DETERMINANTS OF TAX ADMINISTRATION EFFICIENCY: A STUDY OF BAUCHI STATE, NIGERIA.

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ABSTRACT

This study examines the determinants of tax administration efficiency. Tax is a medium which countries across the globe depend upon so as to carry out the mandate of their citizens. Unfortunately, the Nigerian tax system is faced with challenges, such as loss of revenue through high level of tax defaulters from both the legislative arm of the government and public institutions, corruption and financial irregularities and limited government administrative capability. Tax, as a percentage of the Gross Domestic Product (GDP), contributes only seven percent to the Nigerian economy which is below the minimum benchmark of 15% of low income African countries. Therefore, this study examines the influence of autonomy of the State Board of Internal Revenue (SBIR), use of information and communications technology, public enlightenment, strong auditing practice, motivation and incentives and perceived corruption on tax administration efficiency in Nigeria. A mixed research design was used, and data was collected through survey and interview. A total of 124 questionnaires were collected out of 144 questionnaires that were administered. The data was analysed to answer the research questions. The study revealed that there is a significant relationship between tax administration efficiency and: autonomy of board of internal revenue, information and communications technology and public enlightenment. The study further revealed that there is no significant relationship between tax administration efficiency and strong audit practice and motivation and incentives and perceived corruption. The qualitative findings of this study indicate that reformation and restructuring of the tax system and granting of autonomy can help to boost revenue generation and administration efficiency. The qualitative findings further reveal that autonomy, public enlightenment and use of information and communications technology are some of the determinants of tax administration efficiency. Given the findings from the study, it is recommended that government should put an effective measure in place to collect taxes from tax defaulters across the different groups of the economy.

Key words: tax administration efficiency, autonomy.

ABSTRAK

Kajian ini mengkaji faktor-faktor penentu kecekapan pentadbiran cukai. Cukai adalah medium kebergantungan bagi negara-negara di seluruh dunia untuk menjalankan mandat kepada rakyat masing-masing. Malangnya, sistem cukai Nigeria berhadapan dengan cabaran, seperti kehilangan hasil melalui tahap pembayaran cukai daripada kedua-dua institusi perundangan kerajaan dan institusi awam, rasuah dan penyelewengan kewangan dan keupayaan kerajaan pentadbiran yang terhad. Cukai, sebagai peratusan daripada Keluaran Dalam Negara Kasar (KDNK), menyumbang hanya tujuh peratus kepada ekonomi Nigeria iaitu di bawah tahap minima sebanyak 15% daripada pendapatan negara-negara Afrika. Oleh itu, kajian ini meneliti pengaruh autonomi Lembaga Negeri Hasil Dalam Negeri (SBIR), penggunaan teknologi maklumat dan komunikasi, kesedaran awam, amalan pengauditan, motivasi dan insentif dan rasuah ke atas kecekapan pentadbiran cukai di Nigeria. Satu reka bentuk penyelidikan campuran telah digunakan, dan data dikumpulkan melalui kaji selidik dan temubual. Sebanyak 124 soal selidik telah dikumpul daripada 144 soal selidik yang diedar. Data telah dianalisis untuk menjawab persoalan kajian. Keputusan kajian menunjukkan terdapat hubungan yang signifikan antara kecekapan pentadbiran cukai dan autonomi lembaga hasil, teknologi maklumat dan komunikasi, kesedaran awam dan rasuah. Kajian itu juga mendedahkan bahawa terdapat hubungan yang signifikan antara kecekapan pentadbiran cukai dan amalan audit yang kukuh dan motivasi serta insentif. Penemuan kualitatif kajian juga menunjukkan bahawa reformasi dan penstrukturan semula sistem cukai dan pemberian autonomi boleh membantu meningkatkan penjanaan pendapatan dan kecekapan pentadbiran. Penemuan kajian kualitatif menunjukkan bahawa autonomi, kesedaran awam dan penggunaan teknologi maklumat dan komunikasi adalah sebahagian daripada penentu kecekapan pentadbiran cukai. Oleh itu , kajian ini mencadangkan bahawa kerajaan perlu meletakkan langkah yang berkesan untuk memungut cukai daripada pelbagai kumpulan dengan taraf ekonomi yang berbeza.

Kata kunci: kecekapan pentadbiran cukai, autonomi.

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LIST OF ABBREVIATIONS

ABIR: Autonomy of Board Internal Revenue

CITN: Chartered Institute of Taxation of Nigeria

FCT: Federal Capital Territory

HRMC: Her Revenue’s Majesty and Custom

ICT: Information and Communication Technology

IRS: Internal Revenue Services

KMO: Kaiser-Meyer-Olkin

MAI: Motivation and Incentives

NGO: Non-Governmental Organization

NTP: National Tax Policy

OECD: Organization for Economic Co-operation and Development

OLS: Ordinary Least Square

PAYE: Pay As You Earn

PE: Public Enlightenment

PC: Perceive Corruption

SAP: Strong Audit Practice

SBIR: State Board of Internal Revenue

SPSS: Statistical Package for Social Sciences

TAE: Tax Administration Efficiency

VAT: Value Added Tax

WHT: Withholding Tax

CHAPTER ONE

INTRODUCTION OF THE STUDY

1.1 Introduction

This chapter provides an overview of the study and a summary of some of the key research outcomes. The chapter begins with the background of the study, problem statement, research objectives and research questions, significance and scope of the study. The chapter also provides the foundation for the next chapter.

1.2 Background of the Study

The primary obligation of a government is to ensure well-being of the citizens through development of the country. To achieve this, many governments across the globe face challenges, one of which is revenue generation. According to Thomas (2012), estimated global tax evasion is over USD3 trillion annually. Her Majesty's Revenue and Customs (2012) report on tax evasion shows that defaulters in the United Kingdom (UK), including those operating in the 'underground' economy and those who undertake criminal attacks on the tax system, denied the public purse an estimated £14 billion in 2010 - 2011. Edgar and Feige (2009) found that over USD2 trillion has been estimated to be lost from unreported income in the last decade in the United States (US), mostly by small businesses and employees, resulting in a tax gap ranging from USD430 to USD475 billion per year. He further stated that 18 - 19% of total reportable income is not properly reported to the Internal Revenue Service, and has been an issue of serious concern to the US authorities.

Nigeria is no exception, reporting a loss of revenue every year due to tax evasion. According to Maboja (2013), tax evasion in Nigeria is estimated to cost over 80 billion Naira (N80 billion) monthly to the government, and more than 75% of companies have failed to remit their tax liabilities over the year due to tax administration inefficiency. Similarly, the Federal Inland Revenue reveal that an estimated N3,857 trillion was targeted in 2008, but only N2,793 trillion was realised, i.e., about 72% performance leaving a 28% tax gap, equivalent to N1,064 trillion (Federal Inland Revenue Service (FIRS), 2009). Consistent with this, Micah, Ebere and Asian (2012), also opined that limited government administrative capability has, among others, contributed to this issue of tax evasion.

1.3 Problem Statement

There is a high level of tax default in Nigeria. The current statistics indicate that tax contributes seven percent to Gross Domestic Product (GDP), which is below the threshold of 15% for low income African countries, compared to 22.5% and over 29% for medium income and high income countries, respectively (Okonjo-Iweala, 2013). The Nigerian Minister of Finance, Okonjo-Iweala, further lamented that a seven percent tax contribution to GDP is not enough for strong economic development in Nigeria. The FIRS (2009) revealed that the Nigerian National Petroleum Corporation (NNPC), Nigerian Universities Commission (NUC) other Ministries, Departments and Agencies (MDAs), as well as the National Assembly have not remitted a total of N72 billion for PITA, VAT and Withholding Tax. More recently, it was reported that about 350,000 incorporated companies in Nigeria have not filed their tax returns in recent years, and about N85.2 billion was lost through tax evasion in the automobile industry alone in the last four years (Ngama, 2013).

In response to the issue of non-compliance, various scholars have conducted research studies on tax compliance behavior in Nigeria (James, Ariffin & Idris, 2012; Ojochogwu, & Stephen, 2012; Fagbemi, Uadile & Noah, 2010; Sanni, 2006; and Asada, 2005;). In addition, there are also studies focusing on the tax system in Nigeria. For example, Leitman, Okaro, Porter and Werner (1996) identified inefficient tax administration and collection system, as well as the lack of value received in return for taxpayers' taxation money as factors affecting the tax system in Nigeria. On the same note, Ogbonna (2011) highlighted fraudulent practices and greed, lack of adequate infrastructure, lack of awareness, inefficient tax administration and improper tax planning, monitoring and controlling, as among other key factors affecting the system. In that study, the author examined the burning issues of the Nigerian tax system with analytical emphasis on petroleum profit tax.

From the above studies, it shows that tax administration efficiency is an important element of a good tax system. Unfortunately, not much research has been undertaken to date, except for few. For instance, Abiola and Asiweh (2012) who found the impact of information communication technology (ICT) on tax administration efficiency. Similarly, Sanni (2012) studied multiplicity of taxes in Nigeria and observed that corruption, fraud, extortion, lack of data and overlapping taxes are the elements affecting the efficiency of the administration. On the same note, Micah, Ebere and Umobong (2012) identified non-availability of statistics, inability to prioritize tax effort, poor tax administration and multiplicity of tax, regulatory challenges and corruption as well as complexity of the laws as the major factors affecting the tax administration efficiency in Nigeria. Furthermore, the authors highlighted autonomy, use of ICT, strong audit practice, use of tax money and public awareness may improve the tax administration efficiency. However, it is important to note that this study is conceptual in nature, and therefore, an empirical study is needed to verify the assertion.

Therefore, this research examines the impact of autonomy of the State Board of Internal Revenue (SBIR), use of ICT, public enlightenment, motivation and incentives, strong audit practice and perceived corruption on the tax administration efficiency in Bauchi State. The findings are expected to provide insight on the nature of the problems as well as offer recommendations, by using empirical analysis.

The Bauchi State Internal Revenue (BIR) has been chosen as the study area because virtually all the 36 states in Nigeria with the exception of Kaduna, Katsina, Lagos and Delta states are faced with the problem of tax administration inefficiency (Micah et al., 2012). From this assertion, Bauchi state is among the states that is facing tax administration inefficiency, and therefore selected to represent other states in Nigeria.

1.4 Research Objectives

Generally, this study examines the determinants of tax administration efficiency. Specifically, this study seeks to answer the following research objectives:

1. To examine the relationship between autonomy of the board of internal revenue and tax administration efficiency.
2. To examine the relationship between the use of information and communications technology (ICT) and tax administration efficiency.
3. To examine the relationship between strong audit practice and tax administration efficiency.

4. To examine the relationship between public enlightenment and tax administration efficiency.
5. To examine the relationship between motivation and incentives and tax administration efficiency.
6. To examine the relationship between perceived corruption and tax administration efficiency.

1.5 Research Questions

The following research questions are expected to be answered at the end of this research study:

1. What is the relationship between autonomy of board of internal revenue and tax administration efficiency?
2. What is the relationship between use of ICT and tax administration efficiency?
3. What is the relationship between strong audit practice and tax administration efficiency?
4. What is the relationship between public enlightenment and tax administration efficiency?
5. What is the relationship between motivation and incentives and tax administration efficiency?
6. What is the relationship between perceived corruption and tax administration efficiency?

1.6 Significance of the Study

This study takes into consideration the objectives of the BIR, i.e., to make Bauchi state financially sound through revenue generation and to raise the revenue base of the state, through the provision of quality and accountable services to taxpayers. The findings of the research will not only provide the detailed understanding of the factors that determine tax administration efficiency but also assist the BIR in developing the relevant strategies to facilitate and help in revenue generation. For example, if the ICT appears to be an important determinant of tax administration efficiency, the BIR should be investing in this aspect in order to achieve its organizational objectives. Similarly, the strong audit practice should be implemented if it is found to have positive effect on tax administration efficiency.

Taking into account of the research gap in the previous studies on tax administration efficiency (Micah et al., 2012; Abiola & Asiweh, 2012), this study contributes to tax administration efficiency literature by incorporating six factors that could influence tax administration efficiency in a single model. The factors are the autonomy of the board, use of ICT, public enlightenment, motivation and incentives, strong audit practice and perceived corruption. The study may contribute not only to Bauchi state but Nigeria as a whole, thereby enabling comparison between the tax system in Nigeria and other developing counties. The findings of this study will also be of significant importance to other researchers who wish to study a similar area. Overall, the study will contribute to the existing body of knowledge.

1.7 Scope of the Study

The scope of this research work is the Bauchi State Board of Internal Revenue and its staff within the Bauchi Metropolis, Nigeria. The study considers only six factors that may influence the tax administration efficiency as highlighted in the previous literature (e.g. Micah et al., 2012; Abiola & Asiweh, 2012). These factors comprise of autonomy of the board, use of ICT, public enlightenment, strong audit practice, perceived corruption and motivation and incentives.

The choice of tax administration efficiency as the area of research is influenced by the fact that tax administrators in Nigeria over the years have experienced a high level of tax default from both the public and private sectors, which actually reduced the revenue of the government (Maboja, 2013; Okonjo-Iweala, 2013; FIRS, 2009).

1.8 Organization of Chapters

This research comprises six chapters. The research begins with an introduction to the study. The introductory chapter starts with the background of the study, which shows that tax evasion is a problem that affects both developed and developing countries, but its severity is more in developing nations because a large sector of the economy is at subsistence level. Following the background is the problem statement; the chapter also highlights the research objectives, research questions, and significance and scope of the study.

An overview of the Nigerian tax system is presented in chapter two; discussion on literature on the dependent variable as well as independent variables is also presented. In addition, the research framework and gaps in the study are included in this chapter.

The methodology of the study is the focus of chapter three. The chapter consists of six sections: the research design, population and sample of the study, questionnaire design, measurement of variables and data analysis techniques.

Analysis and discussion of results are presented in chapter four. The demographic information of the respondents, reliability test and factor loading analysis of the variables are discussed. The chapter also discusses the descriptive analysis of the variables and respondents' views on items of each variable. Correlations and multiple regressions are also discussed.

Chapter five discusses the qualitative findings of the interview. The interview of this study was designed with the sole aim of seeking the opinions of the staff of BIR on the determinants of tax administration efficiency.

Chapter six discusses the findings of the study. Conclusion and recommendations for future possible studies on tax administration efficiency are also discussed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the tax system and tax administration efficiency in Nigeria. It also contains a review of related literatures of the studies, dependent and independent variables, hypotheses development, the research framework and the gaps of the study.

2.2 Nigerian Tax System

The Presidential Committee on Tax Policy in Nigeria (2008) highlighted the main objective of the Nigerian tax system is to improve policy formulation and implementation. This is to ensure revenues are generated and judiciously utilized so that it improves the wellbeing of Nigerians. Additionally, other expectations of the tax system include:

1. To generate increased revenue needed by the government to carry out its mandate;
2. To facilitate economic growth and development;
3. To ensure fairness and equity in income distribution;
4. To ensure economic stabilization; and
5. To correct market imperfections and failures.

Nigeria operates on a Federal System of tax; as such, the structure of taxation as specified by the constitution of the Federal Republic of Nigeria reflects the three tiers of government, i.e., the Federal, State and Local Governments. The law grants power and responsibility to each tier of government to impose and collect taxes.

The Nigerian tax system consists of the following:

1. Tax policy;
2. Tax law; and
3. Tax administration

All these are expected to inter-relate in order to achieve the economic goals of the country.

