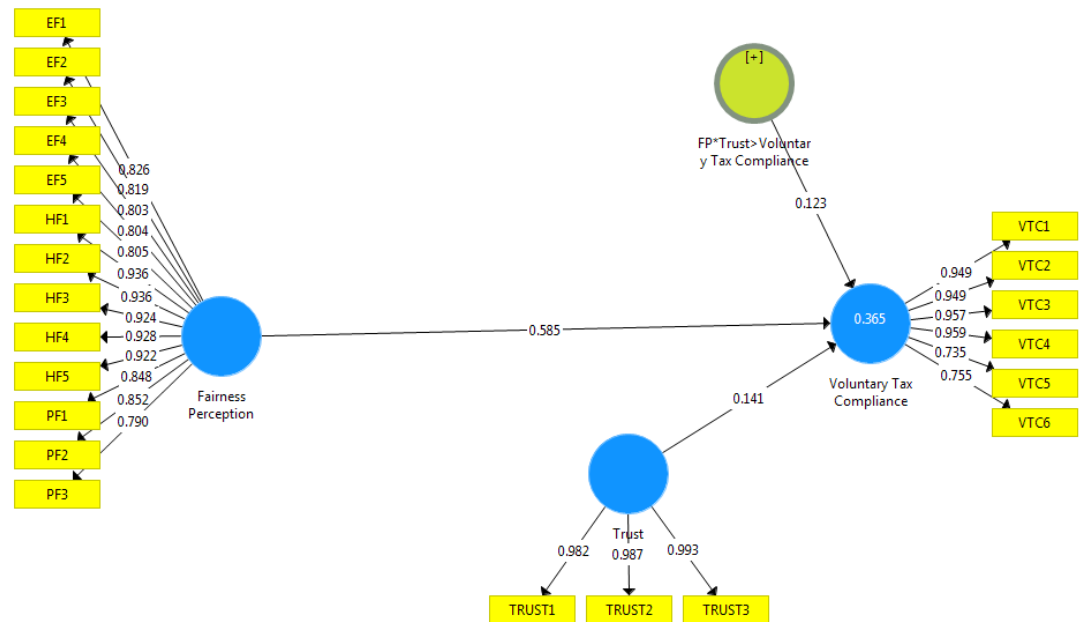
Figure 4.1. Path Analysis of the Model.

4.6.2 Indicator Reliability

The indicator reliability is, however, assessed using outer-loadings of a given construct (Hair et al., 2013). As stated above, some items were deleted due to low loading as they failed to meet the threshold of 0.7 and above as Hair et al. (2011) stipulated. However, Hair et al. (2013) also stated that an indicator with loading as low as .4 could be retained especially if its removal reduces composite reliability. Therefore, based on the criteria employed by the Hair et al. (2011) and that of Hair et al. (2013), the study removed 4 of the 17 items to increase the composite reliability to attain the threshold of .7. Table 4.7 presents the value of the indicators for the model.

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4.6.3 Internal Consistency Reliability

This section describes internal consistency reliability, which measures how well the indicators synergies measure a construct. Popularly well-known measures of internal consistency are Cronbach's alpha and composite reliability (Peterson & Kim, 2013). Most PLS path modelling authors have agreed that composite reliability is a better measure of internal consistency reliability than Cronbach's alpha (Hair et al., 2011; Hair et al., 2013). However, Cronbach's alpha, composite reliability and Average Variance Extracted are used in this study to determine the internal consistency of the constructs. The threshold of composite reliability is either 0.7 by Nunnally (1978) or 0.6 by Hair (2010). According to Hair et al., (2010), the minimum for Cronbach's alpha is 0.60 that is considered weak, 0.7 is considered average, 0.8 is considered good, and 0.9 is considered excellent. According to Hair (2010), the Average Variance Extraction cutoff point is 0.5 Table 4.7 present the results of internal consistency.
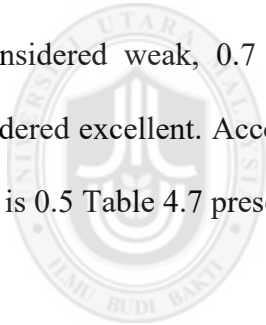
Table 4.7
Indicators, Loading Cronbach's alpha, Composite Reliability and Average Variance Extracted of Latent Variable

