

**DETERMINANTS OF TAX COMPLIANCE BEHAVIOUR IN KENYA**

**BY**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN  
ECONOMIC POLICY MANAGEMENT, SCHOOL OF ECONOMICS, UNIVERSITY  
OF NAIROBI.**

**OCTOBER 2019**

## **DECLARATION**

This research project is my original work and has not been presented for a degree award in any other University.

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This research paper has been submitted for examination with my approval as the University supervisor.

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## **DEDICATION**

I dedicate this work to my beloved wife Linda Wylland and my son Cruz Anwyll Omondi.

## **ACKNOWLEDGEMENT**

First, I would like to thank the almighty God for his love, protection, and provision. Special thanks to my supervisor Dr. Moses Muriithi whose guidance and comment made this project a reality, I appreciate your patience and motivation. I also take this opportunity to thank my family for their moral support and encouragement throughout my studies, my uncle Peter Omeny, Willis Audi, Charles Omeny, Kephass Omeny, my aunt, Caroline Ojwang, my brother Washington and sister Neemah Otindo for their encouragements. I owe great thanks to my mother for her persistent prayers, may the Almighty God bless you.

To my parents who despite all the challenges, sacrificed to ensure I attained the best possible education. My aunt Pamela Audi thanks for the continued guidance, encouragements and financial support. I would also like to appreciate the encouragement I received from Dr. Martin Oleche. I would also like to appreciate the support accorded by my colleagues; Dr. Benard Kirui, Jane Kanina, Bernadet Nzomo, Lydia Ronoh, Alex Oguso, Cyrus Mutuku, Ali Abdala Shee and Joseph Sirengo in reviewing the paper.

I would like to thank all my classmates who made my learning at the university very interesting. Special thanks to Baldwin Anyiga, George Mbuvi, Martin Muchiri, Mathew Babwoya, Debora Nyakundi for their continued encouragement during the entire period of the project, my friends Mark Onyango, Brian Ouma and Ted Owiti for the moral support and encouragements you accorded me. Finally, my special recognition goes to my wife Linda Wyland for the encouragement and perseverance even during the times I could stay late working on my project. Thank you for your understanding.

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## **LIST OF ABBREVIATIONS**

FY	Financial Year
GDP	Gross Domestic Product
ICPAK	Institute of Certified Public Accountants of Kenya
IMF	International Monetary Fund
ISSP	International Social Survey Programme
KAM	Kenya Association of Manufacturers
KIFWA	Kenya International Freights and Warehousing Association
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority

## DEFINITION OF KEY TERMS

**Tax Compliance:** Is the willingness by a taxpayer to declare and pay taxes without threats or coercion.

**Tax evasion:** This is the illegal attempts to minimize tax obligation like deliberate understatement.

**Tax Avoidance:** This is the use of legal means in order to avoid paying taxes.

**Tax Burden:** This is the amount of income tax, sales tax or property tax that is levied on either an individual or a business.

**Tax effort:** This is the tax to GDP ratio

**Tax Reforms:** These are generally the changes in tax system and the way administration of taxes is undertaken.

**Tax Compliance Attitude:** This is the people's evaluation of tax compliance behaviour.

## ABSTRACT

A major issue that any tax agency has to grapple with is the taxpayers' non-compliance with tax laws as this has immense effect on revenue performance. In its 6<sup>th</sup> corporate plan period (2016 to 2018), Kenya Revenue Authority fell short of its revenue target by Kshs.0.185 trillion after collecting a cumulative Kshs. 4 trillion against a revenue target of 4.186 trillion which represents a performance rate of 95.6%. Though this performance is attributed to among other factors failure by taxpayers to meet their tax obligations, not much is known regarding the attitude of taxpayers towards taxation in Kenya. Further, one of KRA's focus is to improve collection of tax revenue through improved compliance with the aim of attaining revenue independence. The aim of this research was to establish factors affecting compliance behaviour of taxpayers by categorizing the different factors and understanding how they affect revenue performance in Kenya.

To assess how each of the factors influence the taxpayer's attitude, the study run a binary probit model using data from round six of Afrobarometer survey. Results indicate that having trust in KRA raises the likelihood of reporting tax compliant attitude by 16.1 percent, being proud to be a Kenyan increases the chances of reporting a compliant attitude by 16.1 percent, satisfaction with how democracy works in Kenya raises the chances of an individual depicting tax compliance attitude by 8.9 percent. Similarly, being old raises the likelihood of being tax compliant by 0.4 percent and having a post-secondary education increases the chances of an individual reporting tax compliant attitude by 9.1 percent as opposed to having no formal education, primary education or secondary education. In addition, perceived corruption in KRA reduces the chances of an individual reporting a tax compliant attitude.

From the findings, a set of recommendations to improve tax compliance attitude have been proposed. These include: Continued taxpayer education by KRA, strengthening tax transparency and improved service delivery through enhanced transparency and accountability as this will enhance the levels of trust placed in them. In addition, expanding the democratic space to give taxpayers an opportunity to express their opinion regarding the policies that they would like the government to implement is likely to improve their attitude towards taxation.

## **CHAPTER 1: INTRODUCTION**

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

Taxation has received wide attention both from the academics as well as from the policy makers. Nightingale (2001) coin tax as the mandatory payment that the taxpayers make to the government. She further argues that taxation is the price that a taxpayer has to pay for a structured society and further identifies a number of reasons for taxation including: income and wealth redistribution, provision of good and services, stabilizing the economy, harmonization of the economy, regulation and promotion of socio-economic welfare. Moreover, James and Nobes (1992) define taxation as the mandatory charge that governments impose on taxpayers without any direct benefit in return. Therefore, tax can be defined as duty levied on property, wealth, income, profits and consumption to enable the government generate enough revenue for public expenditure.

Some of the challenges faced by governments in their endeavor to ensure macroeconomic stability and promote the nations competitiveness as well as maintaining an equitable tax system has brought about the need for research on tax compliance, which can be defined as the citizen's willingness to fulfil their tax obligation without any form of coercion. World all over, governments endeavor to achieve development agenda as set out in their respective blue prints. In order to achieve such agenda, there is need for huge capital expenditure, which is to be financed through taxation as well as other sources such as borrowing. Taxes are viewed as the most convenient way of financing such projects. However, most taxpayers don't seem to agree with this notion given the high levels of tax evasion and tax avoidance (Cocksun and Savasan, 2009).

An ideal situation would be that given the importance of taxation to the economy, all taxpayers would abide by their tax obligations in full. However, this is not the case prompting the need to

understand the reasons for noncompliance which is a concern area for most revenue authorities across the world. Tax compliance as explained by Kirchler et al (2007) is the resolve of a taxpayer to make their tax payments. Tax compliance research has majorly concentrated on the deterrence measures. However, a study by Schneider and Torgler (2007) argue that the levels of compliance observed cannot be explained by deterrence alone, but also sociological and psychological factors.

World all over, tax compliance remains a challenge as it hinders resource mobilization and revenue independence of most of the economies. It is estimated that the amount of tax lost annually through various forms of tax evasion and avoidance globally stands at US\$240 billion, with majority of the loses in the developing nations (Fowler, 2018). Murphy (2011) postulates that, the worth of tax evasion worldwide is so enormous that it is more than 5.1 percent of the GDP, these occurs as a result of operations of the shadow economies found in every state of the world. The results from a brief by Murphy (2011) showed that more than \$1 in every \$6 in the world is not subjected to tax.

Tax evasion regardless of the value, denies most governments the critical revenue needed to finance development agenda due to the system, this leads to the tax gap (Adebisi and Gbegi, 2013). In the year 2013, Nigeria as a country had lost close to US\$550 million as a result of tax evasion in automobile industry. Similarly, Muhammad (2013) asserts that an approximately US\$129 billion was dishonestly taken out of the Nigerian economy through tax evasion between the year 2003 and 2013. According to estimates from the Global Financial Integrity (2018), Mauritius loses 12 percent of its GDP because of tax evasion; Chad loses 20 percent of the GDP while Republic of Congo loses 25 percent of GDP to tax evasion and financial illegalities. Therefore, the effects of illicit financial flows slow industrialization and development in African states.