2.2.1 Nigerian Tax Policy

Tax policy is a statement of the government's approach to taxation that evolves both normative and practical perspectives. The normative approach can be seen in the body of laws constituting Nigeria's tax law; while the practical approach relates to tax administration. Tax policy is a strong monetary tool as it can be put to a variety of uses to amend intense budgetary weight and economic restructuring. The Presidential Committee on Tax Policy (2008) explained that Nigeria needs a tax policy which does not only discuss the set of guiding rules and principles, but which provides a stable point of reference to stakeholders in the country. Prior to the inauguration of this Committee, Nigeria had no definite tax policy, and hence had to rely on the unsystematic tax administration of the colonial era. Today, the National Tax Policy (NTP) has been legislated with the sole aim of facilitating economic growth and development, enhancing equity and fairness in the system and ensuring the tax system is broad-based and yields high revenue. However, James and Edward (2008) argued that inconsistency of tax policy results in the inability of the government of a country to meet its desired goals.

2.2.2 Nigerian Tax Law

The power to enact laws in Nigeria is vested in the National Assembly. The National Assembly is responsible for guiding the administration of taxes within the various levels of government in the country. According to Ogbonna (2011) and Kiabel and Nwokah (2009), the following are some of the current tax laws in Nigeria:

1. Personal Income Tax Act (PITA);
2. Company Income Tax Act (CITA);
3. Petroleum Profit Tax Act (PPTA);
4. Value Added Tax (VAT);
5. Capital Gains Tax (CGT); and
6. Education Tax Act (ETA)

2.2.3 Tax Administration in Nigeria

Tax Administration in Nigeria involves tax assessment, collection and accounting of all types of taxes, as well as the implementation of relevant tax laws and governmental policies in Nigeria. Akintoye and Tashie (2013) stated that tax administration consists of all the strategies and principles adopted by the government in order to plan, impose, collect and account for taxes, as well as to coordinate and monitor staff who are charged with the responsibility for taxation. According to Abiola and Asiweh (2012), tax administration in Nigeria refers to those organs and/or agencies of government that are vested with the responsibility for policy implementation in the country. Tax administration is concerned with duty and responsibility of different tax authorities as enacted by relevant tax laws (Kiabel & Nwokah, 2009). However, Sanni (2012) observed that the Nigerian tax system is not in a good state by any measure, policy, law, administration or revenue generation. He further argued that the system is overloaded with many taxes, most of which are overlapping, hence resulting in poor or inefficient tax administration in the country.

According to the United Nations (UN) (2000), discussions on improving and sustaining revenue performance of tax administration in sub-Saharan Africa highlighted clear strategy, time frame and sound human resource management policies as the essential factors that lead to administration efficiency. Alouis and Gideon (2013) studied the system and challenges of revenue generation in Zimbabwe and identified lack of transparency in the collection process and corruption within the institution as some of the factors the affect the efficiency of the tax system.

The 1999 constitution of Nigeria grants power to the three tiers of government to collect tax revenue due to the government. According to Akintoye and Tashie (2013), and Ogbonna (2011), the following are the tax authorities in the three tiers of government in Nigeria:

1. Federal Inland Revenue Service;
2. State Internal Revenue Service; and
3. Local Government Revenue Committee

2.2.3.1 Federal Inland Revenue Service (FIRS)

The Constitution of Nigeria assigns power to this executive arm (FIRS) to legislate and collect revenue due to the government from corporate bodies, non-resident individuals, customs and excise duty, education tax, petroleum profit tax, capital gains tax, withholding tax on companies, personal income tax on residents of the Federal Capital Territory (FCT) and stamp duties of corporate bodies. Others include taxes in respect of members of the

Armed Forces of the Federation, the Nigerian Police Force and staff of the Ministry of Foreign Affairs.

2.2.3.2 State Internal Revenue Service

Every state has an operational arm known as the State Internal Revenue Service. The Constitution of Nigeria assigns power to the state to legislate law with regards to personal income tax and road traffic regulations, as well as to ensure that revenues are collected on behalf of the state government. The state is charged with the responsibility of collecting taxes, such as: personal income tax (including Pay-As-You-Earn (PAYE), and withholding tax (for individuals), capital gains tax (for individuals), stamp duties on instruments executed by individuals, business registration fees and road taxes, with the exception of income tax from members of the Armed Forces, Police Force and residents of FCT Abuja.

2.2.3.3 Local Government Revenue Committee

The Constitution of Nigeria also gives power to this Committee to assess, collect and account for all taxes and fees under its jurisdiction, in the manner prescribed by the Local Government Chairman. Some of the taxes collected by the local government include: tenement fees, shops and kiosks fees, motor park levies, marriage, birth and death registration fees, public convenience and sewage disposal fees, religious places establishment fees and wrong parking charges, etc.

2.3 Overview of Tax Administration Efficiency

An efficient tax administration is a key determinant of investment climate; it helps to attract more investment, reduce poverty and increase growth. It also enables the government to raise revenue with lower tax rates (Rahman, 2009). Erard (1994) stated that the primary goal of a revenue authority is to collect tax due in accordance with laws and in a manner which instils confidence to the taxpayers in the tax system and its administration. A good tax administration is a requisite for ensuring high compliance and administering tax policies effectively and efficiently. The Organization for Economic Co-operation and Development (OECD) (2001) posits that an effective tax administration should be concerned with the relationship of employees, taxpayers, the regulatory framework and environment as well as global changes. Given the tendencies for changes in the global market environment, income tax base is continuously thinning as the government's ability to tax capital flow deteriorates (Gcabo & Robinson, 2007).

According to the OECD (2011), tax administration efficiency reduces costs while providing better services to citizens and businesses. The OECD further asserts that efficiency depends on how organizations design their internal organizational structures, how well they allocate their budgeted funds to meet their needs, how they utilize ICT to save costs and how they determine the levels and remuneration of their employees. Alm & Duncan (2013) determined the relative efficiency of tax collection agencies by using a three-step estimation procedure and data from the OECD on international tax administration efficiency. The result showed that the average performance of OECD countries in collecting taxes is high, but low if compared to non- OECD countries. Hence, it is imperative that the tax system and tax policies are designed appropriately and monitored continuously in order for revenue authorities to optimize revenue collection.

Administrators are faced with crucial problems related to tax collection because a large segment of the economy is at subsistence level; no records are kept, and even where such records are kept, improper accounts are a predominant characteristic. Furthermore, there is low taxpayer cooperation for various reasons, such as lack of trained officials, corruption and levies do not seem to produce better government services (Ogbonna, 2011). Joon and Kim (2011), in discussing tax administration reforms in Korea, stated that internal tax audits and effective and strong supervision of tax officials, are two of the main factors that can enhance revenue generation, as well as the administration efficiency. They further stated that tax revenue can be improved by establishing an effective tax administration, rather than tax policies and/or laws. However, Garde (2004) stated that efficient tax administration requires reform of tax policy and administration, modern and efficient tax processes as well as competent staff.

Addressing improvement and sustainability in revenue performance of tax administration in sub-Saharan Africa, the UN (2000) highlighted that clear strategy, timeframe and sound human resource management policies are the essential factors that can lead to administration efficiency. The Chartered Institute of Taxation of Nigeria (CITN, 2002) stated that the government in Nigeria is perceived as corrupt and self-centred, and taxpayers are sceptical of paying their taxes because the tax revenue is not used for the provision of public utilities but rather for lining individual pockets. This causes loss of trust and confidence in the tax system by the taxpayers. Alouis and Gideon (2013) studied the system and challenges of revenue generation in Zimbabwe and identified lack of transparency in the collection process and corruption within the institution as some of the factors that affect the efficiency of the tax system. However, they suggested that adequate supervision and strong audit practice can enhance the effectiveness and efficiency of the system. Similarly, Baurer (2005) suggested that strong internal control and investigation, establishment of code of conduct, external oversight and segregation of duties, are some of the factors that can improve tax administration efficiency. The State Revenue Service (SRS) (2005) also contended that adequate regulatory framework, open and fair communication across all organizational levels, training of personnel and optimal allocation of resources, can enhance tax administration efficiency.

Sanni (2012) found that multiplicity of taxes and complexity of the tax system increase administration costs for the government and compliance costs for taxpayers. However, Micah et al. (2012) contended that poor tax administration, lack of statistical data, corruption, multiplicity of taxes, complexity of the tax law and underground economy are some of the factors that weaken the Nigerian tax system. Ogbonna (2011) observed that failure of tax administration in Nigeria is a result of inequality, inconvenience, uncertainty and poor motivation of tax officials. Also Salami (2011) argued that the minimal fiscal autonomy granted to the state government with regards to revenue assignment, tax administration and administrative problems, compliance and inadequate statistics are some of the challenges affecting the efficiency and effectiveness of the Nigerian tax system.

In studying revenue generation in local government administration in Nigeria, Olatunji, Taiwo and Adewoye (2009) found that dishonesty of staff affects the smooth and efficient running of tax administration. However, Hassan (2012) studied the issues and prospects of tax administration in Kano using survey data; he highlighted that lack of adequate staff, lack of public enlightenment and inadequate infrastructure and incentives, are some of the factors affecting tax administration efficiency. Similarly, Aruwa (2008) studied VAT administration in Nigeria, and the survey revealed that staff are inadequately equipped technically and administratively to carry out their daily routine.

2.3.1 Autonomy of Board of Internal Revenue and Tax Administration Efficiency

London (2013) analysed the impact of autonomy in a district administration; the result of the study showed that there is a positive relationship between autonomy and the efficiency of the administration, which ultimately increases utilization of human resources, generation of revenue for capital investment in infrastructure and also facilitates decision-making. He further stated that autonomy leads to both technical competency and users' satisfaction. According to Casasnovas, McDaid and Costa-Font (2009) autonomy can be seen as organizational reform that facilitates policy making and satisfy the needs of consumers of public services. Similarly, Gammelgaard et al. (2012) examined the factors that can increase organizational performance and found that autonomy facilitates administration of inter-organizational relationship, which eventually influences efficiency of the organization. However, they further stated that the intention to increase the performance effects of inter-organizational relationship by increasing autonomy needs to be weighed against the possibility of damaging intra-organizational relationship. Demuzere, Verhoest and Bouckaert (2008) examined the extent to which managerial autonomy affect the use of management techniques. The study showed autonomous organization has a limit difficulty of information dissemination and conflicts of interest within the organization.

Goerdel and Pitts (2006) examined the relationship between autonomy and performance in public management. The result of their study showed that autonomy is a multidimensional concepts, when managers perceive they have autonomy from engaging in political manipulation, they focus on implementing policy that improve organizational performance, and when managers believe their autonomy to change policy, then organizational performance suffers. Rahman (2009) claims that autonomy increases transparency of the tax administration and the effectiveness and efficiency of its expenses. It also minimizes the chances of the administration to be involved in corruption. Similarly, Crandall (2010) posited that autonomy of government collection agencies can lead to better performance by eliminating problems towards effective and efficient tax administration, while maintaining appropriate transparency and accountability. Cekmecelio and Gunse (2011) found that autonomy has a positive relationship with both administration efficiency and creativity. Administration autonomy increases the quality of services, reduces bureaucracy in implementing management actions as well as improves management efficiency (Evelyn & Luzira, 2004). Manasan (2003) posited that successful and sustainable revenue authorities are those that have a higher level of autonomy.

In the context of taxation authority, Mikesell (2003) argued that autonomy of tax administration makes it easier for taxpayers to know what taxes the government has levied upon them, increases transparency and accountability as well as management efficiency. Onyeukwu (2010) argued that the autonomy of tax administration has brought about multiplicity of tax burden to the taxpayer. He further added that companies are subjected to different taxes or tax of the same nature by Federal, State or Local Government. However, Taliercio (2004) argued that semi-autonomous revenue authority can improve tax administration in developing countries in an efficient and comprehensive manner. The author further stated that autonomy may be seen as a solution for weak corporate governance, because it empowers managers to have adequate control over personnel, budgeting and procurement to manage the tax agency effectively and efficiently. Based on the mixed findings in above discussion on autonomy and tax administration efficiency, it is hypothesised in an alternative form that:

H1: There is a significant relationship between autonomy of the board of internal revenue and tax administration efficiency.

2.3.2 Information and Communications Technology and Tax Administration Efficiency

Discussing on ICT sustainability in corporate organization, International Telecommunication Union (ITU) (2012) stated that use of ICT change the way organizations carried out their functions, increase productivity and economic output as well as providing an efficient ground to executes transaction around the world. Similarly, Olsen and Purao (2001) stated that use of ICT enables organization to reduce cost, increase productivities and thus facilitate changes in inter-organizational coordination. Also, Wolf (2001) studied the determinants and impact of ICT use for African SMEs. The results showed that investment in ICT is key determinants of factor of production. Furthermore, use of ICT in businesses save time, increase transparency and hence reduce other organizational obstacles. However, Pilat (2004) argued that changing investment in ICT into productivity is not an easy task, because it requires complimentary investments and innovations.

Idisemi and Ann (2011) investigated the impact of ICT implementation in companies. The study employed a case study research method based on two companies, and used content analysis. It was found that ICT facilitates effective and efficient communication between the organization and its customers regardless of time and distance; enables the organization to manage data relating to the firm and its customer efficiently, reduces costs and saves time, and enables the firm to produce accurate financial information for decision-making with the use of integrated accounting software. They added that use of computers facilitates timely financial statement; hence audit reports are completed on time. Similarly, Charlo (2011) studied the impact of ICT and innovation on industrial productivity at manufacturing companies in Uruguay. The result of the study indicates that an increase in ICT capital result to an increase on both productivity and growth.

In a public sector regime, James (2013) revealed that the use of ICT increases innovation, productivity, and efficient practices and improves the overall performance of the public sector. In a related study, Edmead et al. (2013) found the use of computers and other electronic gadgets enhances service delivery, and increases administration efficiency of the government business. Furthermore, they added that customers believe that the modern system can restore confidence and trust as well as transparency. The findings provide support to Machupa et al. (2011) which claimed that computers facilitate service delivery, customer satisfaction, information accessibility, efficiency and effective administrative gain as well as information sharing among various units of the government. Notwithstanding the positive impact of ICT on administration efficiency, Adeosun (2010) found that Nigeria is yet to fully adopt ICT, but there is a continuous link to higher efficiency, productivity and innovation. While there is limited study on the impact of ICT on tax administration efficiency, the findings observed in the public sector administration provides the basis to hypothesised in an alternative form that:

H2: There is a significant positive relationship between ICT and tax administration efficiency.

2.3.3 Strong Auditing Practice and Tax Administration Efficiency

Ebimobowei and Peter (2013) examined the impact of tax audit programmed and tax compliance in Nigeria. The result of the study showed that there is strong relationship between tax audit and tax compliance. The authors further stated that considering the nature of average Nigerians to be tax evaders and avoiders, tax audit is one of the key strategies that may improve the tax compliance in Nigeria. Similarly Anyaduba and Modugu (2013) examined the impact of tax audit and qualitative attributes on tax compliance in Nigeria. The result revealed that there is a significant positive relationship between tax audit and tax compliance. The result also indicated that the probability of being audited increases the compliance behavior of the taxpayers. In a related study, Badara (2012) assessed the effect of tax audit on compliance in Bauchi. The result of the study showed that tax audit enhances revenue generation, reduces tax avoidance and tax evasion.

Palil and Ibrahim (2011) studied the determinants of tax compliance in Malaysia. The result revealed a highly positive correlation between tax audit and tax compliance. Also, Kleven et al. (2010) randomly analyzed tax enforcement experiment in Denmark. A stratified sample of more than 40,000 taxpayers was selected. Half of the selected sample was to be intensively audited and the remaining half intentionally ignored. It was found that there is a substantial increase of self-reported income before audits, as a result of past audit experience and the probability of audit detection.