Variables	Items	Loading	Cronbach's alpha	Composite Reliability	Average Variance Extracted
Fairness Perception	EF1	.826	.972	.974	.745
	EF2	.819			
	EF3	.803			
	EF4	.804			
	EF5	.805			
	HF1	.936			
	HF2	.936			
	HF3	.924			
	FH4	.928			
	HF5	.922			
	PF1	.848			
	PF2	.852			
	PF3	.790			
Trust	Trust1	.982	.988	.992	.975
	Trust2	.987			
	Trust3	.993			
Voluntary Tax Compliance	VTC1	.949	.945	.957	.791
	VTC2	.949			
	VTC3	.957			
	VTC4	.957			
	VTC5	.735			
	VTC6	.755			

Table 4.7 shows the Cronbach's alpha, composite reliability and Average Variance Extracted of the latent variables for the model. Cronbach's alpha, which ranged between .945 to .988, shows how consistence and reliable the constructs are in the model. Moreover, composite reliability, ranging from .957 to .992, indicated that the construct has strong internal consistency because the values were above the normal threshold of .7. Average Variance Extracted, which ranged from .745 to .975, indicated how strong the construct was in terms of convergent validity.

4.6.4 Discriminant Validity

Discriminate validity is defined as the difference that prevails among the latent constructs (Hair et al., 2011). Duarte and Raposo (2010) described discriminate validity as the way in which a latent construct differentiates itself from other constructs. Discriminate validity can be measured though the use of AVE. This is done by comparing the correlation coefficients of the latent variables and the square roots of the AVE of the same variables (Tenenhaus Amato & Esposito 2004). Where it happens that the square roots of Average Variance Extraction of a latent variable are higher than the correlation coefficients of the variables then discriminate validity is achieved. Table 4.8 below presents the calculation of discriminant validity for the model using Fornell and Larcker's (1981) methods.

Table 4.8
Discriminant Validity for the Model

Latent variables	FP	Trust	VTC
Fairness Perception	**0.863**		
Trust	-0.084	**0.987**	
Voluntary Tax Compliance	0.576	0.095	**0.890**

Table 4.8 shows the discriminate validity of the model using Fornell and Larcker's criterion (1981). The values in bold represents the square root of AVE across the diagonal while the outside diagonals are correlation values between the variables. Hair et al. (2011) stated that discriminate validity can be evaluated by making a comparison between a construct indicator loading and its cross loadings. Hair et al.'s (2011) recommendation means that all indicator loadings should be higher than their cross

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loadings (Chin, 1998). Table 4.9 shows the results of discriminate validity using indicator loadings and cross loading.

Table 4.9
Indicator Loading and Cross Loading for the Model

Indicators	Fairness Perception	Trust	Voluntary Tax Compliance
EF1	**0.826**	-0.040	0.346
EF2	**0.819**	-0.065	0.338
EF3	**0.803**	-0.059	0.369
EF4	**0.804**	-0.078	0.397
EF5	**0.805**	-0.063	0.359
HF1	**0.936**	-0.120	0.591
HF2	**0.936**	-0.113	0.597
HF3	**0.924**	-0.109	0.571
HF4	**0.928**	-0.091	0.564
HF5	**0.922**	-0.121	0.599
PF1	**0.848**	0.004	0.526
PF2	**0.852**	-0.011	0.543
PF3	**0.790**	-0.036	0.450
TRUST1	-0.056	**0.982**	0.073
TRUST2	-0.101	**0.987**	0.113
TRUST3	-0.082	**0.993**	0.089
VTC1	0.530	0.099	**0.949**
VTC2	0.535	0.071	**0.949**
VTC3	0.580	0.119	**0.957**
VTC4	0.538	0.074	**0.959**
VTC5	0.427	0.060	**0.735**
VTC6	0.447	0.081	**0.755**

4.7 Assessment of the Significance of Structural Model

Previous sections presented the measurement model of the research, while at the same time this section assessed the structural model of the research. The research used the standard bootstrapping approach comprising 5000 bootstrap statistical samples and 243 cases on finding the significant path coefficient (Hair et al., 2014; Hair et al., 2011; Hair et al., 2012; Henseler et al., 2009). However, in accordance with Henseler et al., (2009) and Hair et al., (2011), evaluation of PLS structural model was carried out in five categories, which included evaluation of significance of path coefficients, evaluation of

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R^2, evaluation of effect size, evaluation of predictive relevance and testing of moderating effect.