### 1.1.1 Tax Compliance and Revenue Performance in Kenya

For the government to implement some of its development projects, there has been the need to raise more revenue through taxation. In its vision 2018, the Kenya Revenue Authority aimed to achieve 4 million active taxpayers, but managed to achieve 3.94 million tax payers during the plan period, falling short of its target by about 60,000 taxpayers. Moreover, in its 7<sup>th</sup> corporate plan period, Kenya Revenue Authority is expected to collect Kshs. 6,105,697 million. To achieve this, it aims to enhance revenue through improved compliance as outlined in its strategic objectives.

Kenya's tax efforts have been at an average of 18.46 percent for the period between 2013-2018. This can further be explained by the revenue performance against the set targets. The revenue performance over the past three years has been on an upward trend with KRA collecting a total of Ksh. 1.58 trillion in the financial year 2018/19. However, the collections have been lower than the set targets.

**Table 1.1: Revenue Performance 2012-2019 in Kshs. '000,000'**

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	Average
<b>Target</b>	963,740	1,105,889	1,212,620	1,415,605	1,541,230	1,643,201	1,313,714
<b>Actual</b>	963,823	1,069,597	1,200,159	1,365,269	1,435,338	1,580,062	1,269,041
<b>Performance %</b>	100.	96.72	98.97	96.44	93.13	96.2	<b>96.9</b>

*Source: Authors own analysis based on data from Kenya Revenue Authority*

### 1.1.2 Tax reforms in Kenya

In order to improve on its revenue collection, KRA has continuously focused on reforms that are intended to expand its revenue base like targeting the informal sector, bringing on board the professional associations, use of third party data as well as targeting the digital economy. Specifically, KRA has focused on educating taxpayers through a number of communication

channels. These programmes are aimed at promoting tax literacy and understanding including the reasons for paying taxes, engagements as well as compliance. KRA has been in the journey of automating all its processes thereby achieving a 100 percent automation as outlined in the 6<sup>th</sup> Corporate plan. The aim is to attain a 100 percent compliance in filling and reporting.

Similarly, based on the mission of the 7<sup>th</sup> corporate plan, KRA intends to build trust through facilitation in order to foster compliance with tax and customs legislations. It has been re-orienting tax enforcement to focus on the compliance pyramid, where assistance is being offered to the taxpayers who want to comply but are facing difficulty. In addition, KRA has put efforts on the tax policy environment including review of the tax structure and the Income Tax Act is currently under review. And currently KRA is partnering with different stakeholders including Institute of Certified Public Accountant of Kenya (ICPAK), Kenya International Freights and Warehousing Association (KIFWA) among others to ensure that they have a voice in revenue administration.

## **1.2 Problem Statement**

Over the last four years 2015/16-2018/19, Kenya Revenue Authority has fallen short of its revenue target with an average achievement of 96.2%. This performance is attributed to among other factors failure by taxpayers to meet their tax obligations. Noncompliance to tax laws is a serious disquiet across the world as it limits the government's capability of raising more revenue for development (Torgler, 2003).

In its 7<sup>th</sup> corporate plan, the Kenya Revenue Authority envisions a Kenya where revenue resources could be adequate to enable the government meet its revenue targets through facilitative approach, which relies on creating an environment for taxpayers to be able to pay their taxes without being

forced to do so. Therefore, in order to achieve this vision, there is need for a more ambitious framework for the authority to eliminate the national budget deficits. One of the strategic priority of the KRA in its seventh corporate plan is to enhance revenue through improved compliance (KRA, 2018).

Even with the attainment of Lower Middle-Income status, Kenya still faces challenges with regard to tax revenue mobilization. In efforts to achieve revenue independence, the Kenya Revenue Authority has undertaken various initiatives to improve compliance such as transformation, which emphasizes on building public trust, facilitation of taxpayers to improve their voluntary compliance. Despite these efforts, level of compliance with tax laws in Kenya is still low. For example, there are only 5.7 million active taxpayers with iPage updates. This represents a 53.77 percent composite (registration, filing and payment) tax compliance rate.

Despite attaining a weighted compliance rate of 65% at the completion phase of the 6<sup>th</sup> strategic plan in 2018, KRA fell short of its revenue target by Kshs.0.185 trillion after collecting a cumulative Kshs. 4 trillion against a revenue target of 4.186 trillion. This represent a performance rate of 95.6% (KRA, 2018). Not much is known regarding the attitude of taxpayers regarding taxation in Kenya. Besides the unpublished work undertaken by Simiyu in 2002 who sought to establish determinants of taxpayer's compliance behavior of some redundant local authorities, there has not been any other comprehensive study on tax compliance behaviour in Kenya. This study attempts to bridge the gap by evaluating the factors influencing voluntary compliance behavior among Kenyan taxpayers thereby improving revenue generation.



### **1.3 Research objectives**

The study's main aim was to assess determinants of tax compliance behavior in Kenya

#### **1.3.1 Specific objectives**

- i. To categorize the factors influencing tax compliance behavior.
- ii. To evaluate the influence of these factors on tax compliance behavior and how this affects revenue performance.
- iii. To come up with policy recommendations based on the findings.

### **1.4 Justification of the study**

The study findings will help policy makers in the government and specifically to the Kenya Revenue Authority in understanding ways in which taxpayer compliance behavior can be improved. Understanding factors that influence taxpayers' compliance behavior would provide information to policy makers for planning purposes. In addition, the study will build into the body of literature focusing on the factors influencing tax compliance behavior with recommendations on how to enhance taxpayer behavior towards compliance.

### **1.5 Organization of the paper**

The next section of this paper presents the literature review that was analyzed, this is divided into theoretical and empirical reviews. The overview of the literature brings out both the strengths and weaknesses of the previous studies. Chapter three of the study presents the methodology used, this comprises the conceptual framework, model specification. Chapter four outlines the results from analysis of the data while chapter five outlines the conclusions, recommendations, suggestions for further reading. Also included is the reference list.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

This section outlines the previous research conducted in the field of tax compliance. Theoretical literature outlines the various theories reviewed, while empirical literature presents the various studies conducted explaining tax compliance.

### **2.2 Theoretical Literature**

The theories explaining tax compliance are categorized into behavioral theories and economic deterrence (Frey & Feld, 2002). The behavioral theories include both the social and psychological theories. These theories have been explained in details below.

#### **2.2.1 Economic Deterrence**

Economic deterrence theory assumes that taxpayers are moral profit seeking individuals whose actions are propelled by the cost benefit analysis that comes with it. The theory postulates that the taxpayer behavior to a larger extent is influenced by the chances of being detected and the penalty thereof which determines the benefits and costs in engaging in tax evasion (Allingham & Sandmo, 1972). According to Walsh (2012), the association between compliance and tax rates is evident when the taxpayer evaluates the cost and benefits of tax evasion and as a results they evade tax if the benefits of evasion exceed the cost of doing the same.

Economic deterrence theory puts focuses on the use of threats, coercion as well as incentives. As such, the thought of being caught and punished will compel the taxpayer to be tax compliant (Feld & Frey, 2006). The basic principle foundation is that; rational taxpayers typically participate in

actions that maximizes utility at the least cost. Mengere (2014) postulates that if the cost of non-complying outweighs the benefits of doing the same, then the act is not likely to be performed.

### **2.2.2 Fiscal Exchange**

The theory outlines the association between the taxes paid and services provided by the government. According to this theory, compliance is likely to be motivated when there is evidence of government expenditure, since satisfaction is linked to services given by the government. Moore (2004) opined that there is need for governments to deliver efficient services to their citizens in order to improve compliance levels. A study by Alm et al, (1992) argued that taxpayer's perceptions on services provided by the government impacts positively on tax compliance. Moreover, taxpayers' major concern is the direct benefit derived from the government as a result of the taxes they pay.

Therefore, this relationship is contextualized as a contract between the taxpayer and the government. Individuals are likely to meet their tax obligations if they value the services knowing clearly that the taxes they pay are used to finance the provision of government services (Fjeldstad and Semboja, 2001)

In a study by Bodea and LeBas, (2013), tax compliance is likely to be improved if there is a perceived positive benefit as a result of tax payment. Even though the taxpayer may not evaluate the value of government services Vis a Vis the taxes they pay, they may have their general feeling about their engagement with the government (Richupan, 1987). Therefore, the taxpayer's compliance attitude to a larger extent is swayed by the level of contentment with services received from the government.