To examine how individuals respond in their compliance decisions to audit certainty and audit productivity, using experimental method to measure individual response, Alm and Mckee (2006) found that prior notice of taxpayers' auditing increases effective compliance. But, compliance rate of those who know that they will not be audited decline, which overall has a negative effect on the compliance rate. Dubin (2006) investigated whether measurable activities of IRS criminal investigation division affect tax compliance from 1987 to 2004. The result of the analysis revealed that IRS audit activities have a measurable and significant effect on voluntary compliance of taxpayers. Based on the above literatures on strong audit practices, it is clear that there is no single study that discussed on the relationship between strong audit practices and tax administration efficiency. But rather focuses on strong audit and compliance behaviour of taxpayers. Hence, this study seeks to examine the relationship between strong audit practices and tax administration efficiency, and it is hypothesised in an alternative form that:

H3: There is a significant positive relationship between strong audit practices and tax administration efficiency.

2.3.4 Public Enlightenment and Tax Administration Efficiency

Discussing efficient tax administration towards regional and national development, Williams (2013) identified increased public awareness as a critical factor that can encourage taxpayers to comply with tax legislation. Olowookere and Fasina, (2013) studied the impact of tax education program on tax payment compliance attitude. The result showed that the availability of education programs for tax revenue accountability has a significant influence on tax evasion penalty and complexity of tax system as proxies for compliance behaviour of taxpayers. Similarly, Djawadi and Fahr (2013) studied the impact of tax knowledge and budget spending influence on tax compliance using laboratory research design. Their result showed that tax knowledge increases compliance in tax systems with low authority.

According to Abiola and Asiweh (2012), enlightenment enables citizens to understand that payment of tax is a civic responsibility and not just a matter of give and take. This will increase compliance of tax payment and eventually boost government revenue generation. Similarly, Nwanna and Richards (2010) studied the importance of basic tax education among US citizens. They found that enlightened citizenry is comparatively less averse to taxes, less rebellious to government policies with regards to tax matters, less hostile to the IRS and more compliant. These eventually lead to increased government revenue and efficient tax administration. Enlightened taxpayers reduce firms' misconceptions about tax policies and procedures, and educate them on the importance of keeping proper records (Rahman, 2009).

Randlane (2012) examined the compliance behaviour of individuals; the study found that tax knowledge plays an important role in developing the behaviour of taxpayers. Palil and Ibrahim (2011) studied the determinants of tax compliance in Malaysia. It was found that there is significant relationship between tax knowledge and compliance. In a related study, James (2006) examined tax administration efficiency and performance indicators in Thailand and found that awareness and attitudes of tax officials have a positive relationship with revenue collection and productivity of the administration, in both regional and central offices of Thailand. Similarly, Barone and Mocetti (2009) examined the tax morale and public spending inefficiency and found that there is a significantly strong relationship between tax education and compliance behaviour of taxpayers. As observed by Chan, Trouhman and Obryan (2000), tax awareness is directly linked to compliance; they further stated that better understanding of the tax system increases the taxpayers' morale and attitude, leading to increased revenue generation. Based on the above discussion on public enlightenment and tax administration efficiency, it is hypothesised in an alternative form that:

H4: There is a significant positive relationship between public enlightenment and tax administration efficiency.

2.3.5 Motivation and Incentives and Tax Administration Efficiency

According to Antomioni (1999), motivation is the amount of effort put in the place of work by employees that depends on the levels to which they feel their motivational needs would be satisfied by their employer. However, Robbins and Judge (2008) asserted that motivation refers to the process which accounts for the intensity of an individual, direction and persistent effort towards achieving organizational goals. Similarly, Rainey and Steinbauer (1999) studied the theory of effective government organization. The authors asserted that the effectiveness and efficiency of public organizations and or agencies may be improved by inter-relating three components of intrinsic reward, mission and public services. If public employees perceive their own job as important to achieving organizational or agency goals and objectives that can benefit the entire society, then they would put extra effort to ensure their job level goals have been achieved (Wright, 2004). As observed by the Association of Colleges (2008), incentives and personnel improvement, pay modernization and use of ICT are some of the ways through which administrative efficiency can be measured and improved.

Afful-Broni (2012) examined the relationship between motivation and job performance in the University of Mines and Technology. Descriptive survey design was employed with a sample of 200 respondents. The result of the study showed that lack motivation and low monthly package are the main factors that reduce morale and high performance. In a related study, Croxton and Moniz (2009) analyzed employees' motivation within the public sector; they posited that it is very crucial to understand what motivates employees to be productive within their workforce. Furthermore, the overall finding of their studies suggested that employees in public sectors are highly influenced by intrinsic rewards, such as salary. Mougbo (2013) examined the impact of employee motivation on organizational performance in manufacturing companies. Descriptive research design was employed as the methodology of the study and data was analyzed using descriptive statistics. The result of the study showed that extrinsic motivation given to employees in organizations increases efficiency and productivity.

Solomon et al. (2012) investigated the effectiveness of motivation and organizational performance in Nigeria. The result showed that adequate motivation improves employee productivity. The authors suggested that organizations should adapt continuous improvement as it can enhance employee efficiency and productivity. Manzoor (2012) examined the correlation between employee motivation and organizational effectiveness. It was found that motivated employees work in the best interests of the organizations which results in higher growth, prosperity and productivity of the firm. Dobre (2013) analyzed the motivational factors that influence employees towards high levels of performance in the organization. Drivers, such as empowerment and recognition of employees, have been found to increase performance towards achieving organizational goals. The author further stated that participation and empowerment of employees do not only improve efficiency, growth and innovation, but also enhance trust and motivation in the organization. Marsden and Richardson (1992) studied the impact of motivation and performance among Inland Revenue staff. The result of the study showed that staff motivation increases the efficiency and effectiveness of their work.

A motivated and qualified workforce is vital for enhancing service delivery and increasing productivity in an organization. Based on the above literatures on staff motivation and incentives, it is clear that very few studies have discussed the public sector, and only the study by Marsden and Richardson (1992), specifically discussed the Inland Revenue staff. The successful application of motivation in the private sector can also be used in the public sector to increase the efficiency of the administrative processes. Hence, it is hypothesised in an alternative form that:

H5: There is a significant positive relationship between motivation and incentives and tax administration efficiency.

2.3.6 Perceived Corruption and Tax Administration Efficiency

Karimi, Jafari and Rezaei (2010) investigated the impact of corruption on tax revenue in developing economies; the result indicated that there is a statistically significant relationship between corruption perception index and revenue. Ogbonna (2011) studied the burning issues in the Nigerian tax system. The survey result indicated that greediness and corruption are responsible for tax administration inefficiency in Nigeria. In a related study, Cantens, Raballand and Bilangna (2010) studied the reformation of the public sector (customs services) in Cameroon; the result showed that implementation of new policies by the government reduces corruption and increases administration efficiency.

Examining the influence of corruption and shadow economy in a cross-section of 98 countries between the periods of 1999 to 2002, Dreher and Schneider (2010) found that there is no strong relationship between corruption and shadow economy when perception based-indices are used. But employing an index structural model base, corruption and shadow economy are found to complement each other in countries with low income only. Similarly, Brasoveanu and Brasoveanu (2009) analyzed the evolutions and the relationship between corruption and tax burden among 27 European Union (EU) countries for the periods 1995 to 2008; the econometric results of their study showed that there is negative relationship between corruption and tax revenue over GDP. Bruekner (1999) examined the effects of local corruption and tax evasion, and the result of the study showed that corruption limits the benefits of fiscal decentralization through increase in public goods and lack of fulfilment of demand.

According to James and Gray (2007), corruption in Europe and Central Asia between 2002–2005, has drastically reduced in many countries as a result of systematic effort to fight corruption, including: implementing risk analysis, random audit, strong enforcement and sanctions mechanism as well as reformation of tax laws and policies, leading to improvement in administration efficiency and lower corruption. However, Mustafa and Yilmaz (2006) analyzed the role of internal control in public financial management and asserted that recent reform in developing countries showed that decentralization does not lead to a better result because of corruption, waste and inefficiencies. Also Fjeldstad (2003) analyzed the impact of corruption on revenue in Tanzania; the result of the study indicated that revenue has increased as a result of organizational restructuring. But thereafter, corruption increased and the revenue declined. In discussing the demand and supply of corruption in developing countries, Heineman and Heimann (2006) stated that corruption can be mitigated in a number of dimensions, through understanding the cultural problem, which can help to strengthen enforcement and state development.

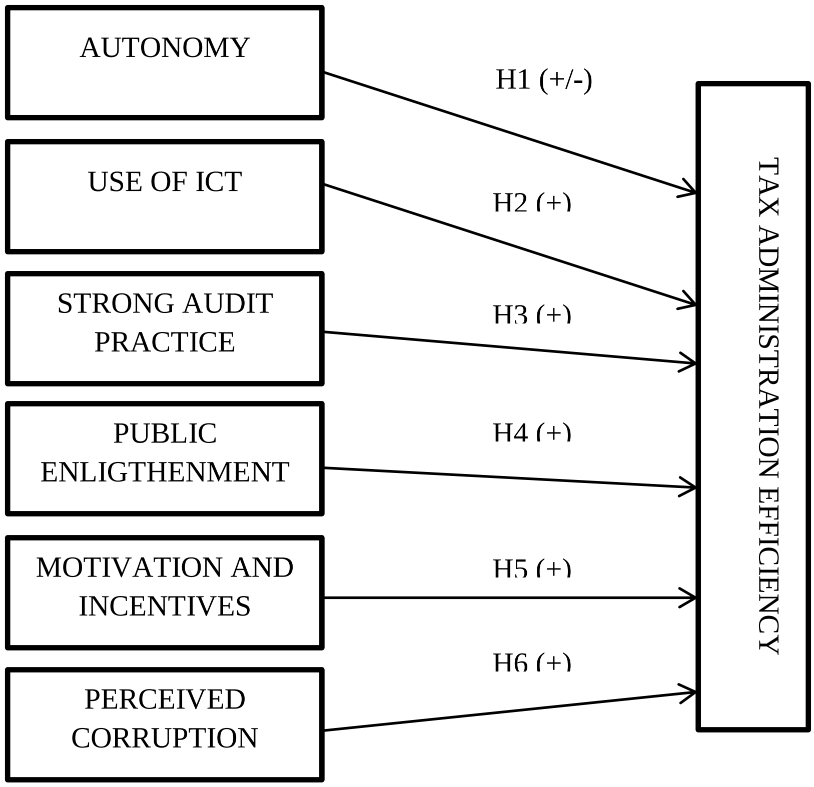
Based on the above literature on perceived corruption and tax administration efficiency, it is hypothesised in an alternative form that:

H6: There is a significant negative relationship between perceived corruption and tax administration efficiency.

2.3 Research Framework

Figure 2.1 presents the research framework of the study. This framework is developed based on the literatures discussed above, and represents relationships between the independent variables and dependent variable. The dependent variable of this study is tax administration efficiency, while autonomy, use of ICT, strong audit practice, motivation and incentives, public enlightenment and perceived corruption are the independent variables of this study.

Figure 2.1: Tax Administration Efficiency Framework



The main gap identified by the current study is that despite many studies conducted on tax administration efficiency, no conceptual model has combined the six variables above to explain tax administration efficiency. Most of the studies used two to three of these variables in their analyses. For instance, Djawadi and Fahr (2013) and Palil and Ibrahim (2011) used public enlightenment, strong audit practice and use of tax money as determinants of tax compliance behavior and not administration efficiency; while Abiola and Asiweh (2012) used ICT and public enlightenment in determining the administrative efficiency of government ministries. In fact, a study that highlighted these variables is that of Micah et al. (2012); however, the weakness of their study is that it is conceptual in design. Thus, this study intends to provide the first empirical evidence on the effect of these variables on tax administration efficiency in Nigeria, by using the Bauchi State Board of Internal Revenue, as a sample.

2.4 Summary

This chapter describes the Nigerian tax administration and literatures regarding autonomy, use of ICT, public enlightenment, strong audit practice, perceived corruption and motivation and incentives are discussed. Based on that, a research framework was developed as a guide towards achieving the objectives of this study; the gaps of the study are also discussed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design adopted so as to achieve the objectives of the study. The study focuses on examining the factors that determine tax administration efficiency of BIR. Furthermore, it discusses the survey which comprises: questionnaire description, population of the study, sampling technique, sampling frame, sample size, data collection procedure, measurements of various variables and finally, the data analysis techniques of the study.

3.2 Research Design

Considering the nature and objectives of this study, a mixed research method is more suitable to investigate the administration efficiency of the Nigerian tax system. A mixed research method enables researchers to have a better understanding of the subject under study (Sekaran & Bougie, 2010). Quantitative data was collected through distribution of questionnaires with the help of research assistants, while qualitative data was gathered through face-to-face interview with some staff of BIR, following the previous literature (Ugwu, 2013).

3.2.1 Survey

This section discusses the steps followed in order to carry out the survey. It starts with description of the questionnaire, population of the study, sampling technique, sampling frame, sample size, data collection procedure, measurements of variables and data analysis techniques.

3.2.1.1 Questionnaire Description

The questionnaire consists of two sections. Section A comprises questions regarding the variables under study, while Section B consists of the demographic information of the respondents. Both sections were adapted from previous literatures and thereafter modified to suit the current study. The dependent variable of the study is tax administration efficiency while autonomy, use of ICT, public enlightenment, strong audit practices, perceived corruption and motivation are the independent variables.

3.2.1.2 Population of the Study

Sekaran and Bougie (2010) defined population as the entire group of people or events of interest which the researcher wants to investigate. The population of the study is the staff of Bauchi BIR. There are 225 staff across the six area offices, including the headquarters in Bauchi, and this comprises 10 top management (the Chairman of the board and nine directors), 25 middle level managers and 190 supporting managers, from whom the sample of this study was drawn.

3.2.1.3 Sampling Technique

Zikmund (2000) defined sampling as the number of items or portions of a larger population to make conclusions regarding the total targeted population. A sample is a sub-set of the total population. Target population refers to a specific complete group relevant to the population of the research. Sampling enables the researcher to estimate unknown characteristics of the population under study. The main advantages or reasons for using sampling are it saves costs, reduces labour requirement and facilitates quick information gathering. A simple random sampling was used in the study. This sampling procedure gives the entire respondents an equal chance of being selected. Previous studies also used similar approach (Ugwu, 2013; Mohammed, 2011; and Olatunji, Taiwo & Adewole, 2009).

3.2.1.4 Sample size

For the size of the population to be determined, statistical information, such as number of observations, the estimated variance of the population, the estimated magnitude of acceptable error and confidence level must be identified (Zikmund, 2000). Based on the population obtained for this research (i.e. 225), the recommended sample size is 144. The size was determined following Krejcie and Morgan (1970).

Table 3.1: Determining Sample Size for a Given Population

Population size	Sample size	Population size	Sample size	Population size	Sample size
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317

45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338

Note. Extracted from Krejcie and Morgan (1970), p.2.

3.2.1.5 Variable Measurement

This study applied a mixed research approach; questionnaires were distributed and the level of scale used for most of the variables was interval scale and a nominal scale for a few other variables. Interval scale is more appropriate for this type of study because, according to Blumberg, Cooper and Schindler (2008), interval scale has the features of both ordinal and nominal scales with additional strength to measure the distances from one point to another. The interval scale permits the researcher to categorize individuals into various groups, rank their order, and explain the characteristics of the respondents. Awais, et al. (2012) opined that the Likert scale is the most frequently used scale in research, because it captures the extent to which a respondent disagrees or agrees with a statement. The research study used a five-point Likert scale.