4.7.1 Assessment of Significance of Path Coefficients

The significance of path coefficients was evaluated via t-statistics and p-values obtained from the structural model of PLS using a 5000-bootstrapped sample (Hair et al., 2011; Precher & Hayes, 2004, 2008). Figure 4.2 and Table 4.10 below present the statistical estimates of path coefficients of structural model.
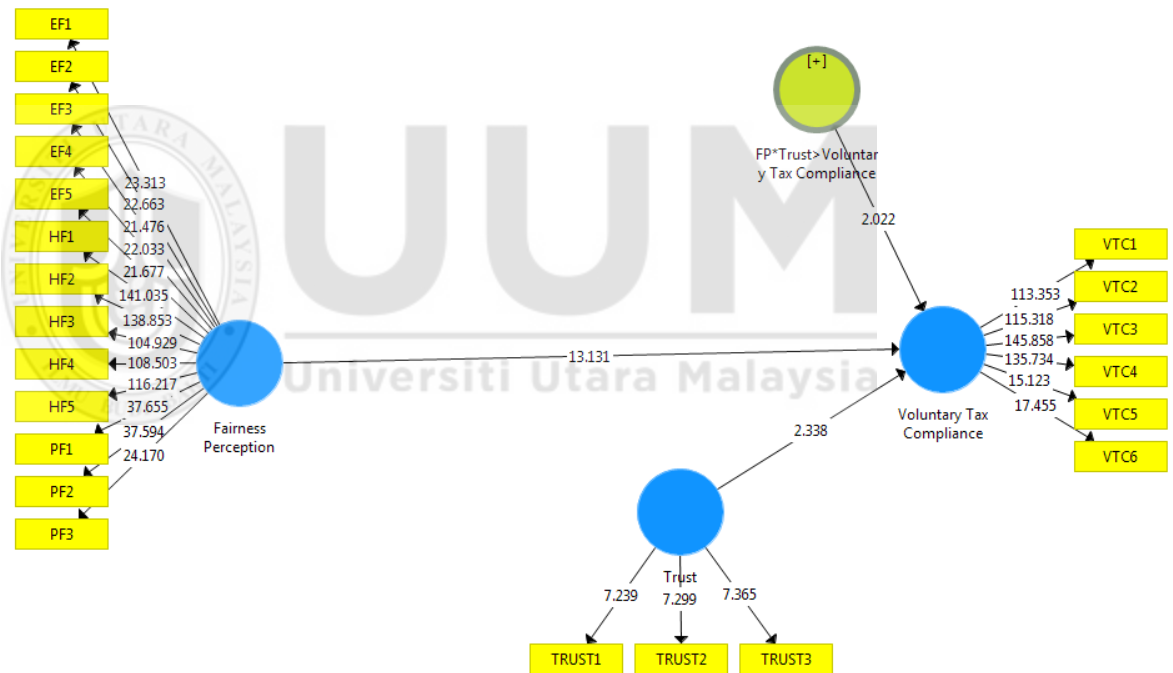

Figure 4.2. Structural Model Direct Effect.

Figure 4.2 above indicates T statistics of the latent constructs of the model which is the most criteria for identifying significance relationship between variables statistically. The higher the T statistics value the more significance the relationship is table 4.10 show significance relations of the direct effect.

Table 4. 10
Structural Model Result Direct Effect

Hypothesis Relationship		Beta	T-Statistic	P-Value	Finding
H2	Fairness Perception -> Voluntary tax Compliance	0.585	13.131	0.000	Supported
H3	Trust -> Voluntary Tax Compliance	0.141	2.338	0.019	Supported

Going by the hypothesis development presented in Chapter Two, the second hypothesis predicted that there would be a positive relationship between fairness perception and voluntary tax compliance; the findings show a significant relationship as seen in the Figure 4.2 and Table 4.10 above. The relationship had a parameter of β 0.585, which postulates that an increase in fairness perception by 1 will lead to the increase of voluntary tax compliance by 0.585 all things being equal. The t-value is 13.131, which indicates that the relationship is statistically significance. This means that sufficient evidence exists to support the established relationship between fairness perception and voluntary tax compliance; the P-value is 0.000. Based on that, this study concluded that hypothesis 2 is supported.

The third hypothesis postulated a positive relationship between trust and voluntary tax compliance. The findings show a positive relationship with β 0.141, which also signifies that an increase in trust by 1 will result in an increase of voluntary tax compliance by .141. The t-statistic is 2.338, which indicates that the relationship is statistically significance, and the P-value is 0.019, which also indicates that sufficient evidence exists to support the third hypothesis.