### **2.2.3 Political legitimacy**

This theory postulates that tax compliance is dependent on trust the taxpayers have on the government of the day. In this context, legitimacy implies the trust one has in the authorities or the social arrangements or even in institutions, which are viewed as either just, appropriate and serves the interest of the taxpayers. Tyler (2006) argues that the nature of the relationship between trustworthiness and compliance is positive. In addition, Torgler and Schneider (2007) also point out that group identification as a result of national pride easily transforms into willingness to pay tax. In their study of 30 countries across the world. Compared to their counterparts, countries with lower levels of corruption and bureaucracy were found to have higher compliance levels in a study by Picur and Riahi-Belkaoui (2006). In his analysis, Persson (2008) opine that after independence, most African countries emphasized building national identity as opposed to ethnic identity. Based on this argument, the highest probability of being compliant is witnessed with taxpayers who trust the government as opposed to those that with little or no trust.

### **2.2.4 Social Identity/Psychology Theory**

According to this theory, the compliance attitude and attitude towards tax system is influenced by the social norms and behavior of an individual's orientation (Keith, 1990). Alm et al, (1992) postulate that social standards reflect habitual behavior analogously judged taxpayer. The correlation between tax compliance and norms arises from tax affairs deliberations among work colleagues, family members or even business associates. As a result, the taxpayer is likely to be compliant if a member or members of such social groups are compliant.

### **2.2.5 Theory of Comparative Treatment**

McKerchar & Evans (2009) opine that based on this theory, addressing inequalities between the government and its citizens leads to improved compliance. According to the OECD (2010), a tax system that is fair to all the businesses will result into an increased tax compliance level. In this case, taxpayer perceives the system as biased if other businesses are subjected to a lower tax burden than their own business. As a result, taxpayer will tend to evade the taxes or in some cases under declare as they fall due. Within this theory, individuals who perceive that the government treats them in a fair manner depicts a more compliant attitude than those who perceive their treatment by the government to be unfair. As outlined by Kirchler et al (2007), if taxpayers perceive the system to be fair, their compliance attitude is likely to increase due to the existence of mutual trust between the taxpayer and the government.

### **2.3 Empirical Literature**

The following are some of the reviewed studies explaining the factors affecting tax compliance behavior.

Cyan, et al (2016) in their study to outline the factors that determine tax morale in Pakistan analyzed survey data using binary probit model. Their findings show that more educated people and females are motivated to pay taxes. Study findings indicate that gender, the education and tax morale in Pakistan have positive relationship. These findings imply that there is a substantial gain from increasing the female labor force participation rate.

In a study of 30 countries worldwide and using multiple linear regression, Picur and Riahi-Belkaoui (2006) established that corruption had a negative effect on tax compliance. According to

their findings, tax compliance is seen to be greater in countries with lower levels of corruption and bureaucracy.

While trying to examine the effects of slippery slope factors on tax compliance, Faizal, *et al.* (2017) employed a survey method in Malaysia and analysed the data using structural equation model. Their findings revealed that trust in the tax system and the tax agency has a significant and positive effect on tax compliance.

Konrad and Qari (2012) used ordered probit model and ordinary least square to establish the effect of patriotism on tax compliance. The study used data from a survey on international social programme and revealed that tax compliance and patriotism had a positive correlation using both the individual and country level data.

Ali et al (2015) in their analysis of Afrobarometer survey data for round 5, using binary logit regression revealed a positive link between voluntary tax compliance and fiscal exchange. Therefore, for governments to increase compliance, they should provide social services and goods to the taxpayer.

Akinboade (n.d) analyzed factors associated with tax compliance among 575 business enterprises in Cameroon based on a random survey using logistic regression. The findings revealed that perceive corruption negatively influences tax compliance.

Birskyte, (2014) established that taxpayer's compliance behavior improves with a perceived trust in the government, findings further reveal that trust in the government negatively correlates with tax evasion. The paper used both the statistical income reporting data and survey data to come up with this relationship while employing the Ordinary Least Square regression model.

Gadi, (2015) sought to establish the factors influencing tax compliance both in formal and informal sectors using Multinomial Logistic Regression. The results revealed that income levels and compliance with tax laws have a positive relationship. Moreover, compliance costs, penalty rates, attitude towards taxes, as well as social norms significantly affects the informal sectors' tax compliance.

In a study done by Ahmed & Kedir, (2015) in Jimna Zone in Ethiopia to establish the determinants of tax compliance. Using a survey conducted among 384 Category 'A' taxpayers and analyzing the data using Multiple Linear regression model, they found out that age, gender, simplicity, penalty, fairness, audits and government perception have positive effect on taxpayer's compliance behavior.

Siahaan (2013) sought to establish the effects of transparency and trust on tax compliance in Indonesia using survey data collected among 56 individual taxpayers. The study used OLS and found that transparency had a positive but indirect relationship with compliance.

Nkundabanyanga, *et al.*, (2017) evaluated the link between perceived compliance behavior and tax compliance factors, found that accountability and transparent tax systems significantly and positively affect tax compliance. The study used structural equation modelling on cross-sectional survey data and established that the higher the level of accountability the higher the level of compliance across countries.

Ameyaw and Dzaka, (2016) did a study on tax evasion using survey data from 432 taxpayers in ten regional capitals in Ghana. The study used multiple linear regression and found a negative and significant link between tax audits, income levels, tax rates and penalties and tax evasion in Ghana.

Kosgei and Tanui (2016) conducted a tax compliance survey on limited liability companies in Eldoret. Results from the multiple regression showed that tax rates, audits and penalties positively influenced compliance.

Mansor and Gurama (2016) used multiple regression and indicated that income level, tax system and education level positively relates with tax evasion in Nigeria. Similarly, Abiola and Asiweh (2012) revealed that weak administration of the tax system may affect taxpayers' motivation of reporting their correct income leading to increased tax evasion.

Wenzel (2005) used cross-lagged panel analysis on a two-wave study of 1,161 Australian citizens to assess the role played by social norms and ethics on compliance. The results showed that an individual's social identity had a positive impact on the attitude towards compliance.

## **2.4 Summary of Literature**

This section reviewed a number of theories that explained both the independent and dependent variables. Similarly, the chapter also reviewed past studies that have focused on factors determining the compliance behavior in different countries. The studies reviewed showed that tax compliance has received much attention both from the academics as well from the policy makers. Most of the reviewed literature have shown that indeed taxpayer's perception about government accountability, trust in government and trust in tax agency, perceived corruption as well as other demographic factors significantly influences the taxpayers' compliant behaviour. The empirical literature reviewed has shown that different studies used survey and laboratory experiments. In fact, most of the reviewed studies used ordinary least square method, ordered probit, binary probit as well as cross-lagged panel analysis.