3.2.1.6 Operational Definition of Terms

The framework of the study consists of seven variables derived from different literatures with different measures. However, the variables were redefined to suit the current study as follows:

a. Tax Administration Efficiency

Akintoye and Tashie (2013) stated that tax administration consists of all the strategies and principles adopted by governments in order to plan, impose, collect and account for taxes as well as to coordinate and monitor staff who are charged with the responsibility for taxation. Abiola and Asiweh (2012) defined tax administration as all the organs and/or agencies of government that are vested with the responsibility of policy implementation in the country. As observed by the OECD (2011), tax administration efficiency reduces cost while providing better services to citizens and businesses. They further asserted that efficiency depends on how organizations design their internal organizational structures, how well they allocate their budgeted funds to meet their needs, how they utilize ICT to save costs, and how they determine the levels and remuneration of their employees. This variable is measured with four items (refer to Appendix 2).

b. Autonomy of Tax Authority

Autonomy refers to the extent to which government departments or agencies are able to operate independently in terms of the law and status, human resources, administrative practices and budgeting (Aboila & Asiweh, 2012). This variable is measured with four items (refer to Appendix 2).

c. The use of ICT

ICT refers to the tool that supports the work of government institutions with the objectives of providing public services and information in a convenient, fast and cost effective manner (Upadhyaya). ICT is an integrated system which consists of the technology and infrastructure needed to process, store, transmit and deliver information to the end user(s) efficiently. This variable is measured with four items (refer to Appendix 2).

d. Tax Audit

According to Badara, (2012), tax audit is defined as an independent examination of tax report of an individual or organization by the relevant tax authority. He further stated strong audit practices would help the government to collect the appropriate revenue and ensure satisfactory returns are submitted by the taxpayers. This variable is measured with four items (refer to Appendix 2).

e. Public Enlightenment

Public Enlightenment refers to the process of creating awareness among the citizens regarding tax matters, i.e., the process of educating and enlightening the general public to carry out their civic responsibility of paying tax as and when due (Bose, 2014). This variable is measured with four items (refer to Appendix 2).

f. Motivation and Incentives

Antomioni (1999) defined motivation as the amount of effort put in the place of work by employees that depends on the levels to which they feel their motivational needs would be satisfied by their employer. Robbins and Judge (2008) asserted that motivation refers to the process which accounts for the intensity of an individual, direction and persistent effort toward achieving organizational goals. This variable is measured with two items (refer to Appendix 2).

g. Perceived Corruption

Corruption is a sort of criminal offence which is against the interest of the general public. It violates the moral and legal norms and undermines the rule of law. It is an act of illegal exchange between taxpayer and tax agent or between tax agents, committed for personal gain (OECD, 2012). Simply, corruption can be defined as the abuse of public authority for the purpose of gaining own advantages. This variable is measured with four items (refer to Appendix 2).

3.2.1.7 Data Analysis Techniques

This study used Statistical Package for Social Sciences (SPSS) software to analyse its data. The analysis of data collected enabled the researcher to determine the relationship between the independent variables and dependent variable. Statistical techniques used in analysing data include: descriptive statistics, reliability and factor analysis and correlation and multiple regression analysis.

a. Descriptive Statistics

Descriptive statistics, such as frequencies and percentages, were used to describe the demographic information of the respondents, while mean and standard deviation were used to analyze the set of data on tax administrative efficiency. According to Zickmud, et al. (2010), descriptive statistics describes the basic features of data and summarizes the data in a meaningful, simple and understandable manner. Hence, descriptive statistics was used in this study so as to facilitate data presentation and interpretation.

b. Reliability Analysis

Reliability test is carried out to measure the stability and consistency of the instrument's measures. It also shows how well the items in a set are positively related to another. Cronbach's Alpha was used to measure the reliability of the instrument. Reliability of less than 0.6 is considered weak, reliability within the range of 0.7 is considered to be moderate while reliability more than 0.8 is considered to be very good (Sekaran & Bougie, 2009).

c. Correlation Analysis

Correlation analysis is used in order to determine the relationship between the variables of a study. Sekaran and Bougie (2009) stated that Pearson correlation is a statistical measure that indicates the position, significance and strength of bivariate relationship. The authors further stated that correlation coefficient (r) ranges from +1.0 to -1.0. If the r value is equal to 1, it indicates a perfect positive relationship. If the r value is equal to -1, it indicates a perfect negative relationship or inverse relationship between the set of variables. Similarly, Zikmund (2000) stated that correlation is used to measure the relationship between two or more variables. Sekaran (2003) suggested that relationship between dependent and independent variables can be interpreted using the scale as follows: 0.7 and above is very strong relationship, 0.69 to 0.5 is strong relationship, 0.49 to 0.3 is moderate relationship, 0.29 to 0.1 is low relationship and 0.09 to 0.01 is very low relationship.

d. Multiple Regressions Analysis

Regression analysis is a strong and flexible method for examining relationship between the dependent variable and one or more independent variables. Regression analysis was carried out in this study to determine whether any relationship exists between the independent and dependent variables. Regression analysis was used in this study to examine the influence of autonomy, use of ICT, strong audit practice, public enlightenment, motivation and incentives and perceived corruption on tax administration efficiency.

3.2.2 Interview

An interview was designed for this study with the aim of seeking the opinions of the staff of BIR on the determinants of tax administration efficiency. The findings of the interview would enable the researcher to form a valid and consistent conclusion in relation to the qualitative findings of the study. To achieve this, face-to-face interview was conducted with the participants, who are the staff of BIR. This allowed the researcher to clarify or repeat some questions to the respondents. While the interview was conducted, media personnel were there to record the interview session. A total of five questions were asked by the researcher, and the responses of the participants were later transcribed.

3.2.2.1 Sample Size of the Interview

The interview sample size of this study was five top management staff of BIR. Out of the five targeted for the interview, only three were available to respond to the researcher's questions. Therefore, this study used three staff's responses.

3.2.2.2 Data Collection Approach

The researcher went to the BIR and introduced himself, and discussed the purpose of the board. The board requested a more detailed explanation from the researcher and topic of the research. Having understood the researcher's explanation, a date was scheduled for interviews to be carried out.

3.3 Summary

This chapter describes the research design adopted so as to achieve the objectives of the study. It discusses the survey which comprises: questionnaire description, population of the study, sampling technique, sampling frame, sample size, data collection procedure, measurements of various variables of the study and finally the data analysis techniques of the study.

CHAPTER FOUR

ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter provides the overall findings of the data collected for analysis in the study. The data obtained was analysed using SPSS version 18; and interpreted based on the Reliability, Factor loading, and Pearson correlation coefficient analysis techniques. From 144 questionnaires administered to the respondents, only 124 questionnaires were returned which represented a 86.11% response rate. Thus, the 124 returned questionnaires were used for the analysis and the results are discussed below.

4.2 Response Rate

The distribution of 144 questionnaires to the respondents commenced on 25th March 2014 and was completed after two days. As at 9th April 2014 a total of 117 questionnaires were collected and analysed. Table 4.1 below summarises the response rate of the study. Out of 124 surveys returned, 117 representing 81.25% of the total sample size were valid or usable. Seven questionnaires or approximately five percent of the survey distributed were not included in the analysis as they were incomplete or wrongly filled in by the respondents.

Table 4.1: Summary of Survey Response Rate

Description	Numbers
Questionnaires Distributed	144 (100%)
Returned Questionnaires	124 (86.11%)
Invalid Questionnaires	7 (4.86%)
Usable Questionnaires	117 (81.25%)

4.3 Background of Respondents

This section describes the respondents' demographic background, including age, gender and educational background. Table 4.2 summarises the demographic information of the respondents.

The respondents comprised 100 males representing 85.5% and 16 females representing 13.7% while one respondent did not indicate his/her gender. With regards to age, five age groups were involved in this study with a 10-year range in each group with exception of the above 60 years old group. The age group between 20-30 years had the highest number of responses of 54 representing 46.20%, followed by 49 responses representing about 41.90% for age group between 31-40 years, 13 responses representing 11.10% for the 41-50 age group and only one response representing 0.90% for age group above 60 years. In terms of education or academic qualifications, a total of 60 respondents representing 51.30% have a diploma, 49 respondents representing 41.90% have degree or higher national diploma qualification; three respondents representing 2.6% have either master's or Ph.D. level qualification while five respondents representing 4.3% have secondary level qualification.

With respect to position of the respondents, 71 respondents representing 60.70% are middle level management, 28 respondents representing 23.90% are supporting management, top level management made up 11.10%, while 4.30% of the respondents did not indicate their position. With regards to marital status, a total of 83 respondents representing about 70.90% are married, 28 respondents representing 23.90% are single or divorced making up about 1.7% of the respondents while four respondents representing 3.40% did not indicate their marital status. The majority of the respondents are Muslims with 76.90%, followed by Christians and others of 20 (17.10%) and two (1.70%), respectively, while five respondents representing 4.3% did not mention their religion.

Table 4.2: Profile of the Respondents

Category	Frequency	Percentage (%)
Gender:		
Male	100	85.50
Female	16	13.70
Others	1	0.8
Total	**117**	**100**
Age group		
21-30	54	42.20
31-40	49	41.90
41-50	13	11.10
Above 60 years	1	0.90
Total	**117**	**100**
Educational Background		
Secondary school	5	4.3
Diploma	60	51.30
Degree/ HND	49	41.90
Masters/Ph.D.	3	2.6
Total	**117**	**100**
Position		
Top Management	13	23.90
Middle Management	71	60.70

Supporting Management	28	11.10
Others	6	4.30
Total	**117**	**100**
Marital Status		
Married	83	70.90
Single	28	23.90
Divorced	2	1.70
Others	4	3.40
Total	**117**	**100**
Religion		
Islam	90	76.90
Christian	20	17.10
Others	7	6
Total	**117**	**100**

4.4 Descriptive Analysis

Descriptive analysis was done in order to determine the mean scores and standard deviation of the respondents on tax administration efficiency. The descriptive statistics was also used to analyse the research questions.

4.4.1 Tax Administration Efficiency

The view of the respondents concerning the administration efficiency of the tax system in Nigeria is presented in Table 4.3. The descriptive analysis of these items shows that the mean scores range from 3.81 to 4.21 and standard deviation from 0.728 to 0.927. The results of this analysis indicate that the majority of the respondents consider the tax administration process to be efficient (refer to Appendix 3).

Table 4.3: Descriptive Statistics for Tax Administration Efficiency

Items Code	Min	Max	Mean	SD
TAE	1	5	4.02	0.56
TAE1	1	5	4.21	0.92
TAE2	1	5	3.93	0.72
TAE3	1	5	3.81	0.84
TAE4	1	5	4.14	0.81

4.4.2 Autonomy of Board of Internal Revenue

The descriptive analysis on autonomy of the board of internal revenue is presented in Table 4.4. The results indicate the mean scores range from 2.99 to 4.01 and standard deviation from 0.861 to 1.184. The views of respondents with regards to ABIR1, ABIR3, ABIR4 and ABIR6 indicates that majority of the respondents strongly agree that the board has the autonomy to recruit staff and prepare and implement its budget and dismissal of staff that is found wanting (refer to Appendix 3).

Table 4.4: Descriptive Statistics for Autonomy of BIR

Items Code	Min	Max	Mean	SD
ABIR	1	5	3.66	0.71
ABIR1	1	5	2.99	1
ABIR3	2	5	4.01	2
ABIR4	2	5	3.74	2
ABIR6	1	5	3.89	1

4.4.3 Information and Communications Technology

The descriptive statistics of the opinion of the respondents on the ICT infrastructures are expressed in this Table below. The items have highest mean scores of 4.7 and standard deviation ranges from 0.662 to 0.840. The results indicate that the majority of the respondents express strong agreement with the items, which implies that ICT facilities have been deployed and are used in their organizations. However, with regards to the view of the respondents concerning maintenance of ICT infrastructures in their organization as contained in item ICT3, it shows that 52% of the respondents are not sure whether such facilities are being maintained or not (refer to Appendix 3).

Table 4.5: Descriptive Statistics for ICT

Items Code	Min	Max	Mean	SD
ICT	1	5	4.02	0.54
ICT 1	2	5	3.96	0.68
ICT 2	1	5	3.90	0.84
ICT 3	2	5	4.12	0.69
ICT 4	1	5	4.10	0.66

4.4.4 Strong Audit Practice

Descriptive analysis with respect to respondents' views on strong audits practices is presented in Table 4.6 for items SAP1 to SAP4. The mean scores of the items range from 4.17 to 4.30 and standard deviation from 0.555 to 0.779. Majority of the respondents strongly agree that effective audit practices enhance revenue generation, and also ensures tax compliance among taxpayers, while majority of the respondents for SAP2 item are not sure if strong audit practice can solve the issues of tax avoidance and tax evasion (refer to Appendix 3).

Table 4.6: Descriptive Statistics for Strong Audit Practice

Items Code	Min	Max	Mean	SD
SAP	1	5	4.23	0.49
SAP1	1	5	4.30	0.77
SAP2	2	5	4.24	0.59
SAP3	2	5	4.17	0.55
SAP4	2	5	4.19	0.65

4.4.5 Public Enlightenment

On public enlightenment, descriptive analysis shows the respondents' views for items PE1 to PE4. The mean scores of all the items are above 4.0, with the exception of item PE4 with mean score above 3.0; the standard deviation ranges from 0.602 to 0.788. The overall results show that the majority of the respondents strongly agree that public enlightenment creates awareness and enhances prompt tax payment (refer to Appendix 3).

Table 4.7: Descriptive Statistics for Public Enlightenment

Items Code	Min	Max	Mean	SD
PE	1	5	4.09	0.47
PE 1	2	5	4.42	0.64
PE 2	1	5	4.10	0.78
PE 3	3	5	4.00	0.60
PE 4	2	5	3.87	0.66

4.4.6 Motivation and Incentives

Descriptive analysis with respect to respondents views on motivation are presented in the Table 4.8. The mean scores of the items range from 3.51 to 3.77 and standard deviation from 0.959 to 1.083. Majority of the respondents strongly agree that they are motivated by their organization to give their best in the workplace and such effort is remunerated (refer to Appendix 3).

Table 4.8: Descriptive Statistics for Motivation and Incentives

Items Code	Min	Max	Mean	SD
MAI	1	5	3.64	0.85
MAI	1	5	3.77	1.08
MAI	1	5	3.51	0.95

4.4.7 Perceived Corruption

The descriptive statistics with regards to the opinion of the respondents on perceived corruption are expressed in Table 4.9 below. The items listed from PC1 to PC4 address research question six of this study. The highest mean score is 4.09 and standard deviation ranges from 0.466 to 0.787. On agreement scale, the results indicate that the majority of the respondents express strong agreement with the items, which implies that there is trust, honesty and transparency in the administrative process in the organization (refer to Appendix 3).

Table 4.9: Descriptive Statistics for Perceived Corruption

Items Code	Min	Max	Mean	SD
PC	1	5	3.93	0.46
PC 1	1	5	3.89	0.78
PC 2	2	5	3.84	0.78
PC 3	3	5	4.09	0.46
PC 4	3	5	3.92	0.52

4.5 Factor Analysis

Factor analysis was done in this study in order to test the construct validity of the research. The responses obtained from the respondents were submitted for test using SPSS for factor loading analysis using Principal Component Analysis and Varimax Rotation. The result of the factor loading analysis indicates the Kaiser-Meryer-Olkin (KMO) of 0.634 which is consider acceptable for the analysis. According to Awais and et al. (2013), when the KMO value of factor analysis is greater than 0.60, the sample indicates that it is adequate for factor analysis. The Bartlett's test also indicates a significant value of 0.000 indicating the consistency between the items (refer to Appendix 5).