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4.7.2 Testing the Moderating Effect

To test the moderating effect in PLS path modeling four main approaches are normally used to test the interactions (Henseler & Chin, 2010). This includes: 1) the production indicator approach (Chin, Marcolin, & Newsted, 2003), 2) the two-stage approach (Chin et al., 2003), and 3) the hybrid approach (Wold, 1983) and 4) orthogonal approach (Little, Bovaird, & Widaman, 2006). Where the moderator is formative, the two-stage approach is more appropriate (Chin et al., 2003; Henseler & Fassott, 2010). Based on Chin et al. (2003), Henseler and Chin (2010), and Henseler and Fassott (2010), this current study used the two-stage method in testing the moderating effect. The result of the moderating effect is presented in Figure 4.3 and Table 4.11 below.
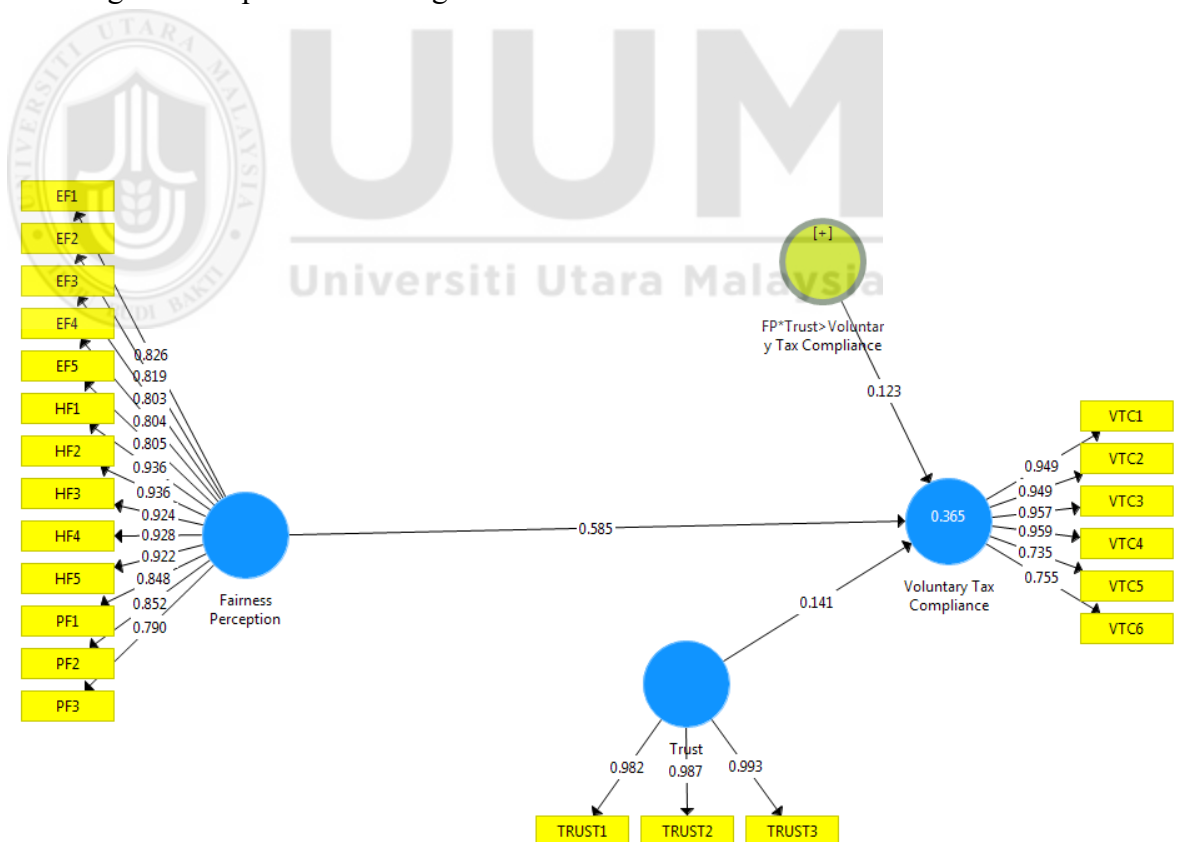

Figure 4.3. Structural model indirect effects.

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Table 4.11
Structural Model Evaluation Indirect Effect

Hypothesis Relationship		Beta	T-statistic	P-Value	Finding
H3	Fairness Perception* Trust -> Voluntary Tax Compliance	0.123	2.022	0.043	Supported

The study hypothesized that trust can moderate the relationship between fairness perception and voluntary tax compliance, the results presented in Figure 4.3 and Table 4.11 revealed the interaction effect (β 0.123, t-statistic = 2.022 and the p value of 0.043) was significant using the two-tailed method at the 5% level of significance. Therefore, the result supported the hypothesis.