## **CHAPTER 3: METHODOLOGY**

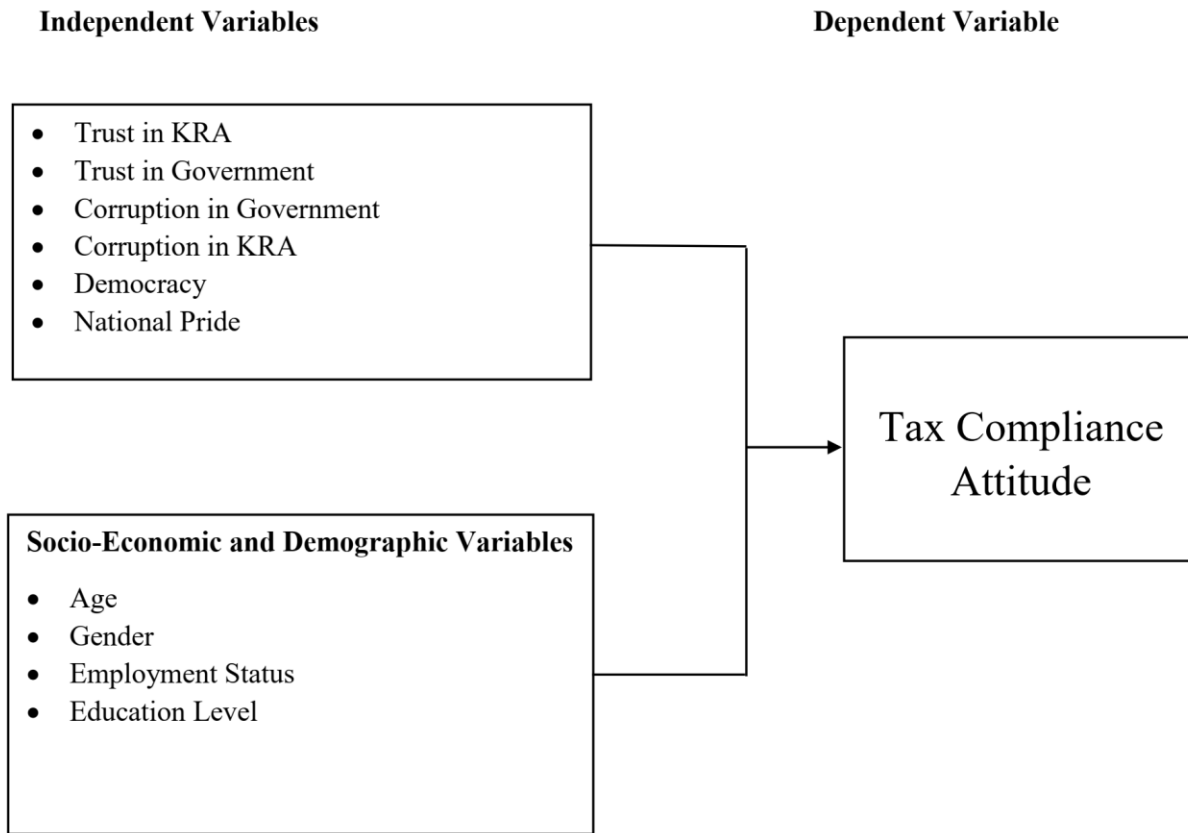
### **3.1 Introduction**

This section outlines the approach that was employed to establish the factors influencing tax compliance behavior in Kenya. It presents the conceptual framework, model specification and estimation, measurement of variables, the data used as well as data analysis.

### **3.2 Conceptual Framework**

The dependent variable is tax compliance attitude as derived from question 75B of the sixth round of Afrobarometer survey, the explanatory variables are trust in government, trust in tax agency, corruption in government, corruption in tax agency as well as other socio-economic and demographic variables.

**Figure 3.1: Conceptual Framework**



### 3.3 Estimation of the model

Empirical literature reviewed has shown that different studies employed varied models. However, most of the studies made use of multiple regression and ordered probit model of survey data to analyze tax compliance behaviour among individual and medium taxpayers. That notwithstanding, a taxpayer is either tax compliant or not. In the Afrobarometer survey, respondents are asked what their feeling is regarding taxpayers who do not pay their taxes with the response category being: wrong and punishable; wrong and understandable; and not wrong at all. Individuals whose responses are ‘wrong and punishable’ are regarded as having a compliant attitude while those whose responses are ‘not wrong at all’ or ‘wrong and understandable’ are treated as non-compliant.

Therefore, to take care of the binary outcome of the response variable, this study used the binary probit regression model. The idea behind the binary probit model is a Yes or No outcome which requires the modelling of a binary outcome variable. Under this model, tax compliance takes the value (1) and non-compliance taking the value (0).

### 3.3.1 Binary Probit Model

Within the model, the measure of the dependent variable  $Y_i$  is assumed to follow a normal distribution with  $\mu_i$  and variance defined as

$$Y_i^* = \alpha x_i + e_i$$

Where

$x_i$  is a set of control variables

$\alpha$  a set of parameters to be estimated

$e_i$  is the error term.

$Y_i$  is determined by:

$$Y_i = \begin{cases} 1 & \text{if } Y_i^* \geq 0 \\ 0 & \text{if } Y_i^* < 0 \end{cases}$$

Therefore, the probability for each category is given by:

$$P(Y_i = 1 | X_i) = F(x_i \alpha)$$

The regression model is expressed as:

$$P = P(Y_i=1|X_i) = \alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \alpha_4 x_4 + \alpha_5 x_5 + \alpha_6 x_6 + \alpha_7 x_7 + \alpha_8 x_8 + \alpha_9 x_9 + \alpha_{10} x_{10} + \varepsilon_i$$

Due to the non-linear nature of the equation, marginal effects was considered. Marginal effects are used to assess the magnitude of the coefficients. This process is aimed at calculating the partial effect for each regressor on the probability of tax compliance while holding the other factors constants.

### 3.4 Measurement of Variables

**Table 3.1: Variable Measurement**

Variable	Definition	Measurement	Source and Expected sign
<b>Response Variable</b>			
Y	Tax Compliance	Dummy variable taking 1 for tax compliance and 0 otherwise	
<b>Independent Variables</b>			
X <sub>1</sub>	Trust in KRA	Dummy variable, 1 trust KRA and 0 otherwise	+ Akinboade (n.d), Ali et al (2003)
X <sub>2</sub>	Trust in Government	Dummy variable, 1 for trust government 0 otherwise	+ (Birkyte 2014), Ali et al (2003)
X <sub>3</sub>	Corruption in Government	Dummy variable, 1 for perceived corruption 0 otherwise	- Picur and Riahi-Belkaoui (2006)
X <sub>4</sub>	Corruption in KRA	Dummy variable, 1 for perceived corruption 0 otherwise	- Picur and Riahi-Belkaoui (2006)
X <sub>5</sub>	Democracy	Dummy variable, 1 for satisfied with how democracy works 0 otherwise	+ Ali et al (2015)
X <sub>6</sub>	National Pride	Dummy variable, 1 for proud to be Kenyan 0 otherwise	+ Konrad and Qari (2012)
<b>Socio-Economic and Demographic Variables</b>			
X <sub>7</sub>	Age	Continuous variable, age of the respondent in years	+ Ahmed & Kedir, (2015)
X <sub>8</sub>	Gender	Dummy variable, 1 - Male 0 - Female	+ Ahmed & Kedir, (2015)
X <sub>9</sub>	Employment Status	Dummy variable, 1- Employed 0 -Otherwise	+ Gadi (2015)
X <sub>10</sub>	Education Level	Discrete variable, 0 - No Formal Education 1 - Primary Education 2 - Secondary 3 - Post-Secondary Education	+ Mansor and Gurama (2016)

### 3.5 Pre-estimation test

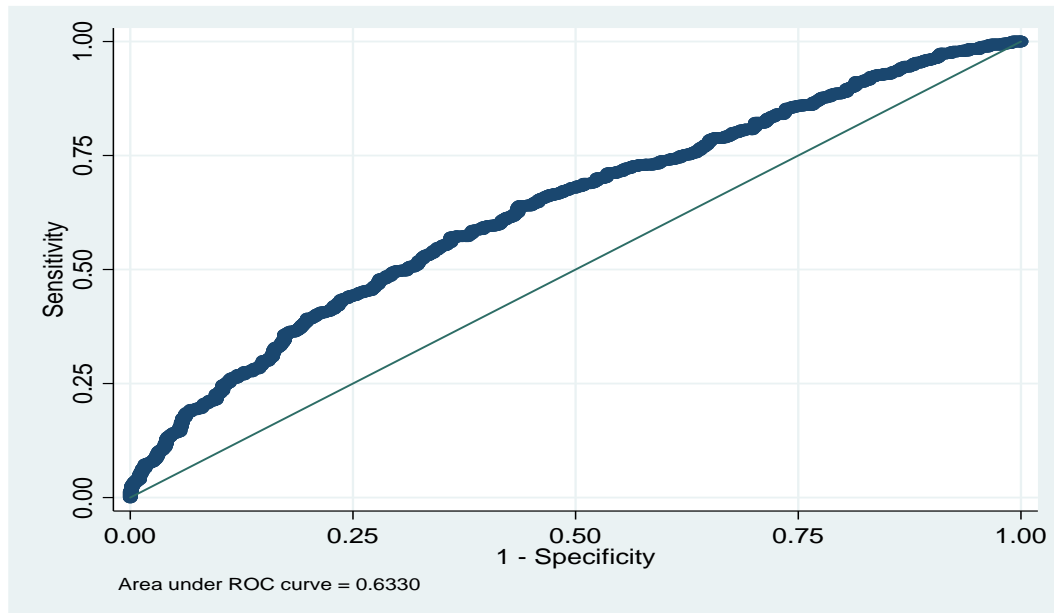
This section presents the pre-estimation tests conducted to confirm the reliability and efficiency of the binary probit model in analyzing the link between tax compliance behaviour and the other variables. The results of the goodness of fit test is shown in table 3.2.