Table 4.10: Summary of Factor Analysis Results

Kaiser-Meyer-Olkin of Sampling Adequacy	**0.634**
Bartlett's Test of Sphericity	**0.000**
Approximate Chi-Square	**1529.159**

4.6 Reliability Analysis

Reliability test was done to measure the internal consistency and stability of the instruments. Reliability Analysis attempts to show how well the items in a set of variables relate to another. Sekaran et al. (2009) suggested that Reliability of less than 0.6 is considered weak, reliability within the range of 0.7 is considered to be moderate, while reliability of more than 0.8 is considered to be very good. Julie (2011), as cited in Ugwu, posited that the value of Cronbach's Alpha is strongly sensitive to the number of items contained in a scale. It is common to have a low value of Cronbach's Alpha if the number of items of a variable is less than ten.

In view of the fact that three out of the seven constructs were more than 0.7, two constructs were more than 0.6, while the remaining two were more than 0.5 but less than 0.6, it suggests that the instruments used in this study are valid and reliable. Table 4.11 summarizes the result of the reliability test.

Table 4.11: Reliability Test Results

Variables	No. of Items	Cronbach's Alpha
Tax Administration Efficiency	4	0.597
Autonomy of Board of Internal Revenue	4	0.715
Information and Communications Technology	4	0.745
Strong Audit Practice	4	0.734
Public Enlightenment	4	0.632
Motivation and Incentives	2	0.541
Perceived Corruption	4	0.658

4.7 Correlation Analysis

Pearson correlation was used in order to measure the relationship between the variables of the study. Pearson correlation matrix indicates the strength, direction and significance of the relationship among the variables studied. It was assumed that all the independent variables are positively related to the dependent variable, i.e., Tax administration efficiency. Table 4.12 below shows the correlation between the variables of the study. The correlations are not only significant at five percent significance level requirement of this study but there also exists a correlation at one percent significance level.

The scale suggested by Sekaran (2003) was used to measure the correlation between the dependent and independent variables of this study. This can be interpreted using the scale as follows: 0.7 and above is very strong relationship, 0.69 to 0.5 is strong relationship, 0.49 to 0.3 is moderate relationship, 0.29 to 0.1 is low relationship and 0.09 to 0.01 is very low relationship.

Autonomy of the board of internal revenue has correlation coefficient of 0.394, while information and communications technology's correlation coefficient is 0.329. Strong audit practice has a correlation with tax administration efficiency with a coefficient of 0.166 while public enlightenment has a weak relationship with tax administration efficiency with a coefficient of 0.278. Motivation and incentives has a negative correlation coefficient of -0.164 and perceived corruption has correlation coefficient of 0.228. Autonomy of board of internal revenue and use of ICT relationship falls under moderate correlation group while strong audit practice, public enlightenment, and perceived corruption are under the weak relationship group. Motivation and incentives is negatively correlated with tax administration efficiency.

Table 4.12: Correlations Matrix of the Variables (n=117)

	TAE	**ABIR**	**ICT**	**SAP**	**PE**	**MAI**	**PC**
TAE	1						
ABIR	0.332** (0.000)	1					
ICT	0.329** (0.000)	0.249** (0.007)	1				
SAP	0.166 (0.074)	0.131 (0.158)	0.346** (0.000)	1			
PE	0.278** (0.002)	-0.007 (0.940)	0.098 (0.294)	0.233* (0.012)	1		
MAI	-0.164 (0.077)	-0.247** (0.007)	-0.173 (0.063)	0.068 (0.465)	0.156 (0.094)	1	
PC	0.228* (0.013)	0.175 (0.059)	0.473** (0.000)	0.437** (0.000)	0.078 (0.403)	-0.001 (0.989)	1

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

Table 4.12 shows that there is a significant relationship between autonomy of board of internal revenue and tax administration efficiency. The correlation coefficients value of 0.332 and p-value of 0.000 shows that, the two variables are positively and moderately correlated at five percent significance level.

Table 4.12 shows that there is a significant relationship between ICT and tax administration efficiency. The correlation coefficients value of 0.329 with p-value of 0.000 shows that the two variables are positively and moderately correlated at five percent significance level.

Table 4.12 shows the correlation coefficient of 0.166 and p-value of 0.074 between strong audit practice and tax administration efficiency. This indicates that the two variables are correlated but not significant at five percent significance level.

Table 4.12 also shows that there is a significant relationship between tax administration efficiency and public enlightenment. The correlation coefficients value of 0.278 and p-value of 0.002 shows that the two variables are positively and weakly correlated, at five percent significance level.

Table 4.12 indicates that there is no significant relationship between motivation and incentives and tax administration efficiency. The correlation coefficient has a negative value of -0.164 with p-value of 0.077, showing that the two variables are negatively and weakly correlated at five percent significance level.

Table 4.12 also shows that there is a significant relationship between tax administration efficiency and perceived corruption. The correlation coefficients value of 0.228 and p-value of 0.013 shows that the two variables are positively and weakly correlated, at five percent significance level.

4.8 Multiple Regression Analysis

The multiple regression analysis result is indicated in Table 4.11. The adjusted R^2 value of 0.214 shows that 21.40% of overall tax administration efficiency variables are affected by the independent variables and are significant at the five percent level. However, individually, only autonomy of board of internal revenue and public enlightenment are significant in the regression equation. Autonomy of board of internal revenue has a Beta coefficient of 0.194 which shows that a one percent increase in autonomy of board of internal revenue increases overall tax administration by 19%. Public enlightenment has a Beta coefficient of 0.334 which implies that a one percent increase in public enlightenment increases overall tax administration by 33%.

Table 4.13: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	**T**	**Sig.**
1	(Constant)	1.155	.637		1.812	.073
	ABIR	.194	.069	.247	2.829	.006
	ICT	.195	.101	.190	1.932	.025
	SAP	-.031	.110	-.027	-.278	.390
	PE	.334	.103	.278	3.248	.001
	MAI	-.074	.058	-.111	-1.271	.103
	PC	.103	.121	.085	.850	.198

a. Dependent Variable: TAE

The regression analysis results of the six variables are significant at the five percent level with R^2 of 21.40%. However, the results show that only three variables out of the six independent variables are significant which have p-value of 0.006, 0.025 and 0.001, namely autonomy of board of internal revenue, use of ICT and public enlightenment, i.e., the only three variables having impact on tax administration efficiency.

4.9 Summary

The detailed results of the analysis conducted on data collected are discussed and presented in this chapter. The demographic information of the respondents, reliability test and factor loading analysis of the variables are discussed. The chapter also discusses the descriptive analysis of the variables and respondents' views on each item. The results of correlation coefficient of the study indicate that there is significant relationship between tax administration efficiency and all the dependent variables with the exception of strong audit practice and motivation and incentives, which indicate no significant relationship exits.

CHAPTER FIVE

QUALITATIVE ANALYSIS

5.1 Introduction

This chapter discusses the findings of the interview. The interview of this study was designed with the sole aim of seeking the opinions of the staff of BIR on the determinants of tax administration efficiency. To achieve this, face-to-face interview was conducted with three staff of BIR; five questions were asked and their responses were recorded and thereafter transcribed.

5.2 The State of Efficiency of the Board

The participant A was asked on the state of the efficiency of the board at the moments and he respondent as follows:

> *"His Excellency, (Dr. Malam Isa Yuguda) has since the inception of his administration introduced and continues to introduce quite a number of programs and initiatives which aim to reduce the high dependence of the state on statutory federal allocation. The most prominent of such initiatives embarked upon by the state government is full-scale reform of Bauchi state internal revenue service (the state's statutory revenue collecting agency) with the sole aim of enhancing the state's internal revenue generation. To achieve this feat, the government has introduced an executive bill to the state house of assembly seeking to make Bauchi state internal revenue a semi-autonomous tax administration authority and this law has since been passed into law. The law not only allows for the BIRS to collect and report all statutory taxes, such as the Pay-as-you-Earn (PAYE), Withholding Taxes (WHT), Stamp Duties, Capital Gains Taxes, Motor Vehicles Licence, etc., but also the board is empowered to report all internal revenue accruals to all state Ministries, Department and Agencies".*
>
> ………… Participant A

From the participant's response, it is very clear that the sole objective of the BIR is to generate revenue and thereby foster economic growth and development across the state. This is consistent with the Presidential Committee on Tax Policy in Nigeria (2008) which stated that increased revenue generation, enhancement of economic growth and development and ensuring economic stabilization, are some of the objectives of the Nigerian tax system. The participant further commented that:

> *"It is in line with the above that the board and management of BIR under the leadership of our executive chairman initiated and embarked on a well thought-out reform and modernization project that encompasses several projects and programs. As such, the Bauchi state internal revenue board commenced automation of its operation, organized change management training and instituted several manpower development programs aimed at achieving its statutory objectives.*
>
> *To further accelerate the pace of the on-going programs and modernization project, it has become pertinent that BIRS restructures its organizational model. It is believed that an efficient organizational structure can serve as key component for achieving the goals and objectives of reform and modernization programs, culminating in production of new organizational structure towards achieving its mandate of providing efficient and quality service by applying the tax laws with integrity, equity and fairness to all.*
>
> *The state of efficiency of the board has been very effective over the years, in terms of meeting its target through the instruments of taxation to raise revenue for the government for its public expenditure which is primarily for national development. At present, the board has six area offices spread across the state with headquarters in the state capital".*
>
> .... Participant A

From the comment of the participant, efforts have been taken to boost the revenue base of the state. To achieve this goal, different reform programs and initiatives have been introduced, among which are the granting of semi-autonomy to the tax administration of the board and restructuring the organizational structure of the board. This is consistent with Garde (2004), who stated that efficient tax administration requires reform of tax policy and administration, as well as modern and efficient tax processes. It is also in line with the quantitative findings of this study which show there is significant relationship between autonomy and tax administration efficiency.

5.3 Determinants of Board Efficiency

Participant B was asked on the determinants that may lead to the efficiency of the BIR and he categorized the factors into three main areas:

1. *Autonomy*
2. *Public Enlightenment, and the last one we have*
3. *The use of information and communications technology*

The participant then explained each criterion as follows:

1. *Autonomy*
The board was granted semi-autonomy in 2011. Based on that, the board employed professional staff. They have been trained and equipped, adequately motivated and charged with the responsibility of developing strategies that will improve internal revenue base of the state. By virtue of the autonomy, the board has the mandate to hire and fire any staff found wanting without being subjected to the long civil service procedure.

2. *Public Enlightenment*
As a matter of fact, the board embarks on mass education and enlightenment programs to sensitize the general public on the need to carry out their civic responsibility of paying tax promptly.

3. *The Use of Information and Communications Technology*
The board deploys the use of information and communications technology to simplify its tax computation and assessment processes with the view to generate more revenue within the short time frame. Presently, new ready-made software has been acquired to facilitate ID to taxpayers; before granting any service customer in all area revenue offices including Headquarter"

.... Participant B

The participant responded that autonomy, public enlightenment and use of ICT are some of the determinants that result in the efficiency of the board, which is also in line with the findings of Evelyn et al. (2004), Abiloa et al. (2012) and the OECD (2011), respectively. The participant's response is also in line with the results of this study which indicate that there is a significant relationship between autonomy, public enlightenment and use of ICT and tax administration efficiency.

5.4 Strategies that may improve the Efficiency of the Board

Participant C was asked on the strategies that can improve the efficiency of BIR and the following are his comments:

> *"The efficiency of the board can be grouped under the following;*
> 1. *Taxpayer identification*
> 2. *Effective monitoring*
> 3. *Strong political will/backing*
> 4. *Stakeholders' consultation*
> 5. *Government to encourage voluntary compliance*
> 6. *Tax audit and investigation*
>
> *Let me start by elaborating one after the other:*
>
> 1. *Taxpayer Identification*
>
> *Presently, the state does not have comprehensive database of taxpayers in the state. Therefore, the board carries out taxpayer enumeration exercise of companies, government institutions, NGOs and all employers of labor in the state with the view to boost the revenue. The board will be able to determine which of these potentials are not being fully utilized with a view to properly identify and register them in line with the new taxpayer identification.*
>
> 2. *Effective Monitoring*
>
> *Periodic visiting of state Ministry/Parastatals, federal government agencies and all organizations operating PAYE in the state to ensure effective compliance with the tax table prepared by the board.*
>
> 3. *Strong Political Will/Backing*
>
> *The government should give the necessary support and backing to the board of internal revenue and ensure the implementation of appropriate tax table prepared for all categories of public servants in the state.*
>
> 4. *Stakeholders' Consultation*
>
> *It is imperative for government to consider taxpayers and other key stakeholders in fiscal policy in order to achieve a reasonable level of compliance.*
>
> 5. *Government to Encourage Voluntary Compliance*
>
> *The government should come up with a deliberate policy that will encourage taxpayers' voluntary compliance. Such policy should include but not be limited to erecting a Bill Board and write taxpayers money at work on certain project embarked by the government*

6. Tax Audit and Investigation
The board must strengthen its tax audit and investigation directorate and be charged with the responsibility for establishing a state-wide audit plan that encompasses all statutory taxes, primarily focused on areas of highest risk to the revenue"

.... Participant C

From the responses above, the participant highlighted and discussed some strategies that can enhance the efficiency of the board. This is consistent with the findings of pervious literatures, for example: Alouis and Gideon (2013), who studied the system and challenges of revenue generation in Zimbabwe and suggested that adequate supervision and strong audit practice can enhance the effectiveness and efficiency of the system. According to Dubin (2006), IRS audit activities have a measurable and significant effect on voluntary compliance of taxpayers**.** As observed by James and Gray (2007), implementing strong enforcement and sanctions mechanism as well as reformation of tax laws and policies, can lead to improvement in tax administration efficiency. Also, Baurer (2005) suggested the issuance of a unique taxpayer identification number as a measure through which tax administration efficiency can be improved and the establishment of tax administration business advisory panel, to enable taxpayers (stakeholders) to voice their concerns on issues regarding taxes.

5.5 Summary

This chapter discusses the findings of the interview; it also discusses the method of the interview in the introductory part, the place where the interview took place and the numbers of questions asked as well as the responses.

CHAPTER SIX

DISCUSSION AND CONCLUSION

6.1 Introduction

This chapter discusses the findings of the study. Conclusion and recommendations for future possible studies on tax administration efficiency are also discussed.

6.2 Discussion of Findings

The first hypothesis which states that there is a significant relationship between autonomy of the board of internal revenue and tax administration efficiency fails to reject. This shows that granting of autonomy leads to efficient administrative processes. This finding is in line with the qualitative results of the study; it also agrees with the work of London (2010) which shows that there is a positive relationship between autonomy and the efficiency of the administration, which increases utilization of human resources, generation of revenue and also facilitates decision making. The study by Cekmecelioglu et al. (2011) also found that autonomy has a positive relationship with both administrative efficiency and creativity.

The second hypothesis, which states that there is a significant relationship between ICT and tax administration efficiency fails to reject. The findings of Buseni (2013) support this study; their result revealed that the use of ICT increases innovation, productivity, efficient practices and improves the overall performance of the public sector. Similarly, Edmead et al. (2013) found the use of computer and other electronic gadgets enhances service delivery and increases administrative efficiency of the government businesses.

The third hypothesis which states that there is a significant relationship between strong audit practice and tax administration efficiency is rejected. This finding is in line with Alm et al. (2006) who found that compliance rate of those who know that they will not be audited declines, which has a negative effect on compliance.

The fourth hypothesis which states that there is a significant relationship between public enlightenment and tax administration efficiency fails to reject. Williams (2013) identified increased public awareness as a critical factor that encourages taxpayers to comply with tax legislation. Another study that corroborated this finding is that of Olowo-Okere et al. (2013) which found that public enlightenment program on tax revenue accountability has a significant influence on tax. Overall, this finding is also supported by the qualitative results of this study.