4.7.3 Assessment of Variance explained in the Endogenous Latent Variables

To assess the structural model of PLS SEM, the R^2 value is a popular way to assess the measurement of model fitness (Hair et al., 2011). The R^2 value is a proportion of statistical variation of the dependent variables that is accounted for by the predictor variable of the study (Hair et al., 2014). Hair, Sarstedt, Hopkins, and Kuppelwieser (2014) stated that the R^2 value should be at least 0.10 for a good model. Moreover, R^2 of 0.26 of above is considered substantial, 0.13 is considered moderate and 0.02 is considered weak (Cohen, 1988). This guideline indicates that the R^2 of this study is substantial indicating the power of the independent variable in explaining the dependent variable. The independent variable accounts for about 0.365, which is above the substantial cutoff point of 0.26 as Cohen (1988) stipulated. See Table 4.12 below.

Table 4.12
Variance Explained by the Latent Variable

Latent Variable	Variance Explained (R^2)
Voluntary tax compliance	*0. 365*

This is to say that the one independent variable fairness perception accounted for 36.5% of all the variation in voluntary tax compliance. Therefore, the endogenous latent variable of the research has achieved a substantial level of R^2 (Cohen, 1988).

4.8 Summary

The chapter explained the relationship between the variables under consideration using PLS-SEM and SPSS to test the relationships. The study was conducted using a theoretical model. The path coefficient was determined together with its significance, which is presented as a major finding of the study. Fairness perception as a multidimensional construct has been proved in this chapter through the employment of factor analysis, which indicated the type of dimensions accepted in the Nigerian context. These comprised exchange fairness, horizontal fairness and personal fairness. The results obtained revealed a positive and significant relationship between fairness perception and voluntary tax compliance and between trust in authority and voluntary tax compliance and finally trust moderates the relationship between fairness perception and voluntary tax compliance.

CHAPTER FIVE

DISCUSSION, CONTRIBUTIONS, CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the research findings of the study, research implication and limitations. The conclusion and recommendation on voluntary tax compliance are also presented.

5.2 Discussion

As supported by the equity theory thus, four hypotheses were formulated as discussed in Chapter Two. The first hypothesis was developed to determine the dimensions that are relevant and accepted in the Nigerian context. Meanwhile, the second and the third hypotheses were formulated to examine the direct relationship, if any, between fairness perceptions, trust in government and voluntary tax compliance among taxpayers in Nigeria specifically Jigawa state. Finally, the fourth hypothesis was concerned with the moderating role of trust on the relationship between fairness perceptions and voluntary tax compliance among taxpayers in Nigeria.

The hypotheses that addressed the four objectives of this study were tested and addressed the objectives of this study as stated in Chapter One. The results base on each hypothesis of the study as detailed below.

5.2.1 Fairness Perceptions on Income Tax

The first hypothesis of this study which postulates that SMEs taxpayers in Jigawa State perceive the fairness of the income tax system as multidimensional was addressed using factor analysis. The multidimensional examination was based on six dimensions articulated in the reviewed literature. The study conducting factor analysis with the aim of identifying the type of dimensions accepted in Nigeria, The dimensions examined were: 1) administrative fairness, 2) exchange fairness, 3) general fairness, 4) horizontal fairness, 5) personal fairness and 6) vertical fairness.

The study found that four of the six dimensions were accepted in Nigeria among the respondents surveyed. This means that the fairness dimensions accepted in Nigeria based on the factor analysis results were: 1) exchange fairness, 2) horizontal fairness, 3) personal fairness and 4) vertical fairness. This result was consistent with the findings of other scholars who found that not all dimensions of fairness were accepted in all countries. For example, Gerbing (1988) found that five dimensions of tax fairness were accepted in the United States. Moreover, Richardson (2006) found eight dimensions of tax fairness perception were accepted in Hong Kong, and Saad (2009; 2011) found that seven dimensions of tax fairness were accepted in Malaysia. In a related study, Mustapha (2010) found five dimensions of tax fairness were accepted in Nigeria prior to the amendment of Personal Income Tax. Gberegbe et al., found exchange with government and self-interest to be accepted in Ken saro Wiwa Bori Rivers States Nigeria. However, as discussed earlier the study of Mustapha (2010) was conducted before the amendment of Personal Income Tax Act of 2011. While that of Gberegbe et

al (2015) and Muhammad and Dabor (2016) were conducted after the amendment of the Personal Income Tax Act of 2011. Mustapha study tested five tax fairness dimensions and two were significantly accepted. Though Gberegbe et al and Muhammad and Dabor study was conducted after the amendment, only few dimensions was tested in which Muhammad and Dabor found negative result with one of the dimensions (tax rate), while Gberegbe et al found positive relationship between fairness perception and exchange with government. The emphasis here is the fact that those three studies were carried out in different region within the country. Nigeria has over 250 ethnic's language on which each region might have different view and perceptions on certain phenomenon hence the acceptance or rejection of one dimension and another.