**Table 3.2: Goodness-of-fit tests**

Test	Test Statistic	Prob > chi2
Pearson $\chi^2$	Pearson $\chi^2(1202) = 1196.34$	0.5406
Hosmer–Lemeshow goodness-of-fit test	Hosmer-Lemeshow $\chi^2(8) = 10.1$	0.2579

The results of Pearson and Hosmer-Lemeshow goodness of fit test presented in table 3.2 show that the both the tests have their Prob> $\chi^2$  being statistically insignificant. Therefore, it can be concluded that the model fits the data reasonably well. In order to examine the predictive power of the model, the study made use of the Receiver Operating Characteristic (ROC) curve. Based on this model, the area under the curve indicates the predictive power of the model. A model with no predictive power has the area under the curve as 0.5 while a perfect model has area 1.

**Figure 3.2: Receiver Operating Characteristic (ROC) curve**



The more bowed the curve is, the greater the predictive power. Figure 3.2 shows that the area under the curve is 0.6330 confirming a relatively higher predictive power of the model.

### **3.6 Data Source and Analysis**

Round six of Afrobarometer survey conducted between 2013/2014 was the main data source. Afrobarometer survey collects information on public attitude, taxation, democracy, governance, civil society and market in thirty-five countries in Africa. The survey tool for round six contains a number of questions regarding tax, mostly obtained from some of the theories outlined in the theoretical literature section. The collected data was analysed using STATA version 15 statistical package.

## **CHAPTER 4: DATA ANALYSIS, PRESENTATION AND DISCUSSION**

### **4.1 Introduction**

In this chapter, data analysis and findings of the study are presented. It starts by giving some descriptive statistics that was used in assessing the determinants of tax compliance attitude in Kenya. It then presents the pre-estimation test and the regression results that was conducted.

### **4.2 Descriptive analysis**

In order to undertake the empirical analysis, round six of the afrobarometer survey data was utilized, the data covers about 35 African countries. The aim is to study the determinants of tax compliance behaviour in Kenya. Description of the data used in presented as follows.

**Table 4.1: Descriptive Analysis**

	<b>Frequency</b>	<b>%</b>
<b>Tax Compliance</b>		
Not Tax Compliant	1,029	45.31
Tax Compliant Attitude	1,242	54.69
<b>Education Level</b>		
No formal Education	200	8.35
Primary Education	869	36.27
Secondary	873	36.44
Post-Secondary Education	454	18.95
<b>Employment Status</b>		
Not Employed	936	39.1
Employed	1,458	60.9
<b>Gender</b>		
Female	1,196	49.9
Male	1,201	50.1
<b>Pride</b>		
Not Proud	129	5.47
Proud	2,228	94.53
<b>Democracy</b>		
Not Satisfied with democracy	796	41.61
Satisfied with democracy	1,117	58.39
<b>Corruption in KRA</b>		
Not Corrupt	172	8.65
Corrupt	1,817	91.35
<b>Corruption in Government</b>		
Not Corrupt	430	18.61
Corrupt	1,880	81.39
<b>Trust in Government</b>		
No Trust	1,651	70.08
Trust Government	705	29.92
<b>Trust in KRA</b>		
No Trust	1,675	81.31
Trust KRA	385	18.69

*Source: Author analysis of the Afrobarometer data*

Table 4.1 on descriptive analysis show that, about 55 percent of the respondents depicted a compliant attitude, majority of the respondents had either primary education or secondary education as their highest level of education at about 72%. Similarly, about 81 percent and 70



percent had no trust in KRA and the government respectively. Regarding corruption, about 82 percent indicated that the level of corruption in Kenya had increased while about 91 percent think that most KRA staff are involved in corruption. With regards to democracy, about 58 percent of those who responded were satisfied with the way democracy works in Kenya while 42 percent indicated that Kenya is not a democracy.

On national pride, only 5 percent indicated that they are not proud being Kenyans with another 95 percent indicating that they are proud with a number of aspects in Kenya. Half of the respondents were female with the other 50 percent being male and the 61 percent indicated that they were employed.

Table 4.2 results shows that about 51 percent of those who are not employed depicted a compliant attitude while 57 percent of those are employed had a compliant attitude. Regarding education level, it is evident that majority of those with post-secondary education depicted a compliant attitude at 68 percent with majority of those with no formal education depicting a non-compliant attitude.

**Table 4.2: Cross tabulation of dependent variable against independent variables**

		Compliant Attitude	Non-Compliant attitude
<b>Employment Status</b>	Not Employed	51%	49%
	Employed	57%	43%
<b>Education Level</b>	No formal Education	39%	61%
	Primary Education	50%	50%
	Secondary	55%	45%
	Post-Secondary Education	68%	32%
<b>Gender</b>	Female	53%	47%
	Male	56%	44%
<b>Trust KRA</b>	No Trust KRA	52%	48%
	Trust KRA	67%	33%
<b>Trust Government</b>	No Trust Gov	52%	48%
	Trust Gov	60%	40%
<b>Corruption Government</b>	Corruption Government	52%	48%
	No Corruption Gov	60%	40%
<b>Perceived Corruption in KRA</b>	Corruption KRA	55%	45%
	No Corruption KRA	59%	41%
<b>Satisfaction with democracy</b>	Not democracy	51%	49%
	Satisfied with democracy	62%	38%
<b>Pride</b>	Not Proud	35%	65%
	Proud	56%	44%

*Source: Author analysis of the Afrobarometer data*

Similarly, the results show that those who are proud to be Kenyans had higher compliant attitude compared to those who indicated that they are not proud of being Kenyans. Most of the respondents who indicated that they are satisfied with how democracy works in Kenya depicted more compliant attitude as opposed to those who indicated that they are not satisfied as shown in table 4.2. Regarding corruption both in KRA and the government at larger, higher percentage of those who indicated that there is no corruption in both KRA and the government depicted compliant attitude as can be seen with 59 and 60 percent respectively. The results also show that higher compliant

attitude was reported among those who indicated that they have trust in both KRA and the government at 67 and 60 percent respectively.

### 4.3 Correlation analysis

This section presents the inter-correlation analysis that was carried out between the different sets of independent variables. Correlation analysis is normally used to establish the link between two variables, the coefficient lies between strong negative correlation (-) and perfect positive correlation (+). Based on the Pearson correlation, the results in table 4.3 shows that the strength of correlation between most variables are weak, thereby producing small effects ( $\pm 0.1$ ) and only two variables producing moderate effects ( $\pm 0.3$ ). Results show that, perceived corruption in KRA and trust in KRA have positive and moderate correlation with a correlation of 0.4038, trust in government and trust in KRA also had a positive and moderate correlation with a correlation coefficient of 0.3593 and finally, corruption in government and trust in government had correlation coefficient of 0.3 depicting a moderate and positive correlation.

**Table 4.3: Inter-Correlation Matrix**

	Age	TrustKRA	TrustGov	CorrGov	CorrKRA	Democracy	Pride	Gender	Edstat	Empstat
Age	1									
TrustKRA	-0.012	1								
TrustGov	0.0005	0.3593	1							
CorrGov	-0.0185	0.1367	0.2992	1						
CorrKRA	0.0279	0.4038	0.234	0.0738	1					
Democracy	-0.0055	0.1145	0.1936	0.175	0.0556	1				
Pride	-0.0205	0.0669	0.0551	0.0745	0.0598	0.0508	1			
Gender	0.1558	-0.0285	-0.0324	0.0187	0.0125	0.0077	0.0059	1		
Edstat	-0.2107	-0.0151	-0.0348	0.0671	-0.0764	0.0961	0.0432	0.0277	1	
Empstat	0.0521	-0.0314	0.0156	0.0369	-0.033	0.0497	0.0089	0.0394	0.1273	1

*Source: Author analysis of the Afrobarometer data*

#### 4.4 Test for multicollinearity

In a model, multicollinearity is said to exist when the independent variables are correlated, and its effects can adversely affect the regression results. Since high correlation between independent variables could introduce bias in the regression estimates. Though the inter-correlation results show very weak correlation among variables, we assess whether multicollinearity is a problem. In this case, variance inflation factor values that are larger than 10 implies that high correlation among the independent variables could bias the outcome. From table 4.4, the mean variance inflation factor is 1.13 indicating that the problem of multicollinearity does not exist in the model, and as such the estimates can be relied upon.