The fifth hypothesis that there is a significant relationship between motivation and incentives and tax administration efficiency is rejected. This implies that motivational factors, such as encouragement, remuneration and wages do not have influence on the administrative efficiency. This finding is consistent with the study by Anderson (2009) which found that public service motivation is not a major determinant of organizational efficiency.

The sixth hypothesis which states that there is a significant relationship between perceived corruption and tax administration efficiency is rejected. This finding is supported by the work of Blackburn et al. (2010); their result indicated that there is a negative relationship between corruption and that of revenue.

6.3 Conclusion

Tax, as a key tool for governments to raise revenue, has a great impact on the economic growth and development of a country. There is a continued recognition of the role that the tax system plays in enhancing national development and promoting good governance. Therefore, the need for an efficient tax administration is vital to any country's well-being. This study examines the determinants of an efficient tax administration. The results of the study reveal that majority of the respondents agree that there is significant relationship between tax administration and the factors discussed in the study.

6.4 Recommendations

This study is the first empirical study on the determinants of tax administration efficiency in Bauchi, Nigeria. Therefore, there is a need to conduct more studies in order to examine the relationship between autonomy, ICT, strong audit practice, public enlightenment, motivation and incentives, as well as perceived corruption and tax administration efficiency. This would enable confirmation or otherwise of the findings of this study.

It is obvious that this study focuses only on tax administrators, i.e., staff of Bauchi Internal Revenue. Hence, it is recommended that future studies should include taxpayers' and other stakeholders' views. Furthermore, the geographical location of this study is Bauchi; future studies should consider other states or regions of the country in order to have an in-depth understanding of this phenomenon.

In addition, future studies may also consider other factors, such as non-availability of tax statistics, multiplicity of taxes, underground economy, regulatory challenges and government spending (Micah, et al., 2012).

Finally, the government should ensure that tax defaulters, especially the economic and political elites and informal sector are made to pay taxes due. Adequate and effective monitoring and supervision of tax administration performance indicators in order to establish a culture of transparency and accountability in the tax system are essential.

References

Abiola, J., & Asiweh, M. (2012). Impact of tax administration on government revenue in a developing economy – a case study of Nigeria. *International Journal of Business and Social Science, 3(8).*

Adeosun, O. (2010). Quality basic education development in Nigeria: Imperative for the use of ICT, *Journal of International Cooperation in Education, 13(2),* 199-211.

Afful- Broni, A. (2012). Relationship between motivation and job performance at the University Mines and Technology, Tarkwa, Ghana: Leadership lessons. *Creative Education, 3(3),* 309-314. http://dx.doi.org/10.4236/ce.2012.33049

Akintye, I.R., & Tashie, G.A. (2013). The effect of tax compliance on economic growth and development in Nigeria, West Africa. *British Journal of Arts and Sciences, 11 (II),* 222-231.

Alm, J., & Mckee, M. (2006). Audit certainty, audit productivity, and taxpayer compliance. Working paper 06-043.

Alon, A., & Hageman, A.M. (2013). The impact of corruption on firm tax compliance in transition economies: whom to trust?. *J Business Ethics. 116,* 479-494.

Alouis, M., & Gideon, Z. (2013). Systems, processes and challenges of public revenue collection in Zimbabwe. *American International Journal of Contemporary Research, 3(2),* 49-60.

Anderson, (2009). What determine the behaviour and performance of health professionals? Public service motivation, professional norms, and/or economic incentives. *International Review Administrative Sciences, 75,* 79-97.

Antomioni, D. (1999). “What motivates middle managers”?. *Industrial Management, 41(6),* 27-30.

Anyaduba, J.O., & Modugu, K.P. (2013). Tax audit and tax compliance in Nigeria. *Asian Journal of Research in Business Economics and Management, 3(9),* 227-240.

Apekhade, I.Y. (2011, June 5). Why Nigeria's tax system is weak. *The Nation.*

Aruwa, S.A. (2008). The administration and problems of value added tax in Nigeria. *Finance and Accounting Research Monitor, 2(2).*

Asada, D. (2005). The administration of personal income tax in Nigeria: Some problem areas. Working paper, University of Jos.

Association of Colleges (2008). Improving administrative efficiency in colleges. A paper from the Association of colleges.

Awais, M.B., Chee, H.H., & Veera, K.S. (2012). *A Guide to Beginners: Data Analysis using SPSS and AMOS*. Pearson Malaysia Sdn Bhd. Malaysia: Pearson.

Badara, M.S. (2012). The effect of tax audit on compliance in Nigeria: (A study of Bauchi state board of internal revenue). *Research Journal of Finance and Accounting, 3(2),*

74-79.

Baurer, L.I. (2005). Tax administrations and small and medium enterprises (sme) in developing countries. World Bank Group July.

Barone, G., & Mocetti, S. (2009). Tax morale and public spending inefficiency.

Blackburn, K., Bose, N., & Haque, M.E. (2006). The incidence and persistence of corruption in economic development. *Journal of Economic Dynamics & Control,* 2447–2467.

Blumberg, B., Cooper, D.R., & Schindler, P.S. (2008). *Business Research Methods.* (2nd European ed.). Maidenhead Berkshire, London: McGraw-Hill Education.

Brasoveanu, I.V., & Brasoveanu, L.O. (2009). Correlation between corruption and tax revenues in EU 27.

Bruekner, J.K. (1999). Fiscal decentralization in developing countries: the effects of local corruption and tax evasion. *CEMA Working paper series, 1,* 1-18.

Cantens, T., Raballand, G., & Bilangna, S. (2010). Reforming customs by measuring performance: A Cameroon case study. *World Customs Journal, 4(2),* 55-74.

Casasnovas, G.L., McDaid, D., & Costa-Font, J. (2009). Decentralization and management autonomy? Evidence from the Catalonian hospital sector in a decentralized Spain. *International Public Management Review,* 10 (2), 103-119. Electronic Journal at http://www.ipmr.net

Cekmecelio, H.G., & Gunse, A. (2011). Promoting creativity among employees of mature industries: The of autonomy and role stress on creative behaviors and job performance. *Procedia Social and Behavioral Science, 24,* 889-895. Available online at www.sciencedirect.com

Cerqueti, R., & Coppier, R. (2011). Economic growth, corruption and tax evasion. *Economic Modelling, 28,* 489-500.

Chan, C.W., Troutman, C.T., & O'Bryan, D. (2000). An expanded model of taxpayer compliance: Empirical evidence from United States and Hong Kong. *Journal of International Accounting, Auditing and Taxation, 9(2),* 83 –103.

Charlo, G. (2011). The impact of ict and innovation on industrial productivity in Uruguay.

ICT in Latin America: *A Micro Data Analysis.*

Crandall, W. (2010). Revenue administration: Autonomy in tax administration and the revenue authority model.

Croxton, R., & Moniz, R. (2009). An analysis of employees motivation within the public sector.

Decman, M., Stare, J., & Klun, M. (2010). E-government and cost-effectiveness: E-taxation in Slovenia. *Transylvanian Review of Administrative Sciences, 31,* 48-57.

Demuzere, S., Verhoest, K., & Bouckaert, G. (2008). Quality mangament in public sector

organizations: The role of manageriual autonomy and organizational culure. K.U. Leuven – *Public Management Institute.*

Djawadi, B.M., & Fahr, R. (2013). The impact of tax knowledge and budget spending influence on tax compliance. Discussion paper no. 7255.

Dobre, O. (2013). Employee motivation and organizational performance. *Review of applied socio-Economic Research, 5(1),* 53-60.

Dubin, J.A. (2006). The effect of audit rates on the federal individual income tax, 1987-2004.

Dreher, A., & Schneider, F. (2010). Corruption and the shadow economy: An empirical analysis. *Public Choice, 144,* 215-238. DOI 10.1007/s11127-009-9513-0.

Ebimobowei, A., & Peter, E.G. (2013). A causality analysis between tax audit and tax compliance in Nigeria. *European Journal of Business and Management, 5 (2),* 107-120.

Edgar, L., & Feige, E.L. (2009). New estimates of overseas U.S. currency holdings, the underground economy and the "Tax Gap".

Edmead, N., Ngwu, C., Oqua, B.I., & Pichel, F. (2013). Streamlining land administration and governance in Cross River State, Nigeria.

Erard, B. (1994). "Honesty and evasion in the compliance game". *The RAND Journal of Economics, 25(1),* 1-19.

Eriksen, K., & Fallan, L. (1996). Tax knowledge and attitudes towards taxation: A report on a quasi-experiment. *Journal of Economic Psychology, 17,* 387-402.

Evelyn, A., & Luzira, M. (2004). Autonomy of apex hospitals in Uganda: Too little, too slow health policy and development. *2 (2),* 151-160.

Fagbemi, O. T., Uadile, O. M., & Noah, A. O. (2010). The ethics of tax evasion: perpetual evidence from Nigeria. *European Journal of Social Sciences, 17(3),* 360-371.

Federal Inland Revenue Service (2013, April 9). Nigeria's chaotic tax system. *Punch Editorial Board.*

Federal Inland Revenue Service (2009). *Performance appraisal in 2008 and work plan for 2009*. Abuja Federal Inland Revenue Service.

Fjeldstad, O. (2003). "Fighting fiscal corruption: Lessons from the Tanzania revenue authority," *Public Administration and Development, 23(2),* 165-175.

Garde, M.P. (2004, November 15). A model for tax administration reform. *Business focus bulletin*.

Gammelgaard, J., Mcdonald, F., Stephan, A., Selmann, H.T., & Christopher, D.R. (2012). The impact of increase in subsidiary autonomy and network relationships on performance.

International Business Review, 21, 1158-1172.

Gcabo, R., & Robinson, Z. (2007). Tax compliance and behaviour response in South Africa: An alternative investigation. *SAJEMS NS, 10(3),* 357-370.

Goerdel, H.T., & Pitts, D.W. (2006). Public management, autonomy, and performance:

Merging political and administrative notions of autonomy. Second conference on empirical studies of organizations and public management, College station May 5-6, 2006.

Govindaraj, R., & Chawla, M. (1996). Recent experience with hospital autonomy in

developing countries – What can we learn?.

Hansford, A., & Hasseldine, J. (2003). Tax auditing under the self-assessment: Survey evidence from the United Kingdom. *New Zealand Journal of Taxation Law and Policy, 9,* 171-83.

Hassan, A. G. D. (2012). Tax administration in Kano state: problems and prospects. *International Journal of Arts and Commerce, 1 (3).*

Hasseldine, J., Hite, P., James, S., & Toumi, M. (2007). Persuasive communications: tax compliance enforcement strategies for sole proprietors. *Contemporary Accounting Research, 24(1),* 171-94.

Heineman, B.W., & Heimann, F. (2006). The long war against corruption. *Foreign Affairs, 20(1).*

Her Majesty's Revenue and Customs (2012). Annual Report and Account 2012- 13 (for the year ending 31 March, 2013.

http://www.oecd.org/cleangovbiz/toolkit/49360071.pdf

Idisemi, A., & Ann, L. (2011). The benefits of ICT adoption: An empirical study of Nigerian SMEs. *Proceedings of the European Conference on Information*

Management, 483.

International Telecommunication Union (2012). Sustainable ICT in corporate organizations.

James, B. (2013). Effects of information and communication technology on secretaries' performance in contemporary organizations in Bayelsa state, Nigeria. *Information and Knowledge Management, 3 (5),* 87-93.

James, A.H., & Gray, C.W. (2007). "Policies and corruption outcomes" in anticorruption in transition 3. Who is succeeding and why? The World Bank.

James, S., & Edward, A. (2008). Developing tax policy in a complex and changing world. *Economic Analysis & Policy, 38 (1),* 35-53.

James, S. (2006). Tax officials' attitudes and perceptions, performance indicators and efficiency of tax collection. Discussion paper in management paper number 06/01.

James, O.A, Ariffin, Z.Z., & Idris, K.M. (2012). Non-compliance opportunities and tax compliance behaviour in Nigeria: the moderating effect of tax payers financial conditi on and risk preferences. *Journal of modern Accounting and Auditing, 8(4),* 445-460.

Jin, M.H., & Lee, M. (2012). The effects of autonomy, experience, and person organization fit on job satisfaction: the case of public sector. *The international journal of social sciences,* 6 (1), 18-44.

Joon, K.K., & Kim, K.S. (2011). Tax administration reform in Korea and its implications. *World Bank and KDI School Conference on Fiscal Policy and Management on 14-18 November2011.*

Karimi, S.P., Jafari, S.A., & Rezaei, R.A. (2010). Corruption and tax revenue new evidence from developing countries. *Australian Journal of Basic and Applied Sciences, 4(9),* 218-232.

Kawai, N., & Strange, R. (2013). Subsidiary autonomy and performance in Japanese multinationals in Europe. *International Business Review.*

Kenneth, T. (2012). IRS finds U.S. tax evasion $385 billion per year, suggesting tax justice network numbers are right. *Middle Class Economist.*

Kiabel, D. B., & Nwokah, G. N. (2009). Boosting revenue generation by state governments in Nigeria: The tax consultant option revisited. *European Journal of Sciences, 8 (4).*

Kleven, H., Knudsen, M.B., Kreiner, C.T., Pedersen, S., & Saez, E. (2010). Unwilling or unable to cheat? Evidence from a randomized tax audit experiment in Denmark. Working paper.

Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30,* 607-610.

London, J.D. (2013). The promises and perils of hospital autonomy reform by decree in viet nam, social science and medicine. 232-240. http://dx.doi.org/10.1016/j.socscimed.2013.07.009

Maboja, W. (2013, October 18). Tax evasion in Nigeria could be costing government billion of naira. *CNBCAfrica.*

Machupa, O., Otaigo, E., Koloseni, D., & Shimba, F. (2011). Assessing the factors influencing information technology investment decisions: A survey of sampled public sector organizations in Tanzania. *ICIEIS, 1(251),* 385 -399.

Manasan, R.G. (2003). Tax administration reform: (Semi-) autonomous revenue authority anyone? Philippine institute for development studies. Discussion paper series no. 2003-05 (revised).

Manzoor, Q. (2012). Impact of employees motivation on organizational effectiveness. *Business Management and Strategy, 3(1).* doi:10.5296/bms.v3i1.904

Marsden, D., & Richardson, R. (1992). Motivation and performance related pay in the public sector: A case study of the Inland Revenue. *Centre of economic performance, London School of Ecomomics, Discussion paper No. 75, May.*

Micah, L.C., Ebere, C., & Umobong, A.A. (2012). Tax system in Nigeria – challenges and the way forward. *Research Journal of Finance and Accounting*, *3(5),* 9-15.

Mikesell, J.L. (2003). International experiences with administration of local taxes: A review of practices and issues prepared for the world bank thematic group on taxation and tax policy.

Mohamad, A., Mustafa, H., & Asri, M. (2007, July). *The effects of knowledge on tax compliance behaviours among malaysian taxpayers.* International Conference on Business and Information. Tokyo, Japan.

Mustafa, B., & Yilmaz, S. (2006). Keeping an eye on subnational governments: internal control and audit at local levels. The World Bank.

Muogbo, U.S. (2013). The impact of employee motivation on organizational performance (A study of some selected firms in Anambra state Nigeria). *The International Journal of Engineering and Science (IJES), 2(7),* 70-80.

Ngama, Y. (2013, May 17). 350,000 Companies in Nigeria do not pay taxes, says FG. *The Nigerian Voice.*

Nwanna, G., & Richards, D. (2010). The imperative of basic tax education for citizens. *American Journal of Business Education, 3(9),* 61-66.

OECD (2012). Tax administration: Detecting corruption. CleanGovBiz.

OECD (2001). Committee of fiscal affairs forum on strategic management, principles of good tax administration: Centre for tax policy and administration.