In this current study that examines perceptions of tax fairness after the amendment of Personal Income Tax Act of 2011, four dimensions were found to be accepted in Jigawa State Nigeria. Additionally, the two dimensions that were dropped by the factor analysis can be attributed to the perception of general fairness of tax among taxpayers in Jigawa State Nigeria. Frequent change of policies and government coupled with political instability in Nigerian society rendered general and administrative fairness irrelevant as perceived by the taxpayers. The recent political revolution in Nigeria which experience strength turnaround in the country leading to the change in government that resulted to the rejection of administrative fairness and general fairness in Jigawa State Nigeria, more so these two dimensions might be accepted in other part of the country.

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5.2.2 The Relationship between Fairness Perception and Voluntary Tax Compliance

The second hypothesis of this study which posited that there is relationship would exist between fairness perception and voluntary tax compliance was supported. Equity theory, which advocates fair treatment among taxpayers, fit the model and the data well. Specifically, the hypothesis postulated that fairness perception can influence voluntary tax compliance. This hypothesis was supported, and this finding is consistence with Mukasa (2011) who found a significance and positive relationship between tax compliance and fairness perceptions. Additionally, Roberts (1994) found that fairness perception increased tax compliance. Moreover, Gilligan and Richardson (2005) found a positive relationship between fairness perception and tax compliance.

The tax system in Nigeria is a legalized system in the sense that all tax activities are regulated by the law. However, even though the force of law regulated how citizens should pay their taxes, Nigerian citizens, specifically in Jigawa state, perceived the current tax system as fair especially considering the recent amendments of the personal income tax act of 2011. This amended law provides incentive to the taxpayers thereby encouraging them to perceive the tax system as fair, which enables them to comply with the law with an open mind.

5.2.3 The Relationship between Trust in Government and Voluntary Tax Compliance

The third hypothesis on the relationship between trust in authority and voluntary tax compliance was also supported. The hypothesis stated that a relationship would exist

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between trust in authority and voluntary tax compliance. The support of this relationship provides proof of the equity theory, which advocates fair treatment between, for example, tax authorities and taxpayers. The findings of this study are consistence with those of Kirchler et al. (2010), which found that trust increased voluntary tax compliance. Additionally, Kastlunger et al., (2013) found that trust in authority significantly influences the voluntary compliance of taxpayers.

The practical explanation of this finding is the fact that the Jigawa States taxpayers trust in authority is indeed a positive one, as respondents agreed that the present government acts fairly towards their citizens and the present governmental institutions act in the interests of citizens.

5.2.4 The Moderating Role of Trust between Fairness Perceptions and Voluntary Tax Compliance

The fourth hypothesis, which postulates that trust can moderate the relationship between fairness perception and voluntary tax compliance, was also supported. As revealed by the extant literature, inconsistence findings with respect to the relationship, a moderating variable can be introduced to examine the relationship. Based on the literature reviewed in Chapter Two of this study, trust in authority was choosing to moderate the relationship between fairness perception and voluntary tax compliance. The findings of this current that supported this notion are supported Kirchler et al. (2007) who found that trust is a proactive action that creates a more favorable posture on voluntary tax compliance.

The practical explanation of this finding is related to the fact that Nigerians citizens, specifically Jigawa State taxpayers, trust the present government because of the belief that they have in the present administration. Most taxpayers express their happiness and willingness to comply to tax authority because of the belief that taxpayers' money will be spent judiciously. Mostly, taxpayers expressed dissatisfaction with the way in which the previous administration handled taxpayer's money without proper accountability.

5.3 Contributions of this Study

The study adds to the existing body of knowledge and the literature of fairness perception and voluntary tax compliance. Other researchers, policy makers, government as a whole, and taxpayers could derive benefits from this study. The study will enhance a better understanding of how fairness perception and trust in authority can influence voluntary tax compliance and can expand the available literature in the area of tax compliance. Additionally, the results obtained support the notion that trust and fairness have a positive relationship with tax compliance. Moreover, the present study discovered four dimensions which are different from the findings of previous study. Finally, the model serves as road map for the development of additional complex model in tax compliance.