**Table 4.4: Results of Variance Inflation Factor**

<b>Variable</b>	<b>VIF</b>	<b>1/VIF</b>
Trust in KRA	1.32	0.758486
Trust in Government	1.28	0.781343
Corruption in KRA	1.23	0.814702
Corruption in Government	1.13	0.88412
Education status	1.09	0.914276
Age	1.08	0.92238
Democracy	1.07	0.935216
Gender	1.03	0.968076
Employment status	1.03	0.97289
Pride	1.01	0.989354
<b>Mean VIF</b>	<b>1.13</b>	

#### 4.5 Heteroscedasticity test

The null hypothesis for the heteroscedasticity test is that, of a constant variance of some unknown residuals.

Heteroscedasticity test of null hypothesis that there is constant variance of some unknown residuals. The study used the Breusch-Pagan/Cook-Weisberg to test for heteroscedasticity. As indicated in table 4.5, the p-value is 0.012 meaning we reject the null hypothesis of constant variance since it is less than the critical value of 0.05. To correct for the heteroscedasticity, the regression was run with a robust standard error and the results discussed.

**Table 4.5: Breusch-Pagan/Cook-Weisberg results**

Test	
Variables:	Fitted values of Tax compliant attitude
Chi2(1) =	6.36
P-value =	0.0116

#### 4.6 Regression results and discussion

The estimation of the equation was by binary probit model. Since the interpretation of the estimated coefficient is not straight forward, discussion of results concentrated on the significance and the sign of the estimated coefficients. The binary probit regression results shows how the dependent variable (Tax compliance attitude) is related with each of the regressors while the marginal effect presents how much the probability of the outcome variable changes when you change the value of regressors, holding all other regressors constant.

To control for socio-economic and demographic factors, the study used control variables including gender, employment status, education and age to cater for these variability. Since employment and

gender were binary in nature, they were treated as dummy variables whereas age of the respondent and level of education were regarded as continuous and discrete variables respectively

Table 4.6 presents the findings of the probit regression. From the results, all the variables are significant except for trust in government, perceived corruption in government, gender and employment status. Coefficient of most of the variables have the expected signs and are in line with the previous studies, apart from the coefficient of gender.

**Table 4.6: Probit Regression Result for Tax Compliance Behavior in Kenya**

Tax Compliant Attitude	Probit regression result	Marginal effect
Trust in KRA	0.430*** (-0.097)	0.161*** (-0.034)
Trust in government	0.06 (-0.08)	0.023 (-0.031)
Perceived corruption in Government	-0.005 (-0.072)	-0.002 (-0.028)
Perceived Corruption KRA	-0.209* (-0.13)	-0.083* (-0.052)
Democracy	0.227*** (-0.068)	0.089** (-0.026)
Pride	0.406** (-0.178)	0.161** (-0.07)
Gender	-0.02 (-0.067)	-0.008 (-0.026)
Education level	0.233*** (-0.042)	0.091*** (-0.017)
Employment status	0.079 (-0.069)	0.031 (-0.027)
Age	0.010*** (-0.003)	0.004*** (-0.001)
_cons	-1.246 (-0.223)	
Number of obs	1,568	
Wald chi <sup>2</sup> (10)	91.39***	
Pseudo R <sup>2</sup>	0.0428	

*Significance at: \* 10%, \*\* 5%, \*\*\* and 1%.*

*Robust standard errors are in parenthesis. Marginal effect (dy/dx) for factor levels is the distinct change of dummy variable from 0 to 1.*

Results from the empirical analysis give a pseudo R-squared of 0.043 implying that about 4.3 percent of the variation in tax compliance can be explained by the variables in the model. This is a significant variation given that the cross-sectional models normally have significant variation across units of analysis unlike the time series models. Further, the wald chi-square statistics is

significant at 1% level of significance meaning that the model variables jointly explain variations in the dependent variable.

From the regression results, trust in KRA, perceived corruption in KRA, satisfaction with how democracy works, national pride, education level as well as age of the respondents all influence tax compliance attitude.

Having trust in KRA positively influenced the tax compliance attitude; for individuals who have trust in KRA, their likelihood of reporting tax compliant attitude was 16 percent higher than those who do not trust KRA. This implies that having trust in KRA favors tax compliant attitude in the country.

Perceived corruption in KRA was found to negatively influence tax compliance behaviour. Findings show that perceived corruption among tax officials lowers the chances of reporting a tax compliant behaviour by 8.3 percentage points. In this regard, the taxpayers' tax morale will be greatly reduced thereby leading to a non-compliant attitude.

Democracy was also found to positively influence tax compliant attitude in Kenya. Findings show that, being satisfied with how democracy works in Kenya increases the chances of being tax compliant by 8.9 percent compared to being dissatisfied with how democracy works.

Similarly, from the regression result while holding all other factors at their mean, being proud to be a Kenyan increases the chances of reporting tax compliant behaviour by 16.1 percentage points. The findings reveal that taxpayers with a sense of pride for the country tend to comply with tax laws.



Education was found to positively influence the compliance behaviour. Findings reveals that, having a post-secondary education increases the likelihood of reporting compliance behaviour by 9.1 percent.

The study findings show that age positively influences the chances of reporting tax compliant attitude. Results show that being old increases the chances of reporting tax compliant attitude by about 0.4 percentage relative to those who are younger, implying that compliant attitude increases with increase in age of the respondent.

#### **4.7 Discussion of results**

The factors with significant influence on tax compliant attitude in Kenya include trust in KRA, corruption in KRA, democracy, pride, education level as well as age.

Regarding trust in KRA, individuals who have trust in KRA are more likely to have a tax compliant attitude compare to those who have not trust in KRA. The findings support the argument by Faizal, et al. (2007) who found confidence in tax agency to have positive relationship with tax compliance. These findings reveal that for the government to boost tax compliant attitude of taxpayers the tax agency should build trust with the taxpayer.

Regarding corruption in KRA, the findings revealed that perceived presence of corruption among tax officials reduces the taxpayers tax compliant attitude. In this regard, a taxpayer who perceive the tax authority to be corrupt will have lower morale of complying with tax laws, this intrinsic motivation is what reduces the compliant behaviour. The findings support the work of Picur and Riahi-Belkaoui (2006), whose findings revealed that corruption negatively influenced tax

compliance behavior. For the government to foster voluntary tax compliance, then the revenue officials should try and uphold ethics and integrity so as to clear any perception of corruption.

Democracy was also found to positively influence tax compliance behaviour. The results indicate that, those who are happy with how democracy works in Kenya have higher chances of being compliant as opposed to those who are not satisfied with how democracy works. These findings are consistent with the idea that democratic countries give taxpayers an opportunity to obtain the public goods that they desire. In fact, taxpayer's compliance attitude increases when they are presented with an opportunity to express their opinion regarding the policies that they would like the government to implement, with this they then feel as partners to the government and not just subordinates. The findings support the political legitimacy theory which is premised on democracy and trust in a country.

The findings reveal that pride positively influence tax compliance attitude. From the findings, taxpayers who are proud to be Kenyans have higher chances of reporting tax compliant attitude than those who are not proud. In this context, pride is an expression of patriotism or civic pride in one's country. Therefore, taxpayer's compliance attitude increases with a unit increase in the national pride. The findings support the earlier work of Konrad and Qari (2012) who found that patriotism positively influenced tax compliance.

Age was also found to positively influence tax compliant attitude in Kenya. This suggest that older individuals have higher chances of reporting compliant attitude compared to the younger generation. One of the reasons could be that older people are more knowledgeable about tax matters compared to the younger generation. The findings support results of a study by Ahmed & Kedir, (2015) whose findings revealed a positive influence of age on compliance.

Finally, the education level also positively influences tax compliance attitude. The findings show that the more education an individual has the greater the chance of reporting tax compliant attitude. In fact, from the results, those with post-secondary education have higher chances of reporting tax compliant attitude than those with secondary, primary and no formal education. This therefore implies that, as an individual's level of education increases so does the knowledge on tax matters and nation building. The findings support those of previous findings by Mansor and Gurama (2016) and Cyan, et al (2016).

## **CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

This paper sought to assess the determinants of tax compliance behavior in Kenya based on data from round six of Afrobarometer survey. Based on the literature, tax compliant attitude is influenced when the taxpayer perceives the government and KRA to be free from corruption and trustworthy. Similarly, taxpayers who are proud to be Kenyans and happy with how democracy works tend to depict a tax compliant behaviour. Findings from the binary probit regression gives a robust result for some of the theories of tax compliance.