OECD (2011). "Efficiency of tax administrations", *in government at a glance 2011,* OECD Publishing. http://dx.doi.org/10.1787/gov_glance-2011-64-en

Ogbonna, G.N. (2011). Burning issues and challenges of the Nigerian tax systems with analytical emphasis on petroleum profit tax.

Ojochgwu, W.A., & Stephen, A.O. (2012). Factors that affect tax compliance among small and medium enterprises (SMEs) in north central Nigeria. *International Journal of Business Managent, 7(12),* 87-96.

Okaru, I.O. (2011, Feb). *Effective and efficient tax collection and administration in Nigeria in the three tiers of government.* Paper presented at Le Meridien hotel, Oyo, Akwa Ibom state.

Okonjo-Iweala, N. (2013, March 25). Tax emerges as crucial issue in post- 2015 development talks. *The Guardian.*

Olatunji, O.C., Taiwo, O.A., & Adewole, J.O. (2009). A review generation in Nigeria local government: A case study of Ekiti state. *International Business Management, 3 (3),* 54-60.

Olowookere, J. K., & Fasina, H. T. (2013). Taxpayers' education: A key strategy in achieving voluntary compliance in Lagos state, Nigeria. *European Journal of Business and Management, 5 (10),* 146-154.

Olsen, D., & Purao, S. (2001). The impact of information and communication technology on inter-organizational coordination: Guidelines from theory. *Information Science, 4 (3),* 129 – 138.

Onyeukwu, H. (2010). "Business tax in Nigeria: The controversy of multiple taxation" corporate governance.

Palil, M.R., & Mustapha, A.F. (2011). Determinants of tax compliance in Asia: A case of Malaysia. *European Journal of social Sciences, 24(1),* 7-32.

Pilat, D. (2004). The ICT productivity paradox: Insights from micro data. *OECD Economic Studies,* 38(1), 38-65.

Presidential Committee on National Tax Policy (2008). Draft document on the national tax policy". Available from: http://www.scribd.com/doc/10063735/National-Tax-Policy-Draft-Updated.

Rahman, A. (2009). Investment climate in practice: Tackling corruption through tax administration reform.

Randlane, K. (2012). Tax compliance and tax attitudes: The case of Estonia. *Journal of Management and Change, 29,* 89-103.

Rainey, H.G., & Steinbauer, P. (1999). Galloping elepants: Developing elements of a theory of effective government organizations. *Journal of Public Administration Research and Theory, 9(1),* 1-32.

Rasdi, R.M., Ismail, M.,Uli, J., & Noah, S.M. (2009). Towards developing a theoretical framework for measuring public sector mergers' career success. *Journal of Europeans Industrial Training, 33(3),* 232-254. DOI 10.1108/03090590910950596

Rewane, B. (2013, March 12). Nigeria loses N90billion to tax evasion in four years in auto industry; *Taxation*.

Salami, A. (2011). Taxation, revenue allocation and fiscal federalism in Nigeria: Issues, challenges and policy options. *Economic Annals*, *LVI (189)*, 27-50.

DOI:10.2298/EKA1189027S

Sanni, A. (2012). Multipilicity of taxes in Nigeria: Issues, problems and solutions. *International Journal of Business and social Sciences*, *3(17)*, 229 -236.

Sekaran, U. (2000). *Research Methods for Business; A Skill Building Approach.* (3rd Ed). New York: John Wiley and Sons.

Solomon, O., Hashim, N.H., Mehdi, Z.B.T., & Ajagbe, M.A. (2012). Employee motivation and organizational performance in multinational companies: A study of Cadbury

Nigeria plc. *International Journal of Research in Management & Technology, 2(3),* 303-312.

State Revenue Service (2005). State revenue tax administration strategy for the year 2005-2009.

Taliercio, R. (2004). Designing performance: the semi-autonomous revenue authority model

in Africa and Latin America. World Bank Policy Research Paper.

The Chartered Institute on Taxation of Nigeria (CITN) (2002).

Thomas, K. (2012, Jan 9). IRS finds U.S. tax evasion $385 billion per year, suggesting tax justice network numbers are right. *Middle Class Economist*.

Ugwu, J.S. (2013). The association of tax education and tax compliance: A case study of UUM accounting students. Unpublished master's thesis, Universiti Utara Malaysia.

UN (2000). Improving tax administration in Sub-Saharan Africa: The potential of revenue agencies and electronic service delivery.

Upadhyaya, G. (2011). ICT application in service delivery: A case of inland revenue department, Nepal. A Thesis submitted to the school of postgraduate study. North South University, Bangladesh.

Verschuere, B. (2007). Measuring policy autonomy of public organizations: Conceptual and methodological issues. Paper for COBRA, Rotterdam, 29-30 March 2007.

Wei, S.L. (1997). Why corruption is much more taxing than tax? Arbitrariness kills. National bureau of economic research. Working paper 6255.

Williams, I.T. (2013). Effective publicity and education campaigns to enhance compliance: design and implementation issues. Dominica.

Wolf, S. (2001). Determinants and impact of ICT use for African SMEs: Implications rural South Africa. *Annual Forum at Misty Hills, Muldersdrift.*

Wright, B.E. (2004). The role of work context in work motivation: A public sector application of goal and social cognitive theories. *Journal of Public Administration Research and Theory, 14(1),* 59-78. DOI: 10.1093/jopart/muh004

Zikmund, W.G. (2000). *Business Research Methods*. (5th Ed). Orlando: The Dryden Press.

APPENDIX 1: QUESTIONNAIRE

A SURVEY ON THE DETERMINANT OF TAX ADMINISTRATION EFFICIENCY: A STUDY OF BAUCHI STATE INTERNAL REVENUE

Dear respondents,

I am a Masters (International Accounting) student of School of Accountancy, Universiti Utara Malaysia. I am currently conducting a research on the topic: Determinant of Tax Administration Efficiency: A study of Bauchi State Internal Revenue. I hereby solicit for your opinion through the medium of questionnaire.

This questionnaire is purely for academic research purpose. Any information provided will be strictly treated confidentially and will be used for the purpose which it was meant for. As such your identity is not required.

Thank you so much in anticipating your cooperation and assistance.

Yours Sincerely,

Shamsudeen Ladan Shagari

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Please indicate the extent to which you agree or disagree to each of the statement below, use the scale below to indicate your answer.

1- Strongly disagree (SD) 2- Disagree (D) 3- Not sure (NS) 4- Agree (A) 5- Strongly Agree (SA)

		SD	D	NS	A	SA
1.	In my view our tax system has an efficient collection process	1	2	3	4	5
2.	Income generated from tax revenue by my organization has been impressive due to efficient tax administration	1	2	3	4	5
3.	My organization has adequate infrastructures for efficient tax administration	1	2	3	4	5
4.	My organization has well-trained staff for efficient tax administration	1	2	3	4	5
5.	In my opinion our tax administrative structure lack autonomy	1	2	3	4	5
6.	Politicians interferes too much with the activities of Board of Internal Revenue	1	2	3	4	5
7.	The Board of Internal Revenue has autonomy in recruitment and dismissal of staff	1	2	3	4	5
8.	The Board of Internal Revenue has autonomy in budget preparation and implementation	1	2	3	4	5
9.	The Board of Internal Revenue takes most of the decisions itself after consulting the Ministry of Finance	1	2	3	4	5
10.	The Board of Internal Revenue has the autonomy to recruit and dismiss staff	1	2	3	4	5
11.	The Board provides me with useful ICT trainings in the daily working procedures	1	2	3	4	5
12.	The Board provides online facility in my desk	1	2	3	4	5
13.	The Board regularly maintained our ICT infrastructures (digital devices, internet facility)	1	2	3	4	5
14.	The Board ensure that our organizational website is well maintained and updated	1	2	3	4	5
15.	The board employs strong tax audit to achieved Targeted Revenue	1	2	3	4	5

16.	The Board employs strong tax audit to solve the problems of tax evasion, avoidance and other irregularities	1	2	3	4	5
17.	The Board employs strong tax audit to ensure the submission of accurate and current returns	1	2	3	4	5
18.	The Board creates awareness of strong tax audit to makes the taxpayers render a satisfactory returns	1	2	3	4	5
19.	Public enlightenment campaign on utilisation of tax revenue by Board of Internal Revenue will encourage tax payment	1	2	3	4	5
20.	Issuance of tax payment notice in reasonable time by Board of Internal Revenue will encourage tax payment	1	2	3	4	5
21.	Public enlightenment by Board of Internal Revenue will make people in the informal sector pay their tax regularly	1	2	3	4	5
22.	Public enlightenment campaign by Board of Internal Revenue on sanctions and penalty for noncompliance will encourage tax payments	1	2	3	4	5
23.	I have been motivated by my organization to put my best effort in my job done	1	2	3	4	5
24.	I have been remunerated for staying beyond the working hours to finish my daily routine task	1	2	3	4	5
25.	Employees in my organization work as hard as employees in other organization with similar remuneration	1	2	3	4	5
26.	I have been motivated by my organization to do extra work for my job that isn’t normally expected for me	1	2	3	4	5
27.	Time seems to drag while I am on the job	1	2	3	4	5
28.	Board of Internal Revenue explicitly disallow tax deductions for bribes to public officials	1	2	3	4	5
29.	Board of Internal Revenue raises awareness among taxpayers that bribes are not deductible	1	2	3	4	5
30.	Board of Internal Revenue Staff are authorised to report suspicious of corruption by taxpayers to the appropriate law enforcement authority	1	2	3	4	5
31.	Board of Internal Revenue uses tax information sharing agreements with other States Board of Internal Revenue to obtain and provide information to determine whether a	1	2	3	4	5

deducted payment constitutes a bribe.

DEMOGRAHIC BACKGROUND

Instruction: please tick (✓) in the correct response where appropriate.

1. Age [group]
   [ ] 20 – 30
   [ ] 31 – 40
   [ ] 41 – 50
   [ ] 51 – 60
   [ ] Above 60 years
2. Gender
   [ ] Male
   [ ] Female
3. Educational background

   [ ] Secondary School Certificate

   [ ] Diploma Certificate

   [ ] Degree B.sc/Higher National Diploma (HND)

   [ ] Master degree/Ph. D

4. Position
   [ ] Top Management
   [ ] Middle Management
   [ ] Supporting Management
5. Marital Status
   [ ] Married
   [ ] Single
   [ ] Divorce
6. Religion
   [ ] Islam
   [ ] Christian
   [ ] Others

THANK YOU FOR YOUR COOPERATION

APPEDIX 2: Measurement of Variable

Table 3.2: Measurement of Variable Tax Administration Efficiency

Name of Variable	Measurement Item	Sources
Tax Administration Efficiency	Tax administration system in Nigeria is complex	Abiola and Asiweh (2012)
	Income tax structure is equitable	Abiola and Asiweh (2012)
	Tax system has an inefficient tax collection process	Abiola and Asiweh (2012)
	Nigeria tax System is progressive in nature	Abiola and Asiweh (2012)

Table 3.3: Measurement of Variable Autonomy of Tax Authority

Name of Variable	Measurement Item	Sources
Autonomy of Tax authority	Tax Administrative structure in Nigeria lack Autonomy	Abiola and Asiweh (2012)
	Politicians interferes much with the Nigerian tax system	Abiola and Asiweh (2012)
	Tax authority has autonomy in recruitment and dismissal of staff	EU (2007)
	Tax authority has autonomy in budget preparation and implementation	EU (2007)
	Tax authority takes most of the decisions itself after consulting the ministry of finance	Verscheure (2007)

<u>Table 3.4: Measurement of Variable Use of ICT</u>

Name of Variable	**Measurement Item**	**Sources**
Use of ICT	Usefulness of ICT trainings in the daily working procedures of my organization	Upadhyaya (2011)
	Having online facility in my desk	Upadhyaya (2011)
	ICT infrastructures (digital devices, internet facility) are regularly maintained in my organization	Upadhyaya (2011)
	To what extent, do you agree that the website of your organization is well maintained and updated	Upadhyaya (2011)

<u>Table 3.5: Measurement of Variable Strong Audit Practice</u>

Name of Variable	**Measurement Item**	**Sources**
Strong Audit Practice	Tax audit is employed by Relevant Tax Authority (RTA) to achieved Target Revenue	Badara (2012)
	Tax audit solves the problems of tax evasion, avoidance and other irregularities	Badara (2012)
	Tax audit ensures the submission of accurate and current returns	Badara (2012)
	The awareness of tax audit makes the tax payers to render a satisfactory returns	Badara (2012)

Table 3.6: Measurement of Variable Public Enlightenment

Name of Variable	Measurement Item	Sources
Public Enlightenment	Public enlightenment on utilisation of tax revenue will encourage tax payment	Abiola and Asiweh (2012)
	Tax authority issues tax payment notice in reasonable time	Abiola and Asiweh (2012)
	Public enlightenment make people in the informal sector pay their tax regularly	Abiola and Asiweh (2012)
	Tax authority makes people aware about sanctions and penalty for noncompliance	Badara (2012)

Table 3.7: Measurement of variable Motivation and Incentives

Name of Variable	Measurement Item	Sources
Staff remuneration and motivation	I have been motivated by my organization to put my best effort my job done	Wright (2004)
	I have been remunerated for staying beyond the working hours to finish in my daily routine task	Wright (2004)
	Employees in my organization work as hard as employees in other organization with similar remuneration	Wright (2004)
	I have been motivated by my organization to do extra work for my job that isn't normally expected for me	Wright (2004)
	Time seems to drag while I am on the job	Wright (2004)

Table 3.8: Measurement of Variable Perceive Corruption

Name of Variable	**Measurement Item**	**Sources**
Perceive Corruption	Tax systems explicitly disallow tax deductions for bribes to public officials	OECD (2012)
	Tax administrations raise awareness among taxpayers that bribes are not deductible	OECD (2012)
	Are tax authorities authorised to report suspicions of corruption to the appropriate law enforcement authorities	OECD (2012)
	Tax authorities use tax information sharing agreements with other States to obtain and provide information to determine whether a deducted payment constitutes a bribe	OECD (2012)

APPENDIX 3: DESCRIPTIVE ANALYSIS

Summary of Descriptive Statistics of Variables

Code	Items	Min	Max	Mean	SD	SA	NS	SD
TAE1	Tax system has an efficient collection process	1	5	4.21	0.92	105 (90%)	4 (3%)	8 (7%)
TAE2	Tax revenue by my organization has been impressive due to efficient tax administration	1	5	3.93	0.72	91 (78%)	23 (20%)	3 (2%)
TAE3	Organization has adequate infrastructures for efficient tax administration	1	5	3.81	0.84	89 (76%)	15 (13%)	13 (11%)
TAE4	Organization has well-trained staff for efficient tax administration	1	5	4.14	0.81	99 (85%)	14 (12%)	4 (3%)
ABIR1	our tax administrative structure lack autonomy	1	5	2.99	1.18	47 (40%)	21 (18%)	49 (42%)
ABIR3	Board of Internal Revenue has autonomy in recruitment and dismissal of staff	2	5	4.01	0.86	85 (73%)	4 (3%)	28 (24%)
ABIR4	Board of Internal Revenue has autonomy in budget preparation and implementation	2	5	3.74	0.76	71 (61%)	4 (3%)	42 (36%)
ABIR6	Board of Internal Revenue has the autonomy to recruit and dismiss staff	1	5	3.89	1.02	78 (67%)	23 (21%)	14 (12%)
ICT 1	The Board provides me with useful ICT trainings in the daily working procedures	2	5	3.96	0.68	88 (75%)	2 (2%)	27 (23%)
ICT 2	The Board provides online facility in my desk	1	5	3.90	0.84	82 (70%)	23 (20%)	7 (6%)
ICT 3	The Board regularly maintained our ICT infrastructures (digital	2	5	4.12	0.69	37 (32%)	60 (52%)	20 (17%)

	devices, internet facility)							
ICT 4	The Board ensure that our organizational website is well maintained and updated	1	5	4.10	0.66	104 (89%)	11 (10%)	2 (1%)
SAP1	The board employs strong tax audit to achieved Targeted Revenue	1	5	4.30	0.77	106 (91%)	8 (7%)	3 (3%)
SAP2	The Board employs strong tax audit to solve the problems of tax evasion, avoidance and other irregularities	2	5	4.24	0.59	41 (35%)	70 (60%)	6 (5%)
SAP3	The Board employs strong tax audit to ensure the submission of accurate and current returns	2	5	4.17	0.55	109 (93%)	7 (6%)	1 (1%)
SAP4	The Board creates awareness of strong tax audit to makes the taxpayers render a satisfactory returns	2	5	4.19	0.65	107 (91%)	7 (6%)	3 (3)
PE 1	Public enlightenment by Board of Internal Revenue will make people in the informal sector pay their tax regularly	2	5	4.42	0.64	111 (95%)	4 (3%)	2 (2%)
PE 2	Issuance of tax payment notice in reasonable time by Board of Internal Revenue will encourage tax payment	1	5	4.10	0.78	105 (90%)	7 (6%)	5 (4%)
PE 3	Public enlightenment by Board of Internal Revenue will make people in the informal sector pay their tax regularly	3	5	4.00	0.60	92 (79%)	25 (21%)	0
PE 4	Public enlightenment campaign by Board of Internal Revenue on sanctions and penalty for noncompliance will encourage tax payments	2	5	3.87	0.66	87 (74%)	28 (24%)	2 (2%)