5.4 Conclusions

Voluntary taxes have a great impact on the economic growth of a country. Where citizens perceived fair treatment from their government/tax authority the result is voluntary payment of taxes. The idea behind this combination is for the Nigerian government to understand how important fair treatment is in generating massive

amounts of revenue, which could be used to improve wellbeing of the citizens through the effective utilization of the revenue generated. Based on the results obtained from this study the fairness perception has a strong relationship with voluntary tax compliance in the Nigerian context. Subsequently, Nigerian citizens also believed that, based on trust they have in the present government, they can voluntarily and willingly pay their taxes without any coercion.

5.5 Limitation of the Study

The study has several limitations. Among them was the time given to gather the data. The researcher together with the research assistances tried as much as possible to distribute the questionnaires and get responses within three weeks. The sample size seems to be small given the number of micro enterprises in Jigawa state; however, the sample was drawn using Krejcie and Morgan's (1970) guidelines. The population was oversampled to improve the number of responses thereby overcoming the limitation of the sample size. Finally, only few variables were included.

5.6 **Recommendations**

Based on the results and conclusions the following recommendations are made.

First, the government of Nigeria should create strong policies that will require a frequent review of the nation's tax policies to improve the fairness from the point of view of tax administrators there by increasing confidence of taxpayers, which can result in increased voluntary payment of taxes.

Second, the Nigerian government should provide a simple platform, which is convenient for taxpayers with respect to tax payment. Many taxpayers who are willing to

voluntarily comply complain of the difficult in paying those taxes. Thus, the government should provide a convenient way of paying relevant taxes by creating an environment to increase voluntary compliance.

Third, although Nigerian citizens trust the present government to some level, it is also advisable that the government should improve the provision of social amenities to rural areas. This will encourage taxpayers in those areas to trust the government more and voluntarily pay their taxes in return.

Fourth, the Nigerian Government should create sensitization programs via various media platforms to remind the citizens of how important tax payment is to the government. The logic is that a citizen will put in the back of his mind that he has a duty to discharge, which is the payment of tax. They will also be reminded that, only when they discharge such a responsibility, will the government be able to provide essential services for the betterment of the citizens.

5.5 Suggestions for future research

This study was the first empirical study that examined the relationship between fairness perception and voluntary tax compliance and how trust in authority moderates the relationship between fairness perception and voluntary tax compliance not only in Jigawa State, Nigeria, but across Africa. Therefore, a need exists for other researchers to conduct similar studies in other contexts using the same model to see if the results are the same or different. Other studies can add other variables such as corruption perception, personal interest, tax rate, educational level, social influence, culture, norms

and attitudes to see whether such variables can influence increased voluntary tax compliance.

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Appendix A Questionnaire

Survey Questionnaire

Dear Respondent,

I am conducting a research on *FAIRNESS PERCEPTION ON INCOME TAX VOLUNTARY COMPLIANCE AMONG OWNERS OF MICRO ENTERPRISE IN JIGAWA STATE NIGERIA: THE MODERATING ROLE OF TRUST*

Therefore, I am pleased to inform you that you have been chosen to participate in this survey.

Please be advised that there is no right or wrong answer, only your views and opinions on each of the statements are required. Your responses are highly critical in achieving the objectives of this study. I assure you that confidentiality of your answer and the data collected will be used only for the purpose of this study. Please answer all questions.

In case you may require further information regarding this study, please contact me at:

Mr. Abba Ya'u Tel: +2348039749499 or +60103158183 E-mail: abbayau12@gmail.com

Thank you for sparing your precious time.

Yours Sincerely,

Abba Ya'u

Student, M.Sc. International Accounting

University Utara Malaysia.

Section 1: DEMOGRAPHIC DATA: Respondent's profile. Please cross (X) ONE ONLY in the box. Please provide answer to the following;

1: **Gender** Male　　　Female

2: **Age (Years)** below 30　　　31-40　　　41-50　　　51 and above

3. **Qualification** SSCE/GCE　　　ND/NCE　　　HND/BSC　　Masters or PhD

4. **Type of Business**:

a. Block Molding

b. Water Factory

c. Livestock feed sale and milling

d. Poultry farm

e. Rental Service

f. Cement Business

g. Ice Block and frozen food

h. Event planning, cake baking and decoration

5. **How long have you been in this Business?**

Below 10　　　11-20　　　2 1-30　　　　31 and above

6. Your annual income Below N1.5m   N1.5-2M   N2-2.5M   Above N2.5 M

Section 2: VOLUNTARY TAX COMPLIANCE.