### **5.2 Summary of findings**

Findings reveals that several factors influence tax compliance behaviour in Kenya. These factors are categorized into either demographic, social or institutional factors.

The demographic factors include age and education level. It was established that holding other factors constant, older people have higher chances of reporting tax compliant attitude by about 0.4 percent while attaining a post-secondary education raises the chances of an individual reporting positive attitude by 9.1 percentage points.

The social factors with significant influence on tax compliance behaviour were national pride and satisfaction with how democracy work in Kenya. The findings show that while holding other factors constant, being proud to be a Kenyan increases the chances of reporting tax compliant behavior by 16.1 percentage points while being satisfied with how democracy works in Kenya improves tax compliance attitude by 8.9 percentage points.

Institutional factors influencing tax compliance behavior in Kenya we found to be trust in KRA and perceived corruption among KRA officials. Individuals who have a lot of trust in KRA have 16.1 chances of reporting a tax compliant behavior as opposed to the ones without trust in the tax agency while individuals who perceive most of the tax agency staff to be corrupt have 8.9 percent chances of reporting tax non-compliant attitude relative to those who think that the staff are not corrupt.

Six out of the ten variables that were evaluated influenced on tax compliance attitude. Gender, corruption in government, trust in government as well as employment status did not significantly influence tax compliance behaviour but had the right signs except for gender. The study show that national pride affects how the attitude of taxpayers is modelled while trust in the KRA significantly influences tax compliance behaviour. Perceived involvement of KRA staff in corruption reduces the chances of a taxpayer reporting tax compliant attitude with a general feeling that individuals who are happy with how democracy works in Kenya having higher chances of reporting tax compliant behaviour. Findings reveal that elderly taxpayers depict a more compliant attitude with regard to tax laws as opposed to the relatively younger generation. One's education level influences their behaviour regarding tax law, individuals with higher level of education have higher chances of reporting tax compliant attitude.

### **5.3 Conclusion**

The study sought to establish the factors that influence taxpayer's compliance behaviour in Kenya. In doing so, it sought to categorize these factors and evaluate their influence on the tax compliance attitude. Conventional knowledge has it that tax compliance attitude should be higher among taxpayers who feel more proud of being Kenyans than those who show little or no pride at all,

those who have a lot of trust in tax agency than those with little to no trust at all since they are more aware of the reward received from the government in form of services as a result of the taxes they pay. Taxpayers whose levels of trust of the tax authority and hold the revenue officials at high integrity have the intrinsic motivation to continue abiding by the tax laws because they know their taxes are well accounted for and ultimately put in good use.

The study findings have shown that trust in KRA, perceived corruption among KRA staff, satisfaction with how democracy work in Kenya, national pride, education level and age significantly explains the changes in tax compliance behaviour among Kenyans. Citizens who have trust in KRA are have higher chances of having compliant attitude as opposed to those with little or no trust at all, perception about involvement of KRA staff in corruption was found to reduce the chances of a taxpayer reporting a compliant attitude. The study also found out that the chances of reporting compliance attitude is higher among those who are satisfied with how democracy works as opposed to those who are not satisfied, and that taxpayers who feel proud being Kenyans have higher chances of reporting tax compliant attitude. Similarly, the findings show that having a post-secondary education increases the chances of reporting tax compliance behaviour and finally, being old increases the chances of reporting a compliant attitude as opposed to the young generation.

Therefore, given the findings of the study, a taxpayer is likely to depict a compliant attitude if they can identify with good usage of the taxes they pay to the government, this could be in form of provision of public goods and services as well as if their trust for the tax agency is high.

#### **5.4 Policy recommendation**

From the results of the study, a number of recommendations are suggested including: -

Education level had a positive and significant influence on tax compliant attitude in Kenya. And attainment of higher education presumably implies that individuals are more informed on tax issues that subsequently improves their tax morale. Therefore, Kenya Revenue Authority should continue carrying out tax education both at the primary and secondary levels. This can be done by establishing tax clubs in different schools so that as the learners get to the taxpaying bracket they are fully aware of their responsibilities as well as improve tax information thereby simplifying the procedure for filing tax returns.

The results show that trust in KRA positively and significantly influence tax compliance behavior. It is worth noting that trust is not just an attitude demanded by the tax authority, instead a taxpayer bestows in the tax agency or fails to. Therefore, the Kenya Revenue Authority should build trust among the taxpayers with a bid to foster improved compliance. In this context, tax compliance to a larger extent is influenced by the way tax agency treats its taxpayers. As a result, courteous treatment of taxpayers improves their compliant behaviour, thereby lowering the cost of collection.

Perception of corruption among the revenue officials was established to negatively influence compliance attitude in Kenya. Previous researches have shown that customs related corruption cost most government a lot of money in revenue. In a similar vein, tax evasion appears to be one of the most commonly used route with regards to corruption. Therefore, for the revenue authority to eradicate corruption in this area and ensure improved revenue collection, there is need to

strengthen tax transparency as this can have a positive spill-over on the fight against corruption due to the close link between the two.

National pride significantly and positively influences tax compliance behaviour in Kenya. Therefore, for improved tax compliant attitude arising from pride, the government should put in place measures that improve the levels of pride. Some of these measure may include improved service delivery to the citizenry by way of provision of affordable and efficient health services, provide quality and affordable education to all, uphold accountability of the taxes collected, ensure just and fair distribution of resources as well as reducing the cost of living in the country.

Since satisfaction with how democracy works in Kenya had a positive and significant influence on tax compliance behaviour among Kenyan taxpayers, Kenyan government should expand the democratic space in the country since taxpayers incline to be more compliant when they are presented with an opportunity to express their opinion regarding the policies that they would like the government to implements, with this they then feel as partners to the government and not just subordinates.

### **5.5 Suggestions for further studies**

Findings from this study have shown that demographic, social and institutional factors significantly influence tax compliance behaviour in Kenya. However, these may not be the only factors that have influence on tax compliance behavior, therefore further research need to focus on the economic factors of tax compliance including the deterrence. Furthermore, for an improved understanding of factors influencing tax compliance behaviour in Kenya, more research need to be done on the concept of fiscal exchange. Poor service delivery especially the provision of public



goods and services like health, education and security may, in the taxpayers' view legitimize tax avoidance and evasion. Such acts deny the government the much needed revenue. Given that the most recent Afrobarometer survey had no questions on taxation, KRA should consider conducting regular compliance surveys with a view of understanding their customers tax compliance behaviour.

Similarly, there is need for research on Kenya's tax regime with a focus on fairness in the tax system. This will provide insights brought about by the comparative treatment aspects, since taxpayers who perceive people in the same economic or social status as them being treated differently and subjected to fairer or lower tax rates are likely to have lower compliance attitude.

## 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), 99-113.
- Adebisi, J.F., Gbegi, D.O. (2013). Effect of tax avoidance and tax evasion on personal income tax administration in Nigeria. *American Journal of Humanities and Social Sciences*, 1(3), 125-134
- Ahmed, A., & Kedir, S. (2015). Tax Compliance and its Determinant the Case of Jimna Zone, Ethiopia. *International Journal of Research in Social Sciences*, 6(2).
- Allingham, M., & Sandmo, A. (1972). Income tax evasion: a theoretical analysis. *Journal of Public Economics*, 1(3-4), 323-338.
- Alm, J., B. R. Jackson, and M. McKee. (1993). Fiscal exchange, collective decision institutions, and tax compliance. *Journal of Economic Behavior and Organization* 22(3): 285–303.
- Alm, J., McClelland, G., & Schulze, W. (1992). Why do people pay taxes? *Journal of Public Economics*, 48(1), 21-38.
- Ameyaw, B. and Dzaka, D. (2016) Determinants of Tax Evasion: Empirical Evidence from Ghana. *Modern Economy*, 7, 1653-1664.
- Badu, N., & Chariye, A. B. (2015). The effects of taxpayers' attitude towards the legal system and government on tax morale. *European Journal of Business and Management*, 7(1), 321.