MAI1	I have been motivated by my organization to put my best effort in my job done	1	5	3.77	1.08	80 (68%)	15 (13%)	22 (19%)
MAI2	I have been remunerated for staying beyond the working hours to finish my daily routine task	1	5	3.51	0.95	73 (62%)	20 (17%)	24 (21%)
PC 1	Board of Internal Revenue explicitly disallow tax deductions for bribes to public officials	1	5	3.89	0.78	85 (73%)	28 (24%)	4 (3%)
PC 2	Board of Internal Revenue raises awareness among taxpayers that bribes are not deductible	2	5	3.84	0.78	87 (74%)	21 (18%)	9 (8%)
PC 3	Board of Internal Revenue Staff are authorised to report suspicious of corruption by taxpayers to the appropriate law enforcement authority	3	5	4.09	0.46	109 (93%)	8 (7%)	0
PC 4	Board of Internal Revenue uses tax information sharing agreements with other States Board of Internal Revenue to obtain and provide information to determine whether a deducted payment constitutes a bribe.	3	5	3.92	0.52	86 (74%)	31 (26%)	0

APPENDIX 4: RELIABILITY ANALYSIS

Tax Administration Efficiency

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.597	.599	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TAX ADMIN EFFICIENCY 1	11.88	3.017	.356	.135	.547
TAX ADMIN EFFICIENCY 2	12.17	3.542	.348	.124	.549
TAX ADMIN EFFICIENCY 3	12.28	3.121	.397	.180	.510
TAX ADMIN EFFICIENCY 4	11.96	3.144	.417	.190	.495

Autonomy of Board of Internal Revenue

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.715	.718	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
AUTONOMY OF BOARD OF INTERNAL REVENUE 1	11.64	3.884	.611	.384	.584
AUTONOMY OF BOARD OF INTERNAL REVENUE 3	10.61	5.372	.507	.269	.653
AUTONOMY OF BOARD OF INTERNAL REVENUE 4	10.89	5.919	.440	.247	.691
AUTONOMY OF BOARD OF INTERNAL REVENUE 6	10.74	4.872	.491	.292	.661

Information and Communication Technology

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.745	.753	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INFORMATION AND COMMUNICATION TECHNOLOGY 1	12.12	3.122	.482	.417	.717
INFORMATION AND COMMUNICATION TECHNOLOGY 2	12.19	2.688	.491	.443	.726
INFORMATION AND COMMUNICATION TECHNOLOGY 3	11.97	2.896	.576	.478	.667
INFORMATION AND COMMUNICATION TECHNOLOGY 4	11.98	2.881	.636	.507	.638

Strong Audit Practice

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.734	.751	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
STRONG AUDIT PRACTICE 1	12.60	2.185	.423	.209	.755
STRONG AUDIT PRACTICE 2	12.66	2.346	.593	.353	.640
STRONG AUDIT PRACTICE 3	12.73	2.422	.601	.409	.642
STRONG AUDIT PRACTICE 4	12.71	2.276	.538	.381	.667

Public Enlightenment

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.632	.629	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PUBLIC ENLIGHTENMENT 1	11.96	2.379	.351	.225	.603
PUBLIC ENLIGHTENMENT 2	12.29	1.813	.497	.308	.494
PUBLIC ENLIGHTENMENT 3	12.38	2.441	.364	.231	.594
PUBLIC ENLIGHTENMENT 4	12.51	2.180	.443	.293	.539

Motivation and Incentives

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.541	.544	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MOTIVATION AND INCENTIVES 1	3.51	.920	.373	.139	.[a]
MOTIVATION AND INCENTIVES 2	3.77	1.173	.373	.139	.[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Perceive Corruption

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.658	.654	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PERCEIVE CORRUPTION 1	11.84	1.691	.536	.380	.518
PERCEIVE CORRUPTION 2	11.90	1.574	.611	.400	.448
PERCEIVE CORRUPTION 3	11.65	2.355	.580	.358	.540
PERCEIVE CORRUPTION 4	11.81	2.906	.126	.035	.750

APPENDIX 5: FACTOR LOADING ANALYSIS

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.634
Bartlett's Test of Sphericity	Approx. Chi-Square	1529.159
	Df	325
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.048	19.414	19.414	5.048	19.414	19.414	3.106	11.945	11.945
2	3.220	12.384	31.798	3.220	12.384	31.798	2.693	10.357	22.302
3	2.661	10.235	42.032	2.661	10.235	42.032	2.685	10.327	32.629
4	2.037	7.836	49.868	2.037	7.836	49.868	2.496	9.601	42.230
5	1.781	6.851	56.720	1.781	6.851	56.720	2.334	8.976	51.206
6	1.464	5.631	62.350	1.464	5.631	62.350	2.138	8.222	59.428
7	1.283	4.933	67.283	1.283	4.933	67.283	1.638	6.302	65.730
8	1.231	4.734	72.017	1.231	4.734	72.017	1.635	6.288	72.017
9	.922	3.546	75.563						
10	.892	3.430	78.993						
11	.804	3.091	82.083						
12	.688	2.647	84.730						
13	.563	2.167	86.897						
14	.529	2.036	88.933						
15	.447	1.718	90.651						
16	.374	1.437	92.088						
17	.323	1.244	93.331						
18	.313	1.205	94.536						
19	.268	1.032	95.568						
20	.226	.867	96.436						
21	.219	.842	97.277						
22	.183	.705	97.983						
23	.152	.585	98.568						
24	.138	.529	99.097						
25	.122	.471	99.568						
26	.112	.432	100.000						

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.048	19.414	19.414	5.048	19.414	19.414	3.106	11.945	11.945
2	3.220	12.384	31.798	3.220	12.384	31.798	2.693	10.357	22.302
3	2.661	10.235	42.032	2.661	10.235	42.032	2.685	10.327	32.629
4	2.037	7.836	49.868	2.037	7.836	49.868	2.496	9.601	42.230
5	1.781	6.851	56.720	1.781	6.851	56.720	2.334	8.976	51.206
6	1.464	5.631	62.350	1.464	5.631	62.350	2.138	8.222	59.428
7	1.283	4.933	67.283	1.283	4.933	67.283	1.638	6.302	65.730
8	1.231	4.734	72.017	1.231	4.734	72.017	1.635	6.288	72.017
9	.922	3.546	75.563						
10	.892	3.430	78.993						
11	.804	3.091	82.083						
12	.688	2.647	84.730						
13	.563	2.167	86.897						
14	.529	2.036	88.933						
15	.447	1.718	90.651						
16	.374	1.437	92.088						
17	.323	1.244	93.331						
18	.313	1.205	94.536						
19	.268	1.032	95.568						
20	.226	.867	96.436						
21	.219	.842	97.277						
22	.183	.705	97.983						
23	.152	.585	98.568						
24	.138	.529	99.097						
25	.122	.471	99.568						
26	.112	.432	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component							
	1	2	3	4	5	6	7	8
STRONG AUDIT PRACTICE 3	.829							
STRONG AUDIT PRACTICE 4	.772							
PUBLIC ENLIGHTENMENT 1	.677							
STRONG AUDIT PRACTICE 2	.640							
INFORMATION AND COMMUNICATION TECHNOLOGY 1	.533	.434						
INFORMATION AND COMMUNICATION TECHNOLOGY 3	.532	.478						
INFORMATION AND COMMUNICATION TECHNOLOGY 4		.803						
INFORMATION AND COMMUNICATION TECHNOLOGY 2		.792						
TAX ADMIN EFFICIENCY 4		.688						
AUTONOMY OF BOARD OF INTERNAL REVENUE 1			.866					
AUTONOMY OF BOARD OF INTERNAL REVENUE 3			.677					
AUTONOMY OF BOARD OF INTERNAL REVENUE 4			.641					
AUTONOMY OF BOARD OF INTERNAL REVENUE 6			.591					
PUBLIC ENLIGHTENMENT 2				.750				
STRONG AUDIT PRACTICE 1				.717				
TAX ADMIN EFFICIENCY 1				.606				.461
PERCEIVE CORRUPTION 3					.800			
PERCEIVE CORRUPTION 2					.760			

PERCEIVE CORRUPTION 1					.713			
PUBLIC ENLIGHTENMENT 3						.886		
PUBLIC ENLIGHTENMENT 4						.721		
MOTIVATION AND INCENTIVES 2							.858	
MOTIVATION AND INCENTIVES 1							.512	
PERCEIVE CORRUPTION 4								.715
TAX ADMIN EFFICIENCY 3								.601
TAX ADMIN EFFICIENCY 2			.439					.442

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 19 iterations.

APPENDIX 6: CORRELATION ANALYSIS

Correlations

		TAE	ABIR	ICT	SAP	PE	MAI	PC
TAE	Pearson Correlation	1	.332**	.329**	.166	.278**	-.164	.228*
	Sig. (2-tailed)		.000	.000	.074	.002	.077	.013
	N	117	117	117	117	117	117	117
ABIR	Pearson Correlation	.332**	1	.249**	.131	-.007	-.247**	.175
	Sig. (2-tailed)	.000		.007	.158	.940	.007	.059
	N	117	117	117	117	117	117	117
ICT	Pearson Correlation	.329**	.249**	1	.346**	.098	-.173	.473**
	Sig. (2-tailed)	.000	.007		.000	.294	.063	.000
	N	117	117	117	117	117	117	117
SAP	Pearson Correlation	.166	.131	.346**	1	.233*	.068	.437**
	Sig. (2-tailed)	.074	.158	.000		.012	.465	.000
	N	117	117	117	117	117	117	117
PE	Pearson Correlation	.278**	-.007	.098	.233*	1	.156	.078
	Sig. (2-tailed)	.002	.940	.294	.012		.094	.403
	N	117	117	117	117	117	117	117
MAI	Pearson Correlation	-.164	-.247**	-.173	.068	.156	1	-.001
	Sig. (2-tailed)	.077	.007	.063	.465	.094		.989
	N	117	117	117	117	117	117	117
PC	Pearson Correlation	.228*	.175	.473**	.437**	.078	-.001	1
	Sig. (2-tailed)	.013	.059	.000	.000	.403	.989	
	N	117	117	117	117	117	117	117

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

APPENDIX 7: REGRESSION ANALYSIS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505[a]	.255	.214	.49667

a. Predictors: (Constant), PC, MAI, PE, ABIR, SAP, ICT
b. Dependent Variable: TAE

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.289	6	1.548	6.276	.000[a]
	Residual	27.135	110	.247		
	Total	36.425	116			

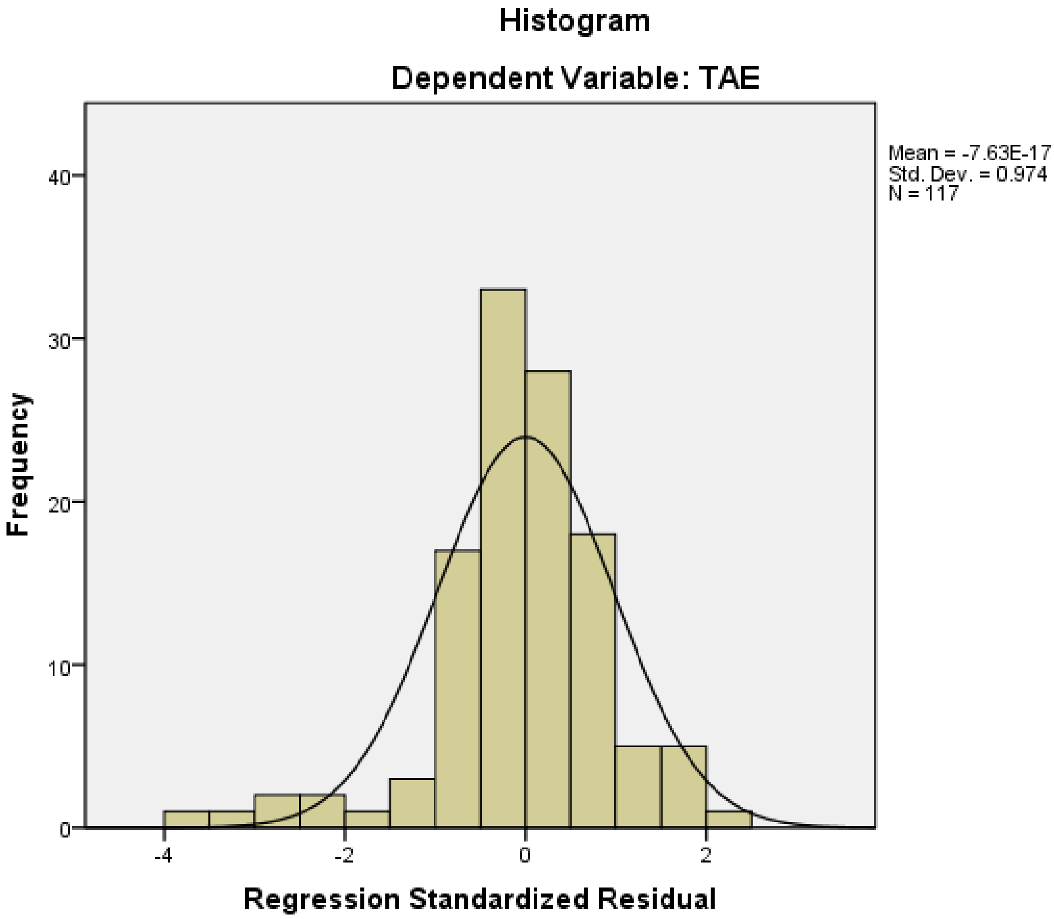
a. Predictors: (Constant), PC, MAI, PE, ABIR, SAP, ICT
b. Dependent Variable: TAE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.155	.637		1.812	.073
	ABIR	.194	.069	.247	2.829	.006
	ICT	.195	.101	.190	1.932	.025
	SAP	-.031	.110	-.027	-.278	.390
	PE	.334	.103	.278	3.248	.001
	MAI	-.074	.058	-.111	-1.271	.103
	PC	.103	.121	.085	.850	.198

a. Dependent Variable: TAE

APPENDIX 8: HISTOGRAM



APPENDIX 9: NORMAL P-P PLOT