Please respond to the following statements by circling the appropriate option:

1-Strongly Disagree (SD),   2-Disagree (D),   3- Neutral (N),   4-Agree (A),

 5-Strongly agree (SA).

1	I feel a moral obligation to pay my tax in Nigeria	SD D N A SA
2	Paying my tax ultimately advantages everyone Overall, I pay my tax in Nigeria with good will	SD D N A SA
3	I think of taxpaying as helping the government of Nigeria do worthwhile things	SD D N A SA
4	I accept responsibility for paying my fair share of tax	SD D N A SA
5	Paying tax is the right things to do	SD D N A SA
6	Paying tax is a responsibility that should be willingly accepted by all citizens of Nigeria	SD D N A SA

Section 3: TRUST IN AUTHORITIES.

Please respond to the following statements by circling the appropriate option:

1-Strongly Disagree (SD),　2-Disagree (D),　3- Neutral (N),　4-Agree (A),　5-Strongly agree (SA).

1	The current governmental authorities in Nigeria act fair towards their citizens	SD	D	N	A	SA
2	Because of new government, In Nigeria the interest of a few are not considered stronger than the interest of the community	SD	D	N	A	SA
3	The governmental institutions of Nigeria act upon their citizens' interest because of the influence of new government.	SD	D	N	A	SA

Section 4: FAIRNESS PERCEPTIONS.

Please respond to the following statements by circling the appropriate option:

1-Strongly Disagree (SD),　2-Disagree (D),　3- Neutral (N),　4-Agree(A), 5-Strongly agree (SA)

1	I believe the government utilizes a reasonable amount of tax revenue to achieve social goals, such as the provision of benefits for low-income families.	SD	D	N	A	SA
2	I believe everyone pays their fair share of income tax under the current income tax systems.	SD	D	N	A	SA
3	I think the government spends too much tax revenue on unnecessary welfare assistance.	SD	D	N	A	SA
4	I received fair value from the government in return for my income tax paid (e.g benefit)	SD	D	N	A	SA
5	It is fair that low income earners received more benefits from the government compared to high-income earners.	SD	D	N	A	SA
6	The income taxes that i have to pay are high considering the benefits I received from the government.	SD	D	N	A	SA
7	It is fair for individuals with similar amount of income to pay a similar amount of income tax	SD	D	N	A	SA
8	I believe it is fair for me to pay a similar share of income tax compare with other taxpayers earning an	SD	D	N	A	SA

equivalent amount of income.

9	It is fair that 'equals before tax are equals after tax'. For example, if a person earning N100,000 before tax pays N20,000 tax, everyone earning N100,000 income before tax should be left with N80,000 after tax.	SD D N A SA
10	It is fair that high-income earners are subject to tax at progressively higher tax rates than middle-income earners.	SD D N A SA
11	It is fair that middle income earners are taxed at a lower rate than high income earners	SD D N A SA
12	The share of the total income taxes paid by high income earners is much and too high	SD D N A SA
13	I believe that I pay my fair share of the tax burden under the current tax system	SD D N A SA
14	Compare to other taxpayers, I pay more than my fair share of income tax.	SD D N A SA
15	Middle income earners pay their fair share of income tax.	SD D N A SA
16	There are a number of ways available to me to correct errors in the calculation of my tax liability , if necessary, at no additional cost	SD D N A SA

| 17 | The administration of the income tax system by the Inland revenue is consistence across years and taxpayers. | SD | D | N | A | SA |

THANK YOU FOR YOUR COOPERATION

Appendixes B Factor analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.847
Bartlett's Test of Sphericity	Approx. Chi-Square	10482.880
	Df	136
	Sig.	.000

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
GF1	.894					
GF2			.935			
GF3		.416		.829		
EF1		.849				
EF2	.898					
EF3			.928			
HF1		.445		.811		
HF2		.858				
HF3			.931			

VF1	.872					
VF2		.818				
VF3			.830			
PF1				.816		
PF2		.833				
PF3	.878					
AF1		.860				
AF2	.910					

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 5 iterations.

Appendix C Skewness and Kurtosis

Statistics

		FAIRNESSMEAN	TRUSTMEAN	VTCMEAN
N	Valid	243	243	243
	Missing	0	0	0
Skewness		-.062	.008	.167
Std. Error of Skewness		.156	.156	.156
Kurtosis		-1.214	-.635	-1.100
Std. Error of Kurtosis		.311	.311	.311