- Birskyte, L. (2014). The Impact of Trust in Government on Tax Paying Behavior of Nonfarm Sole Proprietors. *The Journal of "Alexandru Ioan Cuza" University from Iasi*, 61(1), 1-15.
- Bodea, C. & A. LeBas, (2013). *The origins of social contracts: Attitudes towards taxation in urban Nigeria*, Oxford: Centre for the study of African Economies.
- Bordignon, M. (1993). A fairness approach to income tax evasion. *Journal of Public Economics*, 52(3), 345-362.
- Coskun C.A and Savasan F. (2009). Tax Morale: Empirical Evidence from Turkey. Annual Meeting of the European Public Choice Society.
- Cyan, M., Koumpias, A., & Martinez-Vazquez, J. (2016). The determinants of tax morale in Pakistan. *Journal of Asian Economics*, 47, 23-34. doi: 10.1016/j.asieco.2016.09.002
- Faizal, S., Palil, M., Maelah, R., & Ramli, R. (2017). Perception on justice, trust and tax compliance behavior in Malaysia. *Kasetsart Journal of Social Sciences*, 38(3), 226-232.
- Feld, L. P. and Frey, B. S. (2002). *Deterrence and tax morale: How tax administration and taxpayers interact*. OECD Papers, 3(10),1-19.
- Feld, L., & Frey, B. (2006). Tax Evasion in Switzerland: The Roles of Deterrence and Tax Morale. *SSRN Electronic Journal*.
- Feld, P. and Frey, B.S. (2002) "Deterrence and Morale in Taxation- An Empirical Analysis"; *CEWSIFO Working Paper*; No. 760.

- Feldman, N. & Slemrod, J. (2009). War and Taxation: When Does Patriotism Overcome the Free Rider Impulse? *The New Fiscal Sociology*, 138-154.
- Fjeldstad, O. H., & Semboja, J. (2001). Why people pay taxes: The case of the development levy in Tanzania, *World Development*, 29(1), 2059-2074.
- Fowler, N. (2018). Guest blog: Tax Avoidance and Evasion in Africa. Retrieved from <https://www.taxjustice.net/2018/03/01/guest-blog-tax-avoidance-evasion-africa/>
- Global Financial Integrity. (2018).
- Greene, W. (2008). *Econometric analysis*. Upper Saddle River, NJ: Pearson.
- Gurama, Z. and Mansor, M. (2018). Integrated Internal Audit Model for Effective Internal Auditing Performance in Nigerian Tax Administration. *Asian Journal of Economics, Business and Accounting*, 7(3), pp.1-7.
- IMF. (2015). *Current challenges in Revenue Mobilization: Improving Tax Compliance*. Washington, DC: International Monetary Fund
- James, S. & Nobes, C. (1992). *Taxation: Theory and practice*. London, Prentice Hall.
- Keith, S. (1990). Governmental policies to reduce tax evasion: coerced behavior versus services and values development. *Policy Sciences*, 23(1), 57-72.
- Kenya National Bureau of Statistics. (2014). Information on Rebased GDP. Retrieved from Kenya National Bureau of Statistics:

- Kenya Revenue Authority. (2015). Sixth Corporate Plan. Retrieved 12 28, 2016, from Kenya Revenue Authority:
- Kiow, T. S., Salleh, M.F., & Kassim, A. A. (2017, February 2). The Determinants of Individual Taxpayer's Tax Compliance Behaviour in Peninsular Malaysia. *International Business and Accounting Research Journal*, 1(1), 26-43.
- Kirchler, E., (2007). *Why pay taxes? A review of tax compliance decisions*. Working paper 07-03, Atlanta: Georgia State University.
- Kosgei, D. K. & Tenai, J. (2016). Effect of Economic Factors on Tax Compliance in Kenya: A Survey of Limited Liability Companies within Eldoret Municipality. *Journal of International Business Research and Marketing*, 1(2), 17-22.
- Lassen, D. D. (2003). *Ethnic divisions and the size of the informal sector*. EPRU, Economic Policy Research Unit.
- Levi, M. (1988). *Of rule and revenue*. Berkeley: University of California Press
- McKerchar, M. & Evans, C. (2009). Sustaining Growth in Developing Economies through Improved Taxpayer Compliance: Challenges for Policy Makers and Revenue Authorities. *SSRN Electronic Journal*, 7, 171-201.
- Mengere, M. (2014). *The Effect of Tax Related Education On PAYE Tax Compliance For KRA Audited Firms in Nairobi Central Business District* (Masters). University of Nairobi.

- Moore, M and Rakner, L. (eds.) (2002): 'Introduction: The New Politics of Taxation and Accountability in Developing Countries', *IDS Bulletin* 33 (3) (July).
- Moore, N. (1998). *How to do research*. London: Wiltshire.
- Moore, M. (2004). Revenues, state formation, and the quality of governance in developing countries. *International Political Science Review*, 25(1), 297-319.
- Muhammad Muazzam Mughal & Muhammad Akram (2012). Reasons of tax avoidance and tax evasion: Reflections from Pakistan. *Journal of Economics and Behavioral studies*. 4(4), 217-222
- Murphy, R. (2011). *The Cost of Tax Abuse: A Briefing Paper on the Cost of Tax Evasion Worldwide*. The Tax Justice Network. London: Institute for Economic Affairs
- Nightingale, K. (2001). *Taxation: Theory and practice*. London, Prentice Hall
- Nkundabanyanga, S., Mvura, P., Nyamuyonjo, D., Opiso, J. and Nakabuye, Z. (2017). Tax compliance in a developing country. *Journal of Economic Studies*, 44(6), pp.931-957.
- Nzotta, S.M. (2007) "Tax Evasion Problems in Nigeria"; *Journal of the Institute of Chartered Accountants of Nigeria*; Lagos; April/June.
- OECD understanding and influencing Taxpayers compliance behaviour (2010). Forum on tax administration for SMEs.

- Okoye, P. V., Akenbor, C. O., & Obara, L. C. (2012, February). Promoting Sustainable Tax Compliance in the Informal Sector in Nigeria. *An International Journal of Arts and Humanities*, 1(1), 40-54.
- Persson, A. (2008). The Institutional Sources of Statehood: Assimilation, Multiculturalism and Taxation in Sub-Saharan Africa. *Goteborg Studies in Politics* 111.
- Picur, R. & Riahi-Belkaoui, A. (2006). The impact of bureaucracy, corruption and tax compliance. *Review of Accounting and Finance*, 5(2), 174-180.
- Rakner, L., and Gloppen S. (2002). Tax reform and democratic accountability in sub-Saharan Africa.
- Richupan, S. (1987) Determinants of income tax evasion -Role of tax rates, shape of tax schedules and other factors. In: Gandhi, P. (ed.). *International Monetary Fund*.
- Rosid, A., Evans, C., & Tran-Nam, B. (2016). Do perceptions of corruption influence personal income taxpayer reporting behaviour? Evidence from Indonesia. *eJournal of Tax Research*, 14(2), 387-425.
- Rotberg, R. I., & Gisselquist, R. M. (2009). Strengthening African governance: Index of African governance results and rankings. Cambridge: World Peace Foundation.
- Siahaan, F.O.P. (2013). The Effect of Tax Transparency and Trust on Taxpayers' Voluntary Compliance. *GSTF International Journal on Business Review (GBR)*, 2(3), 4- 8
- Simiyu, N.T.T (2003) Taxation in Kenya. Nairobi: N.T.T Simiyu

- Tehulu, T. A., & Dinberu, Y. D. (2014). Determinants of Tax Compliance Behavior in Ethiopia: The Case. *Journal of Economics and Sustainable Development*, 5(15).
- Tilly, C (1992). *Trust and Rule*. New York: Cambridge University Press.
- Torgler, B. & Schneider, F. (2007). What Shapes Attitudes Toward Paying Taxes? Evidence from Multicultural European Countries. *Social Science Quarterly*, 88(2), 443-470.
- Torgler, B. (2003). Tax Morale in Transition Countries. *Post-Communist Economies*, 15(3), 357-381
- Tyler, T. (2006). Psychological Perspectives on Legitimacy and Legitimation. *Annual Review of Psychology*, 57(1), 375-400.
- Walsh K. (2012). Understanding Taxpayer Behaviour - New Opportunities for Tax Administration, *the Economic and Social Review*, Vol. 43(3), 451–475.
- Waris, A., M. Kohonen, J. Ranguma & A. Mosioma. (2009). *Taxation and state building in Kenya: Enhancing Revenue capacity to advance human welfare*. Tax Justice Network for Africa.
- Wenzel, M. (2005). Motivation or rationalization? Causal relations between ethics, norms and tax compliance. *Journal of Economic Psychology*, 26(4), 491-508.